

Friedrichsen, Jana; Engelmann, Dirk

**Article — Accepted Manuscript (Postprint)**

## Who cares about social image?

European Economic Review

**Provided in Cooperation with:**

German Institute for Economic Research (DIW Berlin)

*Suggested Citation:* Friedrichsen, Jana; Engelmann, Dirk (2018) : Who cares about social image?, European Economic Review, ISSN 0014-2921, Elsevier, Amsterdam, Vol. 110, pp. 61-77, <https://doi.org/10.1016/j.euroecorev.2018.08.001>

This Version is available at:

<https://hdl.handle.net/10419/225345>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by-nc-nd/4.0>

# Online-Appendix for the paper “Who cares about social image?”

Jana Friedrichsen\*     Dirk Engelmann†

June 17, 2018

## Abstract

Appendix D contains additional results, Appendix E the text of the email used to elicit the chocolate choice, and Appendix F the experimental instructions.

---

\*Corresponding author. Deutsches Institut für Wirtschaftsforschung (DIW) and Humboldt-Universität zu Berlin, Mail: DIW, Mohrenstr. 58, 10117 Berlin, Germany. Email: [jfriedrichsen@diw.de](mailto:jfriedrichsen@diw.de)

†Humboldt-Universität zu Berlin; CERGE-EI, Prague; CESifo, Munich, Mail: Humboldt-Universität zu Berlin, Spandauer Str. 1, 10099 Berlin, Germany. Email: [dirk.engelmann@hu-berlin.de](mailto:dirk.engelmann@hu-berlin.de)

## D Additional results

### D.1 Attitudes toward fair trade

At the end of the experiment, we administered a questionnaire to learn about our subjects' attitudes toward fair trade. Table 3 reports the attitudinal statements that we used as well as the average responses of our subjects.<sup>1</sup> The table clearly shows that fair trade choosers report on average more positive attitudes toward fair trade. For seven out of eleven statements, the differences in responses differ significantly between fair trade and conventional choosers.

We note that it is not surprising that we do not find significant differences for the remaining four statements. Statement 3 argues that fair trade distorts competition and hinders development, an argument that is sometimes brought forward by economists but that does not have any empirical support in one or the other direction. Indeed, most of the subjects slightly disagree with this statement but as one would expect, fair trade choosers disagree a bit more strongly. Statement 6 asks whether subjects would purchase more fair trade products if the prices were lower. While conventional choosers, who purchase fair trade less often on average, have slightly higher scores here, the difference is not significant. This is in line with a situation, where both conventional and fair trade choosers have decided whether and how much they want to purchase fair trade and this decision is relatively price-inelastic. Statement 10 reveals that neither conventional nor fair trade choosers see a contradiction in fair trade being offered by discounters. This can be interpreted as both groups having equally strong trust toward the fair trade labeling system that ensures fair pay for farmers even when the products are sold in the discounter segment. Finally, statement 11 shows that both groups of subjects find the information provided about fair trade slightly unsatisfactory. The absence of a difference suggests that the way the provided information is perceived does not relate to the individual's attitude toward fair trade which is not surprising as the information is intended to be objective.

Figure 5 illustrates graphically, that fair trade choosers purchase fair trade products significantly more often than conventional choosers. Finally, we construct an aggregate measure of an individual's attitude toward fair trade by summing the answers to all 11 attitudinal statements that are reported in Table 3. As statements 1, 3, and 6 are written in a way such that agreement reveals a negative attitude toward fair trade, responses to these statements enter with a negative sign. As illustrated in Figure 6, fair trade choosers are much more positive about fair trade according to this aggregate measure. The difference is also significant according to a Mann-Whitney test ( $p < 0.0001$ ).

---

<sup>1</sup>In addition, the questionnaire contained several questions that targeted the individual knowledge about fair trade and reasons for purchasing. These are not reported here.

Table 3: Average responses to the attitudinal statements regarding fair trade in the post-experiment questionnaire.

Statements in order of appearance in questionnaire	conventional	fair trade	p-value
1 The higher prices of fair trade products only benefit firms, the producers of raw products do not profit.	-0.72 (1.57)	-1.48 (1.49)	0.0212
2 Fair trade products are a good opportunity to secure a decent income for individuals in poor countries.	0.25 (1.55)	0.94 (1.49)	0.0111
3 Fair trade distorts competition and hinders the development of alternative industries in countries who are dependent on the export of coffee, cocoa or bananas.	-0.88 (1.64)	-1.24 (1.44)	0.2642
4 I purchase fair trade products... (answer possibilities range from "never" 0 to "often" 3).	0.81 (0.74)	1.30 (0.86)	0.0039
5 I am prepared to pay higher prices for fair trade products.	-0.13 (1.86)	0.99 (1.68)	0.0025
6 I would purchase more fair trade products if these were available at lower prices.	1.00 (1.55)	0.85 (1.74)	0.7667
7 The quality of fair trade products in comparison to conventional products is typically... (answer possibilities range from "much worse" -3 to "much better" +3).	0.03 (1.12)	0.66 (1.01)	0.0035
8 I am prepared to accept deductions in quality when choosing fair trade products.	-2.28 (1.08)	-1.55 (1.28)	0.0025
9 Fair trade products should be available in all conventional supermarkets and discounters.	0.09 (1.92)	1.52 (1.35)	0.0002
10 Discounters offering fair trade products are a contradiction to the ethical principles of fair trade.	-1.69 (1.49)	-1.35 (1.65)	0.3090
11 The information about fair trade available of fair trade products is... (answer possibilities range from "very unsatisfactory" -3 to "very satisfactory" +3).	-0.44 (1.37)	-0.64 (1.37)	0.4780
observations	32	89	121

Notes: Subjects were asked to express their agreement on an integer scale from -3 (do not agree at all) to +3 (fully agree) if not stated otherwise. Standard deviations in parentheses. p-values from a Mann-Whitney test comparing answers among conventional and fair trade choosers.

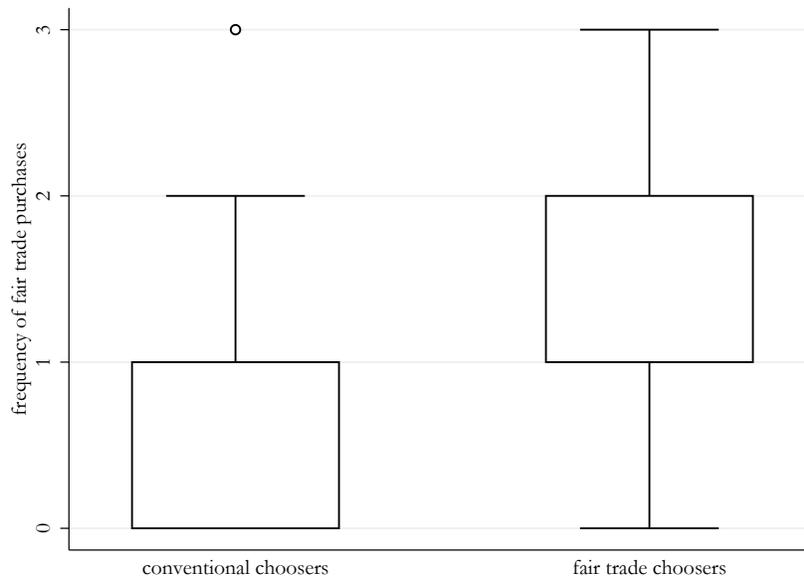


Figure 5: Reported frequency of purchasing fair trade products. Answer possibilities are integer values from 0 (“never”) to 3 (“often”).  $N = 121$ , thereof 32 conventional choosers and 89 fair trade choosers.

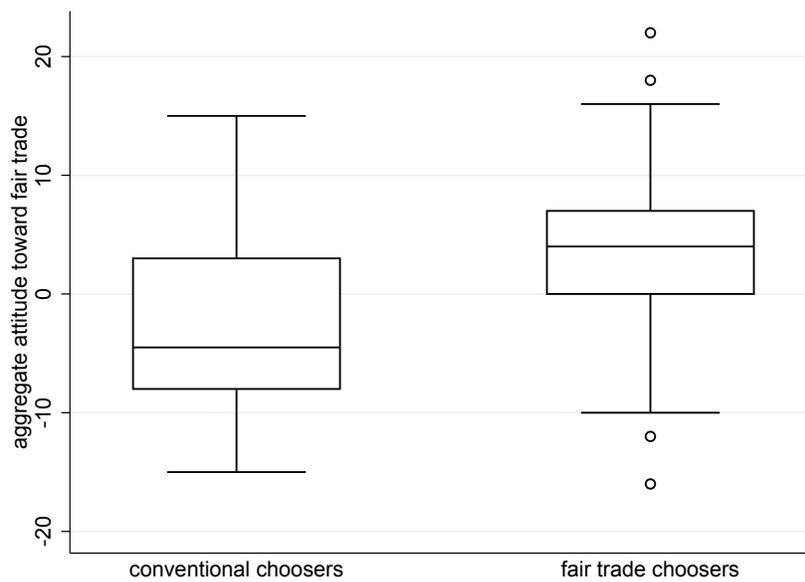


Figure 6: Aggregate measure of attitudes toward fair trade. This measure sums the responses to the 11 statements listed in table 3, where the responses to statements 1, 3 and 6 enter with a negative sign due to their reverse interpretation. The higher the value of the aggregate measure, the more positive is an individual’s attitude toward fair trade.  $N = 121$ , thereof 32 conventional choosers and 89 fair trade choosers.

## D.2 Considering the sub-samples with 1-to-1 and 2-to-1 choice separately

In this subsection, we present the results of non-parametric tests and regression analyses separately for the two sub-samples that were recruited with a 1-to-1 and a 2-to-1 chocolate choice, respectively. From the 121 subjects who are contained in our full sample, 57 faced the tradeoff between one bar of conventional and one bar of fair trade chocolate and 64 faced the tradeoff between two bars of conventional chocolate and one bar of fair trade chocolate. Among the 57 1-to-1 subjects, before coming to the lab, 7 chose conventional chocolate out of which 2 were in a private session and 5 in a public session, while the remaining 50 chose fair trade and out of these 50, 27 were in a private session and 23 in a public session. Among the 64 2-to-1 subjects, before coming to the lab, 25 chose conventional chocolate out of which 12 were in a private session and 13 in a public session, while the remaining 39 chose fair trade and out of these 39, 19 were in a private session and 20 in a public session

The results of Mann-Whitney tests are consistent across the two sub-samples. For both sub-samples, we find that the fair trade premium is higher for the fair trade choosers than for the conventional choosers in the private treatment ( $p = 0.048$  and  $p < 0.001$  for 1-to-1 and 2-to-1 choice, respectively) but not in the public treatment ( $p = 0.482$  (1-to-1) and  $p = 0.137$  (2-to-1)). Furthermore, the treatment effect is insignificant for the fair trade choosers in both sub-samples ( $p = 0.123$  (1-to-1) and  $p = 0.689$  (2-to-1)). It is statistically significant for the conventional choosers in the 2-to-1 sub-sample ( $p = 0.022$ ) and it is of the same order in the 1-to-1 sub-sample ( $a = -0.1$  in private and  $a = 0.05$  in public, whereas in the 2-to-1 sample  $a = -0.055$  in private and  $a = 0.119$ ). While the effect fails to be significant in the 1-to-1 sub-sample ( $p = 0.135$ ), the non-significance is due to there being only seven observations of conventional choosers in this sub-sample (two in private and five in public). Finally, for no combination of type (fair trade or conventional chooser) and treatment (private or public) is there a statistically significant difference between the two classification sub-samples ( $p > 0.4$  for all four tests).

Table 4 repeats the analysis of Table 2 by sub-sample, for all participants or only those with willingness-to-pay larger than 1 cent, respectively. We make the following observations. First, the coefficients for our variables of interest (FTchoice, public and the interaction effect between the two) are very similar across the two sub-samples (due to the smaller number of observations in each sub-sample, however, not all coefficients are significantly different from zero in both sub-samples). As can easily be seen from looking at the estimated coefficients and standard errors, our coefficients of interest (FTchoice, public, and FTchoice\*public) are not significantly different between the two regressions. Indeed, for each of the sub-samples, these coefficients are all well inside the 95% confidence interval of the respective coefficient of the regression for the other sub-sample.

Second, the insignificant difference goes against the implications of the conjecture that the participants with intermediate fair trade concerns have the strongest image

concerns and hence show the largest treatment effect. These participants are likely to be classified as fair trade choosers in the 1-to-1 sub-sample and as conventional choosers in the 2-to-1 sub-sample. If they indeed had the strongest image concerns they would thus contribute positively to the treatment effect of conventional choosers in the 2-to-1 sub-sample and to the treatment effect of fair trade choosers in the 1-to-1 sub-sample. This would have three implications. First, the treatment effect for conventional choosers should be larger in the 2-to-1 sub-sample than in the 1-to-1 sub-sample, opposite to what we find (the coefficient on FTchoice is larger in the 1-to-1 sub-sample). Second, the treatment effect for the fair trade choosers (the sum of the coefficients of public and FTchoice\*public) should be smaller in the 2-to-1 sub-sample than in the 1-to-1 sub-sample, again opposite to what we find (the sum of the coefficients of public and FTchoice\*public is slightly larger in the 2-to-1 sub-sample). Third, the previous two implications jointly imply that the difference of the treatment effects between conventional and fair trade choosers should be larger in the 2-to-1 sub-sample than in the 1-to-1 sub-sample, again opposite to what we find as the coefficient of the interaction effect (FTchoice\*public), which measures  $(-1)$  times this difference is larger in absolute value in the 1-to-1 sub-sample.

Table 5 presents the same regression model as in Table 6, i.e., considering fair trade and conventional choosers separately, split into the sub-samples of those who chose a bar of fair trade chocolate over one (1-to-1), respectively two (2-to-1), bars of conventional chocolate. For the fair trade choosers the treatment effect remains insignificant for both sub-samples. In contrast, the treatment effect is again significantly positive for the conventional choosers who faced the 2-to-1 choice. Among those facing a 1-to-1 choice, only seven were conventional choosers, making this sub-sample too small for meaningful regression analysis. Among these seven conventional choosers, treatment and marketprofit are strongly related, and only two participants were in the private treatment.

Finally, we note that while we balanced the design such that two sessions of each treatment used 1-to-1 and 2-to-1 chocolate choice, two participants in the last session, which used 1-to-1 chocolate choice, had originally been recruited for the second-to-last session, which used 2-to-1 chocolate choice. They did not participate in the second-to-last session because the number of participants who arrived for the session was not divisible by four. Hence they were allowed to participate in the last session. Therefore, they had made a different chocolate choice than the other participants in the last session. Since no reference was made during the laboratory experiment to the recruitment email, it does not matter whether different participants in the same session had received different email messages and were classified based on different choices.

Table 4: Regression of the stated fair trade premium  $a = w_{\text{fair}} - w_{\text{conv}}$  on (*ex-ante*) fair trade choice, treatment (public), earnings from the first part of the experiment (market-profit), and interaction terms.

	1-to-1		2-to-1	
	all	pos. demand	all	pos. demand
FTchoice	0.293 (0.245) [-0.199, 0.786]	0.347 (0.265) [-0.187, 0.881]	0.251*** (0.082) [0.087, 0.414]	0.255*** (0.086) [0.082, 0.428]
public	0.308 (0.299) [-0.293, 0.909]	0.300 (0.319) [-0.343, 0.943]	0.198* (0.117) [-0.037, 0.433]	0.240* (0.125) [-0.010, 0.491]
FTchoice*public	-0.259 (0.297) [-0.856, 0.337]	-0.298 (0.320) [-0.944, 0.347]	-0.202* (0.118) [-0.437, 0.034]	-0.152 (0.128) [-0.409, 0.106]
marketprofit	0.015** (0.006) [0.003, 0.028]	0.012 (0.007) [-0.002, 0.027]	-0.001 (0.004) [-0.010, 0.007]	-0.001 (0.004) [-0.010, 0.008]
marketprofit*public	-0.023** (0.011) [-0.046, -0.001]	-0.021 (0.013) [-0.046, 0.005]	-0.001 (0.006) [-0.014, 0.011]	-0.002 (0.007) [-0.017, 0.012]
constant	-0.158 (0.234) [-0.628, 0.312]	-0.147 (0.248) [-0.646, 0.353]	-0.040 (0.077) [-0.195, 0.114]	-0.046 (0.083) [-0.212, 0.122]
observations	57	50	64	54
adjusted $R^2$	0.130	0.109	0.100	0.152
F	2.672	2.202	2.395	2.895

*Notes:* The sample is split according to whether the *ex ante* chocolate choice was between one fair trade chocolate bar and one (1-to-1) or two (2-to-1) conventional ones. Columns 2 and 4 exclude subjects who bid less than 2 cents for each type of chocolate. Standard errors in parentheses, 95% confidence intervals in brackets. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 5: Regression of the stated fair trade premium  $a = w_{\text{fair}} - w_{\text{conv}}$  on treatment (public), earnings from the first part of the experiment (marketprofit), and an interaction term.

	conventional choosers		fair trade choosers	
	1-to-1	2-to-1	1-to-1	2-to-1
public	n.a.	0.299**	0.098	-0.081
	n.a.	(0.143)	(0.161)	(0.101)
marketprofit	n.a.	0.004	0.016**	-0.005
	n.a.	(0.007)	(0.007)	(0.005)
marketprofit*public	n.a.	-0.010	-0.029**	0.008
	n.a.	(0.009)	(0.015)	(0.009)
constant	n.a.	-0.098	0.133	0.242***
	n.a.	(0.099)	(0.098)	(0.070)
observations	7	25	50	39
adjusted $R^2$	n.a.	0.075	0.129	-0.053
F	n.a.	1.645	3.414	0.361

*Notes:* The sample is split according to the *ex ante* chocolate choice and whether participants chose between one fair trade chocolate bar and one (1-to-1) or two (2-to-1) conventional ones. Standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . "n.a." indicates that meaningful regression results are not available for this sub-sample.

### D.3 Regression analysis of treatment effect by type

Table 6: Regression of the stated fair trade premium  $a = w_{\text{fair}} - w_{\text{conv}}$  on treatment (public), earnings from the first part of the experiment (marketprofit), and an interaction term.

	fair trade		conventional	
	all	pos. demand	all	pos. demand
public	0.014 (0.100)	0.043 (0.117)	0.258** (0.111)	0.267** (0.123)
marketprofit	0.008* (0.005)	0.006 (0.005)	0.004 (0.006)	0.004 (0.007)
marketprofit*public	-0.013 (0.009)	-0.015 (0.010)	-0.008 (0.008)	-0.008 (0.009)
constant	0.176*** (0.065)	0.214*** (0.074)	-0.098 (0.080)	-0.107 (0.089)
observations	89	76	32	28
adjusted $R^2$	0.038	0.014	0.095	0.093
F	2.165	1.361	2.079	1.926

*Notes:* The sample is split according to chocolate choice. Columns 2 and 4 exclude subjects who bid less than 2 cents for each type of chocolate. Standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## D.4 Regression analysis by treatment

Table 7: Regression of the stated fair trade premium  $a = w_{\text{fair}} - w_{\text{conv}}$  on (*ex ante*) fair trade choice and earnings from the first part of the experiment (marketprofit).

	private treatment	public treatment
FTchoice	0.313*** (0.092)	0.023 (0.076)
marketprofit	0.007* (0.004)	-0.005 (0.004)
constant	-0.129 (0.088)	0.164* (0.083)
observations	60	61
adjusted $R^2$	0.186	-0.005
F	7.758	0.865

*Notes:* The sample is split according to the treatment being private or public. Standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## D.5 Regression analysis with consumer dummy instead of market profit

Table 8: Regression of the stated fair trade premium  $a = w_{\text{fair}} - w_{\text{conv}}$  on (*ex-ante*) fair trade choice, treatment (public), a dummy for the participant being a consumer in the first part of the experiment (consumer), and interaction terms.

	all	pos. demand
FTchoice	0.325*** (0.085)	0.353*** (0.093)
public	0.230** (0.108)	0.245** (0.118)
FTchoice*public	-0.287** (0.118)	-0.288** (0.131)
consumer	0.159* (0.082)	0.140 (0.087)
consumer*public	-0.217* (0.120)	-0.198 (0.136)
constant	-0.107 (0.078)	-0.109 (0.086)
observations	121	104
adjusted $R^2$	0.109	0.111
F	3.950	3.581

*Notes:* Column 2 excludes subjects who bid less than 2 cents for each type of chocolate. Standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

A consumer has a fair trade premium that is on average 0.16 Euros higher than that of a firm or worker. In our full sample of 121 participants, consumers earn on average 23.47 Euros, firms and workers earn on average 5.15 Euros in the market game. Thus, being a consumer corresponds to an average increase in earnings from the market game by 18.32 Euros. This would correspond to an average increase in the fair trade premium of 13 cents according to the regression controlling for first stage earnings reported in the main text (see Table 2). When we instead look at the coefficient on the consumer dummy in Table 8, we obtain a very similar result: being a consumer is related to a fair trade premium that is on average 15.9 cents higher than that of participants in the roles of worker or firm.

## D.6 Regression analysis controlling for quality perceptions

Table 9: Regression of the stated fair trade premium  $a = w_{\text{fair}} - w_{\text{conv}}$  on (*ex-ante*) fair trade choice and quality perceptions, treatment (public), earnings from the first part of the experiment (marketprofit), and interaction terms.

	with quality	with quality and interaction	w/o preference proxy
FTchoice	0.267*** (0.090)	0.272*** (0.095)	
quality	0.039 (0.025)	0.034 (0.035)	0.079** (0.033)
public	0.271** (0.122)	0.272** (0.123)	0.106 (0.081)
FTchoice*public	-0.252** (0.120)	-0.258** (0.126)	
marketprofit	0.007* (0.004)	0.007* (0.004)	0.008** (0.004)
marketprofit*public	-0.013** (0.006)	-0.013** (0.006)	-0.013** (0.006)
quality*public		0.010 (0.050)	-0.035 (0.049)
constant	-0.116 (0.082)	-0.117 (0.083)	0.060 (0.057)
observations	121	121	121
adjusted R <sup>2</sup>	0.124	0.117	0.069
F	3.842	3.271	2.770

*Notes:* Column 1 includes the subjects' stated perception of fair trade quality (quality), which corresponds to answers to Question 7 in the questionnaire. Column 2 adds an interaction of quality and the public treatment. Column 3 includes quality and its interaction but neither the fair trade choice nor its interaction. Standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Controlling for quality perceptions from our survey or quality perceptions and the interaction with the treatment dummy does not qualitatively affect the results regarding the treatment effects on fair trade choosers and conventional choosers, whereas the quality controls are insignificant. Replacing the classification with the quality perception yields a significant effect of the quality perception. This is likely the case because the quality perception picks up some of the effect of the omitted classification as fair trade chooser because both are correlated. These results suggest that our observed heterogeneous treatment effects are not an artefact of fair trade choosers perceiving fair trade products to be of higher quality.

## D.7 Regression analysis with controls for possible dependence within groups from the market game

Table 10: Regression of the stated fair trade premium  $a = w_{\text{fair}} - w_{\text{conv}}$  on (*ex-ante*) fair trade choice, treatment (public), earnings from the first part of the experiment (market-profit), and interaction terms.

	Standard		Group-level RE		RE and Clustered SE	
FTchoice	0.313*** (0.085)	0.341*** (0.093)	0.313*** (0.085)	0.336*** (0.093)	0.313*** (0.060)	0.336*** (0.056)
public	0.292** (0.122)	0.306** (0.133)	0.292** (0.122)	0.288** (0.137)	0.292*** (0.109)	0.288** (0.117)
FTchoice*public	-0.290** (0.119)	-0.289** (0.131)	-0.290** (0.119)	-0.260* (0.133)	-0.290*** (0.106)	-0.260** (0.111)
marketprofit	0.007* (0.004)	0.006 (0.004)	0.007* (0.004)	0.006 (0.004)	0.007 (0.005)	0.006 (0.005)
marketprofit*public	-0.012** (0.006)	-0.012* (0.007)	-0.012** (0.006)	-0.011* (0.007)	-0.012* (0.006)	-0.011* (0.006)
constant	-0.129 (0.082)	-0.122 (0.090)	-0.129 (0.082)	-0.119 (0.092)	-0.129* (0.069)	-0.119* (0.072)
observations	121	104	121	104	121	104
adjusted $R^2$	0.113	0.113	(a)	(b)	(a)	(b)
F	4.070	3.631	20.348 (c)	18.149 (c)	32.955 (c)	47.575 (c)

Notes: Columns 1 and 2 are the benchmark specifications (also reported in the main text). Columns 3 and 4 include random effects at the group level (groups from the market game), columns 5 and 6 include random effects at the group level and allow for errors being clustered within groups. In columns 2, 4, and 6, we exclude subjects who bid less than 2 cents for each type of chocolate. (a)  $R^2$ : within = 0.139, between = 0.122, overall = 0.150. (b)  $R^2$ : within = 0.198, between = 0.007, overall = 0.156. (c)  $\chi^2$  statistic. Standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## E Recruitment email asking for chocolate choice

Below is the English translation of the text of the email that was sent to participants before the experiment to elicit their fair trade choice. The subject line was “additional information for experiment (date/time)”.

Dear participants of the experiment,

For your participation in this experiment, you receive in addition a bar of chocolate. However, you have to choose the type before the experiment.

Two types of chocolate are on offer:

- conventional milk chocolate, 125g
- fair trade milk chocolate, 100g

Please send before the date of the experiment an email with your choice to ..@... Simply put “conventional” or “fair trade” in the subject line.

regards

## F Instructions for the second part of the experiment

Below is the English translation of original instructions for the second part of the experiment, which were in German. The instructions for the market game (first part of the experiment) are omitted as we do not analyze that part of the experiment here. The instructions for the two treatments only differed in the last paragraph as indicated.

### Instructions for the second part of the experiment

In the second part of the experiment, you make two simple decisions and answer a brief questionnaire.

For the second part of the experiment, you will receive €4 in addition to your earnings from the first part. You can spend part of this €4 to purchase a bar of chocolate.

### Purchase of chocolate

The potential purchasing of chocolate takes place according to the following mechanism:

- There are two types of chocolate, one is fair trade, the other one conventional. Both will be shown to you before you make your decision.
- Please state your maximal willingness-to-pay for each type of chocolate on the screen. Your willingness-to-pay must lie between €0 and €2 and you can choose any amount in cents in this interval.
- Only your willingness-to-pay for one of the two types of chocolate will be payoff-relevant in the end. Thus, you will receive at most one bar of chocolate. The relevant type of chocolate is determined randomly and you will learn only after

you have made your decisions which one it is. The same type of chocolate is payoff-relevant for all participants.

- Before it has been determined which type of chocolate is payoff-relevant, the price for the chocolate bar is drawn at random. This price is the same for all participants and is independent of the type of chocolate. The price can be between €0 and €2 and any amount in cents is equally likely.
- If your stated maximal willingness-to-pay for the relevant type of chocolate is at least as high as the randomly drawn price, you obtain one bar of this type of chocolate and the price is subtracted from the €4 that you were given for the second part of the experiment. If your stated maximal willingness-to-pay is lower than the randomly drawn price, you will not receive a bar of chocolate and you do not pay anything; thus you keep your €4.

Please note that with your stated willingness-to-pay you cannot influence the price of the chocolate but only whether you will get a bar. Therefore, you should indeed state how much you would pay at most for the respective type of chocolate. Then you receive the chocolate whenever you do not have to pay more for it than what you are at most willing to pay and you do not receive a chocolate bar whenever you would have to pay more than your maximal willingness-to-pay.

**Example 1:** You state a maximal WTP of €0.13 for fair trade chocolate and of €1.93 for conventional chocolate. Suppose the randomly determined price is €0.78. If fair trade is drawn to be payoff-relevant, you obtain €4 but no chocolate bar because your stated maximal willingness-to-pay of €0.13 is lower than the price of €0.78. If the conventional chocolate is chosen to be payoff-relevant instead, you receive a bar of conventional chocolate and you pay €0.78. In this case, you will receive €4 - €0.78 = €3.22 and a bar of conventional chocolate for this part of the experiment.

**Example 2:** You state a maximal WTP of €1.34 for fair trade and of €0.62 for conventional chocolate. Suppose the randomly determined price is €0.44. If fair trade is chosen to be payoff-relevant, you receive a bar of fair trade chocolate and you pay €0.44. In this case, you obtain €4 - €0.44 = €3.56 and a bar of fair trade chocolate for this part of the experiment. If the conventional chocolate is chosen to be payoff-relevant instead, you receive a bar of conventional chocolate and you pay €0.44. In this case, you obtain €4 - €0.44 = €3.56 and a bar of conventional chocolate for this part of the experiment.

From the examples you see that you cannot influence the price through your stated maximal willingness-to-pay (in example 2, you pay the same price in both cases even though the maximal willingness-to-pay is different) but only whether you obtain a bar of chocolate (example 1).

### **Questionnaire**

After all participants have entered their willingness-to-pay for both types of chocolate, we ask you to fill in a brief questionnaire on the screen.

### **Distribution of chocolate (private treatment)**

After filling in the questionnaire, you will first be informed about the randomly drawn price and be reminded of your stated willingness-to-pay for both types. You will then be informed which type of chocolate is payoff-relevant and whether you will receive a bar. At the end of the experiment you receive your chocolate, if you get one, in the adjoining room together with the money that you earned in the experiment. None of the other participants will learn whether you receive a bar of chocolate, your willingness-to-pay for it or how much money you obtain.

### **Distribution of chocolate (public treatment)**

After filling in the questionnaire, you will first be informed about the randomly drawn price and be reminded of your stated willingness-to-pay for both types. Each of you will then be asked individually to announce your stated maximal willingness-to-pay for both types of chocolate.

You will then be informed which type of chocolate is payoff-relevant and whether you will obtain a bar.

If your stated willingness-to-pay for the payoff-relevant type is at least as high as the price, you will be asked to come forward to pick up your bar of chocolate.

You will receive the money that you earned in the experiment in the adjoining room. None of the other participants will learn how much money you receive.