Appendix

A1 Figures and Tables

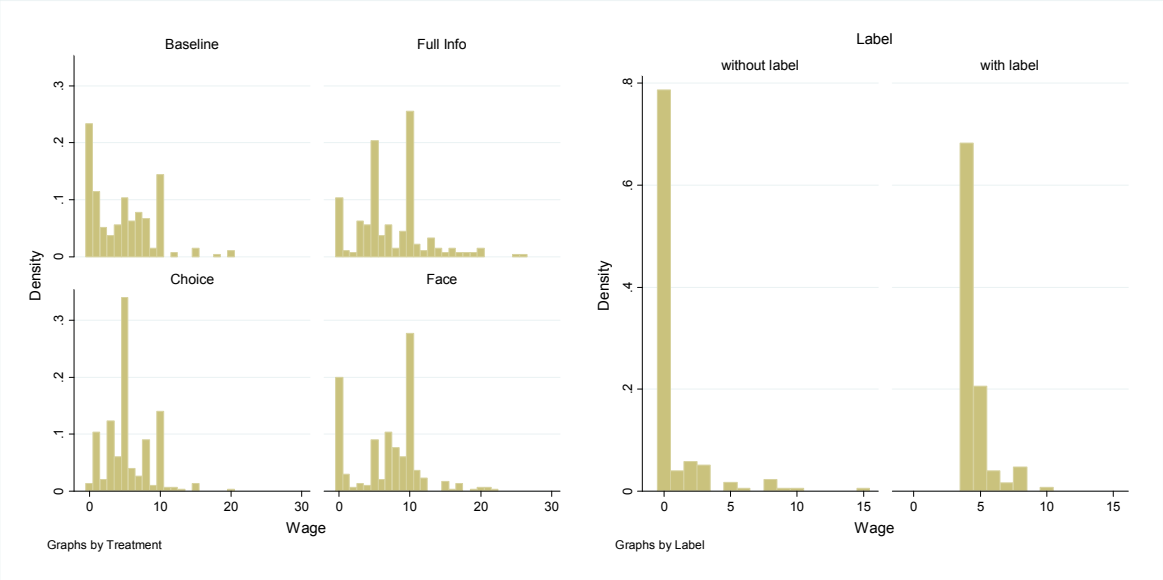

Figure 3: Histogram of wages, No competition

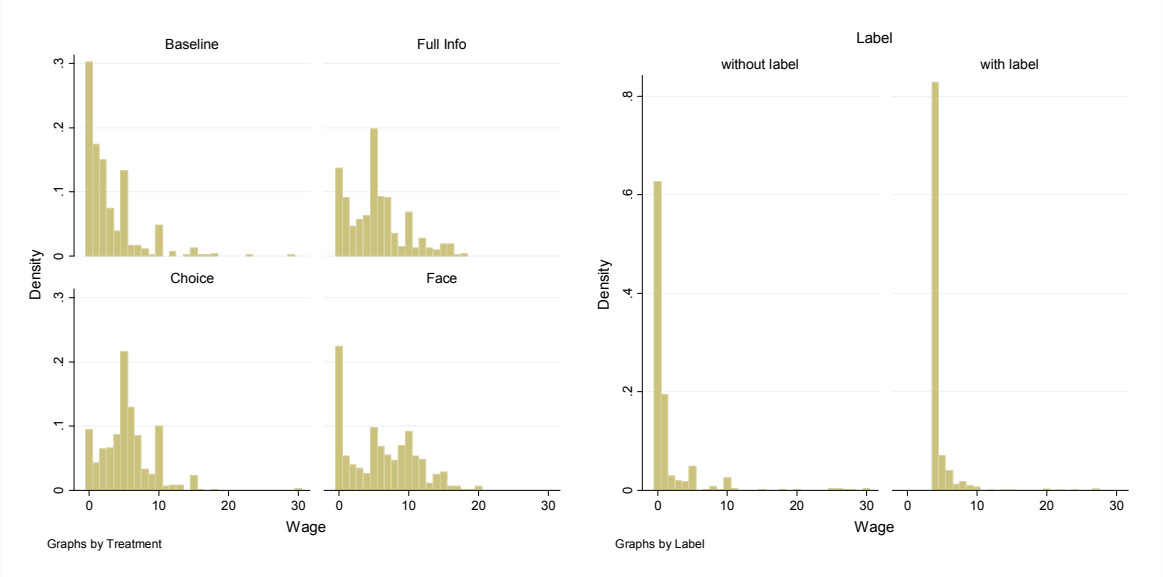

Figure 4: Histogram of wages, Competition

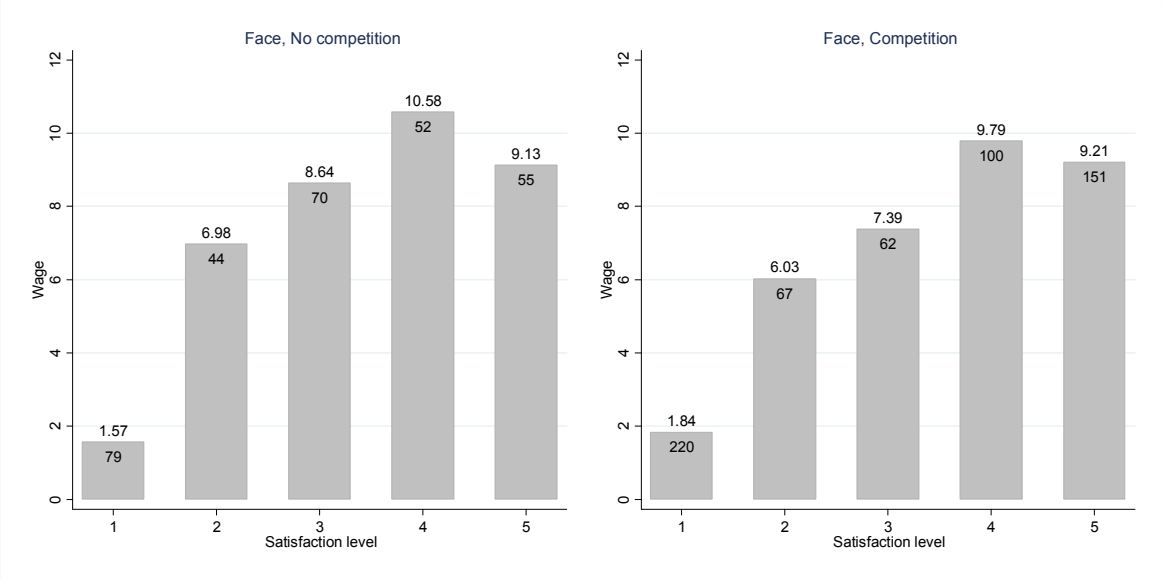

Figure 5: Average wages in *Face*, differentiated by stated satisfaction level (the number in the bar refers to the absolute number of statements of the satisfaction level)

Figure 6 shows the development of average prices over time. In each of the five no-competition treatments the average price is slightly below 20, with no statistical difference between the treatments (see table 9 below). Prices start above 20 and slightly decrease below 20 in period 30. A regression of prices on period finds a negative time trend for *Baseline*, *Choice* and *Label*.[1] In each of the five competition treatments the average prices are around 10 and significantly lower than in the corresponding no-competition treatment (see table 9). With competition the average charged price in *Face* is significantly lower than in *Full Info* and *Label*. There is no statistical difference between the treatments in any other pairwise comparison (see table 9). Prices under competition start slightly below 20, quickly decrease and end up below 10 in all treatments. Using a regression confirms the time trend.[2]

[1] Random-effects GLS regression of price on period with robust standard errors clustered by manager id, coefficient for period: Baseline: -0.114 (p= 0.055), Full Info: -0.064 (p= 0.298), Choice: -0.102 (p= 0.088), Label: -0.159 (p= 0.000), Face: -0.021 (p= 0.385).
[2] Random-effects GLS regression of price on period with robust standard errors clustered by manager id, coefficient for period: Baseline: -0.235 (p= 0.000), Full Info: -0.280 (p= 0.000), Choice: -0.225 (p= 0.000), Label: -0.165 (p= 0.000), Face: -0.248 (p= 0.000).

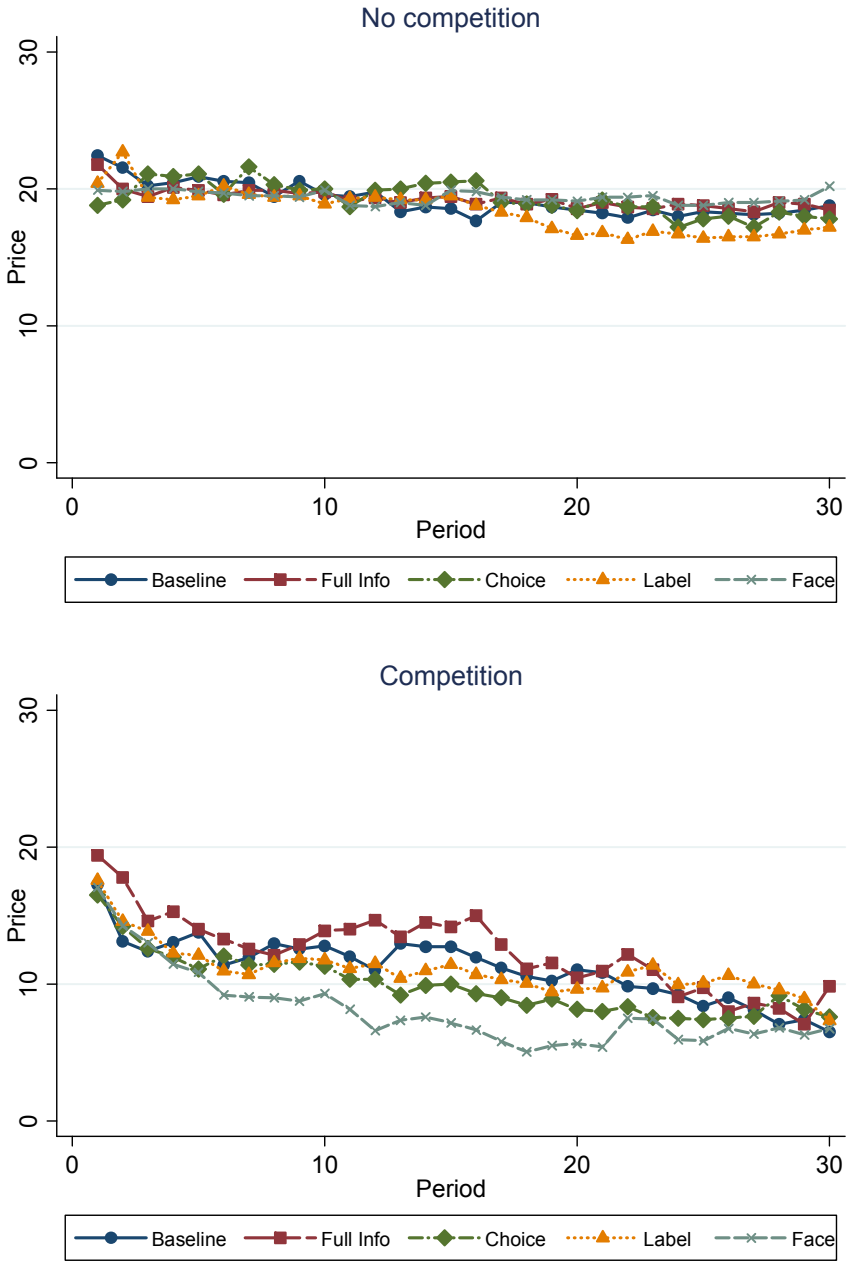

Figure 6: Average prices per treatment

Table 9: Average prices

	No Competition	Competition	No Competition vs. Competition
Baseline	19.211 (0.612)	11.119 (1.195)	0.0005
Full info	19.274 (1.363)	12.407 (1.320)	0.0031
Choice	18.370 (0.825)	11.041 (0.744)	0.0009
Label	19.287 (1.027)	9.887 (1.372)	0.0000
Face	19.393 (0.783)	8.083 (0.986)	0.0002
Treatment comparison	**No competition**	**Competition**	
Base vs. Full	0.8251	0.6272	
Base vs. Choice	1.0000	0.4624	
Base vs. Label	0.3272	0.9249	
Base vs. Face	0.7440	0.1025	
Full vs. Choice	0.7439	0.1651	
Full vs. Label	0.2207	0.3222	
Full vs. Face	0.8065	0.0222	
Choice vs. Label	0.4270	0.2810	
Choice vs. Face	0.7054	0.4963	
Label vs. Face	0.3073	0.0387	

Notes: Averages on group means, standard errors on group means in parentheses. Equality-tests using MWU.

Table 10: Average wages

	No Competition	Competition	No Competition vs. Competition
Baseline	4.704 (1.020)	2.856 (0.384)	0.1711
Full info	7.393(1.489)	5.335 (0.915)	0.1999
Choice	5.553 (0.604)	5.458 (0.588)	0.9097
Label	2.390 (0.655)	3.287 (0.458)	0.5093
Face	6.960 (1.047)	6.060 (0.705)	0.4497
Treatment comparison	**No competition**	**Competition**	
Base vs. Full	0.2692	0.0092	
Base vs. Choice	0.8065	0.0043	
Base vs. Label	0.0411	0.5555	
Base vs. Face	0.2055	0.0033	
Full vs. Choice	0.2203	0.5954	
Full vs. Label	0.0025	0.0083	
Full vs. Face	0.9673	0.2530	
Choice vs. Label	0.0113	0.0056	
Choice vs. Face	0.2568	0.4272	
Label vs. Face	0.0025	0.0024	

Notes: Averages on group means, standard errors on group means in parentheses. Equality-tests using MWU.

Table 11: Average manager payoff

	No competition	Competition	No Competition vs. Competition
Baseline	11.963 (1.577)	6.126 (1.266)	0.0092
Full info	7.963 (1.412)	5.565 (1.266)	0.1223
Choice	11.373 (1.330)	5.787 (0.545)	0.0191
Label	8.380 (1.444)	3.663 (1.220)	0.0008
Face	8.307 (1.033)	1.272 (0.823)	0.0009
Treatment comparison	**No competition**	**Competition**	
Base vs. Full	0.1023	0.8253	
Base vs. Choice	0.1207	0.1025	
Base vs. Label	0.8703	0.6886	
Base vs. Face	0.2207	0.0055	
Full vs. Choice	0.7439	0.2885	
Full vs. Label	0.0864	0.7061	
Full vs. Face	0.8703	0.0143	
Choice vs. Label	0.1123	0.0822	
Choice vs. Face	0.7054	0.1509	
Label vs. Face	0.1736	0.0005	

Notes: Averages on group means, standard errors on group means in parentheses. Equality-tests using MWU.

Table 12: Average consumer payoff

	No competition	Competition	No competition vs. Competition
Baseline	10.000 (0.609)	20.019 (1.310)	0.0003
Full info	9.311 (1.434)	18.822 (1.608)	0.0009
Choice	9.417 (0.598)	19.950 (0.741)	0.0002
Label	8.367 (0.884)	20.678 (1.355)	0.0000
Face	9.033 (0.775)	22.618 (0.941)	0.0002
Treatment comparison	**No competition**	**Competition**	
Base vs. Full	0.6587	0.6587	
Base vs. Choice	0.1651	0.6831	
Base vs. Label	0.7750	0.9249	
Base vs. Face	0.4142	0.1651	
Full vs. Choice	0.7440	0.3475	
Full vs. Label	0.6532	0.3704	
Full vs. Face	0.9025	0.1208	
Choice vs. Label	0.3643	0.4032	
Choice vs. Face	0.6775	0.4497	
Label vs. Face	0.6775	0.0430	

Notes: Averages on group means, standard errors on group means in parentheses. Equality-tests using MWU.

Table 13: Payoff comparisons

No competition	**Manager vs. Worker**	**Manager vs. Consumer**	**Worker vs. Consumer**
Baseline	0.0176	0.3424	0.0090
Full Info	0.1229	0.6350	0.4764
Choice	0.1141	0.5751	0.0218
Label	0.0051	0.2839	0.0051
Face	0.2411	0.3074	0.1688
Competition	**Manager vs. Worker**	**Manager vs. Consumer**	**Worker vs. Consumer**
Baseline	0.0382	0.0109	0.0077
Full Info	0.6784	0.0077	0.0077
Choice	0.2026	0.0069	0.0051
Label	0.0017	0.0001	0.0001
Face	0.0166	0.0051	0.0051

Notes: Equality-tests of payoffs between types in all treatments and conditions using WSR.

Table 14: Duopoly, manager sales and payoff

		Full Info		
		Lower Price	**Equal Price**	**Higher Price**
Lower SR	**Sales**	1.52 (0.12)	0.39 (0.13)	0.00 (0.00)
	Payoff	11.30 (2.33)	0.13 (1.47)	-3.76 (1.29)
Equal SR	**Sales**	1.86 (0.08)	0.97 (0.03)	0.12 (0.08)
	Payoff	16.23 (4.10)	5.60 (2.09)	-4.27 (1.25)
Higher SR	**Sales**	1.98 (0.02)	1.59 (0.13)	0.47 (0.13)
	Payoff	15.23 (3.81)	12.01 (3.43)	-1.19 (1.26)
		Choice		
		Lower Price	**Equal Price**	**Higher Price**
Lower SR	**Sales**	1.38 (0.09)	0.22 (0.08)	0.09 (0.07)
	Payoff	7.71 (2.10)	-1.80 (0.80)	-3.16 (0.93)
Equal SR	**Sales**	1.93 (0.07)	0.92 (0.08)	0.07 (0.07)
	Payoff	11.19 (2.72)	3.03 (2.00)	-6.00 (0.76)
Higher SR	**Sales**	1.91 (0.07)	1.78 (0.08)	0.62 (0.09)
	Payoff	12.40 (2.76)	10.41 (2.90)	-0.96 (0.90)
		Label		
		Lower Price	**Equal Price**	**Higher Price**
Lower SR	**Sales**	1.31 (0.13)	0.19 (0.10)	0.00 (0.00)
	Payoff	11.20 (1.41)	2.37 (1.65)	-1.90 (0.73)
Equal SR	**Sales**	1.82 (0.06)	0.98 (0.02)	0.13 (0.06)
	Payoff	13.08 (1.08)	5.47 (0.69)	-2.91 (0.87)
Higher SR	**Sales**	2.00 (0.00)	1.79 (0.10)	0.69 (0.13)
	Payoff	12.76 (2.44)	13.58 (2.87)	2.34 (1.80)
		Face		
		Lower Price	**Equal Price**	**Higher Price**
Lower SR	**Sales**	1.11 (0.19)	0.23 (0.11)	0.02 (0.02)
	Payoff	4.83 (1.74)	-2.49 (1.19)	-6.65 (0.84)
Equal SR	**Sales**	1.77 (0.12)	1.00 (0.00)	0.23 (0.12)
	Payoff	5.61 (1.36)	0.34 (0.97)	-3.40 (1.22)
Higher SR	**Sales**	1.98 (0.02)	1.77 (0.11)	0.89 (0.19)
	Payoff	7.86 (2.06)	4.61 (2.07)	-1.77 (2.28)

Notes: Averages on group means, standard errors on group means in parentheses. Managers' sales and payoff depending on offering a lower, equal or higher price and on SR. SR is lower (equal, higher) if a manager pays a lower (equal, higher) wage than the competitor in *Full Info* and *Choice*. SR is lower (equal, higher) if a manager's worker has lower (equal, higher) satisfaction level than the competitor's worker in *Face*. In *Label*, the SR is higher if a manager has a label but the competitor does not and vice versa. The SR is equal if both firms have or do not have a label.

A2 Predictions assuming inequity aversion

Consider individuals with Fehr Schmidt (1999) preferences and an information condition as in *Full Info*. A consumer in the no competition condition has the following utility from buying (accept) or not buying (reject) a given offer (w, p):

$$\Pi_{Consumer}^{buy} = (30 - p) - \tfrac{1}{2}\alpha[\max\{0, 2p - \mathrm{w} - 30\} + max\{0, \mathrm{w} + \mathrm{p} - 30\}] - \tfrac{1}{2}\beta[max\{0, 30 - 2p + w\} + max\{0, 30 - p - w\}]$$

$$\Pi_{Consumer}^{not\ buy} = 0 - \tfrac{1}{2}w\alpha - \tfrac{1}{2}w\beta$$

In both equations the first term corresponds to the monetary payoff, while the other two terms resemble the disutility from inequity. The α-term captures the disutility from disadvantageous payoff comparisons, i.e. the cases where other player(s) have a higher payoff. The β-term captures the disutility from advantageous payoff comparisons, i.e. the cases where other player(s) have a lower payoff. The assumption $\alpha \geq \beta$ expresses that disadvantageous inequity looms larger than advantageous inequity. For a given allocation, a consumer chooses to buy or not to buy (accept or reject), which provides the highest utility. For simplicity we assume that the consumer accepts if and only if $\Pi_{Consumer}^{buy} \geq \Pi_{Consumer}^{not\ buy}$. Using the argument of backward induction the manager will propose the allocation that provides her with the highest utility, where

$$\Pi_{Manager}(p, w) = \begin{cases} (p - w) - \tfrac{1}{2}\alpha\,[\max\{0, 2w - \mathrm{p}\} + max\{0{,}30 + \mathrm{w} - 2\mathrm{p}\}] \\ \qquad - \tfrac{1}{2}\beta\,[max\{0, p - 2w\} + max\{0, 2\mathrm{p} - 30 - w\}] & \text{if consumer buys} \\ -\left(\frac{3\alpha}{2} + 1\right)w & \text{if consumer does not buy} \end{cases}$$

In order to calculate the subgame perfect Nash equilibria (SPNE) for individuals with Fehr-Schmidt preferences in the stage game of no competition in *Full Info*, we have to specify assumptions on the parameters α and β. We consider the case of selfish individuals ($\alpha = 0, \beta = 0$), which only care for their monetary payoff and two different levels of inequity aversion[3]: low ($\alpha = 1, \beta = 0.25$) and high ($\alpha = 4, \beta = 0.6$). By varying these three "types" for the consumer and the manager, we receive 9 different cases.

Table 15: Subgame Perfect Nash Equilibrium outcomes for (price,wage) with different levels of inequity aversion (IA), no competition

	Selfish Consumer $\alpha = 0, \beta = 0$	Low IA Consumer $\alpha = 1, \beta = 0.25$	High IA Consumer $\alpha = 4, \beta = 0.6$
Selfish Manager $\alpha = 0, \beta = 0$	(30, 0)	(22, 0)	(17, 0), (18, 1), (19, 2), (20, 3), (21, 4), (22, 5), (23, 6)
Low IA Manager $\alpha = 1, \beta = 0.25$	(30, 0)	(22, 0)	(17, 0), (18, 1), (19, 2), (20, 3), (21, 4), (22, 5), (23, 6)

[3] Comparable parameters have been assumed by Fehr Schmidt (1999). The "high"-type represents an extreme kind of inequity aversion. For experimental results on the distribution of α and β see e.g. Blanco, Engelmann and Norman (2011).

High IA Manager $\alpha = 4, \beta = 0.6$	(30, 0)	(22, 0)	(17, 0), (18, 1), (19, 2), (20, 3), (21, 4), (22, 5), (23, 6)

Table 15 displays the Fehr-Schmidt equilibrium outcomes of these cases and figure 7 graphically shows the outcomes for two of those cases. These examples show that inequity averse consumers may refuse to buy when a high price does not come with a positive wage (red areas in the lower right corners of figure 7). In equilibrium, this induces even selfish managers to pay positive wages if consumers are highly inequity averse.

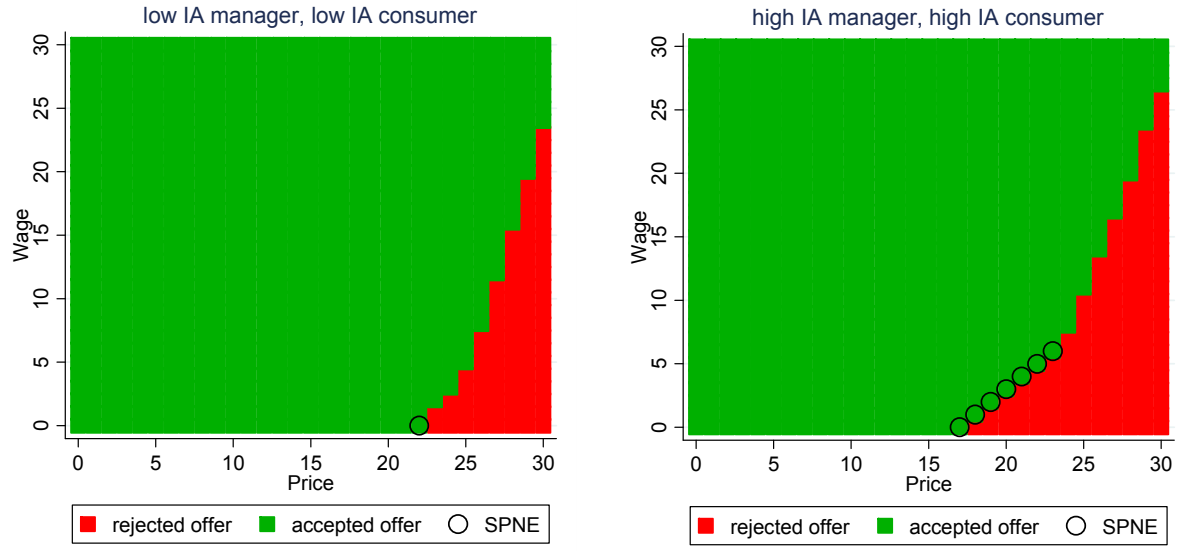

Figure 7: Subgame Perfect Nash Equilibrium (SPNE) outcomes for different levels of inequity aversion, no competition

The analysis of the competition case is far more complex and we cannot present an analytic solution here. To derive predictions for behavior under social preferences, we computed the subgame perfect equilibrium outcomes for the different constellations of selfish and inequity averse (Fehr-Schmidt-preferences) participants and describe the results. For the four active market participants in duopoly (two consumers and two managers), we may consider nine different cases in which all, some or none of the participants are selfish and the remaining ones are inequity averse[4]. We do this both for low inequity aversion ($\alpha = 1, \beta = 0.25$) and for high inequity aversion ($\alpha = 4, \beta = 0.6$). We assume that each inequity averse participant experiences inequity with respect to all other five market participants, no matter whether they actually trade or not. The computation results show that in none of these cases equilibrium outcomes deviate from the ones derived with purely selfish preferences (see Section 4.1). To see the intuition behind this result, consider that due to the competitiveness of the situation the consumers can

[4] The nine different cases are: [(S,S),(S,S)], [(S,IA),(S,S)], [(S,S),(S, IA)], [(IA,S),(IA,S)], [(S,S),(IA, IA)], [(IA, IA),(S,S)], [(S, IA),(IA, IA)], [(IA, IA),(S, IA)], and [(IA, IA),(IA, IA)], where the first set of round brackets in each squared bracket refers to the preferences of the managers and the last set of brackets refers to the preferences of the consumers. S stands for selfish preferences, while IA stands for inequity averse (Fehr-Schmidt) preferences.

realize higher payoffs than the managers and the workers. Thus, inequity averse consumers only suffer from advantageous inequity, both with respect to managers and to workers (captured in the β – term). Hence, keeping the price fixed, a higher wage only distributes income between the manager and the worker, but holds the total disutility from advantageous inequity constant and thus has no effect on the consumer's decision.

A3 Questionnaire Results

The following demographic variables were retrieved: age, sex, semester, experience in experiments (dummy) and experience in market experiments (dummy), experience (number of participations in experiments). The following questions were asked:

What role did the wage of a worker play in the purchase decision?
1: no … 7: a very big

	Baseline	Full Info	Label	Choice	Face
No competition	2.000	3.333	2.567	3.333	2.567
Competition	1.741	3.333	3.342	4.500	3.833

The role of the wage is significantly lower in Baseline in than in the other treatments in *No Competition* (MWT: *Baseline* vs. *Full* (p=0.004), vs. *Choice* (p=0.003), vs. *Label* (p=0.044), vs. *Face* (p=0.012)). There are no significant differences in other pairwise comparisons. In *Competition*, *Baseline* values are also significantly lower (MWT on subject level: *Baseline* vs. *Full* (p=0.000), vs. *Choice* (p=0.000), vs. *Label* (p=0.000), vs. *Face* (p=0.000)) and *Choice* values significantly higher (MWT on subject level: *Choice* vs. *Full* (p=0.001), vs. *Label* (p=0.000), vs. *Face* (p=0.042)). There are no significant differences in other pairwise comparisons. Between competitions conditions we find significant differences for *Choice* (MWT on subject level: p=0.007), *Label* (MWT on subject level: p=0.029) and *Face* (MWT on subject level: p=0.027).

What do you think? Which role (manager or consumer) in this experiment had more "market power"? The market power lay with...
1: the manager only … 7: the consumer only

	Baseline	Full Info	Choice	Label	Face
No competition	4.074	4.556	4.533	4.133	4.733
Competition	5.185	5.444	5.200	5.392	5.650

There is no statistical difference between the treatments within competition conditions (Chi-squared test, no competition: p= 0.690, competition: p=0.461), but between competition conditions (Chi-squared test, treatments pooled, p= 0.000).

By manufacture, transport, use and disposal of a product greenhouse gases are released. Would it affect your purchase decision when products were labeled with a corresponding value of the amount of greenhouse gases?
1: Yes, a labeling of the climate impact would affect my purchasing behavior.
0: No, a labeling of the climate impact would not affect my purchasing behavior.
-1: I do not know

There is no statistical difference between the treatments and competition conditions (Chi-squared test, no competition: p= 0.146, competition: p=0.202, between competition conditions: p= 0.674), so results are pooled:

Do not know	Yes, a labeling of the climate impact would affect my purchasing behavior.	No, a labeling of the climate impact would not affect my purchasing behavior.
20%	11%	70%

The following questions are modified versions from the Eurobarometer 47.0 (Melich 2000) about fair trade consumption (Question Q66 etc., pp. 419).

Some products from developing countries have a label (e.g., Fair trade, Organic certification, GOTS, RugMark). Such labeled products guarantee that during their manufacture certain social and sometimes environmental criteria are met. Do you know these or similar labels? If so, have you already purchased products that were labeled?

0: No, not known.
1: Yes, known, but not purchased.
2: Yes, known and already purchased.
3: Yes, known and regularly purchased.

There is no statistical difference between the treatments and competition conditions (Chi-squared test, no competition: p= 0.688, competition: p=0.623, between competition conditions: p= 0.960), so results are pooled:

No, not known	Yes, known, but not purchased	Yes, known and already purchased	Yes, known and regularly purchased
6%	18%	62%	15%

Do you, in general, feel sufficiently informed about the production conditions when making a purchasing decision?

0: No 1: Yes

There is no statistical difference between the treatments and competition conditions (Chi-squared test, no competition: p= 0.498, competition: p=0.386, between competition conditions: p=0.433), so results are pooled:

No	Yes
86%	14%

Would you be willing to pay a mark-up for convenience goods that have been produced under better social conditions than competing products?

0: I would not accept a premium.
1: I would accept a premium of up to 10%
2: I would accept a premium of up to 20%
3: I would accept a premium of up to 30%
4: I would accept a premium of more than 30%

There is no statistical difference between the treatments (Chi-squared test, no competition p= 0.692, competition: p=0.422, between competition conditions: p=0.883), so results are pooled:

I would not accept a premium	I would accept a premium of up to 10%	I would accept a premium of up to 20%	I would accept a premium of up to 30%	I would accept a premium of more than 30%
8%	42%	35%	11%	4%

Would you be willing to pay a mark-up for convenience goods that are more climate-friendly / more ecologically than competing products?

0: I would not accept a premium.
1: I would accept a premium of up to 10%
2: I would accept a premium of up to 20%
3: I would accept a premium of up to 30%
4: I would accept a premium of more than 30%

There is no statistical difference between the treatments (Chi-squared test, no competition p= 0.504, competition: p=0.314, between competition conditions: p=0.384), so results are pooled:

I would not accept a premium	I would accept a premium of up to 10%	I would accept a premium of up to 20%	I would accept a premium of up to 30%	I would accept a premium of more than 30%
12%	49%	29%	7%	3%

A4 Instructions

In this section we present the instructions for the treatments *No competition - Choice* and *Competition - Label*. They serve as examples as all instructions are formulated in a similar way. The instructions of the other treatments may be obtained from the authors upon request. The original instructions were in German and the ones listed below are translations into English.

A4.1 Instructions for treatment *No competition Choice*

Instructions for the experiment

General information

We welcome you to this economic experiment. It is very important that you read the following explanations carefully. If you have any questions, please direct them to us.

In this experiment, you can earn money depending on your own decisions and the decisions of the other participants.

During the experiment, you are not allowed to talk with other participants of the experiment. Non-compliance with this rule results in exclusion from the experiment and all payments. All decisions are taken anonymously, i.e., none of the other participants learns the identity of the participant who has taken a specific decision. Payment is anonymous as well, i.e., no participant learns the payments of the other participants.

During the experiment, your entire income is calculated in points. In the end of the experiment, the total number of points that you earned during the experiment is converted into Euro, where

40 points = 1 Euro.

At the end of today's experiment, you receive the number of points earned during the experiment plus 2.50 € show-up fee. In addition, at the beginning of the experiment, you receive an initial endowment of 40 points. On the following pages, we will explain to you the detailed procedure of the experiment.

Information about the experiment

Course of the experiment

- The experiment consists of **30 rounds**, and each round has the same structure.
- You are part of a group with **3 members**. During the entire experiment, you exclusively interact with the members of your group. The composition of the group remains the same across all rounds.

Company, manager, worker, and consumer

- There is a **company** and a **consumer**.
- The company consists of a **manager** and a **worker**.
- Which role you are assigned to is randomly determined at the beginning of the experiment, and remains unchanged during the entire course of the experiment. Please note that your role allows for no conclusions about your identity.

Good, price, value, and trade

- In the company, the worker produces a units of a **good**.
- The manager of a company sets:
    - the **wage** of the workers of the company (integer **between 0 and 30 points**), and

- the **price** at which the company offers the good (integer **between 0 and 30 points**).

- The consumer can buy **up to one unit** of the good, and decides whether he buys the good or not. The good has a **value of 30 points** for the consumer.
- If the consumer buys the good, he pays the price set by the manager of the company. By a purchase, the consumer receives 30 points minus the price paid. A consumer who does not buy receives 0 points.
- Whether the company sells a unit of the good depends on the purchasing decision of the consumer. Therefore, the company can sell none or one unit.

Income in a round

Each participant receives an **endowment** of **5 points per round**. The remaining income depends on decisions in the following way:

Income of participants in one round

Manager:	endowment – wage of the worker + price × number of units sold
Worker:	endowment + wage
Consumer:	endowment + number of units purchased × (30 - price of the good)

Course of the experiment

Before the start of the first round, you are informed about your role. All rounds take place according to the following scheme:

Step 1: Actions of the worker and the manager

- The worker produces the unit of the good.
- The manager sets the wage of the worker, and the price of the good.

Step 2: Actions of the consumer

- The consumer gets informed about the price of the good.
- The consumer decides whether he wants to get informed about the wage of the worker.
- The consumer decides whether to buy a unit of the good.

Step 3: Information

- The worker gets informed about his wage, and the price of the good.
- The manager and the worker get informed about the purchasing decision of the consumer.
- Each participant learns his round income.

Total income

Your total income is the sum of the incomes of all rounds plus the initial endowment of 40 points.

A4.2 Instructions for treatment *Competition Label*

Instructions for the experiment

General information

We welcome you to this economic experiment. It is very important that you read the following explanations carefully. If you have any questions, please direct them to us.

In this experiment, you can earn money depending on your own decisions and the decisions of the other participants.

During the experiment, you are not allowed to talk with other participants of the experiment. Non-compliance with this rule results in exclusion from the experiment and all payments. All decisions are taken anonymously, i.e., none of the other participants learns the identity of the participant who has taken a specific decision. Payment is anonymous as well, i.e., no participant learns the payments of the other participants.

During the experiment, your entire income is calculated in points. In the end of the experiment, the total number of points that you earned during the experiment is converted into Euro, where

40 points = 1 Euro.

At the end of today's experiment, you receive the number of points earned during the experiment plus 2.50 € show-up fee. In addition, at the beginning of the experiment, you receive an initial endowment of 40 points. On the following pages, we will explain to you the detailed procedure of the experiment.

Information about the experiment

Course of the experiment

- The experiment consists of **30 rounds**, and each round has the same structure.
- You are part of a group with **6 members**. During the entire experiment, you exclusively interact with the members of your group. The composition of the group remains the same across all rounds.

Companies, managers, workers, and consumers

- There are two **companies** (**A** and **B**) and two **consumers** (**X** and **Y**).
- Each of the two companies consists of a **manager** and a **worker**. At the beginning of the experiment, it is randomly determined which manager and which worker form company A, and which manager and which worker form company B. This assignment remains unchanged over the entire course of the experiment.
- Which role you are assigned to is randomly determined at the beginning of the experiment, and remains unchanged during the entire course of the experiment. Please note that your role allows for no conclusions about your identity.

Good, price, value, and trade

- In both companies, the worker produces several units of an identical **good**.
- The manager of a company sets:
    - the **wage** of the workers of the company (integer **between 0 and 30 points**), and
    - the **price** at which the company offers the good (integer **between 0 and 30 points**).
- Every consumer can buy **up to one unit** of the good, and decides whether he buys the good from company A, from company B, or whether he does not buy the good at all. The good has a **value of 30 points** for each of the two consumers.
- If a consumer buys the good from company A, he pays the price set by the manager of company A. If a consumer buys from company B, he pays the price set by the manager of company B. By a purchase, a

consumer receives 30 points minus the price paid. A consumer who does not buy receives 0 points.

- How many units a company sells depends on the purchasing decisions of the consumers. Therefore, a company can sell none, one or two units.

Certificate

- The managers can buy a **certificate** for their company. A company with a certificate must pay its worker a **wage of at least 4 points**. If the company has acquired a certificate, both the consumers and the other company receive the information: "A wage of at least 4 points is paid ". The **costs** for the certificate are **1 point**.
- If the company does not buy a certificate, the manager can set the wage for the worker of his company freely between 0 and 30 points. In both cases, neither the consumers nor the other company receive information about the actual wage.

Income in a round

Each participant receives an **endowment** of **5 points per round**. The remaining income depends on decisions in the following way:

Income of participants in one round

Manager:	endowment – wage of the worker + price × number of units sold
	-1 (if certificate was purchased)
Worker:	endowment + wage
Consumer:	endowment + number of units purchased × (30 - price of the good)

Course of the experiment

Before the start of the first round, you are informed about your role (manager A, worker A, manager B, worker B, consumer X or consumer Y). All rounds take place according to the following scheme:

Step 1: Actions of the workers and managers

- The workers produce the units of the good.
- The managers decide whether to buy a certificate.
- The managers set the wage of the worker of their company, and the price of the good.

Step 2: Actions of the consumers

- The consumers get informed about the price of the good of company A, and the price of the good of company B.
- They receive the information: " A wage of at least 4 points is paid " if the respective manager has bought the certificate, and they receive no information about the wage otherwise.
- The consumers decide whether and from which company to buy a unit of the good.

Step 3: Information

- Every worker gets informed about his own wage and the prices set by the two managers.
- Both managers get informed about the price of the other company.
- Both workers and both managers receive the information about the wage of the other company: A wage of at

least 4 points is paid " if the manager of the other company has bought the certificate, and they receive no information about the wage of the other company otherwise.

- Both managers, both workers and both consumers get informed about the purchasing decisions of both consumers.
- Each participant learns his round income.

Total income

Your total income is the sum of the incomes of all rounds plus the initial endowment of 40 points.

Good luck!