

# Determinants of Bonus Payments for Employees in Companies.

A Multi-Level Factorial Survey Study.

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# Allocation Games

Giving behaviour is studied in allocation games

- Dictator Games (Kahneman et al. 1986)
- Ultimatum Game (receiver has veto power) (Güth et al. 1982)

Behavior in allocation games sensitive to

- **anonymity** (Cherry et al. 2002)
- **property rights** (Oxoby/Spraggon 2008)
- **group membership** (Tajfel/Turner 1979)
- **social status** (Liebe/Tutic 2010)
- **fairness ideals** (Cappellen et al. 2005)
- and to several other factors (Camerer 2003)

## Possible restrictions

What are possible restrictions of these studies?

- isolated evidence for effects
- student sample (Levitt/List 2007)
- neutral setting

# Approach

## factorial survey study

**field sample** (entrepreneurs of small/medium sized companies)

**field setting** (allocation of a jointly produced resource with employees differing among other things in their *efficiency*, their *duration of belonging*, their occupational *position*)

**bonuspayment** 0 – 10.000 Euro for employees as an indicator of prosociality

## Motives for giving

- egoistic preferences
- social preferences

When is the "giver" expected to give nothing?

- no shadow of the future
- anonymity
- "earned" wealth

# Mechanisms for social preferences

## internal mechanisms

- empathy
- "warm glow"

## external mechanisms

- reputation/signalling
- social desirability

## fairness norms/reciprocity norm

- altruistic motives
- egoistic motives
- interdependent preferences

## Research interest

What are we investigating?

- What is the relative effect of strategic motives and the preference for a fair allocation?
- How is the allocation affected by the transparency of the situation?

Example: Bonuspayments in companies



## Hypotheses- Fairness

The employees' contribution to the jointly produced resource are evaluated according to fairness norms. We refer to the rule of proportionality (resp. equity norm).

- *H1.1: The bonuspayment is higher the better the employees' performance.*
- *H1.2: The bonuspayment is higher the higher the employees' tenure.*

## Hypotheses- Strategic Motivation

Ultimatum Games show that people with bargaining power (veto) get a higher share than people without (Camerer 2003).

Average amount given in DG: 28% (Engel 2011) and in UG: 20-50% (Henrich et al. 2009).

- *H2.1: The bonuspayment is higher if the employee is member of a union.*
- *H2.2: The bonuspayment is higher if the employee has job market advantages.*
- *H2.3 The bonuspayment is higher the higher the occupational status of the employee.*

## Hypotheses- Transparency

If the employees know that a pie exists the incentive to pay a bonus is increased, since employees may expect a reward.

If the employees know how the pie is allocated the incentive to pay a bonus is increased further, since employees can judge the employers generosity.

*H3 : The more transparent the allocation situation, the higher the average bonuspayment.*

## Hypotheses- Interactions

Information dimensions generate different social expectations and therefore affect social preferences differently.

Strategic preferences get only activated when employees know that a pie exists.

*H4.1 : The effects of sanctioning power do not appear in the completely intransparent situation.*

## Hypotheses- Interactions

Since the employer wants to avoid dissatisfaction among less rewarded employees, the pie is allocated more equally when his employees know how the pie is allocated. Therefore the equity norm is inhibited due to *signal* a more agreeable fairness ideal.

*H4.2: The hypothesized effects of the fairness are weaker under complete transparency.*

Table : Indicators and levels

	levels		
<b>tenure</b>	1 year	5 years	10 years
<b>performance</b>	below-	average	above-
<b>union membership</b>	yes	no	
<b>occupation</b>	worker	craftsman	manager
<b>job market opport.</b>	in favour of employee	in favour of employer	
<b>age</b>	30 years	45 years	60 years
<b>sex</b>	male	female	

**118** Vignettes (population: 648; design drawn with SAS) randomly distributed on **9** vignette decks

**12** vignettes for each respondent

**7** vignette dimensions (factors)

Each respondent randomly put into one of three different **decision environments**

# Transparency of allocation

Table : Decisionenvironments differing in information given to employees

	<b>payment secret</b>	<b>payment open</b>
<b>know pie exists</b>	<i>part. transparent</i>	<i>compl. transparent</i>
<b>don't know pie exists</b>	<i>compl. intransparent</i>	



## Data collection

Email addresses were drawn from Gelbe Seiten

Onlinesurvey via UNIPARK

1.392 addresses (Leipzig, Hannover, Cologne, areas in Bavaria)

171 started the questionnaire; 73 finished; response rate 5%

## Sample characteristics

Feature	Mean/Proportion			
	all situations	intransp.	partl. transp.	compl. transp.
human resource	100%	100%	100%	100%
age	51	49	53	51
in company for ... years	15	17	13	16
company existing for ... years	32	23	45	29
company size	37	53	26	32
service	46%	45%	53%	41%
industry	31%	30%	32%	32%
craft	23%	25%	16%	27%

## Cover story and instructions

Constant information for all decision environments:

- company has been existing for 10 years
- unexpected high success within the last two years
- employer has not been rewarded yet
- employees don't know their maximum reward
  
- each employee is rewarded independently

## Example vignette

Hier sind noch einmal die wichtigsten Punkte der Ausgangssituation zusammengefasst:

- Das Unternehmen existiert seit zehn Jahren
- Großer wirtschaftlicher Erfolg in den letzten beiden Jahren
- Die MitarbeiterInnen sind über die wirtschaftliche Situation informiert
- Die Bonuszahlung erfolgt geheim
- Die MitarbeiterInnen wissen nicht, wie viel sie maximal an Bonus bekommen können
- Sie haben selbst noch keinen Bonus erhalten

### Fall 7:

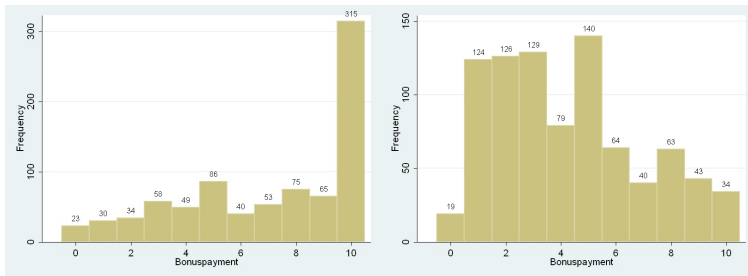
**Der 45 Jahre alte Mitarbeiter ist seit 10 Jahren bei Ihnen als Meister beschäftigt. Die Leistung des Mitarbeiters ist überdurchschnittlich. Er ist Mitglied in einer einflussreichen Gewerkschaft. Die Arbeitskraft hätte keinerlei Schwierigkeiten, eine gleiche Position außerhalb Ihres Unternehmens zu finden. Hingegen wären die Möglichkeiten für Sie, die Arbeitskraft gleichwertig ersetzen zu können, schlecht.**

**Welchen Betrag zahlen Sie dieser Person aus? Der Restbetrag geht in Ihr eigenes Vermögen über.**

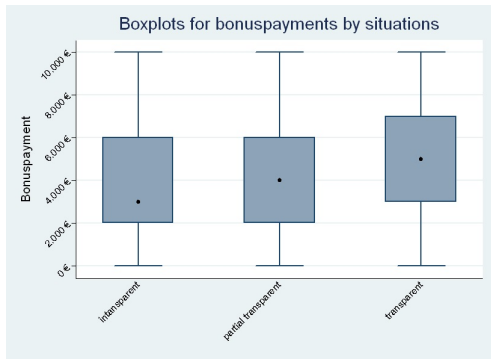
(Bitte unter die Leiste klicken)



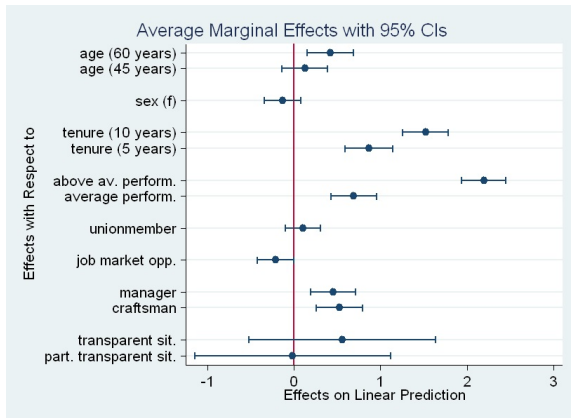
## Distribution of bonuspayment: students vs. employers



# Distribution of bonuspayment between decision environments



# AME without differentiating between decision environments



Effects by situations

	situation intransparent	<i>interaction terms intrans vs. other</i>	situation partly transparent	<i>interaction terms comp. trans vs. other</i>	situation comp. transparent
age (45 years)	0.29	-0.23	-0.14	0.35	0.36*
age (60 years) <i>ref. 30 years</i>	0.10	0.45	0.75**	0.87	0.50**
sex (f)	-0.12	-0.02	0.07	-0.28	-0.30*
tenure (5 years)	0.87***	-0.03	1.09***	-0.38	0.63***
tenure (10 years) <i>ref. 1 year</i>	1.78***	-0.40	1.41***	-0.35	1.31***
average performance	0.83***	-0.18	0.77**	-0.26	0.56**
above average performance, <i>ref. below average performance</i>	2.44***	-0.37	2.63***	-1.11***	1.53***
unionmember <i>ref. no member</i>	-0.07	-0.03	-0.40	0.30	-0.07
job market opp. (employer) <i>ref. employee</i>	-0.38*	0.23	-0.43	0.45*	0.06
craftsman	0.30	0.31	0.62*	0.02	0.53**
manager <i>ref. worker</i>	0.18	0.39	0.82**	-0.23	0.30
constant	1.87***		1.29**		2.68***
sigma_u	1.96***		1.96***		1.94***
sigma_e	1.47***		1.47***		1.47***
rho	0.64		0.64		0.63
N vignettes	861		861		861
N probands	81		81		81

Random intercept models \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



# Summary and discussion

## Effects of fairness norm ( $H1$ )

- stable and consistent effects of fairness
- fairness norm important in context of companies
- observed social preferences do not necessarily indicate subjective social preferences

## Effects of sanctioning power ( $H2$ )

- expected effects of occupational status
- contradictory effects of unionmembership and job market opportunities
- is sanctioning power less important because of fairness norms?











## Summary and discussion

### Effects of transparency (*H3* and *H4*)

- increase in average bonuspayment with increasing transparency
- inhibition of performance effect
- signalling of trustworthiness and cooperativeness
- establishing reputation

## Restrictions

- fictional setting (ressource, employees, payment)
- theoretial mechanism may overlap
- lower internal validity, higher external validity
- low return rate (small sample); selection bias?
- no control over data collection
- incomplete responses (especially questionnaire); therefore no use of control variables

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