

The expressive function of legal norms

Experimental evidence from the German Supply Chain Act

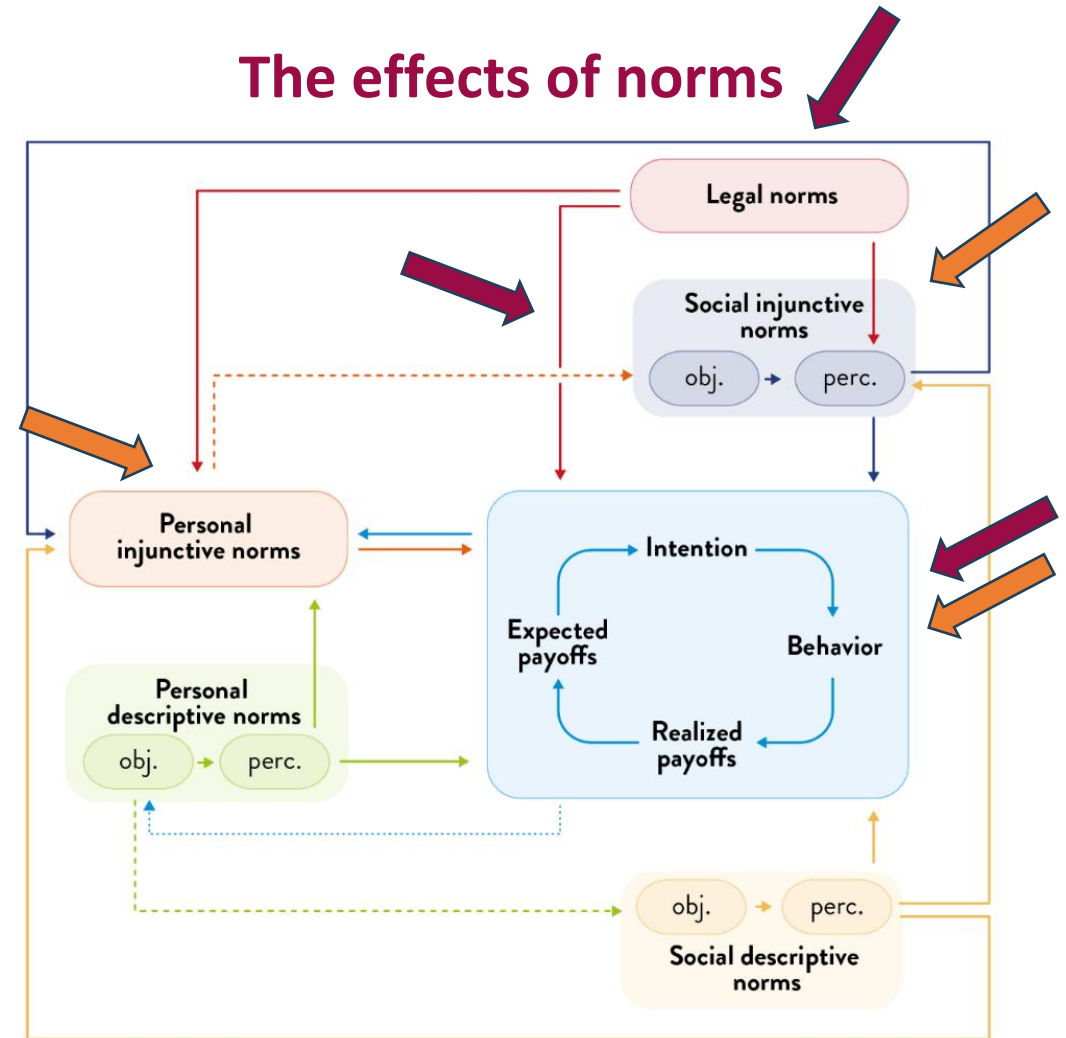
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The expressive effects of legal norms

- Legal, personal, and social norms shape individual behavior (e.g., Lane et al., 2023; Dannenberg et al., 2024)
- Legal norms may affect individual behavior by
 - Legal enforcement (e.g., sanctioning, punishment, deterrence)
 - Signaling what is considered appropriate behavior → **expressive effect** (Sunstein, 1996; Cooter, 2000; Bénabou and Tirole, 2011; Lane et al., 2023)

The effects of norms



Source: Dannenberg et al. (2024, REEP)

- Challenges:
 - Enforcement channel and signaling need to be disentangled
 - Legal and social norms may develop simultaneously
 - Other events can shape norms (e.g., media coverage)
- Only few empirical studies exist:
 - Law affects behavior beyond expected effects based on mere deterrence (e.g., Funk, 2007; Wittlin, 2011)
 - Exploitation of changes in existing laws (e.g., Casoria et al., 2021; Galbiati et al., 2021)
 - Discontinuities of social norm functions at legal thresholds (Lane et al., 2023)

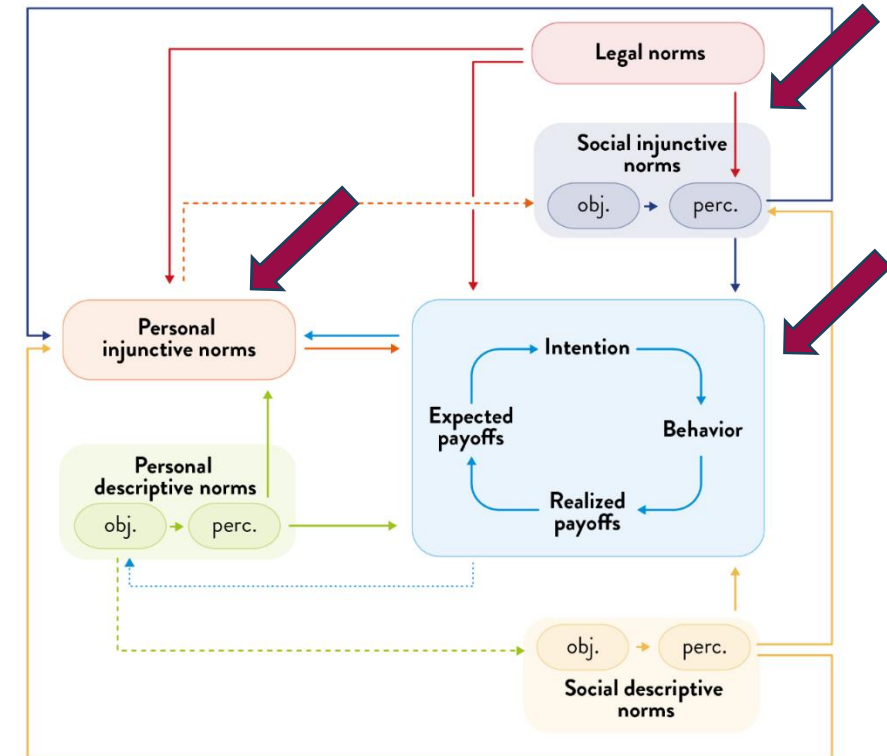
- Select a legal norm that
 - does not affect individual behavior directly
 - may set a signal about appropriate behavior

→ Effect on individual behavior?

→ But also:

→ Personal injunctive norms

→ (Perceived) social injunctive norms



Source: Dannenberg et al.
(2024, REEP)

Supply Chain Act in Germany



Risk analysis
Documentation obligation
Create transparency



Goal
Protection of human rights and the environment in supply chains



Control
Federal Office for Economic Affairs and Export Control (BAFA)



Sanctions
Fines
Exclusion from public tender (up to 3 years)

- Supply Chain Law sets signal:
“Protection of human rights and the environment is important”
- But:
 - No direct effect on individual consumption decisions
 - Only companies with more than 3,000 employees are affected

→ Idea:

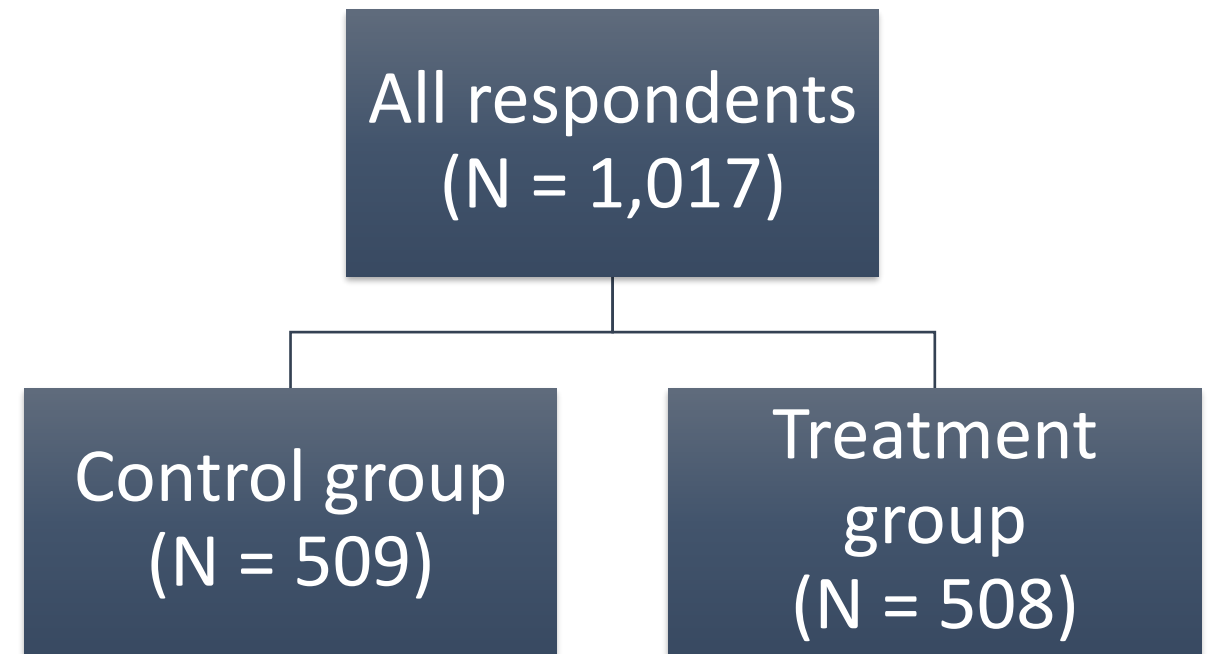
- Individuals receive information about the law
- Do they care more about fairly produced goods if they buy products from companies not affected by the law (i.e. with less than 3,000 employees)?

Data



- Pre-registered survey experiment with market research institute conducted in 2023
- 1,017 individuals in Germany above the age of 18
- Representative sample:
 - Age
 - Gender
 - Place of residence in Germany

- 1. Assignment to control and treatment group**
2. Provision of information
3. Consumption decision
4. Norm elicitation
5. Follow-up questions



1. Assignment to control and treatment group
- 2. Provision of information**
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All respondents

- Endowment: 24 €
- Two options:
 - Normal socks
 - Socks with Fair Wear Label
- Realize decision for 10% of respondents
 - Socks + remaining money

1. Assignment to control and treatment group
- 2. Provision of information**
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Treatment group

- Information on Supply Chain Act:
 - Aims (more transparency, protection of human rights, fair working conditions, and the environment)
 - Potential consequences for companies
 - Only applies to companies with more than 3,000 employees

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All respondents

- Socks from companies with less than 3,000 employees

1. Assignment to control and treatment group
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	Three pairs of socks without label of the Fair Wear Foundation	Three pairs of socks with label of the Fair Wear Foundation
1. Purchase decision	7.50 € <input type="checkbox"/>	6.00 € <input type="checkbox"/>
2. Purchase decision	7.50 € <input type="checkbox"/>	7.50 € <input type="checkbox"/>
3. Purchase decision	7.50 € <input type="checkbox"/>	9.00 € <input type="checkbox"/>
4. Purchase decision	7.50 € <input type="checkbox"/>	10.50 € <input type="checkbox"/>
...
13. Purchase decision	7.50 € <input type="checkbox"/>	24.00 € <input type="checkbox"/>

Experimental flow

1. Assignment to control and treatment group
2. Provision of information
- 3. Consumption decision**
4. Norm elicitation
5. Follow-up questions

	Three pairs of socks without label of the Fair Wear Foundation	Three pairs of socks with label of the Fair Wear Foundation
1. Purchase decision	7.50 € <input type="checkbox"/>	6.00 € <input checked="" type="checkbox"/>
2. Purchase decision	7.50 € <input type="checkbox"/>	7.50 € <input checked="" type="checkbox"/>
3. Purchase decision	7.50 € <input type="checkbox"/>	9.00 € <input checked="" type="checkbox"/>
4. Purchase decision	7.50 € <input checked="" type="checkbox"/>	10.50 € <input type="checkbox"/>
...	Premium = 9.00 € – 7.50 € = 1.50 €	
13. Purchase decision	7.50 € <input type="checkbox"/>	24.00 € <input type="checkbox"/>

1. Assignment to control and treatment group
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Personal injunctive norm

Premium (in €) the respondent considers appropriate for the socks with Fair Wear label compared to socks without Fair Wear label

(from survey question)

1. Assignment to control and treatment group
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- 4. Norm elicitation**
5. Follow-up questions

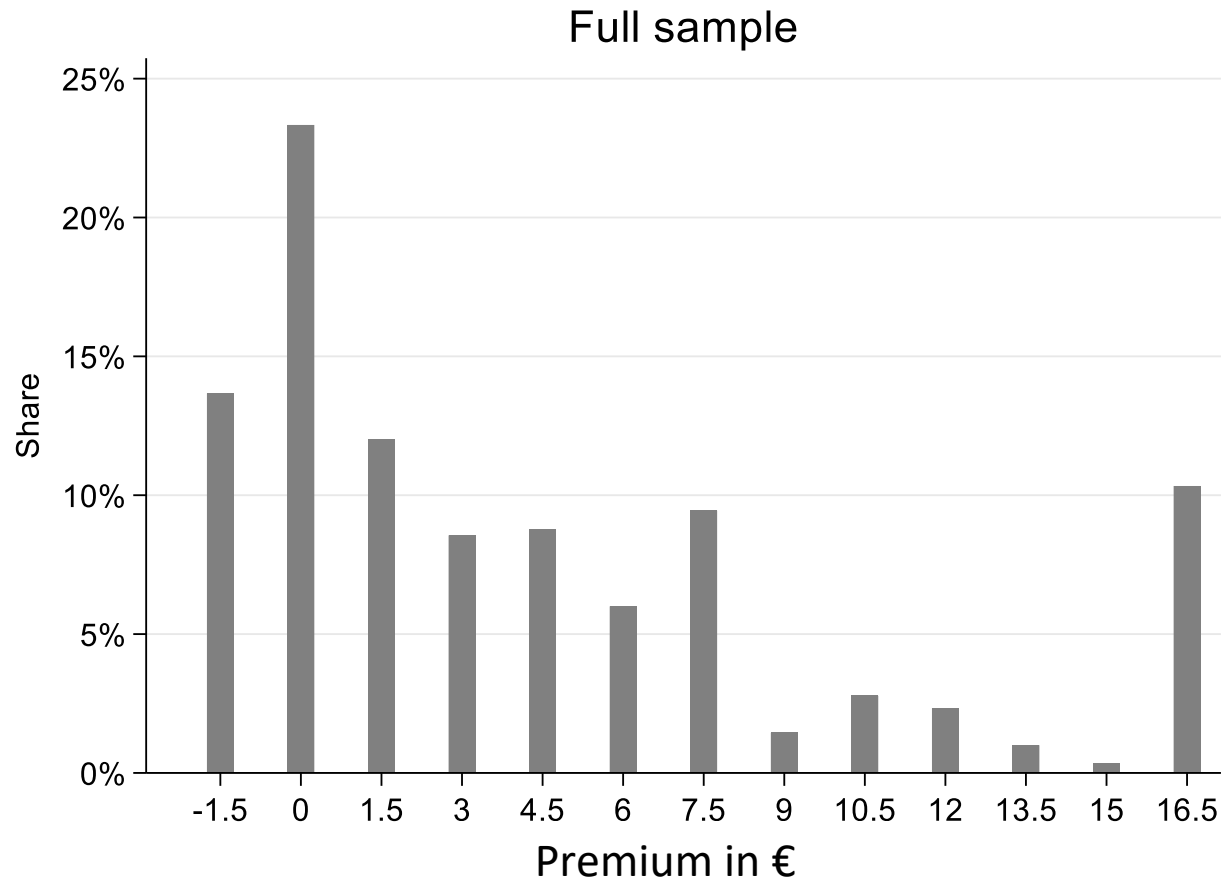
Perceived social injunctive norm

Respondent's estimate of the average premium (in €) that other respondents consider appropriate for the socks with Fair Wear label compared to socks without Fair Wear label

(from incentivized survey question)

1. Assignment to control and treatment group
2. Provision of information
3. Consumption decision
4. Norm elicitation
5. **Follow-up questions**
 - Reasons for decisions (open question)
 - Perception of political regulation of supply chain laws
 - Knowledge checks
 - Perception of Fair Wear Label

Results

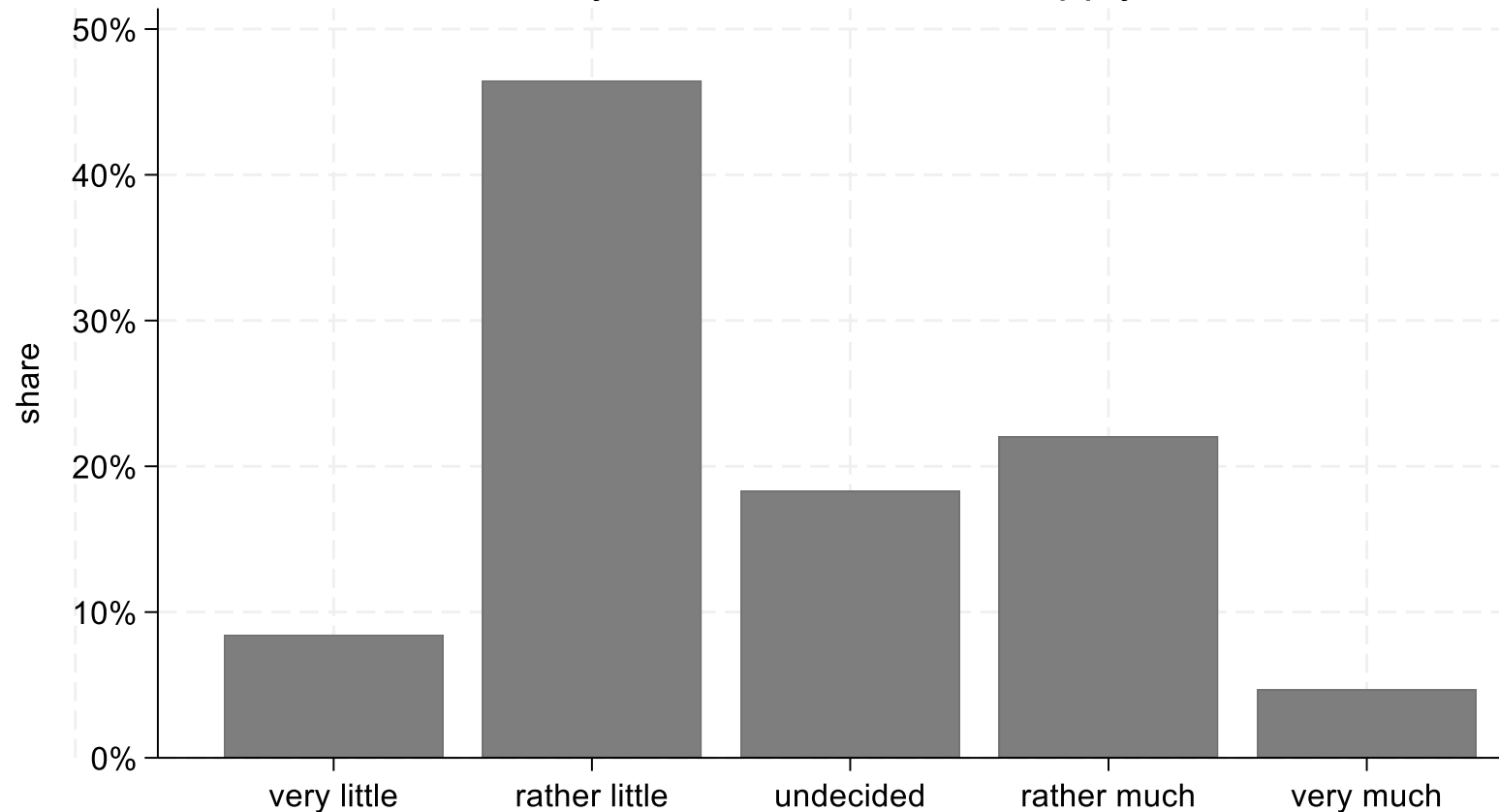


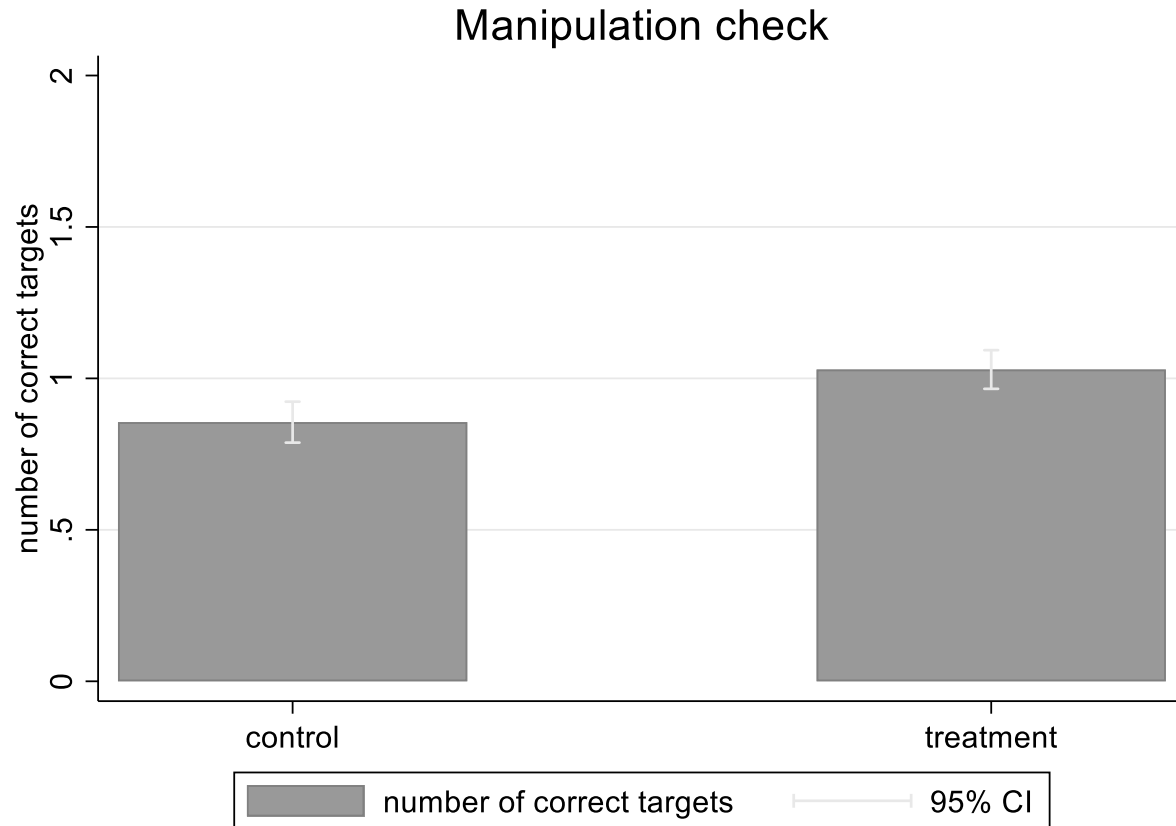
- Average premium: 4.29 €
- Median premium: 3.00 €

“Have you heard about the Supply Chain Act before this survey?” >> Yes = 31.7%

If yes:

How much do you know about the Supply Chain Act?





Question:

„Please name two targets of the Supply Chain Act.“

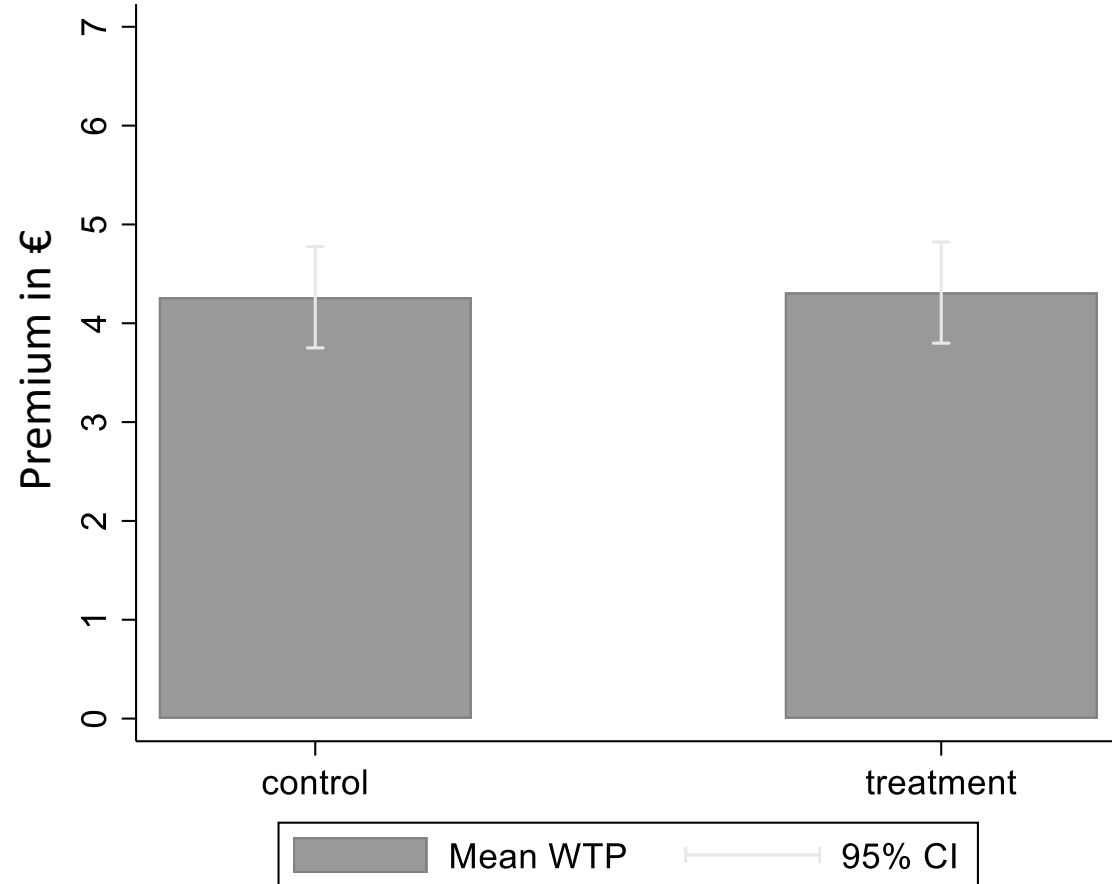
Mean number of correct laws:

Control = 0.86

Treatment = 1.03

Mean comparison t-test:

$p < 0.001$



Premium:

- Premium (control) = 4.26 €
- Premium (treatment) = 4.31 €

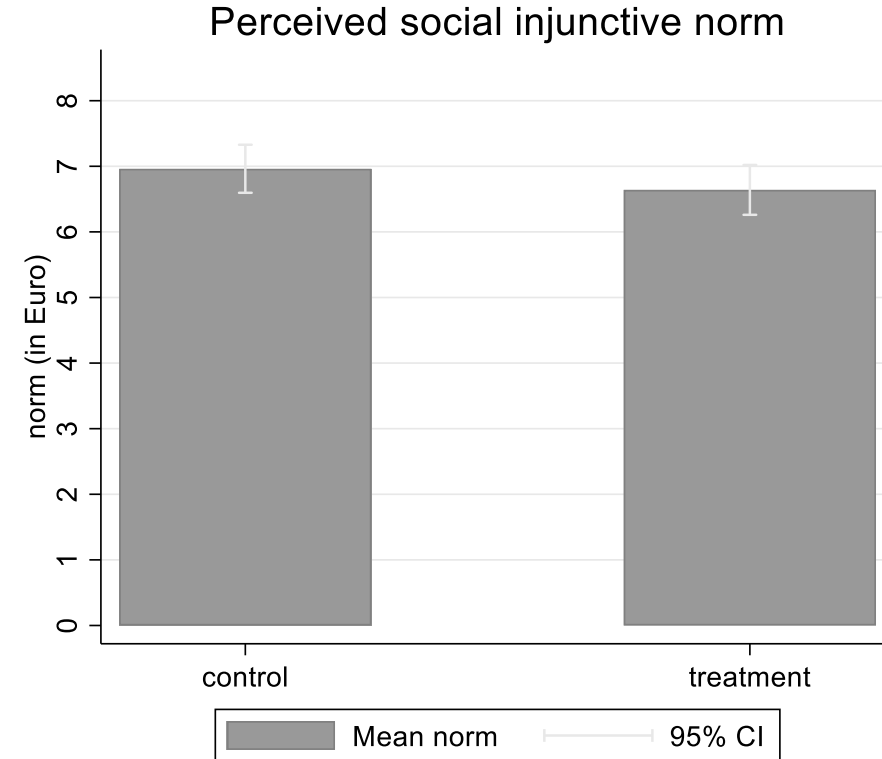
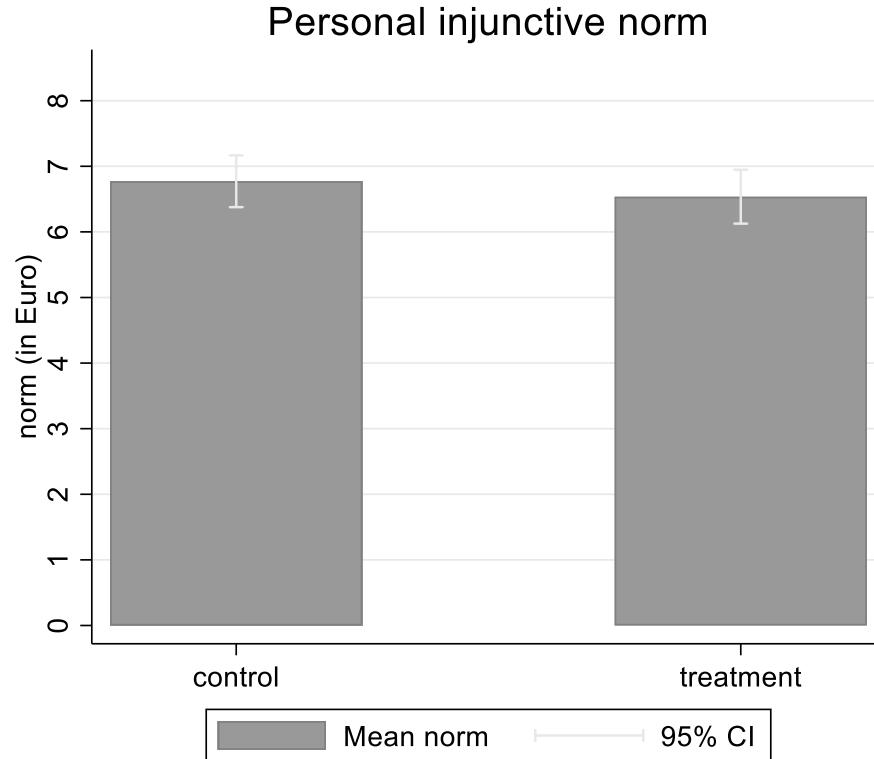
Mean comparison t-test:

p-value = 0.85

Premium: Adding controls

Dependent variable:	Premium	
	(1)	(2)
Model:		
Treatment	0.14 (0.38)	0.22 (0.65)
Socio demographics	No	Yes
Economic preferences	No	Yes
Political orientation	No	Yes
Beliefs about fair production	No	Yes
Number of observations	900	900
R-squared (adjusted)	0.02	0.14

- No significant average treatment effect after adding controls
- Effects of control variables are mainly consistent with previous evidence:
 - Female (+)
 - Income (+)
 - Altruism (+)
 - Green / social political orientation (+)



Mean comparison t-tests

Personal injunctive norm:

Perceived social injunctive norm:

Treatment vs. control: p-value = 0.42

Treatment vs. control: p-value = 0.62

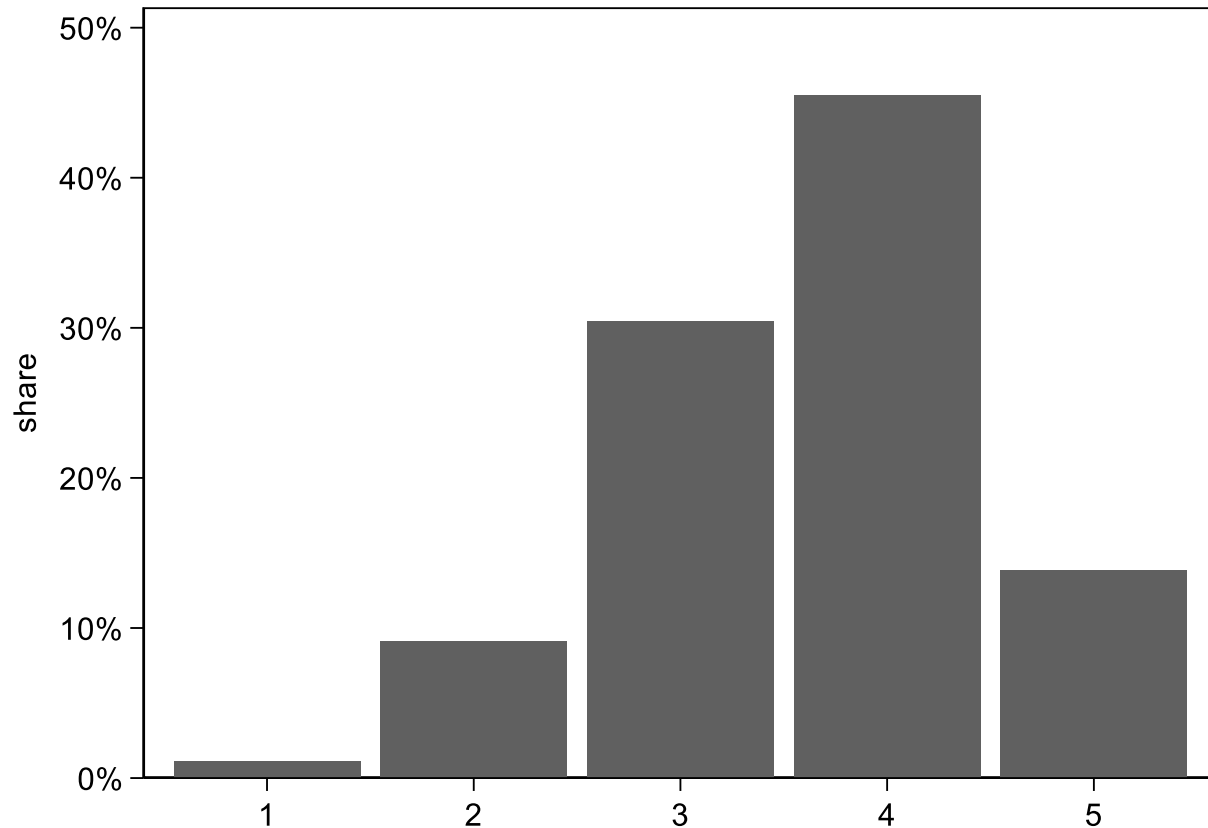
- Incentivized experiment on the expressive effect of the German Supply Chain Act on the consumption of fairly produced clothing
 - Treatment information
 - Educates participants on the targets of the law
 - No significant effect on behavior related norms
- No evidence for an expressive effect of the Supply Chain Act

- Follow-up survey on Prolific
- Potential reasons for our results:
 - Low credibility of Supply Chain Law (→ no adequate signal)
 - Low credibility of Fair Wear Label (→ no adequate alternative)
 - Regulation too indirect
 - Information / text too complex
 - Prior perception of socially appropriate behavior

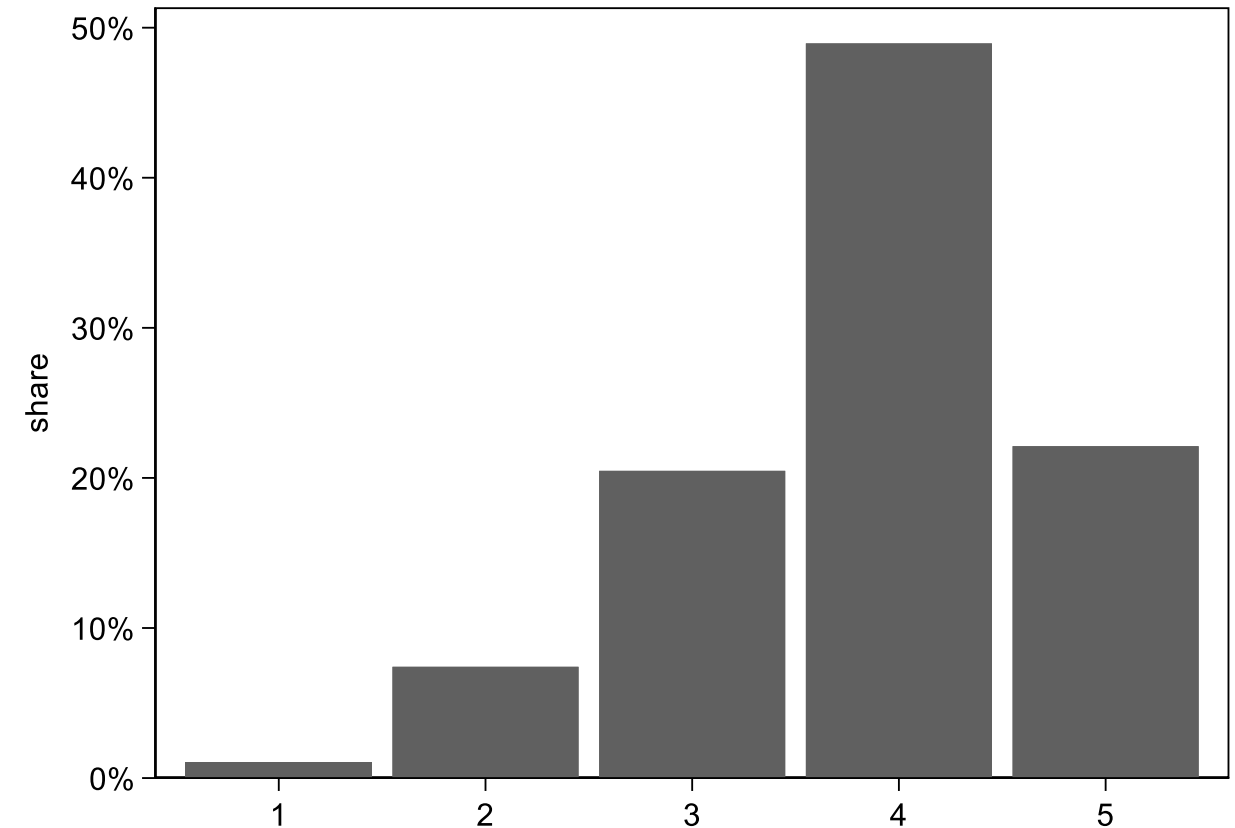
Comments or questions?

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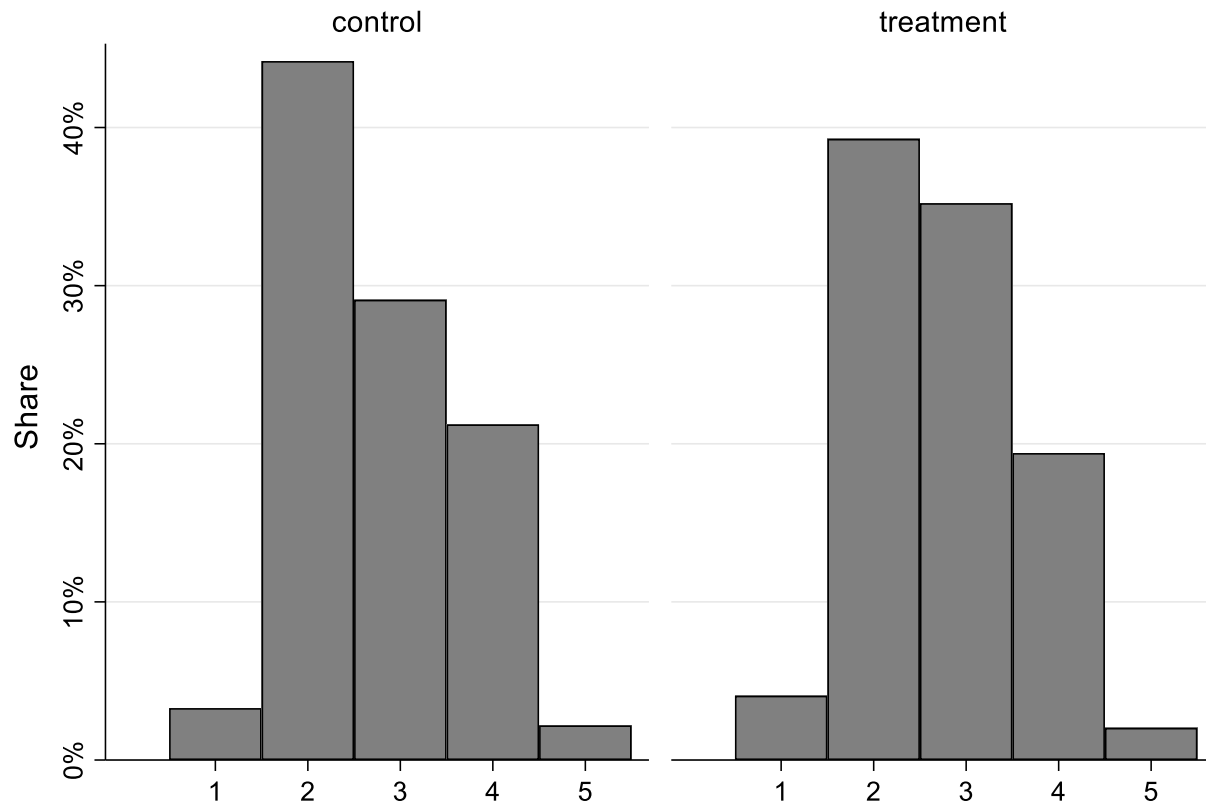
Beliefs about label certification reasons



“By awarding such certificates and labels, companies want to appear more social than they actually are.”



“Companies want to increase their sales by being awarded such certificates and labels.”



Graphs by treatm

Question:

“What do you think, how strongly is the current Germany is currently trying to create transparency about the supply chains of companies and, in particular, to protect human rights along the supply and ensure fair working conditions along the supply chain?”

Mann-Whitney U-test:

treatment vs. control: $p = 0.50$

Question:

„Please state (in no more than five words) what was most important to you in the 13 previous purchase decisions.“

Mentionings:

Price:	80%
Quality:	15%
Sustainability:	14%
Label:	12%

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Perceived social descriptive norm

Respondent's estimate of the average additional payment (in €) that other respondents actually pay for the socks with Fair Wear label compared to socks without Fair Wear label

(from incentivized survey question)

THE ENVIRONMENTAL IMPACT OF TEXTILES



of global greenhouse gas emissions are caused by clothing and footwear production



This is more than all international flights and maritime shipping combined

Sources: EPRS (2017), UN (2018)



THE ENVIRONMENTAL IMPACT OF TEXTILES

79 billion cubic metres of water



was used by the textile and clothing industry in 2015

2,700 litres of water



is needed to produce one t-shirt

=



enough drinking water for one person for 2.5 years

Sources: EPRS (2019, 2020)



Treatment:

“Since January of this year, the so-called Supply Chain Act has been in force in Germany, the aim of which is to create more transparency about companies’ supply chains. In particular, the law aims to protect human rights along the supply chain and ensure fair working conditions. If a company does not comply with its obligations under the law, it can be punished. The Supply Chain Act applies to all companies with more than 3,000 employees. However, we source the socks shown below from companies with fewer than 3,000 employees, so the Supply Chain Act does not apply here.”

Control:

“We source the socks shown below from companies with fewer than 3,000 employees.”

Randomization check

	Mean Control	Mean Treatment	dif	p-value
Age	49.1	51.3	2.20	.040
Male	.481	.496	.015	.639
Western federal state	.845	.880	.035	.104
High education	.399	.402	.003	.928
Income (equivalized)	1.889	1.831	.059	.342
Altruism	.708	.705	-.003	.929
Risk averse	.407	.486	.080	.011
Patience	.617	.575	-.042	.172
High trust	.436	.443	.007	.828
Policy green	.352	.364	.013	.678
Policy social	.540	.575	.035	.268
Policy liberal	.287	.268	-.019	.496
Policy conservative	.256	.252	-.004	.900
Policy interest	.613	.659	.046	.123
Belief good working cond.	.415	.406	-.009	.770
N	509	508		

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- **Personal injunctive norm:** “In your opinion, what is a reasonable price to pay for the three pairs of socks with a Fair Wear Foundation label described above compared to the additional 7.50 euros for the three pairs of socks without a Fair Wear Foundation label?”
- **Perceived social injunctive norm:** “On average, what do you think the other participants consider to be a reasonable additional price, i.e., what was the average value given by the other participants in the last question?”
- **Perceived social descriptive norm:** “Through the previous 13 purchase decisions between the different sock alternatives, there is a maximum price that all participants are willing to pay additionally for three pairs of socks with a Fair Wear Foundation label compared to the 7.50 euros for the three pairs of socks without a Fair Wear Foundation label. What do you think is the maximum additional price participants are willing to pay on average for the previous 13 purchase decisions?”
- Answers on the perceived norms are incentivized using the quadratic scoring rule with a maximum payment of 3 Euro per question

1. Basic sociodemographics (age, gender, federal state, education; 4 items)
2. Economic preferences (altruism, risk and time preferences, trust) and political identification (conservative, social, green, liberal; in total: 8 items)
3. Consumption behavior (4 items)
4. Introduction of experiment and choice of socks' color and size (2 items)
5. Treatment information and elicitation of WTP (1 item, 13 decisions)
6. Elicitation of norms towards sustainable consumption (3 items)
7. Manipulation check and knowledge of the law (4 items)
8. Supplementary questions on the Fair Wear Label (6 items)
9. Household characteristics (3 items)

- Altruism: „How much are you willing to give to a good cause without expecting anything in return?”
- Risk aversion: “How willing are you personally to take risks?”
- Patience: “How much are you willing to give up something that benefits you today in order to benefit more in the future?”
- Trust: “Please indicate the extent to which you agree with the following statement, ‘I suspect people have only the best intentions.’”
- Policy identification: “I identify myself with conservatively/liberal/green/social oriented politics.”
- Prior belief good working conditions: “I trust that products sold in Germany are manufactured under appropriate social conditions.”