(Experiments on) Green Behavior

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SFB F-63

Experiments on Green Behavior

Public Goods and Common-Pool Resources

Governance of local natural resources (one detailed example)

Charitable giving

RCTs to enhance pro-environmental behavior

Support for green policies

Green Markets (in focus)

Experiments on Green Behavior

Public Goods and Common-Pool Resources (overview):

Early experiments as "green" behavior.
    Reviews by Ledyard, 1995; Chaudhuri, 2011.

Probabilistic public goods,
    Risk and uncertainty (Gangadharan and Nemes 2009)
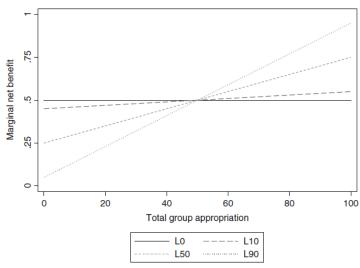   Variations in fragility (Blanco et al., 2016; 2017)

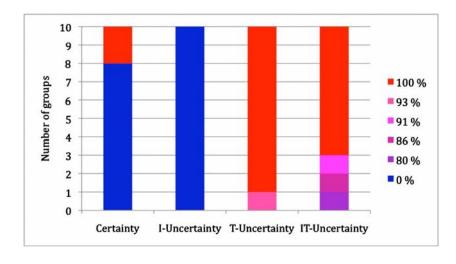Collective-risk social dilemmas,
    Variations in the size of damages, heterogeneity in damages and wealth, uncertainties over the size of damages and uncertainties over thresholds of cooperation to avoid the collective loss, among others (e.g. Milinski et al., 2006, 2008, 2011; Tavoni et al., 2011; Burton-Chellew et al., 2013; Vasconcelos et al., 2014; Barrett and Dannenberg, 2014, 2016; Gross and De Dreu, 2019; Gross and Böhm, 2020; Gross et al., 2020; Barrett and Dannenberg, 2022; Milinksi and Marotzke, 2022)

Mitigation-adaptation.
    Under different damages (Blanco et al., 2020) with pledges (McEvoy, Haller, Blanco, 2022).

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Public Goods (some examples):

Heterogeneous responses to the potential damages that are mediated by their first-order beliefs of others' mitigation efforts:

Blanco, Haller, Walker *Exp. Econ.* 2017

Threshold uncertainty is a harsh barrier to mitigating collective damages:

Barrett and Dannenberg *PNAS* 2012

Table 4 Mixed effects GLS for investments in adaptation

Dependent variable	(1) Model 3 a_t	(2) Model 4 a_t	(3) Model 5 a_t
mi	-0.434*** (0.000)	-0.368*** (0.000)	-0.367*** (0.000)
symL		0.591 (0.188)	0.596 (0.181)
symL*mi		-0.143* (0.054)	-0.143* (0.054)
asym		0.149 (0.716)	
asym*mi		-0.0517 (0.424)	
$asymD_L$			-0.134 (0.766)
$asymD_L$*mi			-0.0727 (0.338)
$asymD_H$			0.489 (0.282)
$asymD_H$*mi			-0.0506 (0.461)
Constant	3.210*** (0.000)	2.939*** (0.000)	3.048*** (0.000)
Controls		Yes	
N		1584	
Nr. of individuals		176	
Nr. of groups		44	

Adaptation investments increase as mitigation falls regardless of the group makeup:

Blanco, Duthcer, **Haller**, *JEBO* 2020

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Governance of local natural resources (overview):

Early experiments on communication, monitoring and sanctioning (Ostrom, Walker, Gardner *Am. Pol. Scie. Rev.* 1992, "Rules, games and CPR" 1994),

Coalition formation as endogenous institutions (cooperative game theory; Kosfeld et al. 2009, McEvoy 2012; Schmidt and Ockenfels *PNAS* 2020),

Payments for ecosystem services:
> As subsidies (Vollan, 2008; Travers et al., 2011; Narloch et al., 2012; Handberg and Angelsen, 2015; Midler et al., 2015; Alpízar et al., 2017; Kaczan et al., 2017; Salk et al., 2017; Gatiso et al., 2018; Moros et al., 2019; Rodriguez et al., 2019),
> Endogenous donations (Blanco, Haller, Walker, 2018; Blanco, Struwe, Walker, 2021; Struwe, Blanco, Walker, 2022).

Field experimental evidence on governance and social preferences
> Impacts of conservation policies on social preferences (e.g. Basurto et al. 2016, Blanco et al. 2023),
> Relevance of leaders in conservation outcomes (e.g. Gutiérrez, Hilborn, and Defeo 2011; Beekman, Bulte, and Nillesen 2014; Kosfeld and Rustagi 2015; Jack and Recalde 2015; Vollan et al. 2020) .

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Governance of local natural resources (some examples, in focus):

Marine protected areas increase the coexistence of pro-social y anti-social behavior:

Basurto, **Blanco** et al *Science Advances* 2016

Traditional authorities and democratically elected leaders for management of natural resources do not differ in leadership attributes:

Vollan, **Blanco** et al *Science Advances* 2020

No *crowding-out* when terminating part of participants in payments for ecosystem services:

Blanco, Moros et al *JEEM* 2023

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Governance of local natural resources: Basurto, Blanco et al. 2026

Relevance: How do policies affect the ability of rural communities to develop collective action to address their common interest challenges?

Research question: How does natural resource protection affect pro-social and anti-social preferences at the local level?

Contribution: We identify a higher prevalence of "hyper-competitive cooperators" in marine protected areas (MPAs) than in unprotected areas.

Experiments on Green Behavior

Governance of local natural resources: Basurto, Blanco et al. 2016

Economic experiments: Public goods, "joy-of-destruction" (n=127).

Post-experimental surveys: Demographic characteristics, social norms, opinion of institutions, opinion of local authorities, opinion of social organizations (n=127).

Surveys of fishermen in Baja California: Opinion of the effects of institutions on fishing and catches, collective work capacity (n=544).

Semi-structured interviews: Fishing leaders, government officials, NGOs, implementation of institutions (n=77).
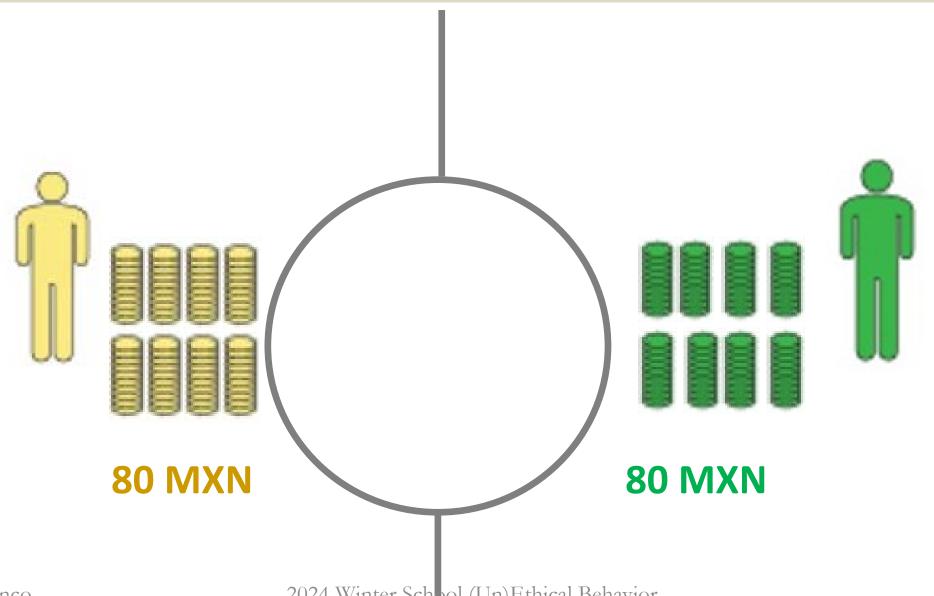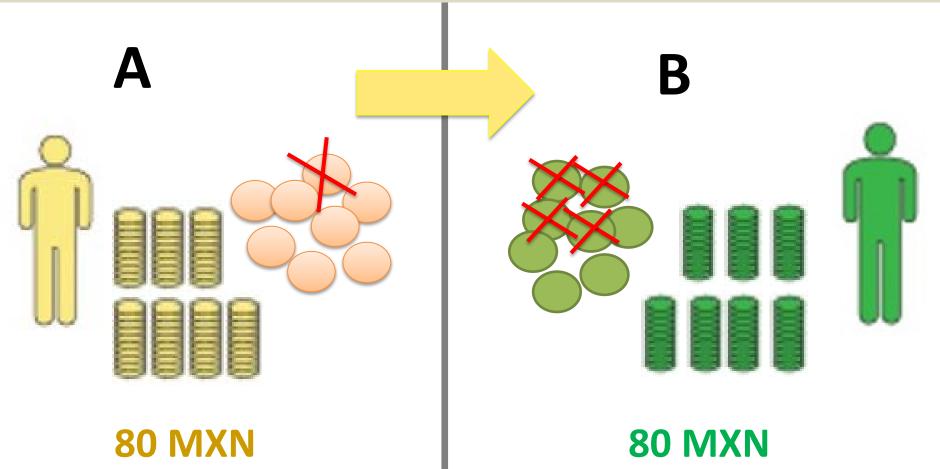
Ethnographic work in Baja California.

Standardized survey n = 544

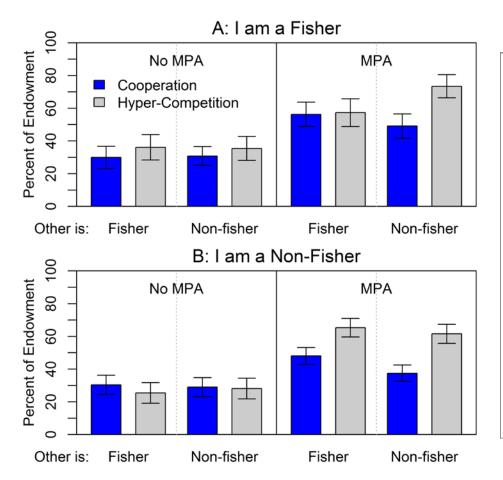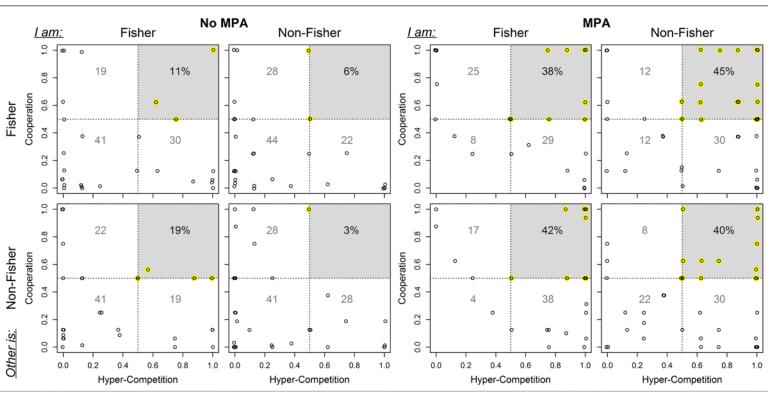Economic experiments = 127

Joy-of-destruction game

8 out of 80 pesos can be used to reduce the other player's income.

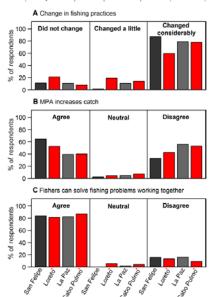**With every Peso Player A uses to reduce Player B's income, player B loses 4 Pesos.**

A

B

80 MXN

80 MXN

Result 1: More cooperation and joy-of-destruction in MPA communities.

Result 2: "Hyper-competitive cooperators" at the individual level are more common in MPA communities.

Variable	MPA	No-MPA	T-test (t-value)	Fisher exact test (p-value)
Contfish	.54	.29	**-4.1929**	n.a.
Spitefish	.44	.31	**-2.1871**	n.a.
Contcit	.66	.33	**-4.8957**	n.a.
Spitecit	.64	.31	**-5.1508**	n.a.
Age	39.44	40.78	0.5228	n.a.
Locality	29.58	32.98	1.0961	n.a.
Conflict	.19	.14	-0.5671	n.a.
Closefam	1.73	1.74	-0.5671	n.a.
Edu	1.6	1.65	0.3083	n.a.
Fisher	.37	.48	n.a.	0.282
Gender	.27	.32	n.a.	0.567
Winning2	.48	.29	n.a.	**0.030**
Society2	.48	.52	n.a.	0.728
Thinkact2	.05	.09	n.a.	0.493
Coopmember	.24	.31	n.a.	0.433
W.Cooperation2	.33	.33	n.a.	0.570

Checking for selection bias of sites: The MPA sites under study were selected based on the ecological relevance of the sites (in-depth interviews) and there are no differences in observable characteristics of subjects between MPA and non-MPA sites (except taste for winning; post-experimental surveys).

Checking for external validity: The stated cooperation, support for MPAs, etc. in the MPAs that we study is similar to that of other MPAs (fishers' surveys).

Discussion putting all the pieces together: Social processes associated to the MPAs modify social preferences in unexpected directions.

Experiments on Green Behavior

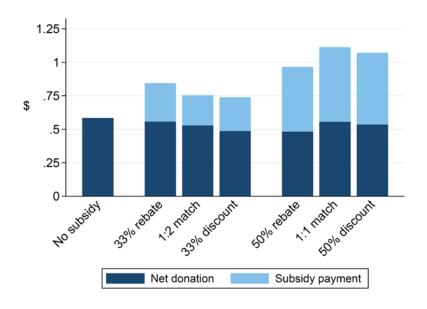**Charitable giving (overview)**:

Dictator to charity donations for green organizations (see review Epperson and Reif, *J Econ Surv* 2019),

Related to payments for ecosystem services (Blanco, Haller, Walker, 2018; Blanco, Struwe, Walker, 2021; Struwe, Blanco, Walker, 2022; Blanco et al. *JEEM* 2023),

In menu choices, eliciting alternative social priorities (e.g. Blanco, Baier, Holzmeister, Jaber-Lopez, Struwe, 2021, 2022).

As related to consumer behavior in green markets (e.g. Bartlind and Özdemir, *Games and Econ. Beh.* 2023)
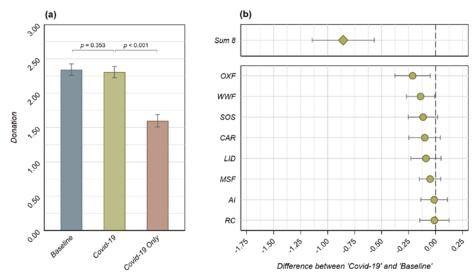
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Donations (examples):

Designing the ask and incentivizing donations:

Epperson, Diederich, Goeschl, Forthcoming, *Manag. Sci.*

Diederich, Eckel, **Epperson**, Goeschl, Grossman, *Exp Econ* 2022.

Social sustainability concerns and the Covid-19 pandemic:

Blanco, Baier, Holzmeister, Jaber-Lopez, **Struwe**, 2022, *Ecol.Econ.*

Blanco, Baier, Holzmeister, Jaber-Lopez, **Struwe**, 2021, *Front. Psychol.*

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RCTs to enhance pro-environmental behavior (overview):

Electricity consumption (e.g., Allcott, 2011; Ayres et al., 2013; Allcott and Rogers, 2014),

Water consumption (e.g., Ferraro et al., 2011),

Use of hot water (e.g. Tiefenbeck et al., 2018, 2019),

Uptake of green energy (e.g. Ebeling and Lotz, 2015),

Dietary choices (e.g. Loy et al., 2016; Lohmann et al., 2022),

Spill-over effects of interventions (Carlsson et al. 2021; Jessoe et al. 2021; Fang et al. 2023),

Cooperation for the climate (ongoing project in high schools).

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RCTs on lifestyles (examples):

Direct feed-back during showers:

Tiefenbeck et al. *Manage. Scie.* 2018

Tiefenbeck et al. *Nat. Energy* 2019

Carbon labels and climatarian diets:

Lohman, Gsottbauer, Doherty, Kontoleon, *JEEM* 2022

Cooperation 4 Climate
Blanco, Glätzle-Rützler, Calsamiglia

Webpage coming up soon!

Experiments on Green Behavior
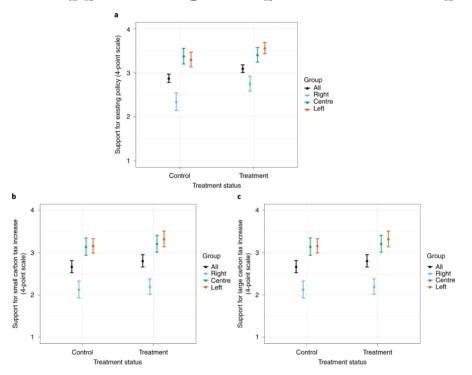
Support for green policies (overview):

Novel alternative to individual mitigation, focusing on individual support for more stringent environmental regulation,

Output measures: Real life signature of a petition, sending friend or relatives the recommendation to sign a petition, self-reported variables on support, willingness-to-pay.

Several ongoing projects (e.g. Tarduno WP 2020; Dechezlepretre et al. WP 2023; Woerner et al. WP 2023, etc),

Few studies published with increasing ambition (e.g. Carattini et al. *ERE* 2017; Baranzini and Carattini *Env. Econ. and Policy Studies* 2017; Mildenberger et al. *Nat. Clim. Change* 2022, Vlasceanu et al. *Science Advances* 2024)
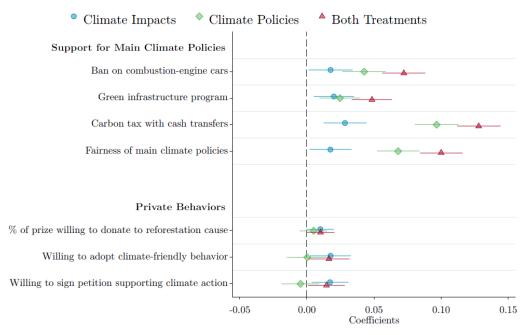
Experiments on Green Behavior

Support for green policies (examples):

Figure 14: Effects of the treatments on support for climate action

Exposure to information about true climate rebate amount in Switzerland increased support for the existing policy (a) but not support for either small (b) or large (c) future carbon tax increases.
Mildenberger et al. *Nat. Clim. Change* 2022

Explaining climate policies increases support, survey with more than 40.000 respondents from 28 countries
Dechezlepretre et al. *WP* 2023

In focus: Experiments on green markets

Experiments on Green Markets (overview)

A stream of the ethics in markets literature addresses whether market exchange reduces pro-social behavior in social dilemmas.

> Exogenous quality and known to customers before trade (e.g. Rhode et al 2008),
>
> Increasing competitive pressure, limited info, costless and costly info acquisition (e.g. Bartling et al 2015),
>
> Negative externalities on one subject vs. diffused on several (e.g. Bartling et al 2019),
>
> Others (e.g. Pigors and Rochenback *EER* 2016, Ockenfels et al. *Nat. Sust.* 2020, Fernandez Valente 2021).

Labels as a mechanism to inform consumers in markets, comparing:

> Label to no info to reputation, experience goods (e.g. Cason, Friesen, and Gangadharan 2002),
>
> Label to active choice to get info, to full info, and to no info (e.g. Pigors and Rockenback *Manag. Sci.* 2016),
>
> Costless label to costly label, to full info, to no info (e.g. Wenner and Rockenbach 2017),
>
> Label to self-claim with monitoring, to reputation, to no info (e.g. Etile and Teyssier 2016).

Labels credence good experiment (Blanco, Holzmeister, Kerschbamer, Walzl, *mimeo*):

> We consider the use of labels <u>in combination </u>with self-claims on quality, monitoring, reputation, and competition.

Experiments on Green Markets (some examples)

Ethics in markets literature. Rhode et al (2008):

Are consumers willing to pay a price premium for an ethically produced good?

Ethical production takes the form of a donation to an NGO (child labor).

Product quality is exogenous and known to customers before trade.

"Ethical differentiation—extra cost known": Benchmark with common information.

"Ethical differentiation—extra cost unknown": Setting of interest, closer to real-life.

Results: producers price products with higher costs at a premium and many consumers accept to pay this premium when it is linked to ethics (even if costs unknown).
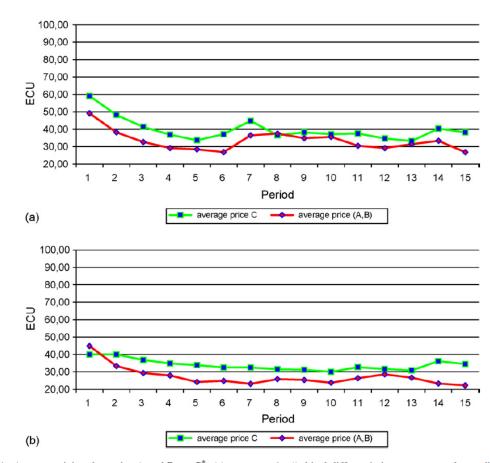

Fig. 1. Average pricing dynamics A and B vs. C*: (a) treatment 1—"ethical differentiation—extra cost known" and treatment 2—"ethical differentiation—extra cost unknown".
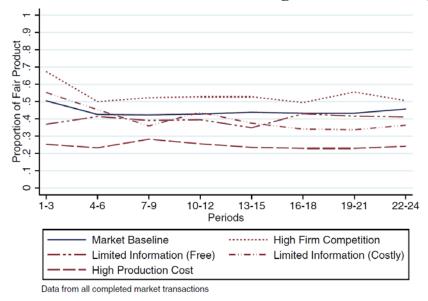
Experiments on Green Markets

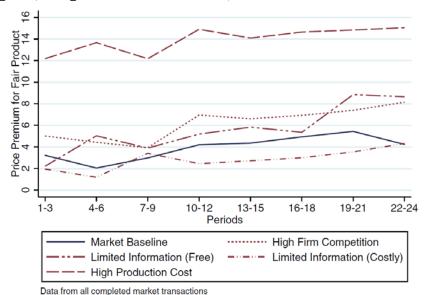**Ethics in markets literature. Bartling et al (QJE, 2015):**

"Limited information conditions" in which the good has the flavor of a label credence good. Consumers initially have no information on qualities but can become informed, either at no cost or at a small cost

Socially inefficient "unfair" production, generating externality to a third-party (passive) player. Efficient exchange of the "fair" product, generating positive net surplus.

Varying competition: Markets with 6 or 8 producers and 5 consumers.

24 rounds of the market game in fixed groups (16-person markets) and roles.

Experiments on Green Markets

Ethics in markets literature. Pigors and Rockenback (*EER* 2016)

Does firms' (dis-)honesty towards third parties (framed as employees) affect consumers' purchasing decisions?

Quality has no efficiency consequences.

Table 1
Information conditions in the experimental treatments.[a]

	Consumers receive information on …				Consumers can infer managers' honesty
	S	workers' guesses	managers' information	workers' wages	
Full Info	yes	yes	yes	yes	yes
Wage Info	yes	no	yes	yes	no
No Info	yes	no	no	no	no

Table 3
Managers' likelihood of being honest.

Worker guesses wrong × Wage Info	−1.349 (0.892)
Worker guesses wrong × Full Info	−1.576** (0.756)
Worker guesses right × No Info	−5.226*** (0.777)
Worker guesses right × Wage Info	−3.789*** (0.683)
Worker guesses right × Full Info	−3.446*** (0.827)
Period	−0.010 (0.008)
n	1800
groups	30
log l	−679.65
chi²	263.25

Note: Conditional (fixed-effects) logistic regression, standard errors in parentheses, clustered by Group: *p < 0.1,**p < 0.05,***p < 0.01. Dependent variable: Honest.
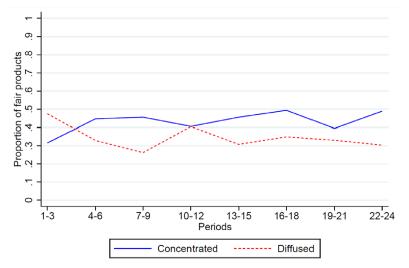
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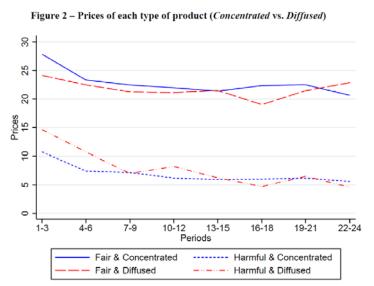
Ethics in markets literature.

Bartling et al (*Exp. Econ.* 2019):

Does it matter in experimental markets who is the recipient of the externality?
Explore the relevance of the BWY paradigm: concentrated negative externality on a single third-party player
Single third-party vs. 6 third parities (equal aggregate damage) vs. single-fixed third party.
"Replicate earlier results demonstrating substantial degrees of market social responsibility and (ii) find that the willingness of market actors to act pro-socially is only slightly affected by whether the impacts are concentrated or diffused."

Figure 2 – Prices of each type of product (*Concentrated vs. Diffused*)

Data are aggregated in three-period blocks to smooth random variation across periods.
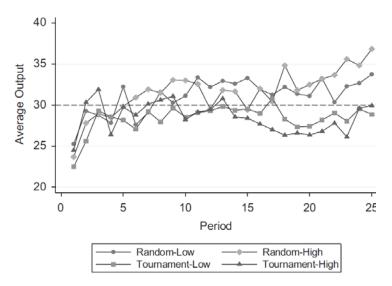
Experiments on Green Markets

Labels inform consumers. Cason, Friesen, and Gangadharan (2002):

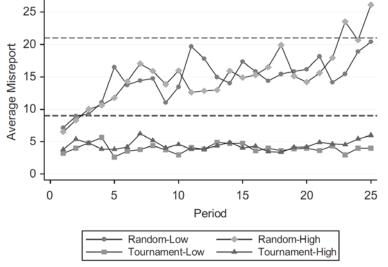Impact of unverifiable quality claims, third-party certification, and reputation.
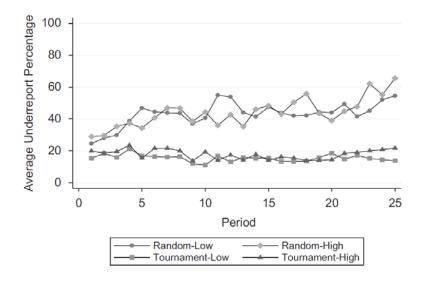
Preferences for quality are not induced via an externality (homegrown values approach) but rather directly implemented in the payoff function (induced values approach).

Product quality is revealed to customers at the end of each market period (experience good).

25 periods of repeated decision in fixed groups of 5 (only firms).

Experiments on Green Markets

Labels inform consumers. Pigors and Rockenback (*Manag. Sci.* 2016).

The good is a label credence good in some of their information conditions, it is a standard good in others.

Quality has no efficiency consequences (wages to an "employee").

Quality is (almost) continuous.

Baseline: Wage is private info.

Full info: Consumers know wages.

Choice: consumer can become informed at no cost.
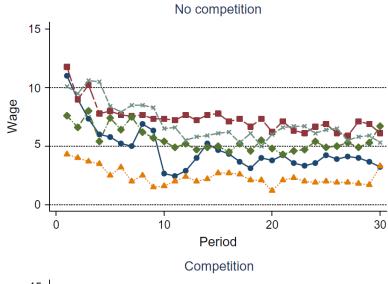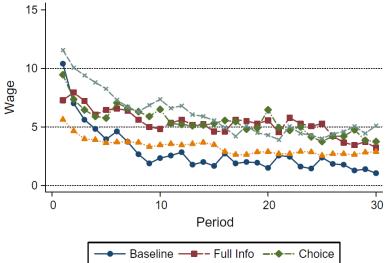
Label: Guarantees minimum wage.

Face: Employee signals satisfaction with wage.

"However, when suppliers compete, consumers take SR in production as a decision criterion, whenever the price premium for SR is not too high. Accordingly, in competitive settings, SR production is no longer detrimental for the producer."

Figure 2   (Color online) Average Wages per Treatment

Experiments on Green Markets

Labels inform consumers. Etile and Teyssier (2016).

Positive externality from production of high quality – donation to an NGO.

Label for free – some treatments guarantees quality in some others it does not.

TP: "This product has the label" (donation done for sure) vs. "This product does not have the label".

C: "Has the label but the production cost is lower than 25 ECUs". (might or might now do donation + monitoring)

B: Reputation treatment

Fig. 1. Market shares of labeled goods
Notes: The market share of labeled goods is the sum of the labeled units of products purchased by buyers divided by the total number of units of the good purchased.

Label Credence Goods Exp – In a nutshell

Objective: Provide a comprehensive analysis of markets for label credence goods, under varied institutional arrangements.

Method: Theory and **experimental evidence** in 16 treatment conditions (1326 participants).

Contribution: First **systematic experimental test** of the determinants of market outcomes (fraud, high quality production and efficiency) in label credence goods.

Results: Increases in social welfare from monitoring (reduces fraud and increases high quality), reputation building (decreases fraud), and from verification (only weakly positive effects); Decreases in social welfare from competition (reduces high quality production).

Producers' (uncertified) claims

global sustainability reporting rates since 1993: N100 and G250

The KPMG Survey of Sustainability Reporting 2020
https://home.kpmg/sustainabilityreporting.html

Consumers' trust on uncertified claims

Trust in producers' claims about the environmental performance of their own products

■ Trust completely   ■ Rather trust   ■ Rather not trust   ■ Not trust at all   ▫ DK/NA

Q10. How much do you trust producers' claims about the environmental performance of their own products?
Base: all respondents, % by country

Flash Euro Barometer No 256

Monitoring of fraud

theguardian

News | Sport | Comment | Culture | Business | Money | Life & style

Environment > Corporate social responsibility

Shell rapped by ASA for 'greenwash' advert

Oil company's claim that its work in Alberta's tar sands was 'sustainable' is branded 'misleading' by Advertising Standards Authority

John Vidal
theguardian.com, Wednesday 13 August 2008 00.01 BST

We invest today's profits in tomorrow's solutions

The challenge of the 21st century is to meet the growing need for energy in ways that are not only profitable but sustainable. As our 2007 results show, we're investing heavily in new technology and assets to safeguard the interests of our shareholders and future generations. In Canada we're harnessing our global network of technical and financial expertise to unlock the potential of the vast Canadian oil sands deposit. In the USA we're helping to build what will be the nation's largest refinery. And we're exploring a new generation of biofuels made from non-food sources. Difficult, yes. Impossible, no.

For more details on our 2007 results: www.shell.com/investor

Before and after? A forest in northern Alberta staked out by tar sands prospectors and the Suncor Millennium tar sands site.
March 2009 issue of National Geographic

Reputation

Bad reputation can make potential costumers dislike firms:

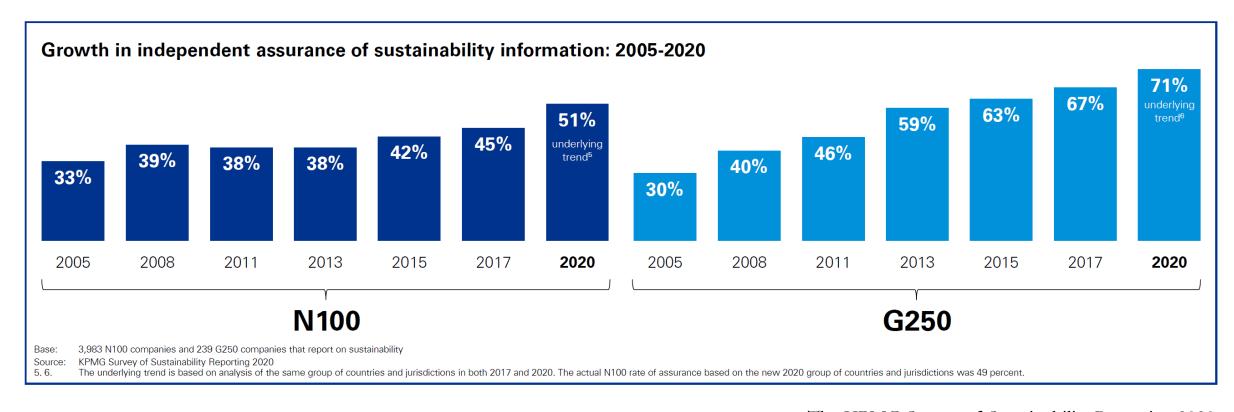*"My soul cannot stand being here today being nice to someone [Shell's CEO] that makes me have this visceral reaction"*
Lauren McDonald (Climate Justice Activist)

Third-party vertification

Growth in independent assurance of sustainability information: 2005-2020

N100: 33% (2005), 39% (2008), 38% (2011), 38% (2013), 42% (2015), 45% (2017), 51% (2020) underlying trend[5]

G250: 30% (2005), 40% (2008), 46% (2011), 59% (2013), 63% (2015), 67% (2017), 71% (2020) underlying trend[6]

N100   **G250**

Base: 3,983 N100 companies and 239 G250 companies that report on sustainability
Source: KPMG Survey of Sustainability Reporting 2020
5. 6.   The underlying trend is based on analysis of the same group of countries and jurisdictions in both 2017 and 2020. The actual N100 rate of assurance based on the new 2020 group of countries and jurisdictions was 49 percent.

The KPMG Survey of Sustainability Reporting 2020
https://home.kpmg/sustainabilityreporting.html

Label Credence Goods – Experimental Design

Repeated game for 24 rounds.

Random allocation to rolls, fixed throughout the game, fixed market composition.

Between-subjects design, 16 treatment conditions, 1329 subjects, 8-9 markets per treatment.

Market size of 3 without competition (1 producer, 1 consumer, 1 third-party) and 12 with competition (4 producers, 4 consumers, 4 third-parties).

Information screens:

    Consumers never get any information about the production technology of a producer.

    With reputation, subject ID for firm(s)' offers.

    With monitoring:

        if reputation, ID for monitored firms and fraud detected,

        if no reputation, number of producers monitored and fraud detected in matching group of 12.

    Third party only informed about own payoffs.

Experimental Design

Treatment	Treatment Variables				Number of Observations		
	Rep.	Comp.	Ver.	Mon.	Sessions	Markets	Subjects
$R_0 C_0 V_0 M_0$	✗	✗	✗	✗	3	8	96
$R_0 C_0 V_0 M_1$	✗	✗	✗	✓	3	9	108
$R_0 C_0 V_1 M_0$	✗	✗	✓	✗	3	9	108
$R_0 C_0 V_1 M_1$	✗	✗	✓	✓	3	9	108
$R_0 C_1 V_0 M_0$	✗	✓	✗	✗	4	9	108
$R_0 C_1 V_0 M_1$	✗	✓	✗	✓	3	9	108
$R_0 C_1 V_1 M_0$	✗	✓	✓	✗	4	8	96
$R_0 C_1 V_1 M_1$	✗	✓	✓	✓	3	8	96
$R_1 C_0 V_0 M_0$	✓	✗	✗	✗	1	8	24
$R_1 C_0 V_0 M_1$	✓	✗	✗	✓	1	9	27
$R_1 C_0 V_1 M_0$	✓	✗	✓	✗	1	9	27
$R_1 C_0 V_1 M_1$	✓	✗	✓	✓	1	9	27
$R_1 C_1 V_0 M_0$	✓	✓	✗	✗	3	8	96
$R_1 C_1 V_0 M_1$	✓	✓	✗	✓	3	8	96
$R_1 C_1 V_1 M_0$	✓	✓	✓	✗	3	8	96
$R_1 C_1 V_1 M_1$	✓	✓	✓	✓	4	9	108

Notes: ✓ indicates "yes" and ✗ indicates "no". Treatments with reputation but without competition (i.e., $R_1 C_0 V_0 M_0$, $R_1 C_0 V_0 M_1$, $R_1 C_0 V_1 M_0$, and $R_1 C_0 V_1 M_1$) imply a fixed group matching such that each market consists of only three subjects. The market size in all other treatments is 12, i.e., four sellers, four buyers, and four observers.

Experimental Design

Parameterization:

    Outside option: 100

    Consumption utility: 50

    Prices, p=1, ..., 50

    Unit costs, g=20, b=0; c=10 for verification

    Externality h=60

    Monitoring probability of 50% for a penalty f=20

    Types not imposed, people bring their preferences on third-party harm to the game.

75 minutes average sessions, paid one of the 24 rounds, 29€ average payments

Statistical analysis

Main Results:
      Testing main Hypotheses
      Presence/absence of a given institutional condition
      Pooled data for 8 treatments

Secondary Results:
      Testing secondary Hypotheses
      Disaggregated data for a given institutional condition conditional on the presence/absence of a second one
      Pooled data for 4 treatments

Additional results (in the manuscript)

      Two-way interaction effects

      Difference-in-difference effects of whether the secondary results differ between the different institutional conditions

Statistical analysis

Main market outcome variables

     Share of fraudulent products traded

     Share of truthful green products traded (verified or not)

     Market efficiency: index considering per-period social welfare as compared to the min and max social welfare.

Additional variables

     Price premia

     WTP gaps

Econometric strategy:

     All estimates from multi-level linear probability models with random intercepts on the subject and market level (adjusted for time trend).
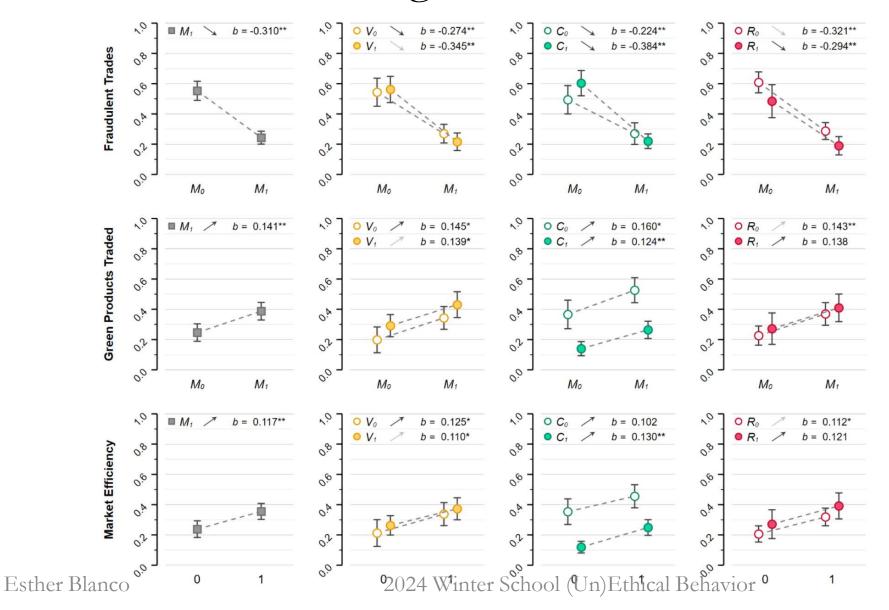
     Linear models to ease the interpretation of effects (all results robust in multi-level logit models with random intercepts).

Summary results (1): Main results

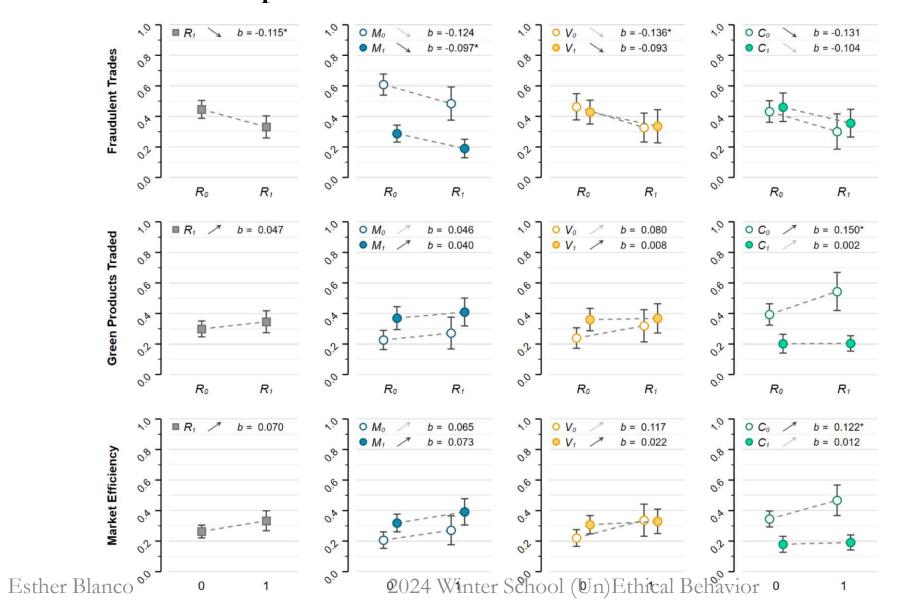|		Monitoring	Reputation	Verification	Competition
Share of fraud	Theory	–	–	–	0
	Lab	–	–	0	0
	Consistent	**YES**	**YES**	NO	**YES**
Share of true green	Theory	+	+	+	0
	Lab	+	0	+	–
	Consistent	**YES**	NO	**YES**	NO
Market Efficiency	Theory	+	+	+	0
	Lab	+	0	0	–
	Consistent	**YES**	NO	NO	NO

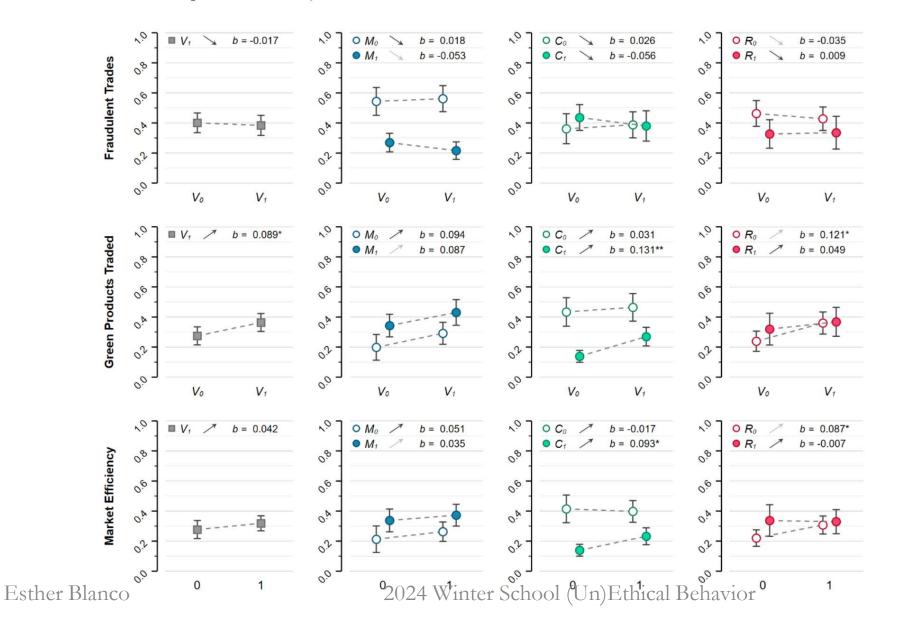# Results – Monitoring

Results – Monitoring

Results – Reputation

Results – Reputation

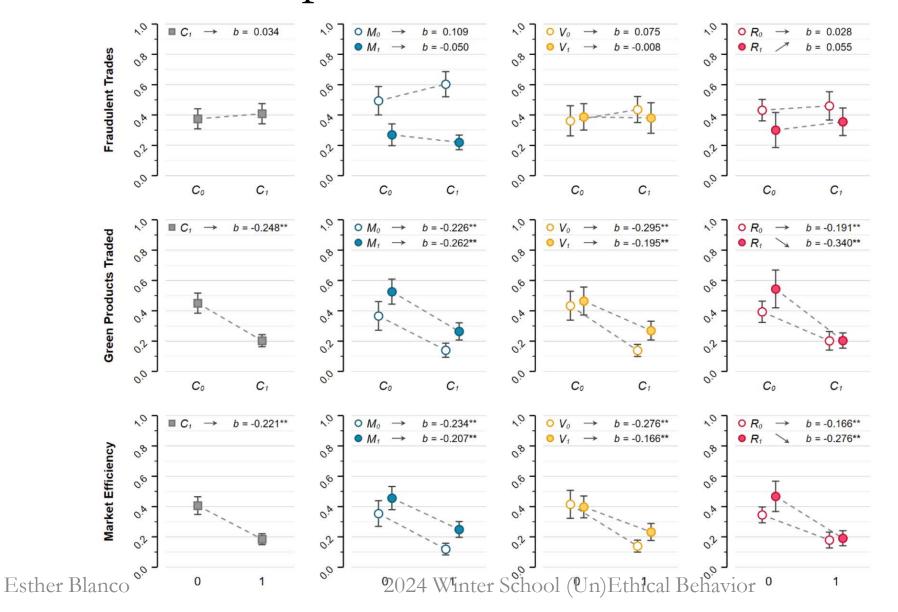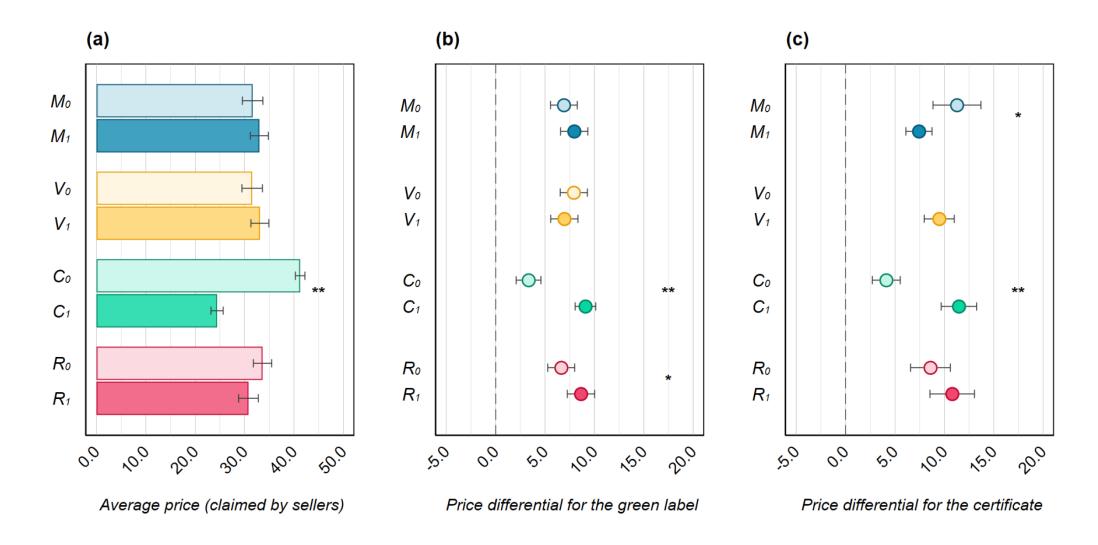# Results – Verification

Results – Verification

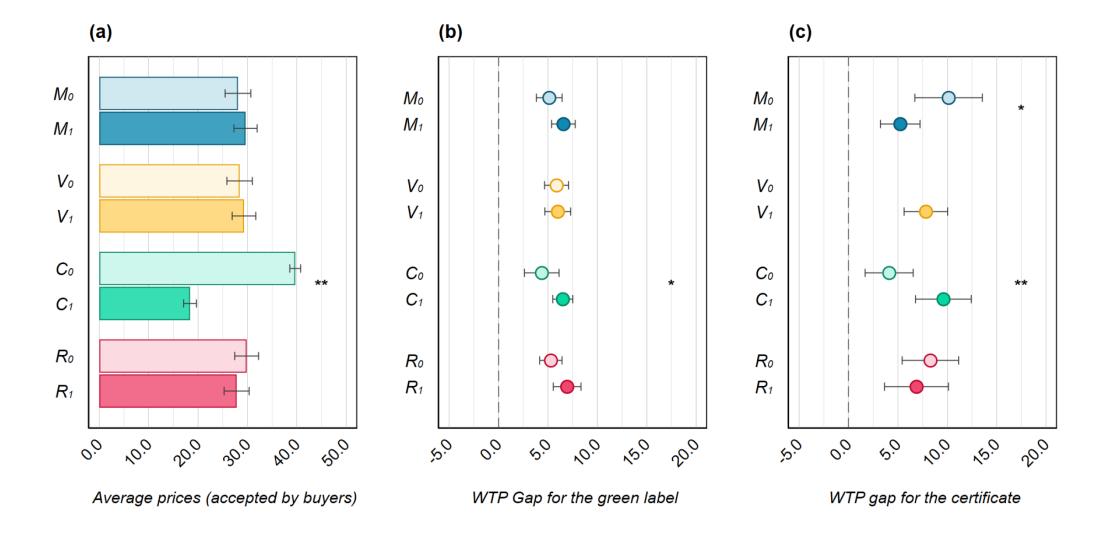# Results – Competition

Results – Competition

Summary results (2): Main and secondary results

		Monitoring	Reputation	Verification	Competition
Share of fraud	Theory	−	−	−	0 + with R_1
	Lab	−	− 0 with M_0, V_1	0	0
	Consistent	**YES**	Partially	NO	Partially
Share of true green	Theory	+	+	+	0 − with R_1
	Lab	+	0 + with C_0	+ 0 with C_0, R_1	−
	Consistent	**YES**	Partially	Partially	Partially
Market Efficiency	Theory	+	+	+	0 − with R_1
	Lab	+ 0 with C_0 and R_1	0 + in C_0	0 + with C_0, R_1	−
	Consistent	Partially	Partially	Partially	Partially

Price premia

WTP by consumers

Summary results (3): The take-home message

Experimental results support that:

    The effects of reputation building are moderate and depend on competition,

    The effects of verification are rather small and depend on reputation and competition,

    Competition cuts prices substantially and impairs market outcomes,

    Monitoring is an efficient means to improve market outcomes.

A final note

Green behavior is often embedded in social dilemmas.

Experimental games often do not distinguish in the strategic interaction between different forms of social dilemmas.

  A game is equally fitting to green- or other forms of pro-social behavior generating externalities.

Some games, however, have elements that make them distinctively for green behavior:

  Frame, subject-pool, institutions, real-life behavior, real-life externalities.

Future research needed on improving the external validity, generalizability (and replicability):

  Mutli-method studies to put different pieces of a puzzle together.

  Measuring real-life behavior.

(Experiments on) Green Behavior

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