

Are the Effects of Real Incentives in Stated Choice Experiments Context Dependent? A Comparison of Choice Behavior in Online and Field Environments

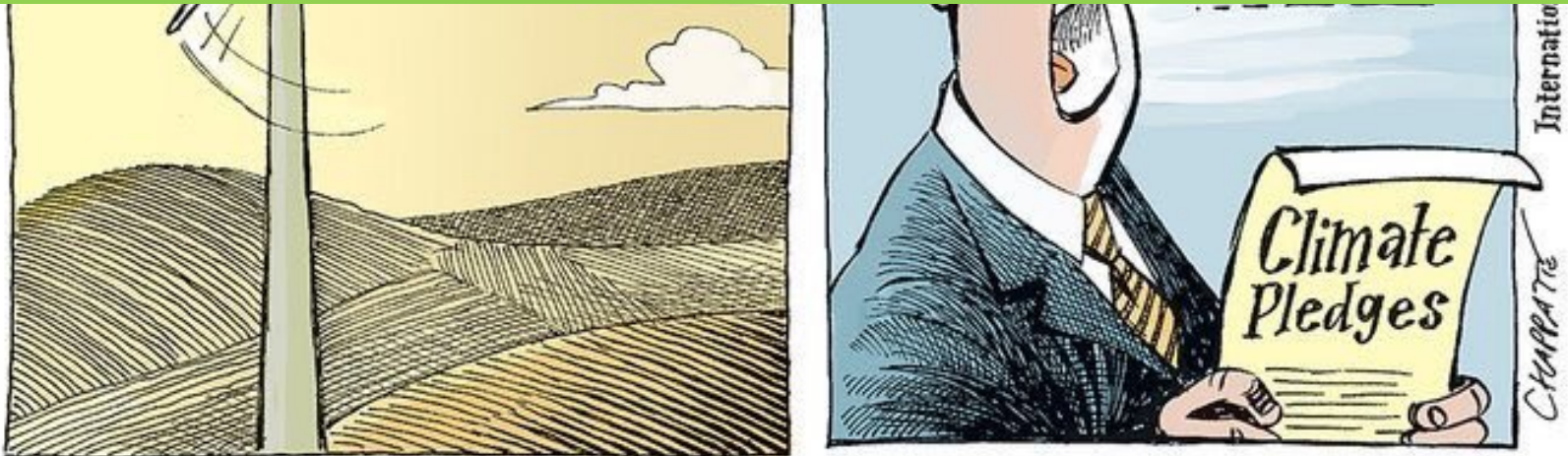
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Motivation I

WIND TURBINES:

The divergence between hypothetically stated and actually revealed (marginal) willingness to pay



Motivation II

- Potential explanations: lack of consequentiality, incentive compatibility, budget constraint considerations, strategic misrepresentation etc.
- Another potential explanation: socially desirable response behavior

So what?

Our Approach

- Comparing a hypothetical and real choice experiment conducted online
 - Comparing a hypothetical and real choice experiment conducted in a field setting
 - Comparing the hypothetical bias in online experiments and field settings
- ... Does the social (research) context matter?

Theory and Hypotheses I

Based on, extending and modifying the theoretical considerations presented in: Mørkbak, MR, Olsen, SB & Campbell, D 2014, 'Behavioral implications of providing real incentives in stated choice experiments' *Journal of Economic Psychology*, 45, pp. 102-116. ; also Akerlof & Kranton, Cialdini & Goldstein, Kuran

– **Self-image/social-approval hypothesis**

- a) MWTP is higher in the field setting compared with the online setting.*
- b) The hypothetical bias is higher in the field setting compared with the online setting.*

Theory and Hypotheses II

– **Collective-good hypothesis**

- a) The hypothetical bias is larger for collective good attributes compared with (rather) private good attributes.*
- b) The collective-good effect is larger in the field setting compared with the online setting.*

Theory and Hypotheses III

– Opt-out hypothesis

- a) *The frequency of no-buy choices is higher in the real choice experiment than in the hypothetical one.*
- b) *The frequency of no-buy choices is higher in the online setting compared with the field setting.*

Choice Experiment

Fig. 1 Example of a choice set

	Tea A (10g)	Tea B (10g)	
Organic	Yes	Yes	
Fair trade	Yes	No	
Price	1.19€	0.49€	
Which tea would you buy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> None of these

- Two generic alternatives (Tea A, Tea B) and a no-buy alternative (“none of these”)
- Three attributes: organic (attribute levels: no, yes); fair trade (attribute levels: no, yes); price (attribute levels: €0.49, €0.69, €0.99, €1.19)
- Efficient design with local (fixed) priors based on a pre-test; 8 choice sets per respondent

Data I

- **Online setting:** web survey; professional survey organization; between January/February 2012; access panel; respondents who were 18 years and older and who drink tea at least once a week
- **Field setting:** paper-and-pencil; two supermarkets; November 2013, February 2014; respondents who were 18 years and older and who drink tea at least once a week
- Random assignment to the hypothetical or non-hypothetical choice experiment; endowment of 2 euro

Data II

– Propensity score matching

Variable	Mean		%bias	t-test	
	Treated	Control		t	p> t
Field	1	0	.	.	.
Women	.58919	.56216	5.4	0.52	0.600
Age in years	.4973	.48649	2.2	0.21	0.836
Education (1=higher)	.61622	.61622	0.0	0.00	1.000

Results: Self-image hypothesis I

– Marginal WTP

	Online Experiment			Field Setting	
	Hyp. (n=103)	Real (n=82)		Hyp. (n=107)	Real (n=78)
Organic	0.37 0.25/0.50	0.34 0.23/0.49	<	0.87 0.61/1.25	0.56 0.29/0.91
Fair Trade	0.54 0.42/0.69	0.38 0.26/0.52	<	0.87 0.62/1.27	1.01 0.71/1.53

a) *MWTP is higher in the field setting compared with the online setting. (+)*

Results: Self-image hypothesis II

– Hypothetical bias

	Online Experiment			Field Setting			
	Hyp. (n=103)	Real (n=82)		Hyp. (n=107)	Real (n=78)		
Organic	0.37 0.25/0.50	1.09	0.34 0.23/0.49	<	0.87 0.61/1.25	1.55	0.56 0.29/0.91
Fair Trade	0.54 0.42/0.69	1.42	0.38 0.26/0.52	>	0.87 0.62/1.27	0.86	1.01 0.71/1.53

b) The hypothetical bias is higher in the field setting compared with the online setting. (+/-)

Results: Collective-good hypothesis

– Hypothetical bias

	Online Experiment		Field Setting			
	Hyp. (n=103)	Real (n=82)	Hyp. (n=107)	Real (n=78)		
Organic	0.37 0.25/0.50	1.09 <	0.34 0.23/0.49	0.87 0.61/1.25	1.55 >	0.56 0.29/0.91
Fair Trade	0.54 0.42/0.69	1.42	0.38 0.26/0.52	0.87 0.62/1.27	0.86	1.01 0.71/1.53

- a) *The hypothetical bias is larger for collective good attributes compared with (rather) private good attributes. (+/-)*
- b) *The collective-good effect is larger in the field setting compared with the online setting. (0)*

Results: Opt-out hypothesis

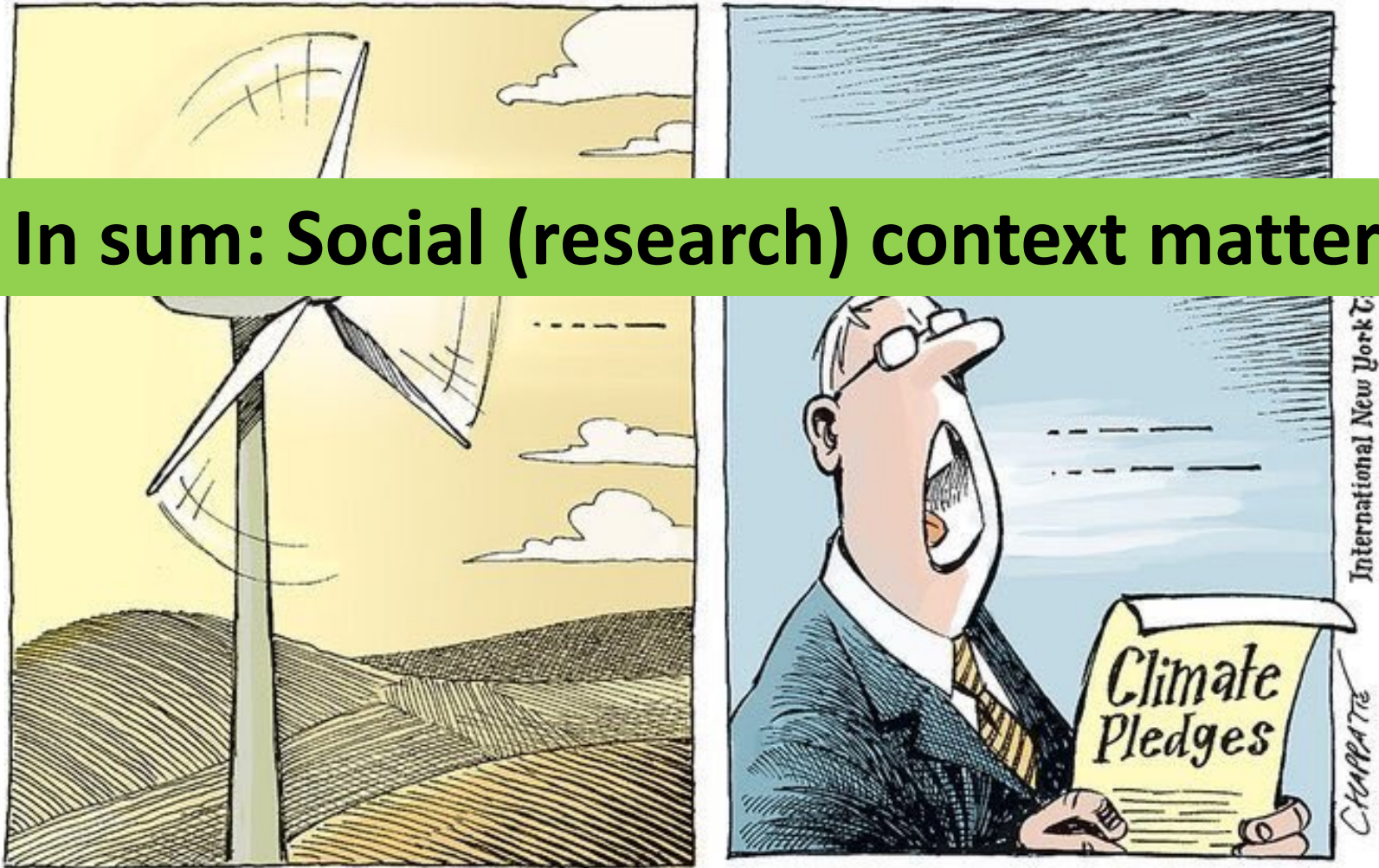
– No-buy choices

	Online Experiment		Field Setting	
	Hyp. (n=103)	Real (n=82)	Hyp. (n=107)	Real (n=78)
Sum of NB choices (0/8)	1.42 (2.06)	2.55 (2.84)	1.76 (2.15)	2.03 (2.34)
At least one NB choice (0/1)	0.48	0.64	0.59	0.58

- a) *The frequency of no-buy choices is higher in the real choice experiment than in the hypothetical one. (+)*
- b) *The frequency of no-buy choices is higher in the online setting compared with the field setting. (0)*

WIND TURBINES:

In sum: Social (research) context matters!



What Next?

- Analysing attribute non-attendance
- Following up first indications of gender differences
- Reflecting on subject-pool effects (access panel vs. convenient sample)
- Investigating in future research whether differences between online and field settings diminish by using different methods to reduce the hypothetical bias

Thank You!