

Supplementary Material

for

Behavioural Spillovers from Green Purchases:

Comparing Consumption and Policy Support

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S.1 Attention check

In the survey following the experiment, participants answered questions regarding the characteristics of the assigned shop and the price of products.

Attention check 1. Which of these products were not offered in the online store? Select all that apply (Deodorant, Dishwashing liquid, Raviolis, Detergent, Yogurt).

	Number of participants	%
Correct answers	1,429	71.99%
Incorrect answers	556	28.01%
Total	1,985	100%

Attention check 2. In the first supermarket there were some green and some conventional products. Green products were on average: (more expensive than conventional products, less expensive than conventional products, the same price as conventional products, I do not remember).

Treatment	Number of participants	Correct answers	% correct answers
Conventional and Green Shops (green and conventional products have the same price)	1,001	565	56.04%
Expensive Green Shop (green products more expensive than conventional)	484	393	81.19%
Cheap Green Shop (green products cheaper than conventional)	500	234	46.80%
Total	1,985	1,192	60,05%

Note that the question was the same independent of the shop. The correct answer differed between treatments as in some shops prices of products were the same (conventional and green shops), and in the others green products were rather cheaper or more expensive.

Interestingly, participants assigned to the expensive green shop remembered green products being more expensive than the conventional alternatives (81.2%), but this ratio dropped almost to half for those assigned to the cheap green store where only 46.8% correctly assessed prices of green products being cheaper. For participants assigned to the shops with no price signals (conventional and original green shop), 56.08% recalled prices for conventional and green products being the same.

S.2 Reliability of Multi-item Constructs

Construct	Standardized estimates	AVE	Cronbach's Alpha
Climate Support		0.618	0.829
I would be willing to sign a petition to support an environmental cause	0.802		
I would be willing to pay more taxes to support greater government control of the sustainability of companies and products	0.898		
I would be willing to pay more each month for electricity if it meant cleaner air	0.889		
Self-concepts Constructs	Standardized estimates	AVE	Cronbach's Alpha
Pro-environmental Identity		0.875	0.955
Acting environmentally friendly is an important part of who I am	0.948		
I am the type of person who acts environmentally friendly	0.964		
I see myself as an environmentally friendly person	0.905		
Doing Enough for the environment		0.759	0.904
I contribute to the protection of the climate and the environment more than most other people	0.895		
I sufficiently contribute to the protection of the climate and the environment	0.917		
In everyday life, I succeed in protecting the climate and the environment”	0.936		

S.3 Sample details

S3.1 Sample size, decisions and demographics across treatments

	Sample size	Green choice (binary)	Mean policy support (1-7)	Female	Mean age	Education	Income
Total participants	1,985			48,8%	35-50 years (.877)	College degree (.728)	\$25,000 to 49,999 (1.462)
Green choice	1,182	611 (51,7%) (.517)		48,7%	3.85 (.885)	2.92 (.725)	4.40 (1.49)
Conventional shop (baseline)	304	138 (45,3%) (.498)		44,7%	3.78 (.823)	2.91 (.656)	4.15 (1.41)
Green shop	291	153 (52,5%) (.500)		51,2%	3.90 (.853)	2.96 (.764)	4.56 (1.56)
Green expensive shop	290	151 (52,0%) (.500)		47,7%	3.86 (.938)	2.91 (.729)	4.45 (1.39)
Green cheap shop	297	169 (56,9%) (.496)		51,5%	3.95 (.950)	2.95 (.722)	4.41 (1.42)
Climate policy support	803		4.74 (1.61)	49,0%	3.83 (.877)	2.92 (.729)	4.40 (1.52)
Conventional shop (baseline)	203		5.05 (1.69)	53,2%	3.73 (.831)	2.90 (.764)	4.52 (1.56)
Green shop	203		4.69 (1.64)	42,5%	3.98 (.898)	2.93 (.714)	4.30 (1.45)
Green expensive shop	194		4.67 (1.55)	53,8%	3.81 (.923)	2.91 (.696)	4.37 (1.52)
Green cheap shop	203		4.55 (1.52)	46,8%	3.79 (.842)	2.94 (.745)	4.41 (1.53)

Below the scale for the different variable measured is provided.

***Age (1-6)**: 1 (Under 18); 2 (18-24); 3 (25-34); 4 (35-50); 5 (51-65); 6 (Over 65)

***Education (1-5)**: What is the highest level of education you have completed?

1 (Less than High School); 2 (High School); 3 (College Degree); 4 (Master's Degree); 5 (Doctoral Degree)

* **Income (1-8):** Which of these describes your personal income last year?

1 (\$0); 2 (\$1 to \$9,999); 3 (\$10,000 to \$24,999); 4 (\$25,000 to 49,999); 5 (\$50,000 to 74,999); 6 (\$75,000 to 99,999); 7 (\$100,000 to 149,999) ; 8 (\$150,000 and greater)

S3.2 Purchase decisions in the first shop (behaviour 1)

To better understand participants' choices after the different shops (treatments), we analyze purchase decisions in the first stage. The table above provides data on the initial shopping decision by treatment. In particular, it compares the total money spent in each shop, the average money spent in green products, the number of products bought on average and the number of green and conventional products bought. On average, participants spending is similar across treatments, so is the number of products they bought. Overall, participants assigned to the green shops, spent more money in green products as they bought more green options than those in the conventional shop. Participants in the expensive green shop bought less green products than in the green shop, while the participants in the green cheap shop bought on average the same number of green products as in the green shop.

Treatment N= 1,985	Number of green products	Mean total spending	Mean spending in green products	Total number of products bought	Average number of green products bought	Average number of conventional products bought
Conventional (507)	3	20.96	5.05	4.62	1.08	3.54
Green (494)	9	21.73	16.37	4.85	3.78	1.07
Green expensive (484)	9	21.30	15.97	4.82	3.41	1.41
Green cheap (500)	9	21.57	16.39	4.91	3.78	0.864

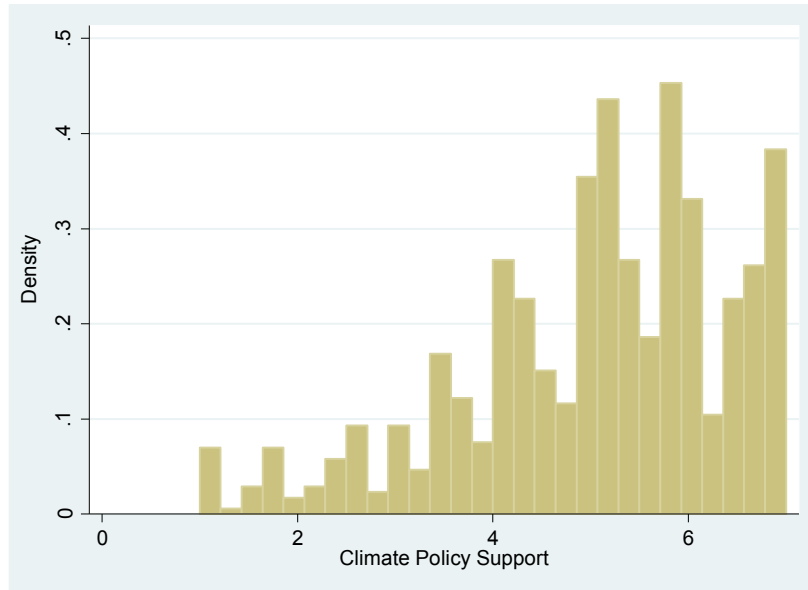
S3.3 Green choice. Participants' choices in the second shop

The table shows the distribution of choice across the 5 available options. Participants had \$5 dollars, could choose only one product and kept the remaining money.

Choice second shop (price)	Participants (1,182)
Green light bulb (\$2.45)	611
Conventional light bulbs (\$1.27)	416
Irrelevant more expensive products	(155)
Light switch (\$3.95)	53
Feit electric watt (\$3.99)	59
2 Plugs (\$3.98)	43

S3.4 Distribution of participants climate policy support

The mean support for climate policies across treatments was of 5.04 ($std=1.375$) on a 7-point scale (1 being no support and 7 is strong support)



S3.5 Political affiliation

political affiliation	N= 1,985
-democrat	993 (50%)
-independent	493 (24,8%)
-republican	465 (23,4%)
-other	34 (1,7%)

S.4 Marginal effects of treatments in green choice (Table 1, main text)

The regression results below correspond to the marginal treatment effects on green choice (logistic regression for green choice, model 1). Marginal effects represent changes in probability of

performing a green choice if assigned to any of the green shops compared to baseline (conventional shop).

Conditional marginal effects Number of obs = 1182
 Model VCE : OIM
 Expression : Pr(green choice), predict()
 dy/dx w.r.t. : 2.treatment 3.treatment 4.treatment

Delta-method						
	dy/dx	Std.Err.	z	P>z	[95%Conf.	Interval]
Green	0.072	0.041	1.760	0.079	-0.008	0.152
Green exp	0.067	0.041	1.630	0.103	-0.013	0.147
Green cheap	0.115	0.041	2.840	0.005	0.036	0.194

Note: dy/dx for factor levels is the discrete change from the base level.

S5. Differences between treatment effects

Here we show the estimations for the differences between all experimental treatments (Mann Whitney tests) for both Green Choices and Climate Policy Support.

Green Choices

Shop type (behaviour 1)	Green	Green expensive	Green cheap
Conventional	0.0800* z = -1.751	0.1041 z = -1.625	0.0048** z = -2.819
Green		0.9025 z = 0.123	0.2925 z = -1.053
Green expensive			0.2401 z = -1.175

Climate Policy Support

Shop type (behaviour 1)	Green	Green expensive	Green cheap
Conventional	0.007*** z = 2.698	0.0025*** z = 3.028	0.0001*** z = 3.898
Green		0.7300 z = 0.345	0.2343 z = 1.189
Green exp			0.4202 z = 0.806

S6. Interactions between treatments and identity effects

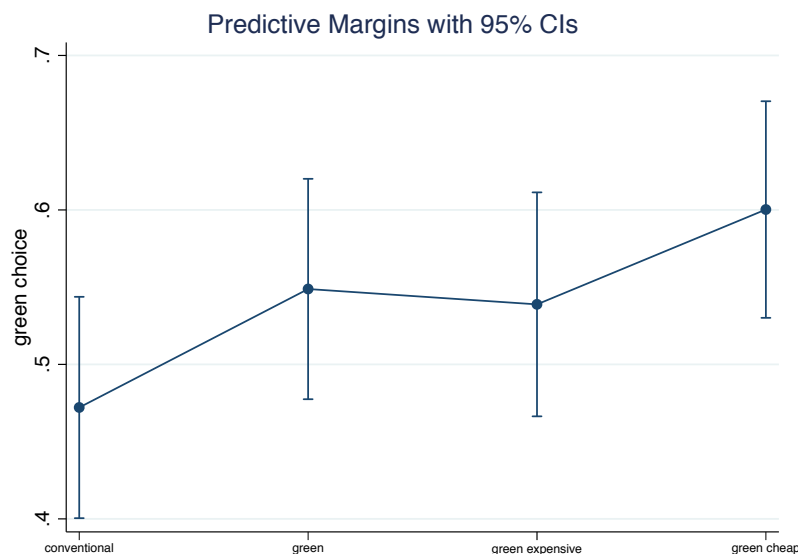
S.6.1 Identity effects in green choice by treatments

The following estimation shows the results for a logistic regression for green choice interacting the treatment effects with those of baseline identity (continuous variable). Below the table, the graphical representation of the results is presented. Note that from the graph one will conclude the effects of identity on green choice are positive, but not statistically between treatments as confidence intervals overlap. To assess moderation effects we perform the analysis for two groups of identity (Figure 4, main text). Results show that there is a moderation effect of identity for participants assigned to the expensive green shop: low-identity participants reduce their green choice while those with high identity increase it (Figure 4, main text). This cannot be inferred from the analysis with a continuous variable for identity.

Logistic regression:

Green choice	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
<i>treatment*identity</i>							
Conventional	.108	.058	1.85	.064	-.006	.222	*
Green	.173	.059	2.91	.004	.057	.29	***
Green exp	.163	.059	2.74	.006	.046	.279	***
Green cheap	.207	.059	3.53	0	.092	.323	***
Constant	-.668	.282	-2.37	.018	-1.221	-.115	**
Mean dependent var		0.540	SD dependent var			0.499	
Pseudo r-squared		0.017	Number of obs			691	
Chi-square		15.803	Prob > chi2			0.003	
Akaike crit. (AIC)		947.744	Bayesian crit. (BIC)			970.435	

*** $p < .01$, ** $p < .05$, * $p < .1$



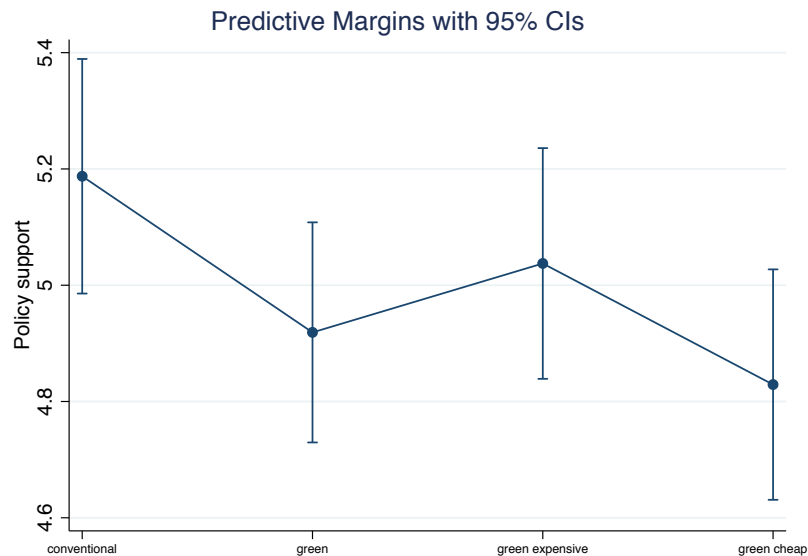
S.6.2 Identity effects in climate policy support by treatments

The estimation here presented displays the results for a linear regression interacting the treatment effects with those of baseline identity (continuous variable). Below the table, the graphical representation of the results is presented. Note that also in this case, the results shows positive effects of identity on climate policy support for every treatment, i.e., the higher the pro-environmental identity the higher the support for climate policies. Results for the interaction show lower policy support for those assigned to green shops. In the main text (Figure 4) we present the same analysis for two groups of identity (low and high). Here it becomes evident identity moderates the level of policy support, but not the spillover effects triggered by any of the green shops.

Linear regression

Policy support	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
<i>treatment*identity</i>							
Conventional	.623	.04	15.56	0	.544	.701	***
Green	.568	.039	14.63	0	.492	.644	***
Green exp	.588	.04	14.87	0	.51	.666	***
Green cheap	.556	.04	13.91	0	.477	.634	***
Constant	2.001	.191	10.49	0	1.626	2.376	***
Mean dependent var		4.990	SD dependent var			1.406	
R-squared		0.364	Number of obs			479	
F-test		67.683	Prob > F			0.000	
Akaike crit. (AIC)		1478.566	Bayesian crit. (BIC)			1499.424	

*** $p < .01$, ** $p < .05$, * $p < .1$



S.7 Regression results for high and low identity (Figure 4, main text)

S.7.1 Interactions with low-high identity for green choice

Logistic regression							
Green choice	Coef.	St.Err.	t-value	p-value	[95% Conf	Intervall]	Sig
treatment*identity2							
Conventional_id.high	-.153	.303	-0.51	.613	-.747	.441	
Green_id.low	.274	.286	0.96	.337	-.285	.834	
Green_id.high	.279	.32	0.87	.383	-.348	.906	
Green expen_id.low	-.264	.295	-0.90	.371	-.843	.314	
Green expen_id.high	.602	.314	1.92	.055	-.014	1.218	*
Green cheap_id.low	.421	.297	1.42	.156	-.161	1.002	
Green cheap_id.high	.56	.307	1.83	.068	-.041	1.161	*
Constant	-.043	.206	-0.21	.837	-.447	.362	
Mean dependent var	0.540		SD dependent var	0.499			
Pseudo r-squared	0.016		Number of obs	691			
Chi-square	15.278		Prob > chi2	0.033			
Akaike crit. (AIC)	954.269		Bayesian crit. (BIC)	990.574			

*** $p < .01$, ** $p < .05$, * $p < .1$

S.7.2 Interactions with low-high identity for policy support

Linear regression							
Policy support	Coef.	St.Err.	t-value	p-value	[95% Conf	Intervall]	Sig
Conventional_id.high	1.187	.284	4.18	0	.629	1.745	***
Green_id.low	-.532	.261	-2.04	.042	-1.045	-.02	**
Green_id.high	1.07	.274	3.90	0	.531	1.609	***
Green expen_id.low	-.447	.267	-1.68	.094	-.97	.077	*
Green expen_id.high	.921	.281	3.28	.001	.369	1.473	***
Green cheap_id.low	-.377	.261	-1.45	.149	-.89	.135	
Green cheap_id.high	.807	.291	2.78	.006	.236	1.378	***
Constant	4.349	.19	22.90	0	3.976	4.722	***
Mean dependent var	4.591		SD dependent var	1.649			
R-squared	0.176		Number of obs	479			
F-test	14.402		Prob > F	0.000			
Akaike crit. (AIC)	1760.444		Bayesian crit. (BIC)	1793.818			

*** $p < .01$, ** $p < .05$, * $p < .1$

S.8 Baseline and primed pro-environmental identity and “doing enough”

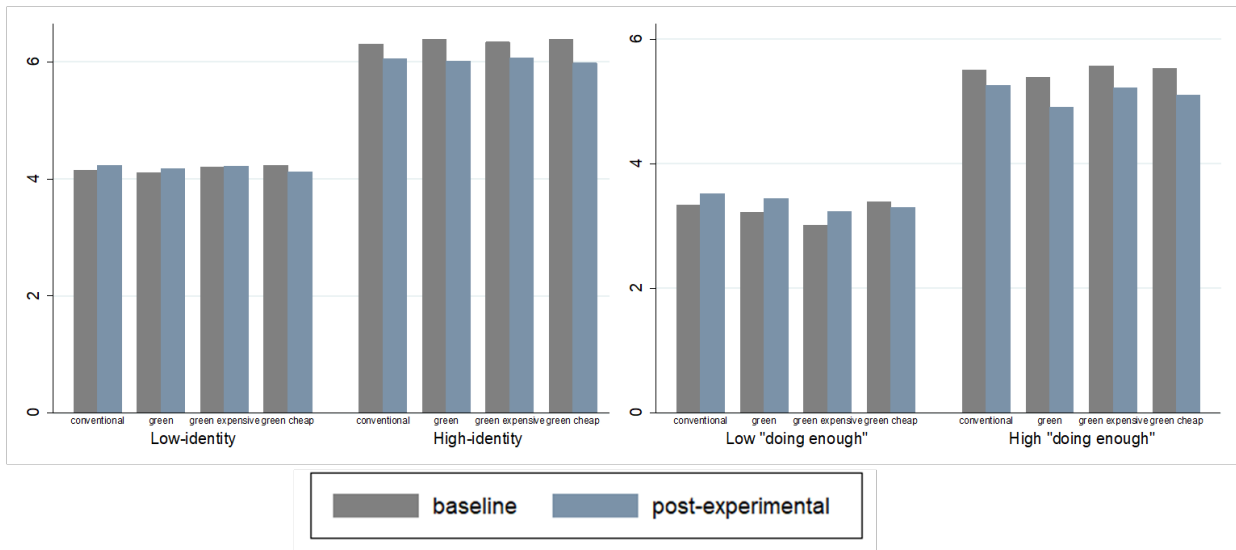
The table below shows the mean identity and perceptions of doing enough for the environment. The variables were measured with a 7-point scale. The baseline identity and “doing enough” refers to that unaffected by the experimental treatment measured two months after the experiment with the same participants who were re-contacted for this purpose. The post-experimental measures refer to those made just after the experiment. The table shows that the identity reported after the experiment is lower than baseline, but not significantly.

	Mean	Standard error	Observations
Baseline identity	5.12	1.44	1,181
Post-experimental identity	5.00	1.45	1,985
Baseline “doing enough”	4.30	1.45	1,181
Post-experimental “doing enough”	4.32	1.48	1,985

The statistical differences between baseline and post-experimental measures are overall significant for identity ($p<.01$; $z=6.766$) and marginally for “doing enough” ($p=0.070$; $z= 1.809$). The table below shows the number of participants for which the change was positive, negative and zero in both cases.

	Identity	Doing enough
Positive	457	456
Negative	280	415
Zero	433	299

In the graph below the mean baseline and post-experimental identity for those participants with initial high and initial low identity are plotted. The graph shows that participants with low-baseline identity and “doing enough” show an increase in both variables after participating in the experiment. Contrarily, for those with high-baseline self-concepts, participating in the experiment seems to lower their reported level of both identity and “doing enough”.

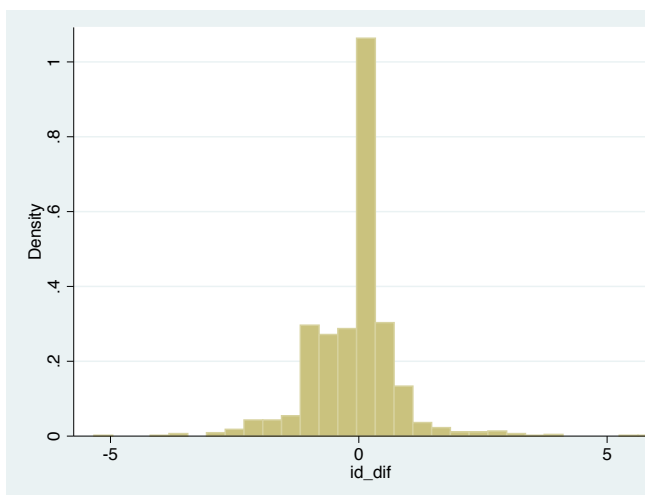


S.9 Changes in identity and “doing enough”.

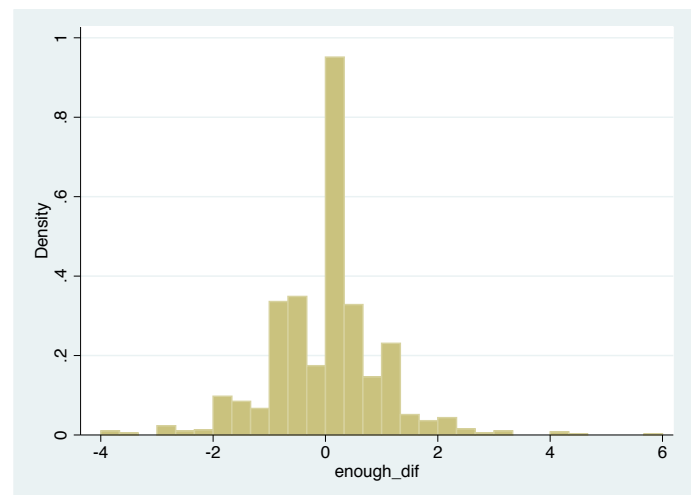
We construct a variable that captures changes in these variables. The variable for both identity and “doing enough” is created doing the following subtraction:

$$\text{post experimental} - \text{baseline variable}$$

Therefore, if the variable has a positive value, it means the experiment increased the reported levels for these two variables. In the case it has a negative value, it means the experiment lowered identity or “doing enough”. In the histogram above we plot the variables for identity and doing enough to visualize the changes in these variables.



Pro-environmental identity



“Doing enough”

S.10 Regression results for changes identity and “doing enough” as predictors of behavior 2

We run a linear regression to establish whether changes in identity and “doing enough” predict support for climate policies and in which direction. In the case the mechanism triggering the negative spillover was moral licensing, we would expect that increases in identity (id_dif) of “doing enough” to explain lower support for climate policies. We perform the analysis separately for the two variables as they are positively correlated. In both cases the variable for change in identity and doing enough are significant (though less for the latter). However, we find that an increase in the variable (i.e. boosted identity or doing enough after the experiment) predicts more, rather than less, climate policy support. Thus, we cannot conclude the negative spillover from green purchases to policy support is due to moral licensing.

Linear regression using changes in identity (id_dif)

Policy support	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
green	-.249	.178	-1.40	.162	-.598	.1	
green expensive	-.145	.181	-0.80	.423	-.502	.211	
green cheap	-.304	.182	-1.67	.095	-.661	.053	*
id_dif	.286	.069	4.12		.15	.422	***
Constant	5.207	.129	40.21		4.953	5.462	***
Mean dependent var		4.990	SD dependent var			1.406	
R-squared		0.043	Number of obs			479	
F-test		5.294	Prob > F			0.000	
Akaike crit. (AIC)		1674.051	Bayesian crit. (BIC)			1694.909	

*** $p < .01$, ** $p < .05$, * $p < .1$

Linear regression using changes in “doing enough” (enough_dif)

Policy support	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
green	-.326	.211	-1.54	.123	-.741	.089	
green expensive	-.352	.216	-1.64	.103	-.776	.071	
green cheap	-.401	.216	-1.85	.065	-.826	.024	*
enough_dif	.145	.075	1.94	.053	-.002	.292	*
Constant	4.878	.154	31.74	0	4.576	5.18	***
Mean dependent var		4.591	SD dependent var			1.649	
R-squared		0.018	Number of obs			479	
F-test		2.157	Prob > F			0.073	
Akaike crit. (AIC)		1838.708	Bayesian crit. (BIC)			1859.567	

*** $p < .01$, ** $p < .05$, * $p < .1$