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Pro-environmental behaviour and support for environmental policy as expressions of pro-environmental motivation

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ABSTRACT

To effectively limit climate change, we need people to both behave pro-environmentally and support environmental policy. However, there are conflicting results about whether people are likely to do both these actions. Extending previous research, we propose that people are likely to both behave pro-environmentally and support environmental policy because both are expressions of intrinsic pro-environmental motivation. We tested our reasoning in three studies in which we vary the order of measuring pro-environmental behaviour and policy support, and include different indicators of behaviour and policy support. As hypothesised, we consistently found that pro-environmental behaviour and environmental policy support are positively related. Importantly, as expected, stronger pro-environmental motivation was related to more pro-environmental behaviour and greater support for environmental policy. Further, the relationship between behaviour and policy support became weaker—or disappeared—when controlling for pro-environmental motivation. We find no evidence that focusing people on their environmental motivation results in increased engagement in pro-environmental action. Our results imply that policymakers can encourage people to both behave pro-environmentally and support environmental policy without concern that one might impede the other.

1. Introduction

The climate is changing due to CO_2 emissions, with increasingly severe negative consequences (Intergovernmental Panel on Climate Change, 2018). Individual behavioural choices, such as using less energy at home, can help limit CO_2 emissions. Yet, we can achieve a greater reduction in emissions by supplementing individual action with environmental policy implementation (Thøgersen & Crompton, 2009). Policy can provide people with more opportunities and incentives to act sustainably by, for example, adapting infrastructure or changing the price of products and services. Given the ambitious emission reductions required to limit further environmental damage (Intergovernmental Panel on Climate Change, 2018), we need people to both make pro-environmental behavioural choices and support the implementation of environmental policy.

As both individual pro-environmental behaviour and policy support together are the most effective at limiting climate change, it is important to understand the likelihood that people engage in both. Findings about the relationship between pro-environmental behaviour and environmental policy support, however, are conflicting. On the one hand, some argue those who have behaved pro-environmentally will be less likely to support environmental policy (Noblet & McCoy, 2018; Werfel, 2017). These researchers propose that people may feel like they have already done enough to protect the environment, so there is no need to support policy too (Werfel, 2017). On the other hand, others argue that behaving pro-environmentally can be a catalyst that leads people to support policy as well (Thøgersen & Crompton, 2009; Thøgersen & Noblet, 2012). From this perspective, behaving pro-environmentally makes people see themselves as more environmentally-friendly—motivating them to support policy too (Nilsson et al., 2017; Thøgersen & Noblet, 2012; Van der Werff et al., 2013). Both perspectives assume that behaving pro-environmentally changes a person's self-perceptions, which then changes the likelihood of them supporting policy. We propose an alternative explanation: behaviour and policy support only have a limited influence on each other. Rather, a third factor is likely to predict both—intrinsic pro-environmental motivation.

Many studies have shown that the strength of a person's intrinsic pro-environmental motivation predicts how much they behave pro-environmentally and support environmental policies. For example, the more important people find it to protect the environment, the more they

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engage in a wide range of pro-environmental behaviours—including using less energy, producing less waste, and travelling sustainably (Geiger et al., 2019; Schultz et al., 2005; Thøgersen & Ölander, 2002; see Dietz, 2015 and Steg, 2016 for reviews). Research has found similar results for policy support: the more people find protecting the environment important, the more they support a broad range of environmental policies (Harring et al., 2017; Harring & Jagers, 2013; Nilsson & Biel, 2008; Nilsson et al., 2004; Schoenefeld & McCauley, 2016; Steg et al., 2011; Steinhorst & Matthies, 2016). From these studies, it is evident that intrinsic pro-environmental motivation is an important predictor of both pro-environmental behaviour and environmental policy support.

If pro-environmental motivation predicts both pro-environmental behaviour and policy support, then behaviour and policy support could have a limited influence on each other. Specifically, it is not about behaviour leading to policy support (or vice versa), but rather both being rooted in the underlying pro-environmental motivation (Fig. 1). So, someone motivated to protect the environment is likely to both behave pro-environmentally and support environmental policy. Thus, we propose that the amount of pro-environmental behaviour and environmental policy support will rise and fall together, in line with the strength of a person's pro-environmental motivation. If our reasoning is correct, the relationship between pro-environmental behaviour and policy would get weaker when controlling for pro-environmental motivation. Further, if both are an expression of pro-environmental motivation, it is unlikely that there is a negative relationship between pro-environmental behaviour and policy support.

Although pro-environmental motivation can lead people to behave pro-environmentally and support environmental policy, other competing concerns—such as comfort or money—might deter people from these actions (De Groot & Steg, 2008; Evans et al., 2013). Reminding people of their pro-environmental motivation, however, might diminish the influence of other motives and increase the likelihood that people act upon their pro-environmental motivation (Evans et al., 2013). Indeed, focusing people on the environmental reasons for a behaviour can encourage them to behave pro-environmentally (Bolderdijk et al., 2013; Evans et al., 2013; Schwartz et al., 2015; Spence et al., 2014; Steinhorst et al., 2015). Thus, we argue that focusing people on their pro-environmental motivation may increase the likelihood that they will act upon it, be it via pro-environmental behaviour or environmental policy support. As a result, we expect especially strong relationships between pro-environmental motivation and pro-environmental behaviour, and pro-environmental motivation and environmental policy support, when people focus on that motivation.

In sum, we test the following hypotheses:

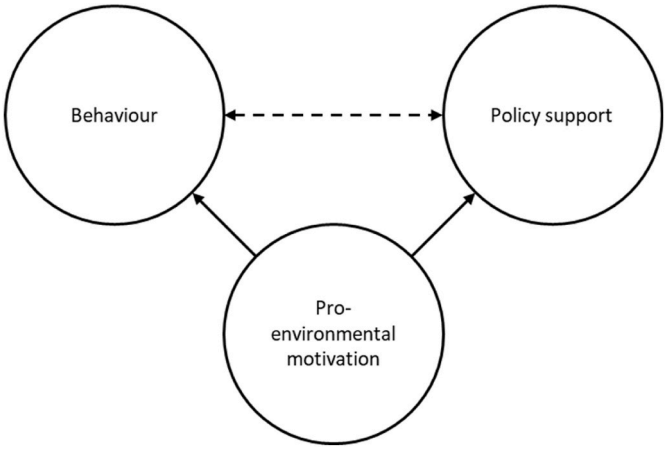

Fig. 1. The theorised relationship between pro-environmental behaviour, environmental policy support, and intrinsic pro-environmental motivation.

H1. There is a positive relationship between pro-environmental behaviour and support for environmental policies.

H2. There is a positive relationship between pro-environmental motivation and pro-environmental behaviour, and between pro-environmental motivation and support for environmental policies.

H3. The relationship between pro-environmental behaviour and environmental policy support will get weaker when controlling for pro-environmental motivation.

H4. The relationships between pro-environmental motivation and pro-environmental actions—both behaviour and policy support—are stronger when people focus on their pro-environmental motivation.

We conducted three studies—two online experiments and one field experiment—to test our reasoning. In all three studies, we test whether pro-environmental behaviour and environmental policy support are positively related (Hypothesis 1). In Studies 1 and 2, we test the underlying process. Specifically, whether intrinsic pro-environmental motivation is related to pro-environmental behaviour and environmental policy support (Hypothesis 2) and whether the relationship between behaviour and policy support becomes weaker when controlling for pro-environmental motivation (Hypothesis 3). In Study 3, we aim to replicate the findings Studies 1 and 2 in a field experiment that measures actual behaviour. In all three studies, we manipulate participants' focus on their pro-environmental motivation to see if it strengthens the relationships between pro-environmental motivation and behaviour, or pro-environmental motivation and policy support (Hypothesis 4).

2. Study 1

In Study 1, we tested the relationship between energy-saving behaviour and support for energy policies—measuring behaviour first and policy support second. We included biospheric values as an indicator of intrinsic pro-environmental motivation. The strength of a person's biospheric values represents how personally important they find it to protect the environment (Schwartz, 1994; see also; De Groot & Steg, 2008; Stern et al., 1998). Many studies have shown that biospheric values predict engagement in multiple pro-environmental behaviours and policy support (for a review see Steg & De Groot, 2012). Further, to focus people on their pro-environmental motivation, we asked people to recall saving energy for either environmental or financial reasons. Many studies have shown that focusing on financial motivations for pro-environmental action can reduce the likelihood that people engage in these actions, likely by limiting the influence of pro-environmental motivation (Bolderdijk et al., 2013; Evans et al., 2013; Peters et al., 2018; Schwartz et al., 2015; Spence et al., 2014; Steinhorst et al., 2015; Steinhorst & Klöckner, 2017; Steinhorst & Matthies, 2016; Van der Werff & Steg, 2018).

2.1. Participants

We recruited a general population sample of 379 residents of the Netherlands through a panel company (ThesisTools). We paid the panel company €1.50 per participant they recruited for our sample. People completed the study online. The study was in Dutch: we present the translated items here. We had to exclude 36 participants for not responding to the behaviour or policy scales, leaving a sample of 343.

2.2. Design and procedure

The university ethics board approved the study design. All participants gave their informed consent, could withdraw—without penalty—at any time, and were fully debriefed. Our study formed part of a larger questionnaire including questions on eco-friendly package design, which participants answered before our questionnaire.

At the start of the survey, participants filled in the values

questionnaire. Next, participants reported their energy-saving behaviour over the past week. We randomly allocated participants to one of two conditions. In the environmental condition, we asked participants to report how often they had saved energy over the past week for environmental reasons. As a contrasting condition, we asked participants to report how often they had saved energy over the past week for financial reasons. In both conditions, we gave participants the same list of energy-saving behaviours (see Table 1). In the environmental condition, we had 177 participants; in the financial condition, we had 166. Then, we asked participants to indicate how much they supported the introduction of seven different energy policies (see Table 2). Finally, participants responded to several items on self-perceptions and demographic variables, which are not relevant to our research questions and therefore not reported here.

2.3. Measures

2.3.1. Biospheric values

We measured biospheric values using four items: respect for the earth, unity with nature, environmental protection, and preventing environmental pollution (De Groot & Steg, 2008; Steg et al., 2014). We followed each with a short description. For example: "preventing pollution" was further described as "protecting natural resources". We asked people to rate how important each of these values were as a guiding principle in their life on a scale from −1 (opposed to my values) to 7 (of supreme importance). We took the mean of the four biospheric value items to form a scale ($M = 5.04$, $SD = 1.39$). Internal consistency of the biospheric values scale was good, $\alpha = .87$. We also included items measuring hedonic, egoistic, and altruistic values, as only responding to the biospheric value items may have increased the salience of environmental values and influenced subsequent pro-environmental behaviour (Verplanken & Holland, 2002), thus biasing the participants' responses. We did not include egoistic, hedonic, and altruistic values in our analysis as they were not relevant to our research question.

2.3.2. Energy-saving behaviour

We gave people a list of nine behaviours they could do to save energy at home. We asked them to report how often they had done these behaviours over the last week, on a scale from 1 (never) to 7 (always). We took the mean of these items to calculate an energy-saving behaviour score. The internal consistency of the scale was good, $\alpha = .83$. We present the descriptive statistics for the items and the scale in Table 1.

2.3.3. Environmental policy support

We showed participants seven energy policies. We asked them to rate how much they supported the introduction of these policies on a scale from 1 (strongly against) to 7 (strongly for). We took the mean of these items to calculate a policy support score. Internal consistency of the policy support scale was acceptable, $\alpha = .70$. We present the descriptive statistics for the items and the scale in Table 2.

Table 1
Descriptive statistics energy behaviour items and scale.

	M	SD
Kept temperature in my house relatively low	4.64	1.86
Turned the heating down when I left my house	5.36	2.06
Turned off the lights when I left a room	5.91	1.54
Turned off my laptop when I was not using it	5.45	1.83
Only charged electronic devices when necessary	5.45	1.77
Removed chargers from the socket when they were not in use	5.12	2.21
Took shorter showers	4.36	1.94
Switched off the tap while brushing my teeth or washing my hands	5.16	1.96
Used energy-efficient lightbulbs	5.81	1.51
Energy-saving behaviour scale	*5.25*	*1.21*

Table 2
Descriptive statistics environmental policy items and scale.

	M	SD
Tax on fossil fuels such as coal and oil	4.60	1.72
Subsidies for sustainable energy such as wind and solar energy	5.73	1.47
Increasing the energy price during peak times	3.52	1.80
Lowering the energy price during non-peak times	4.57	1.79
Increasing the price of energy-efficient devices	4.69	1.75
Subsidies for the insulation of homes	5.89	1.32
Subsidies to lower the price of green energy	5.43	1.61
Policy support scale	*4.92*	*0.99*

2.4. Results and discussion

In support of Hypothesis 1, we found a positive correlation between past energy-saving behaviour and energy policy support, $r\,(341) = .20$ [LLCI = .10, ULCI = .30], $p < .001$. Thus, the more people had acted to save energy over the past week, the more they supported the introduction of sustainable energy policies. In support of Hypothesis 2, we found a positive correlation between biospheric values and energy-saving behaviour, $r\,(341) = .25$ [LLCI = .15, ULCI = .35], $p < .001$. Moreover, we found a positive correlation between biospheric values and policy support, $r\,(341) = .30$ [LLCI = .20, ULCI = .39], $p < .001$. Thus, the stronger a person's pro-environmental motivation, the more they acted to save energy and the more they supported energy policy. For our correlational analysis, a post-hoc power calculation (G*Power; Faul et al., 2007) showed that we exceeded the sample size of 82 needed to detect a medium effect ($r = 0.30$) at .80 power.

To test whether the relationship between past energy-saving behaviour and energy policy support would become weaker if controlling for the strength of people's pro-environmental motivation (Hypothesis 3), we conducted a stepwise multiple regression analysis with energy policy support as our dependent variable. In a first step, we entered the past energy-saving behaviour. In a second step, we included biospheric values. In support of our hypothesis, the results show that the relationship between past energy-saving behaviour and policy support became weaker when we included biospheric values in the model (see Table 3). Thus, biospheric values (partially) explained the relationship between past energy-saving behaviour and support for energy policy. Post-hoc power analysis (G*Power; Faul et al., 2007) showed that we exceeded the sample size of 82 needed to detect a medium effect size ($\Delta R^2 = .09$) at .80 power.

We next tested whether the relationship between biospheric values and energy policy support would be stronger for those who focused on environmental (rather than financial) reasons for saving energy (Hypothesis 4). We conducted a moderation analysis using stepwise linear regression analysis to test our reasoning. Table 4 shows that the relationship between biospheric values and policy support did not differ between those who focused on environmental reasons for saving energy and those who focused on financial reasons. So, the relationship

Table 3
Regression of policy support on past energy-saving behaviour and biospheric values.

Variable	*B*	95% CI for *B*		β	R^2	ΔR^2	*p*
		LL	UL				
Step 1					.04	.04	<.001
Constant	4.07	3.61	4.53				<.001
Past behaviour	0.16	0.08	0.25	.20			<.001
Step 2					.12	.09	<.001
Constant	3.31	2.80	3.82				<.001
Past behaviour	0.10	0.02	0.18	.12			.021
Biospheric values	0.22	0.14	0.29	.30			<.001

Note. CI = confidence interval; LL = lower limit; UL = upper limit; *p* reported for ΔR^2.

Table 4
Relationship between biospheric values and policy support by condition.

Variable	*B*	95% CI for *B*		β	R^2	ΔR^2	*p*
		LL	UL				
Step 1					.11	.11	<.001
Constant	3.73	3.35	4.12				<.001
Biospheric values	0.24	0.17	0.31	.33			<.001
Environmental reasons	−0.02	−0.21	0.18	-.01			.884
Step 2					.11	.00	.391
Constant	3.73	3.05	4.10				<.001
Biospheric values	0.27	0.17	0.37	.38			<.001
Environmental reasons	−0.02	−0.21	0.18	-.01			.884
Values * reasons	−0.06	−0.21	0.08	-.06			.391

Note. CI = confidence interval; LL = lower limit; UL = upper limit. Environmental reasons = dummy-coded variable for condition (environmental reasons = 1, financial reasons = 0); values*reasons = interaction term between biospheric values (mean centred) and the condition dummy variable; *p* reported for ΔR^2.

between biospheric values and environmental action was not stronger for those who focused on their pro-environmental motivation. Post-hoc power analysis (G*Power; Faul et al., 2007) showed that we exceeded the sample size of 82 needed to detect a medium effect size ($\Delta R^2 = .09$) at .80 power. As such, we had sufficient power to test for the interaction effect.

Overall, we found a positive relationship between pro-environmental behaviour and environmental policy support. The more people saved energy at home over the last week, the more they supported the introduction of energy policies. Further, the stronger a person's intrinsic pro-environmental motivation—as indicated by biospheric values—the more they saved energy at home and the more they supported energy policy. Importantly, the relationship between behaviour and policy support became weaker when controlling for intrinsic pro-environmental motivation, suggesting that motivation (partially) explains the relationship. We did not find, however, that focusing on pro-environmental motivation strengthened the relationship between motivation and support for energy policy.

3. Study 2

In Study 2, we tested the relationship between environmental policy support and pro-environmental behaviour, measuring policy support first and behavioural intentions second. Once again, we included biospheric values as an indicator of intrinsic pro-environmental motivation (De Groot & Steg, 2008; for a review see; Steg & De Groot, 2012). To focus people on their pro-environmental motivation, we asked people to reflect on reasons why it is important to them to protect the environment (adapted from Maio et al., 2001) before they indicated their environmental policy support and intention to engage in pro-environmental behaviour. Research has shown that writing reasons for a particular value can increase the influence of that value on subsequent action (Maio et al., 2001; Tapper et al., 2012).

3.1. Participants

We recruited 180 first-year Psychology students, who participated in exchange for partial course credit. Students completed the study online. We removed eleven participants because they did not fill in the policy support or behavioural intention scales, leaving 169 participants.

3.2. Design and procedure

The university ethics board approved the study design. All participants gave their informed consent and could withdraw—without penalty—at any time. As we presented participants with a fabricated policy from the local municipality (see Table 5), we fully debriefed them at the end of the study.

We told students they were participating in a study on abstract reasoning. First, we measured biospheric values. We then randomly allocated participants to one of two conditions: either focusing them on their environmental motivation or not. In the environmental condition, we asked participants to write reasons why it is personally important to them to protect the environment. In the control condition, we asked participants to write reasons why it is personally important to them to drink coffee or tea. Previous research suggests such manipulations are effective at focusing people on specific motivations (Maio et al., 2001; Tapper et al., 2012). We followed the manipulation with some filler tasks that would seem like the dependent variables of the study. These were questions such as: "Is K more likely to be the first of third letter of a word?" (Kahneman, 2011). After these questions, we asked participants if they could fill in a short second survey from our colleagues and the local municipality. In what appeared as the second study, we included our policy support measure and behavioural intentions measure. We then took demographics and debriefed the participants.

We included two attention checks. First, in the values scale, we included one question where we asked participants to select '3' on the response scale. We excluded those who did not respond '3'. Second, in a filler task, we asked participants to ignore the question text and respond '5'. We excluded those who did not respond '5'. In addition, we timed how long participants spend writing reasons as part of the manipulation. Thus, we could remove participants who spent too long or too little on the manipulation task. We reasoned that those who spent less than a minute or longer than 15 minutes on the task had not been paying sufficient attention. In total, 53 participants failed one or more of these attention checks, leaving 116 responses. We report the analysis without these exclusions in the Appendix. The pattern of results did not differ when we excluded these participants.

3.3. Measures

3.3.1. Pro-environmental motivation

We measured biospheric values using the Portrait Value Questionnaire (PVQ; Schwartz et al., 2012; see also Bouman et al., 2018). In the PVQ, participants read short descriptions of people. These descriptions represented certain values. For example, "It is important to her to protect the environment", represented a biospheric value. The descriptions are gender-matched to the participant. Participants rated how much they are like the person described on a scale from 1 (totally not like me) to 7 (totally like me). We measured biospheric values using four items: protect the environment, be in unity with nature, respect nature, prevent environmental pollution. We calculated the mean score of the biospheric value items to form a scale ($M = 5.22$, $SD = 1.23$). Reliability of the biospheric values scale was good, $\alpha = .91$. As in the first study, we included items reflecting three other value types (egoistic, altruistic, and

Table 5
Policy scenario.

The municipality of [city] wants to be CO_2 neutral by 2035. That means that we are going to make substantial savings on total energy consumption and ensure that the energy we use comes from sustainable and local sources. A lot has been achieved in recent years, but not enough.
In becoming CO_2 neutral, the availability of energy at peak times in [city] will decrease. Peak times are when most people use energy. This will mean you and others living in [city] will have to drastically reduce your energy use at peak times, including:
Reducing charging and use of electronic devices such as laptops
Reducing use of lighting
Reducing use of the dishwasher, washing machine and tumble dryer
Reducing amount of time watching television
Reducing use of the toaster, kettle, coffee machine or other electric kitchen devices
The [local municipality] wants to know how students evaluate this policy. Please express your opinion by selecting the appropriate point on each of the scales below.

hedonic) so that participants would not focus solely on their biospheric values and result in biased responses (see Verplanken & Holland, 2002). We did not include these other three types of values in our analysis as they were not relevant to our research question.

3.3.2. Policy support

We presented participants with a policy scenario, which we present in Table 5. We framed the policy to be relevant to students, as that was our sample. We included the logo of the local municipality to increase realism. We asked participants to express their support for the policy on four seven-point scales, all scored 1 to 7: very unacceptable to very acceptable; very bad to very good; very negative to very positive; very unnecessary to very necessary. We also asked participants to indicate how much they supported the introduction of the policy on a seven-point scale from 1 (very much against) to 7 (very much for). We took a mean of these items to form a policy support scale (M = 5.08, SD = 1.49). The scale had a good internal consistency, α = .94.

3.3.3. Energy-saving intentions

We asked participants how often, over the following week, they intend to engage in seven energy-saving behaviours, on a seven-point scale from 1 (never) to 7 (always). We report the descriptive statistics for the behavioural intention items and scale in Table 6. The internal consistency of the scale was acceptable, α = 0.62. Other studies have shown that correlations between pro-environmental behaviours can be weak (e.g., Lanzini & Thøgersen, 2014; Steinhorst et al., 2015; Thøgersen, 2004; Thøgersen & Ölander, 2003; Whitmarsh & O'Neill, 2010), which might explain the low internal consistency of the energy-saving behaviour scale. Excluding items from the scale did not improve internal consistency so we proceeded including all items.

3.4. Results and discussion

In line with Hypothesis 1, we again found a positive relationship between energy policy support and intentions to save energy over the following week, r (114) = .20 [LLCI = .02, ULCI = .37], p = .031. Thus, the more people supported the energy policy, the more they intended to save energy over the following week. Further, in line with hypothesis 2, we found a positive correlation between biospheric values and energy policy support, r (114) = .42 [LLCI = .26, ULCI = .56], $p < .001$, and biospheric values and energy-saving intentions, r (114) = .26 [LLCI = .08, ULCI = .42], p = .004. Thus, the stronger a person's intrinsic pro-environmental motivation—as measured by biospheric values—the more they supported energy policy and intended to save energy over the following week. For our correlational analysis, a post-hoc power calculation (G*Power; Faul et al., 2007) showed that we exceeded the sample size of 82 needed to detect a medium effect (r = .30) at .80 power.

Based on Hypothesis 3, we expected that the relationship between policy support and energy-saving intentions would get weaker when accounting for people's pro-environmental motivation. To test our reasoning, we used stepwise linear regression analysis, with energy-saving intentions as the dependent variable. Table 7 shows that the relationship between energy policy support and energy-saving intentions was no longer significant when we accounted for biospheric values—supporting Hypothesis 3. Thus, biospheric values fully explained the relationship between policy support and energy-saving intentions. Post-hoc power analysis (G*Power; Faul et al., 2007) showed that we exceeded the sample size of 82 needed to detect a medium effect size (ΔR^2 = .09) at .80 power.

We expected the relationship between biospheric values and policy support, and between biospheric values and energy-saving intentions to be stronger for those who wrote reasons why it was important to them to protect the environment (Hypothesis 4). We conducted a moderation analysis using stepwise linear regression analysis to test our hypothesis. Each condition had 58 participants: those who reflected on their environmental motivation and those who did not. As shown in Table 8, we did not find significant differences in the relationship between biospheric values and energy policy support between those who reflected on reasons why it is important to protect the environment and those who did not. Similarly, Table 9 shows that the relationship between biospheric values and energy-saving intentions did not differ between those who focused on their pro-environmental motivation and those who did not. Thus, we again found no support for Hypothesis 4. Post-hoc power analysis (G*Power; Faul et al., 2007) showed that we exceeded the sample size of 82 needed to detect a medium effect size (ΔR^2 = .09) at .80 power. As such, we had sufficient power to test for the interaction effect.

Overall, we found a positive relationship between environmental policy support and pro-environmental behaviour. The more people supported the introduction of an energy policy, the more they intended to save energy at home over the following week. Further, we found that the stronger a person's intrinsic pro-environmental motivation—as indicated by biospheric values—the more they supported the energy policy and the more they intended to save energy over the following week. Importantly, the relationship between policy support and behaviour was no longer significant when controlling for intrinsic pro-

Table 6
Descriptive statistics energy-saving intention items and scale.

	M	SD
Turn off the lights when leaving the room	6.43	0.78
Unplug electronic devices when they aren't in use	4.90	1.76
Remove chargers from the wall when devices are fully charged	4.83	1.95
Wait until I have a full load of clothes before starting the washing machine	6.34	0.91
Wear warmer clothes instead of increasing the heating	5.51	1.26
Turn the temperature of the heating lower an hour before bed	5.38	1.86
Take shorter showers	4.41	1.71
Energy-saving intention scale	*5.40*	*0.85*

Table 7
Regression of energy-saving intentions on policy support and biospheric values.

Variable	*B*	95% CI for *B*		β	R^2	ΔR^2	*p*
		LL	*UL*				
Step 1					.04	.04	.031
Constant	4.82	4.27	5.37				<.001
Policy support	0.11	0.01	0.22	.20			.031
Step 2					.08	.04	.031
Constant	4.31	3.59	5.02				<.001
Policy support	0.06	−0.05	0.17	.11			.280
Biospheric values	0.15	0.01	0.29	.22			.031

Note. CI = confidence interval; LL = lower limit; UL = upper limit; *p* reported for ΔR^2.

Table 8
Relationship between biospheric values and policy support by condition.

Variable	*B*	95% CI for *B*		β	R^2	ΔR^2	*p*
		LL	UL				
Step 1					.18	.18	<.001
Constant	2.38	1.27	3.50				<.001
Biospheric values	0.51	0.31	0.71	.42			<.001
Environmental reasons	0.09	−0.41	0.60	.03			.720
Step 2					.18	.00	.676
Constant	2.60	1.10	4.08				.001
Biospheric values	0.47	0.19	0.75	.39			.001
Environmental reasons	0.09	−0.41	0.59	.03			.722
Values * reasons	0.09	−0.32	0.50	.05			.676

Note. CI = confidence interval; LL = lower limit; UL = upper limit. Environmental reasons = dummy-coded variable for condition (environmental reasons = 1, other reasons = 0); values*reasons = interaction term between biospheric values (mean centred) and the condition dummy variable; *p* reported for ΔR^2.

Table 9
Relationship between biospheric values and energy-saving intentions by condition.

Variable	*B*	95% CI for *B*		β	R^2	ΔR^2	*p*
		LL	*UL*				
Step 1					.07	.07	.013
Constant	4.40	3.73	5.07				<.001
Biospheric values	0.18	0.06	0.30	.26			.005
Environmental reasons	0.12	−0.18	0.43	.07			.424
Step 2					.08	.00	.687
Constant	4.52	3.62	5.07				<.001
Biospheric values	0.16	−0.01	0.33	.23			.072
Environmental reasons	0.12	−0.18	0.43	.07			.427
Values * reasons	0.05	−0.20	0.30	.05			.687

Note. CI = confidence interval; LL = lower limit; UL = upper limit. Environmental reasons = dummy-coded variable for condition (environmental reasons = 1, other reasons = 0); values*reasons = interaction term between biospheric values (mean centred) and the condition dummy variable; *p* reported for ΔR^2.

environmental motivation—suggesting that motivation explains the relationship between behaviour and policy support. We did not find, however, that focusing on pro-environmental motivation strengthened the relationship between motivation and policy support, or motivation and behavioural intentions.

4. Study 3

We conducted a field study as a conceptual replication of Studies 1 and 2 that focused on actual behaviour. Studies 1 and 2 provided evidence for the underlying process: namely that pro-environmental behaviour and environmental policy support likely share a positive relationship because they are both expressions of an individual's intrinsic pro-environmental motivation. In the field study, we observed actual behaviour in the field: whether people bring their own reusable cup for a hot drink. We then tested how that behaviour related to support for two environmental policies from different domains: a waste-reduction policy and an energy-curtailment policy. In addition, we further explored the effect of making people's pro-environmental motivation salient to them by proving feedback on their actual behaviour and reminding them that it shows they care about protecting the environment.

4.1. Pilot study

Although not central to our argument, we decided to measure both the perceived similarity and perceived difficulty of the behaviour and policies used in our field test. Research suggests that the relationships between pro-environmental actions may be stronger if people see them as more similar (Thøgersen, 2004; see; Truelove et al., 2014). Likewise, people may be more likely to engage in a second pro-environmental action when it is easier than the first (see Truelove et al., 2014). As such, we can test these alternative accounts that may explain when pro-environmental behaviour and environmental policy are most likely to be positively related.

4.1.1. Participants and procedure

The university ethics board approved the study. Seventy-nine students participated in an online study in exchange for partial course credit. We planned to conduct our field study in the cafés in the university and around the small university city. As such, we expected most of our sample to be students. Thus, it was appropriate to test the similarity and difficulty of the behaviour and policies used in our field study in a student sample.

We asked participants to rate the similarity and difficulty of the behaviour and polcies that we used in our field study. Namely, bringing your own cup when you buy a hot drink, a policy that charges households based on the amount of waste they produce (waste-reduction policy), and a policy that limits the amount of energy households can use in a week (energy-curtailment policy). First, we asked participants to rate the similarity of bringing your own cup and supporting the waste-reduction policy. Second, we asked participants to rate the similarity of bringing your own cup and supporting a policy the energy-curtailment policy. Next, we asked participants to rate the difficulty of these three actions: bringing your own cup; supporting the waste-reduction policy; and supporting the energy-curtailment policy.

4.1.2. Measures

4.1.2.1. Perceived similarity. Participants rated the similarity of the behaviour and the two policies on two scales: not at all similar (1) to extremely similar (5) and not at all alike (1) to extremely alike (5). We took the mean of these two items to form two similarity scales: one for cup use and waste-reduction policy; and one for cup use and energy-curtailment policy. We used standardised alphas based on the Spearman-Brown formula to assess the reliability of these two-item scales (Eisinga et al., 2013). The internal consistency of both the waste scale, α = .90, and the energy scale, .80, were good.

4.1.2.2. Perceived difficulty. Participants rated the difficulty of the three actions on two scales: easy (1) to difficult (7) and not costly (1) to extremely costly (7). We took the mean of these two items to form a difficulty scale for each of the three actions: bringing your own cup when you buy a hot drink; supporting a policy that charges households based on the amount of waste they produce; and supporting a policy that limits the amount of energy households can use in a week. We used standardised alphas based on the Spearman-Brown formula to assess the reliability of these two-item scales (Eisinga et al., 2013). The internal consistency of the energy scale was acceptable (α = .71); however, the internal consistency of the cup-use scale, α = .57, and the waste scale, α = .47, were not acceptable. Thus, we analysed the difficulty and cost items separately.

4.1.3. Results and discussion

Results of a paired-samples *t*-test showed that people found supporting a waste-reduction policy more similar to bringing your own cup ($M = 2.54$, $SD = 0.92$) than supporting an energy-curtailment policy ($M = 2.06$, SD = 0.87), $t\ (73) = 4.03$, $p < .001$. The effect size of the difference was medium, $d = 0.54$. The means of both scales were not very high, indicating that people did not see the policies as particularly similar to bringing your own cup. A post-hoc power analysis (G*Power 3; Faul et al., 2007) showed that our sample size exceeded the 34 needed to detect a medium effect ($d = 0.50$) at .80 power.

We used repeated-measures ANOVA to test for difference in difficulty and cost of the three actions in our field study. As we had no predictions about which actions might be more difficult than others, we used post-hoc pairwise comparisons to test for differences in difficulty and cost ratings. The post hoc tests made multiple comparisons, so we adjusted the *p* values using the Bonferroni correction to reduce the likelihood of making a type 1 error.

For difficulty ratings, the overall model was significant, $F\ (2, 156) = 36.39$, $p < .001$, $\eta^2 = 0.32$. Post-hoc pairwise tests showed that participants found both supporting the waste policy, $M = 3.78$, $SD = 1.53$, $p < .001$, and supporting the energy policy, $M = 4.30$, $SD = 1.75$, $p < .001$, more difficult than bringing your own cup, $M = 2.43$, $SD = 1.34$. Participants also found supporting the energy policy more difficult than supporting the waste policy, p = .017. For cost ratings, the overall model was significant as well, $F\ (2, 152) = 57.37$, $p < .001$, $\eta^2 = 0.43$. Post-hoc pairwise tests showed that participants found both supporting the waste policy, $M = 4.05$, $SD = 1.65$, $p < .001$, and supporting the energy policy, $M = 3.73$, $SD = 1.74$, $p < .001$, more costly than bringing your own cup, $M = 1.97$, $SD = 1.20$. However, we found no evidence of a difference in

perceived cost between supporting the energy policy and supporting the waste policy, p = .224. A post-hoc power analysis (G*Power 3; Faul et al., 2007) showed that we would require a sample size of 27 to detect a medium effect size ($\eta^2 = 0.06$) at .80 power. Thus, for both the similarity and difficulty tests, we exceeded that sample size and had sufficient power.

In sum, participants perceived the supporting the waste policy as more similar to bringing your own cup than supporting the energy policy. However, participants did not see supporting either of these policies as particularly similar to bringing your own cup. Participants found supporting both policies more difficult than bringing your own cup. Furthermore, participants found supporting the energy policy more difficult than supporting the waste policy. Similarly, participants found supporting the waste policy and supporting the energy policy were both more costly than bringing your own cup. However, we did not find any difference in cost ratings for supporting either policy.

4.2. Field study

In the field study, we tested the relationship between observed pro-environmental behaviour (bringing your own reusable cup for a hot drink) and support for the two environmental policies (one waste-reduction and one energy-curtailment policy). Participants were unaware that we observed their behaviour. To test the effect of focusing people on their pro-environmental motivation, we randomly assigned half of those who brought their own cup to receive feedback. We reminded these people that, by bringing their own cup, they showed that they care about contributing to a better environment.

4.2.1. Design and procedure

The university ethics board approved the study. We collected data in study spaces in the Dutch city where our university is based. These were both in university study spaces and public study spaces. Mostly students use these study spaces but university staff and members of the public sometimes use them too. Undergraduate Psychology students collected the field study data as part of their bachelor thesis project.

In these study spaces, it is possible to get hot drinks either from cafes or vending machines. When getting a hot drink—by default—the server or vending machine will give the customer a single-use cup. However, the customer can choose to use their own cup for the hot drink. We waited by the café counters and vending machines and observed people buying hot drinks. We recorded whether they took the single-use cup or used their own cup. People were unaware that we observed them.

After recording cup use, we asked these customers whether they would like to help with research by filling in a short questionnaire. We did not tell them the aim of the questionnaire. If the customer agreed, we directed them to a website to fill in the questionnaire, which they did either from their phone or laptop.

To focus people on their pro-environmental motivation, we gave half of those who used their own cup—randomly assigned—feedback that they used their own cup and that it was environmentally-friendly. Specifically, we asked participants: "Did you bring your own cup to have a hot drink today?" As we only presented the question to those who we observed using their own cup, we expected them all to answer "Yes". After answering "Yes", participants saw the following feedback: "Great! Bringing your own cup (instead of using a disposable cup) shows that you care about reducing waste and contributing to a better environment." We accompanied the message with an illustration of a green leaf.

The other half of those who used their own cup—and all of those who did not use their own cup—proceeded directly to the next section of the questionnaire, where they evaluated policies. We told participants that local municipality aims to be CO_2-neutral by 2025—an actual goal of the municipality. We told them that implementing the following policies would help the municipality reach that goal. First, we asked participants to evaluate a waste-reduction policy. Next, we asked participants to evaluate an energy-curtailment policy. As we presented participants with fabricated policies, we fully debriefed them on the nature of the study and provided space to make any comments.

4.2.2. Participants

In total, we collected 191 responses. Of these, we excluded 33 participants for not evaluating either the waste or energy policies—leaving 158 participants for the analysis. Of those, 75 used their own cup and 83 did not. Of those who used their own cup, 36 saw the feedback about using their own cup and 39 did not. The sample we used for analysis was 61% female (2% indicated their gender as 'other') and ranged in age from 19 to 64 ($Mdn = 23.00$).

4.2.3. Measures

4.2.3.1. Policy support. The waste-reduction policy read: "To encourage people to produce less waste, the municipality wants to charge households based on the amount of waste they produce. This means that most people will pay more for their waste collection, especially households with multiple occupancy." We focused on multiple-occupancy homes because we assumed that most of our sample would be students. As a result, these policies would be particularly costly for students, who often live in multiple-occupancy accommodation. Participants evaluated the policy on three seven-point scales, all scored 1 to 7: unacceptable to acceptable; negative to positive; and bad to good. We took the mean of these items to form a waste policy support scale ($M = 4.93$, $SD = 1.62$, $\alpha = .94$).

The energy-curtailment policy read: "To reduce the amount of energy consumed in the city, the municipality plans to limit the amount of energy that households can use in a week. This means most people will have to drastically reduce their energy use. This could be especially restrictive for those in multiple occupancy households." Participants evaluated the policy on three seven-point scales, all scored 1 to 7: unacceptable to acceptable; negative to positive; and bad to good. We took the mean of these items to form an energy policy support scale ($M = 3.78$, $SD = 1.75$, $\alpha = .94$).

4.2.4. Results and discussion

To test the relationship between pro-environmental behaviour and environmental policy support (Hypothesis 1), we used a mixed ANOVA. As a between factor, we had cup use: used own cup or did not use own cup. As a within factor, we had policy type: waste or energy policy. Our dependent variable was policy support. Thus, we had a 2 (between: own cup vs not own cup) by 2 (within: waste policy vs energy policy) model. In support of Hypothesis 1, we found that those who used their own cup supported both policies more ($M = 4.60$, $SE = 0.15$) than those who did not use their own cup ($M = 4.14$, $SE = 0.15$), $F(1, 156) = 4.73$, $p = .031$. The effect size was small to medium, $\eta^2 = 0.03$. We did not find an interaction between policy type and cup use, $F(1, 156) = 0.70$, $p = .403$, $\eta^2 = 0.00$. Thus, waste policy support was not significantly different from energy policy support for those who brought their own cup. We exceeded the required sample size (34) to detect the effect of cup use on policy support—and the interaction between cup use and policy type—of a medium effect size ($\eta^2 = 0.06$) at .80 power.

Next, we tested the effect of making pro-environmental motivation salient (Hypothesis 4) using a mixed ANOVA. We only included those who used their own cup, as only those participants could receive feedback. As a between factor, we had feedback: those who saw the feedback or those who did not. As a within factor, we had policy type: waste-reduction or energy-curtailment. Our dependent variable was policy support. Thus, we had a 2 (between: feedback vs no feedback) by 2 (within: waste policy vs energy policy) mixed design. We found no significant difference in policy support between those who saw the feedback ($M = 4.57$, $SE = 0.23$) than those who did not ($M = 4.62$, $SE = 0.22$), $F(1, 74) = 0.02$, $p = .881$, $\eta 2 = 0.00$. We found no interaction between seeing feedback and the type of policy (waste or energy-

curtailment) either, F (1, 74) = 0.00, p = .963, η2 = 0.00. As such, we found no effect of making pro-environmental motivation salient on policy support. A post-hoc power analysis (G*Power 3; Faul et al., 2007) showed that we would need a sample size of 34 to detect an effect of feedback of a medium effect size (η2 = 0.06) at .80 power. Thus, we had sufficient power.

Overall, we found a positive relationship between pro-environmental behaviour and support for pro-environmental policy. Those who brought their own cup for a hot drink were more supportive of both policies: waste-reduction and energy-curtailment. We found no evidence that the strength of the relationship between behaviour and policy differed depending on the type of policy. Again, we found no evidence that focusing people on their pro-environmental motivation increased support for pro-environmental policy.

We find no evidence that similarity influences the relationship between pro-environmental behaviour and environmental policy support. In our pilot study, participants perceived supporting the waste-reduction policy as more similar to bringing your own cup than supporting the energy-curtailment policy—although participants didn't consider supporting either policy to be especially similar to behaviour. Previous research suggests that the relationship between pro-environmental actions should be stronger when they are more similar (Thøgersen, 2004; Truelove et al., 2014). However, we find no evidence here to suggest that the relationship between behaviour and policy support is stronger when people see those policies as more similar to behaviour, as those who behaved pro-environmentally were equally supportive of both the waste-reduction and energy-curtailment policies.

Likewise, we find no evidence that perceived difficulty limits the relationship between pro-environmental behaviour and support for environmental policy. Participants of our pilot study rated supporting both the waste-reduction policy and supporting the energy-curtailment policy as more difficult and more costly than bringing your own cup. Previous research has argued that people are less likely to do a second environmental action when it is more difficult than the first (Truelove et al., 2014). However, we found that people do support policy after bringing their own cup—even though supporting those policies is more difficult and costly than the behaviour.

Our findings on similarity and difficulty provide further support for our reasoning. Since we argue that behaviour and policy are positively related because they are expressions of intrinsic pro-environmental motivation, it should not be necessary for people to see that behaviour and policy as similar to each other. Indeed, they would only need to see them as related to their intrinsic pro-environmental motivation for them to engage in both. Likewise, we would not expect difficulty to influence the relationship between behaviour and policy. That is because behaviour and policy support are not directly influencing each other—so it is not necessary for easy actions to lead to more difficult actions. Rather, people are likely to engage in multiple pro-environmental actions—both behaviour and policy support—in line with the strength of their pro-environmental motivation (Fig. 1).

5. General discussion

It is critical that individuals both behave pro-environmentally and support environmental policy, since combining these actions can lead to the greatest reduction in CO_2 emissions (Stern, 2000; Thøgersen & Crompton, 2009). There are conflicting accounts, however, about how pro-environmental behaviour and environmental policy support relate to each other, with some finding a positive relationship and some finding a negative relationship (Noblet & McCoy, 2018; Thøgersen & Noblet, 2012; Werfel, 2017). These previous accounts argue that behaviour indirectly influences policy support through a change in self-perception. On the one hand, behaviour should inhibit policy support because people feel they have already done enough to protect the environment (Werfel, 2017). On the other hand, behaviour should increase support for policy because it makes people see themselves as more environmentally-friendly (Nilsson et al., 2017; Thøgersen & Noblet, 2012; Van der Werff et al., 2013).

We provide a different perspective: pro-environmental behaviour and environmental policy support are likely to be positively related since they are both an expression of intrinsic pro-environmental motivation. In support of our reasoning, we consistently found a positive relationship between pro-environmental behaviour and support for environmental policies across multiple studies, using different measures of behaviour and policy support across different domains and varying the order of behaviour and policy support. Importantly, our results suggest that pro-environmental behaviour and support for environmental policies are positively related because both are rooted in the same underlying pro-environmental motivation. However, we found no evidence that focusing people on their pro-environmental motivation increased either their engagement in pro-environmental behaviour or support for environmental policy.

We consistently found a positive relationship between pro-environmental behaviour and support for pro-environmental policy. Specifically, in Study 1, we found that the more people save energy at home, the greater their support for multiple sustainable energy policies. In Study 2, we found the same relationship in the inverse—the more people support the introduction of an energy-efficiency policy, the more they intend to save energy at home over the following week. Finally, in Study 3, results of a field test showed that people who engage in actual pro-environmental behaviour (by bringing their own reusable cup) are more supportive of waste-reducing policy and energy-efficiency policy than those who do not engage in that behaviour. Importantly, we found no evidence of a negative relationship between behaviour and policy support. Taken together, our results suggest that people who behave pro-environmentally are likely to also support environmental policy.

Importantly, we provided a robust test of the relationship between pro-environmental behaviour and environmental policy support. First, we explored the behaviour-policy relationship in both directions (by both measuring behaviour first and measuring policy support first) and consistently find a positive association. Second, we consistently found the same results whilst using different measures of behaviour in different domains, including actual behaviour. Specifically, in Study 1, we used self-reported energy use; in Study 2, we used intentions to save energy; and in Study 3, we found the same results when measuring actual pro-environmental behaviour in the field (bringing your own cup for a hot drink). Third, we found a positive behaviour-policy relationship with multiple different policy instruments across our three studies, including sustainable energy policy, energy-curtailment policy, and waste-reduction policy. Finally, we replicated our findings in three different samples with different characteristics, comprising of both students and national population samples. As such, our results provide strong evidence that there is a positive relationship between pro-environmental behaviour and support for environmental policy.

Our results contrast with previous research that finds a negative relationship between pro-environmental behaviour and support for environmental policy. In all three studies, we found no evidence of a negative relationship between behaviour and policy support. However, how these past studies measured pro-environmental behaviour might be one possible explanation why they find a negative relationship. We argue that pro-environmental behaviour and environmental policy support share a positive relationship because they are both expressions of intrinsic pro-environmental motivation. As motivation rises, so do behaviour and policy support. As such, it is important to measure behaviours that are likely to reflect the strength of a person's intrinsic pro-environmental motivation.

Indeed, intrinsic pro-environmental motivation might not be the primary motivation for the behaviour measured in previous studies that find a negative relationship between pro-environmental behaviour and environmental policy support. For example, in one study, participants reflected on how they had saved energy in the past as part of a governmental campaign to prevent blackouts due to energy shortages

(Werfel, 2017). As such, these people may have focused on saving energy for reasons other than their own intrinsic pro-environmental motivation (e.g., to prevent energy blackouts). Thus, in future, it is important to consider how measures of behaviour reflect motivation when studying the interrelations between pro-environmental actions, such as behaviour and policy support.

In contrast to these studies that find a negative relationship, our results support a large body of previous research that finds a positive relationship between engagement in multiple pro-environmental actions—including both behaviour and policy support. For example, many past studies find positive correlations between different pro-environmental behaviours (e.g., Berger, 1997; Bratt, 1999; Gatersleben et al., 2002; Peters et al., 2018; Whitmarsh & O'Neill, 2010), suggesting that people are likely to behave pro-environmentally in multiple different ways. Likewise, studies have shown a positive relationship between pro-environmental behaviour and policy support (Brick & Lai, 2018; Thøgersen & Noblet, 2012). We build on these previous works by providing robust evidence for a positive relationship between behaviour and policy support across multiple studies using a variety of measures, including actual behaviour. As such, there seems to be a strong weight of evidence to suggest that there is a positive relationship between multiple pro-environmental actions, including both behaviour and policy support.

Importantly, we extend previous findings by testing a new perspective on why environmental behaviour and environmental policy support are positively related: because they are rooted in the same underlying pro-environmental motivation. Indeed, in Study 1 and Study 2, we showed that the stronger a person's intrinsic pro-environmental motivation (i.e., the stronger their biospheric values), the more they both behave pro-environmentally and support environmental policies. More importantly, we consistently found that the relationship between environmental behaviour and environmental policy support became weaker—or was no longer significant—when controlling for the strength of a person's intrinsic pro-environmental motivation. Taken together, these results show robust evidence that, rather than behaviour and policy directly influencing each other by changing people's self-perceptions (as proposed by previous research), both these actions share a positive relationship because intrinsic pro-environmental motivation precedes—and predicts—both. Put simply: people motivated to protect the environment are likely to do so in multiple ways, including both behaving pro-environmentally and supporting environmental policies.

Our reasoning extends that of earlier research that suggests there is a general motivational basis underlying pro-environmental action. Stern (2000) suggested that people might have a general predisposition towards pro-environmental behaviour (including policy support) when proposing the VBN (values-beliefs-norms) model. However, the VBN model was aimed at explaining engagement in different types of behaviour but not at explaining the relationships between behaviours (Stern, 2000; Stern et al., 1999). Building and extending this reasoning, we argue (and show) that there is likely a positive relationship between engagement in different pro-environmental behaviours (including policy support) because they share the same general underlying motivation (i.e., biospheric values). Whereas the levels of engagement in different types of behaviours might differ depending additional factors (e.g., contextual constraints, see also Stern, 2000), we argue that it is unlikely that those different behaviours would be negatively related. Rather, due to their shared underlying motivation, they are likely to be positively related. Thus, we provide a new perspective: people's underlying pro-environmental motivation may lead them to engage in different pro-environmental behaviours (including policy support), leading to a positive relationship between different pro-environmental actions.

A strength of our approach is that we measured intrinsic pro-environmental motivation using two indicators of biospheric values. In Study 1, we measured biospheric values using a variation of the Schwartz Value Survey (Schwartz, 1994; see also; De Groot & Steg, 2008; Stern et al., 1998) and in Study 2, we measured biospheric values using the Portrait Values Questionnaire (Schwartz et al., 2012; see also; Bouman et al., 2018). We replicated our results using both these indicators: the stronger a person's intrinsic pro-environmental motivation, the more they both behave pro-environmentally and support sustainable policy. Replicating our results using two different instruments suggests that our results are robust.

Against expectations, we did not find that the relationship between intrinsic pro-environmental motivation and pro-environmental action—either behaviour or policy support—would be stronger when people focus on that motivation. In each study, we used a different manipulation to focus people on their motivation and yet found no effect (c.f., Cornelissen et al., 2008; Verplanken & Holland, 2002). Thus, we were unable to replicate previous research that found people are more likely to behave pro-environmentally when their environmental motivation is salient (Bolderdijk et al., 2013; Evans et al., 2013; Schwartz et al., 2015; Spence et al., 2014; Steinhorst et al., 2015). Our results suggest that focusing people on their pro-environmental motivation may not always be necessary for them to behave pro-environmentally or support environmental policy.

5.1. Implications

We found no evidence that people who behave pro-environmentally would be less supportive of the introduction of environmental policies. Likewise, it is unlikely that supporting the introduction of environmental policies would deter people from behaving pro-environmentally. Rather, people are more likely to support policies and behave pro-environmentally when their intrinsic pro-environmental motivation is strong. Based on these results, policymakers should not be concerned about both promoting pro-environmental behaviour and implementing environmental policy—one is unlikely to impede the other. Further, it might not always be necessary to focus people on their environmental motivation for them to act pro-environmentally, although policymakers should still be cautious about focusing on the financial benefits of pro-environmental action (e.g., Bolderdijk et al., 2013; Evans et al., 2013; Schwartz et al., 2015; Spence et al., 2014; Steinhorst et al., 2015; Steinhorst & Klöckner, 2017; Steinhorst & Matthies, 2016).

Given that motivation underlies action, and that different pro-environmental actions are unlikely to impede each other, policymakers might increase engagement by making it easier for people to act upon their intrinsic pro-environmental motivation. For example, by changing infrastructure so that pro-environmental choices are easier to make (e.g., installing regional heating systems). Another example would be making pro-environmental options less expensive (e.g., by subsidising the cost of green energy) (see Lanzini & Thøgersen, 2014). Importantly, research consistently finds that, across multiple countries, people's intrinsic pro-environmental motivation is strong (Bouman et al., 2021; Bouman & Steg, 2019). As such, policymakers may be underestimating intrinsic pro-environmental motivation.

5.2. Conclusion

In summary, we found that those who behave pro-environmentally are likely to support environmental policy. Likewise, those who support environmental policy are likely to behave pro-environmentally. Importantly, as expected, pro-environmental behaviour and environmental policy support seem to be positively related because both actions are an expression of a person's intrinsic pro-environmental motivation. Importantly, we find no indication that behaving pro-environmentally and supporting environmental policies would impede each other. Further, focusing people on their pro-environmental motivation might not be necessary to promote consistent pro-environmental action.

CRediT authorship contribution statement

Elliot J. Sharpe: Conceptualization, Formal analysis, Investigation,

Methodology, Writing – original draft, Writing – review & editing. **Goda Perlaviciute:** Conceptualization, Methodology, Supervision, Writing – review & editing. **Linda Steg:** Conceptualization, Methodology, Funding acquisition, Supervision, Writing – review & editing.

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Appendix

Study 2, analysis without exclusions. Correlation between policy support and energy-saving intentions, $r\,(167) = 0.31$, $p < .001$. Correlation between biospheric values and policy support, $r\,(167) = 0.30$, $p < .001$. Correlation between biospheric values and energy-saving intentions, $r\,(167) = 0.39$, $p < .001$.

Table A1
Regression of Energy-Saving Intentions on to Policy Support and Biospheric Values

Variable	*B*	95% CI for *B*		β	R^2	ΔR^2	*p*
		LL	UL				
Step 1					.10	.10	<.001
Constant	4.30	3.77	4.79				<.001
Policy support	0.21	0.11	0.30	.31			<.001
Step 2					.13	.04	.010
Constant	3.79	3.17	4.41				<.001
Policy support	0.15	0.05	0.26	.23			.004
Biospheric values	0.15	0.04	0.27	.21			.010

Note. CI = confidence interval; LL = lower limit; UL = upper limit; *p* reported for ΔR^2.

Table A2
Relationship Between Biospheric Values and Policy Support by Condition

Variable	*B*	95% CI for *B*		β	R^2	ΔR^2	*p*
		LL	*UL*				
Step 1					.16	.16	<.001
Constant	2.83	1.99	3.66				<.001
Biospheric values	0.44	0.28	0.59	.39			<.001
Environmental reasons	0.08	−0.31	0.48	.03			.682
Step 2					.16	.00	.703
Constant	2.67	1.51	3.83				<.001
Biospheric values	0.47	0.25	0.69	.42			<.001
Environmental reasons	0.07	−0.33	0.47	.03			.473
Values * reasons	−0.06	−0.37	0.25	-.04			.253

Note. CI = confidence interval; LL = lower limit; UL = upper limit. Environmental reasons = dummy-coded variable for condition (environmental reasons = 1, other reasons = 0); values*reasons = interaction term between biospheric values (mean centred) and the condition dummy variable; *p* reported for ΔR^2.

Table A3
Relationship Between Biospheric Values and Energy-Saving Intentions by Condition

Variable	*B*	95% CI for *B*		β	R^2	ΔR^2	*p*
		LL	*UL*				
Step 1					.09	.09	<.001
Constant	4.18	3.60	4.76				<.001
Biospheric values	0.22	0.11	0.33	.30			<.001
Environmental reasons	0.09	−0.18	0.37	.05			.502
Step 2					.09	.00	.706
Constant	4.29	3.49	5.08				<.001
Biospheric values	0.20	0.04	0.35	.27			.012
Environmental reasons	0.10	−0.18	0.38	.05			.474
Values * reasons	0.04	−0.18	0.26	.04			.706

Note. CI = confidence interval; LL = lower limit; UL = upper limit. Environmental reasons = dummy-coded variable for condition (environmental reasons = 1, other reasons = 0); values*reasons = interaction term between biospheric values (mean centred) and the condition dummy variable; *p* reported for ΔR^2.

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