A preliminary investigation into psychological and attitudinal predictors of sustainable behaviour

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Abstract

An online survey was conducted to examine the role of psychological and attitudinal factors in relation to sustainable behaviours. Significant relationships were found between pro-environment behaviours and several factors, including sense of responsibility, perceived control and knowledge about sustainability. Additionally, a strong correlation was found between sustainable behaviours and regular examination of one's values and beliefs. The research is preliminary only, but offers encouragement for developing an approach to stimulating sustainable behaviour through attitudinal and psychological development

Overview

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This report presents the findings of preliminary research into the relationship between various psychological factors, and attitudes and behaviours towards sustainability. The purpose of this study was to test a model predicting the psychological determinants of sustainability attitudes and behaviours (see Figure 1 below), and to refine the model and measurement scales for future use.
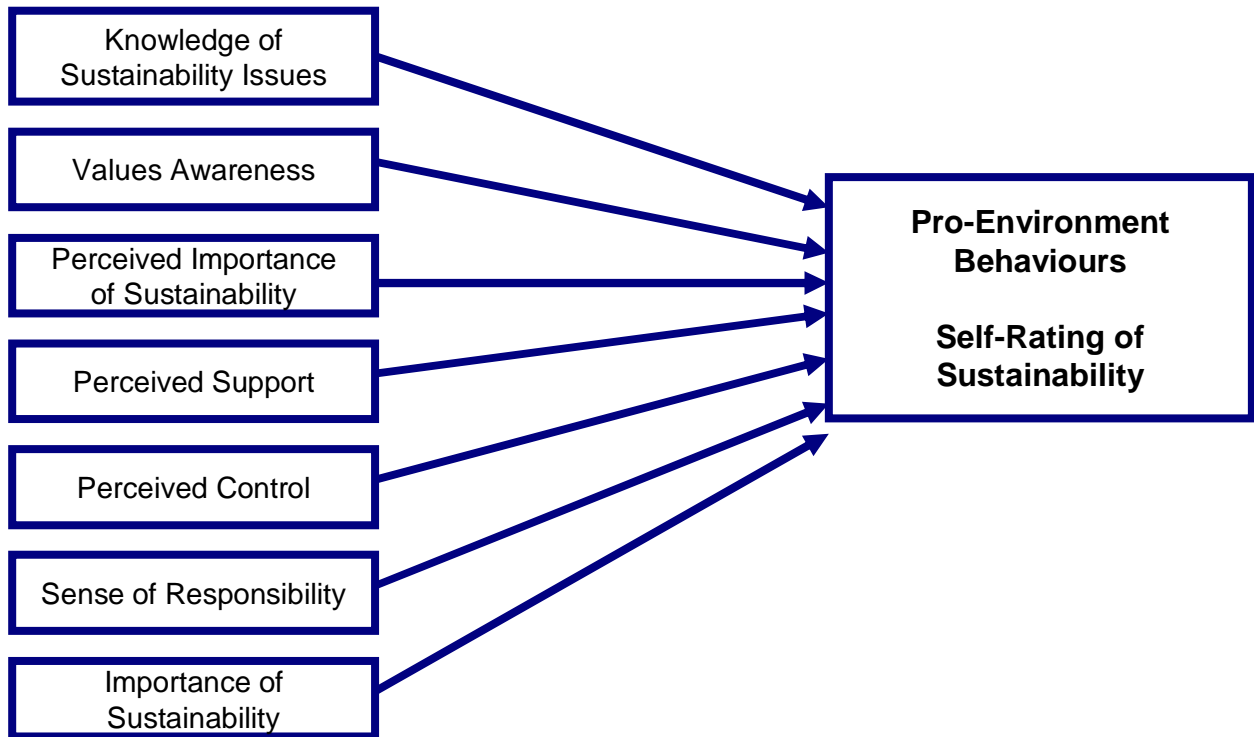
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Knowledge of
Sustainability Issues ─────┐
                            │
Values Awareness ──────────┤
                            │        ┌──────────────────┐
Perceived Importance        │        │  Pro-Environment │
of Sustainability ─────────┤        │    Behaviours    │
                            ├───────▶│                  │
Perceived Support ─────────┤        │  Self-Rating of  │
                            │        │  Sustainability  │
Perceived Control ─────────┤        └──────────────────┘
                            │
Sense of Responsibility ───┤
                            │
Importance of               │
Sustainability ────────────┘
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Figure 1: Research Model

Responses

A total of 36 people responded to the online survey.

Gender		
	#	**%**
Male	14	39%
Female	21	58%

Country		
	#	**%**
Australia	25	69%
New Zealand	10	28%

Some respondents did not indicate gender and country, therefore totals do not add up to 100%

Measurement Scales

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Variable	Definition	# of Items	Alpha Reliability Co-efficient
Sense of Responsibility	The degree to which the respondent feels they have a responsibility to society in general, and in relation to sustainability	3	.74
Perceived Control	The level of control the respondent feels over their level of sustainability	6	.42
Knowledge	The degree to which one feels informed about sustainability issues	2	.79
Importance of Sustainability	The importance one attributes to sustainability	1	n/a
Values Awareness	The degree to which one is aware of ones values, and uses them in decisions	3	.72
Perceived Support	The degree of to which one feels one's external environment supports sustainability	2	.40
Pro-Environment Behaviours	A self-report scale of 8 actions which are deemed positive for environmental sustainability	8	.84
Self-Rating of Sustainability	A 10-pt likert scale rating of one's overall effort toward sustainability	1	n/a

Results

Predictors of Sustainability

Correlations between the independent variables and sustainability variables are displayed in Table 1. The results show a strong relationship between a general sense of responsibility and both pro-environment behaviours and self-rated sustainability. Perceived control is another strong correlate of both dependent variables, while knowledge about sustainability and perceived support were significantly related to self-rating, but not sustainability behaviours.

Very little relationship was found between the importance placed on sustainability, and one's behaviour.

Table 1: Correlations Between Independent Variables & Sustainability		
	Pro-Environment Behaviours	Self Rating of Sustainability
Sense of Responsibility	0.57*	0.36*
Perceived Control	0.52*	0.49*
Knowledge	0.31	0.46*
Importance of Sustainability	0.25	0.08
Values Awareness	0.19	0.10
Perceived Support	0.18	0.36*

* Statistically significant result

Individual Items (See Table 2)

Unsurprisingly, the item which was most strongly correlated with pro-environment behaviours was "I feel a strong obligation to do my bit for sustainability".

More notable was the relationship between pro-environment behaviours and the items "I regularly examine my own beliefs and values" and "In general I feel a strong responsibility to make a positive contribution to the community", both indicating the important role of awareness of self and one's role in society.

The strongest predictors of self-rated sustainability were a sense of being well-equipped to act sustainability – namely being well informed, having the support of others, and feeling a sense of self-discipline.

Finally, those least likely to act sustainably were those who reported that "I find it difficult to make sustainability a priority in my actions".

Table 2: Correlations Between Individual Items & Sustainability

	Pro-Environment Behaviours	Self Rating of Sustainability
I feel a strong obligation to do my bit for sustainability	0.46*	0.28
I regularly examine my own beliefs and values	0.45*	0.19
In general I feel a strong responsibility to make a positive contribution to the community	0.44*	0.33*
I feel like I have a good level of self-discipline for making sustainable decisions	0.40*	0.48*
I feel like I am well informed and educated about sustainability issues	0.35*	0.52*
I feel like my actions can really make a difference to the future of the planet	0.34*	0.25
Environmental sustainability is a really important issue for society	0.25	0.08
I know what I need to do differently in order to act more sustainably	0.21	0.32
I feel like I have the support of people around me to act sustainably	0.20	0.50*
I feel like a have a lot of control over my level of sustainability	0.16	0.14
I consciously consider my values when I make decisions	0.09	0.12
I live in a community which is well resourced to support me to act sustainably	0.09	0.11
If asked, I could clearly say what my top 5 values are, without hesitation	-0.01	-0.02
I would live a lot more sustainably if I could	-0.01	-0.16
I feel like I could live a lot more sustainably if I tried	-0.05	-0.38*
Acting sustainably comes at an unacceptable cost to me	-0.48*	-0.28
I find it difficult to make sustainability a priority in my actions	-0.60*	-0.59*

* Statistically significant result

Relationships Between Independent Variable

Some interesting relationships between variables were noted. In particular, knowledge about sustainability was strongly related to ones perception of support and control, indicating the importance of informing people in order to encourage action.

Another result of note was the strong correlation between values awareness and 4 out of the 5 other variables.

Finally, there appears to be a limited correlation between the importance attributed to sustainability, and the other variables measured.

Table 3: Correlations Between Independent Variables					
	Sense of Responsibility	Values Awareness	Perceived Control	Knowledge	Importance
Perceived Support	0.04	0.39*	0.12	0.60*	0.04
Sense of Responsibility		0.43*	0.61*	0.25	0.29
Values Awareness			0.43*	0.48*	-0.10
Perceived Control				0.42*	0.08
Knowledge					0.02

* Statistically significant result

Gender Comparison

Table 5 shows that female respondents scored more highly on each of the independent variables with the exception of knowledge of sustainability & perceived support. Women scored notably higher on perceived control, responsibility and values awareness.

In terms of sustainability behaviour, while men rated themselves similarly to women, the latter were more likely to report pro-environment behaviours. Table 4 displays the correlations between self-rating and actual reported behaviours, suggesting that women were more accurate in their self-rating.

Table 4: Correlation between self-rating of sustainability and reported pro-environment behaviours	
Male	0.60
Female	0.78
Total	0.68

Table 5: Mean Gender Comparison		
	Male	**Female**
Importance of Sustainability	5.57	5.75
Knowledge	4.57	4.31
Perceived Support	3.79	3.74
Sense of Responsibility	4.40	5.02
Values Awareness	4.26	4.59
Perceived Control	3.85	4.22
Pro-environment Behaviours	3.99	4.45
Self Rating of Sustainability	6.21	6.19

Pro-environment Behaviours

Strong correlations existed between pro-environment behaviours and self-rating of sustainability, suggesting the existence of a strong recognition of the concept of sustainability. The degree of the relationship is somewhat varied and appears relative to the magnitude and significance of the behaviour. For instance, it could be argued that turning off lights and appliances is simple and convenient in comparison to purchasing goods with less packaging. Therefore, those who adopt the latter behaviour are more likely to rate themselves higher on overall sustainability.

Table 6: Correlations between pro-environment behaviours and self-rated sustainability	
I encourage other people to act sustainably	0.68*
When purchasing goods, I choose items with the least packaging	0.54*
I use both sides of paper when I print or write	0.54*
I carefully sort household waste into recyclable and non-recyclable items	0.46*
I consciously choose transport options which have a least impact on the environment	0.43*
I actively avoid using plastic bags to carry shopping	0.41*
I limit my water use as much as possible	0.35*
I turn off lights and appliances when not in use	0.31

* Statistically significant result

Summary & Conclusions

This research set out to explore the relationship between a number of attitudes and psychological factors and sustainable behaviours. The purpose of this exploration was to aid in the identification of psychological and attitudinal determinants of sustainable behaviour, which will then guide the development of programs to increase such behaviour.

Strong evidence was found for the importance of a sense of responsibility in predicting sustainable behaviour. This suggests that those who feel a responsibility to contribute to the community in general, and specifically sustainability, are more likely to report pro-environment behaviours.

Further evidence was found for the importance of perceived control. Those who felt a sense of control over their ability to live sustainably also reported a high level of pro-environment behaviour.

Although being well-informed about environmental issues had some impact on one's self-rating of sustainability, this was not borne out significantly in terms of increased pro-environment behaviours.

While the values awareness scale did not showing a strong relationship with sustainable behaviour, the individual item "I regularly examine my own beliefs and values" was strongly correlated with pro-environment behaviour, suggesting that values awareness does have a role in influencing sustainable behaviour.

Overall, the results reveal promising avenues for fostering sustainable behaviour. For instance, interventions aimed at increasing levels of social responsibility, self-awareness and sense of control in the context of sustainability would appear to have promise for sustainability educators.

It should be noted that the limited sample size reduces the conviction with which conclusions can be drawn, although the statistical significance of several of the findings were derived regardless of this limitation. Future research in order to further examine the model is intended.

To discuss and comment on this research, contact:
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