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Can community-based governance strengthen citizenship in support of climate change adaptation? Testing insights from Self-Determination Theory

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ABSTRACT

Motivation plays a powerful role in guiding human decision-making and behaviour, including adaptation to climate change. This study aimed to determine whether community-based governance would increase behavioural support, in the form of donation behaviour, for a climate change adaptation trust fund. A sample of 548 Australians was randomly assigned to view one of two governance scenarios: (1) a community-based scenario in which community members were afforded a high level of autonomy in designing and allocating funding within a trust fund to help their community adapt to climate change, or (2) a government-centred scenario in which decision making regarding the trust fund remained with government officials. Path analysis revealed that the community-based scenario produced significantly higher levels of perceived autonomy support within the study's participants. High levels of perceived autonomy support predicted higher levels of autonomous motivation (indicating stronger citizenship) and lower levels of amotivation, a motivational pattern, which, in turn, predicted greater willingness to donate to the climate change adaptation trust. Results are interpreted in terms of Self-Determination Theory and Motivational Crowding Theory.

1. Introduction

1.1. A growing role for citizenship in environmental management

As globalisation broadens the range of problems that governments are expected to address, their capacities to deal effectively with environmental challenges have become increasingly strained (Chen et al., 2009; Marshall, 2005). Lemos and Agrawal (2006 p. 305) remarked accordingly on "the decline of the state since the 1970s as the prime agent of environmental governance". Corresponding with this shift has been growing recognition of a need for willing cooperation from individuals and other non-state actors in negotiating and implementing solutions to environmental problems (Chen et al., 2009; Lemos and Agrawal, 2006). Accordingly, there have been growing calls for environmentally responsible behaviour (Jin, 2013), environmental citizenship (Hawthorne and Alabaster, 1999) and ecological citizenship (Spaargaren and Oosterveer, 2010) among non-state actors. Climate change action is one area where cooperative action from such actors has been identified as particularly crucial (Harris, 2008; O'Brien, 2015; Ostrom, 2014).

Governments nevertheless typically remain dominant players in the governance required to successfully address large-scale problems of collective action required to address major environmental problems such as climate change. Governance is required in such problems to overcome deficits in the levels of collective action that individuals are capable of self-organising (Marshall, 2008b; Marshall, 2011). This perspective reveals the importance of governing bodies treating individuals as co-producers of solutions to the collective action problems they face rather than as passive subjects (Ostrom, 1990).

The foregoing insights from the literature on institutional analysis, public administration and common-pool resource studies have potential to be sharpened though research informed by Self-Determination Theory (SDT) (Deci and Ryan, 1985; Ryan and Deci, 2000). According to SDT, individuals are most likely to optimise satisfaction of their psychological needs, and thus experience wellbeing, when they feel autonomous. Ryan and Deci (2011 pp. 59–60) observed that "when people act autonomously, rather than being controlled or amotivated, they act with a sense of choice, are more mindful, think flexibly, and express their values and

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interests." Intentional actions are autonomous only to the extent that they are experienced as fully volitional.

In this paper we report research guided by SDT that investigated relationships between 'governance style' and individuals' willingness to co-produce solutions to environmental problems guided by SDT. In the remainder of this section we present an overview of SDT concepts relevant to our study, review insights and research findings from application of these concepts to pro-environmental behaviours, and detail the aims and hypotheses of our study. Our research method is detailed in Section 2 and our results are reported in Section 3. A discussion of the results is presented in Section 4 along with concluding remarks.

1.2. Self-Determination theory

SDT distinguishes between different types of motivation based to their relative autonomy (Ryan and Deci, 2011), and research in this tradition (e.g., E. Ratelle et al. (2007, study 3)) suggests that most behaviours are driven by combinations of these motivation types. The most general distinction is between intrinsic and extrinsic motivation. Intrinsic motivation arises from the inherent satisfaction an individual experiences from an action; that is, from enjoying an activity for its own sake. Although intrinsic motivation is an important impetus for action in many circumstances, it is not the most important determinant of behaviour. As Ryan (1995 p. 405) notes:

> Much of human behavior is not intrinsically motivated. Indeed, perhaps the lion's share of social development concerns the assimilation of culturally transmitted behavioral regulations and valuations that are neither spontaneous nor inherently satisfying. Learning to work rather than play, to follow social laws and rules, and to engage in practices of civil behavior often falls far short of being intrinsically motivating. Yet, the acquisition of such behaviors is crucial to socialization and to the integration of the individual within a larger culture.

This notion that much of human behaviour is regulated, initially at least, by factors outside of the self lies at the heart of the second key construct in SDT, extrinsic motivation. SDT distinguishes between four main types of extrinsic motivation that vary the extent to which behavioural regulations are internalised, thereby supporting personal autonomy (Ryan and Deci, 2011).

a) *External regulation*, the least autonomous type of extrinsic motivation, is present when individuals perform a behaviour to obtain external rewards or avoid external punishments. For example, when people purchase an energy-efficient appliance as a requirement of law or because government incentives make it the only viable alternative, their behaviour is being determined by external regulation.
b) *Introjected regulation* occurs when a person acts either to avoid feelings of guilt or disapproval, or to seek approval or boost their self-esteem. Although the source of this motivation is internal to a person, the motivation "has the phenomenal feel of forces acting on the self, as the person feels compelled by 'shoulds', by projected evaluations, or by the imagined opinions of others" (Ryan and Deci, 2011 p. 51). Introjected regulation is occurring, for example, when an individual purchases an energy-efficient appliance to avoid disapproval of family or friends.
c) *Identified regulation,* the second most autonomous type of extrinsic motivation, occurs when a person consciously accepts a goal or outcome as personally important, but has not yet integrated the goal or outcome with other aspects of their identity and self. Identified regulation occurs, for example, when people choose energy-efficient appliances because they believe, in general, that people should strive to reduce their carbon footprint even though not all their beliefs and behaviours are consistent with this stated goal.
d) *Integrated regulation* is regarded as the most autonomous type of extrinsic motivation. It occurs when individuals identify with a behavioural regulation or goal itself, and "are mindfully behind their actions and are volitional and wholehearted in carrying them out" (Ryan and Deci, 2011 p. 51). For example, people may purchase energy-efficient appliances because minimising environmental impacts has become integral to their values, lifestyle, and personal identity. Although behavioural regulation is more internalised with this type of extrinsic motivation than with the other three types, the source of motivation for this type nonetheless resides outside the self. In contrast, the source of intrinsic motivation is entirely internal to the self.

Given that intrinsic motivation, integrated regulation and identified regulation all involve a high degree of internalisation and volition, SDT theorists often group them into a more general motivational category called *autonomous motivation*. Similarly, introjected regulation and external regulation are often combined into a general category called *controlled motivation*, given that the main determinants of behaviour lie outside the self or are experienced as such (Lavergne et al., 2010). SDT also proposes a third general category, *amotivation*, which refers to an absence of motivation and behavioural regulation. Amotivated behaviour is often passive because the target behaviour or its outcome is not valued (Lavergne et al., 2010). The three-level categorisation of motivation types discussed above is encapsulated in Fig. 1.

Type of Motivation	Type of Regulation	Locus of Causality	General Category
Intrinsic	Intrinsic	Internal	Autonomous
Extrinsic	Integrated	Somewhat internal	Autonomous
	Identified	Somewhat internal	Autonomous
	Introjected	Somewhat external	Controlled
	External	External	Controlled
Amotivation	Non-regulation	Impersonal	Amotivation

Adapted from Deci and Ryan (2000).

Fig. 1. Motivation types as distinguished in Self-Determination Theory.