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# Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours

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ABSTRACT

Policy-makers are interested in cost-effective and socially acceptable ways of encouraging the public to adopt more environmentally-friendly lifestyles. One area which UK policy-makers are focussing on is 'catalyst behaviour', the notion that taking-up a new behaviour (such as recycling) may cause people to adopt other pro-environmental behaviours. Yet, evidence for such 'spill-over' effects is so far limited, and it is unclear when and how cross-situational motivations (e.g., pro-environmental identity) may predict behaviour and when contextual factors are more important. We report on a postal survey ($N = 551$) of pro-environmental behaviours amongst the UK public. We assess the influence of pro-environmental self-identify on consistency across a range of behaviours. Pro-environmental values, perceived behavioural control, subjective norm, attitudes, and demographic factors were also measured. Findings show self-identity to be a significant behavioural determinant over and above theory of planned behaviour variables for carbon offsetting behaviour. However, pro-environmental self-identity was only a significant predictor for certain other pro-environmental behaviours; background variables were also important predictors. Limitations of the study, and implications for theory and policy, are discussed.



## 1. Introduction

In recent years, the UK has positioned itself at the centre of international efforts to address climate change, setting an ambitious target of 80% reduction in greenhouse gas emissions by 2050 (HM Government, 2008). This level of response to climate change has profound implications for individual choices and behaviour. With over one-third of many nations' carbon emissions coming from private travel and domestic energy use (e.g., DEFRA, 2005), governments are recognising the urgent need to encourage individuals to adopt low-carbon lifestyles. Policies to achieve this have met with limited success: after decades of information campaigns and other (often economic) measures to encourage 'green' behaviours, the public is prepared to (and often does) recycle, but few take action beyond this (e.g., DEFRA, 2002, 2007; Whitmarsh, 2009). Travel habits remain particularly resistant to change (King et al., 2009; Verplanken, Aarts, & van Knippenberg, 1997).

### 1.1. Cross-situational environmental motivations and spill-over effects

There is much interest amongst UK policy-makers in finding levers to produce wholesale shifts in lifestyles towards 'greener' (particularly, low-carbon) living. In general, governments are reluctant to regulate in large part because of the fear of public backlash and loss of political support (Carter & Ockwell, 2007). Consequently, across the political spectrum, there is a great interest in the latest methods to 'edit choices' or 'nudge' lifestyles in a desired direction through cost-effective and socially acceptable approaches (e.g., Cialdini, 2006; Thaler & Sunstein, 2008) 'without [recourse to] huge centralised bureaucracy' (Letwin, cited in Chakrabortty, 2008) or compromising consumer sovereignty (Hinchliffe, 1996).

One particular area in which the UK Department for Environment, Food and Rural Affairs (DEFRA) has recently shown interest is 'catalyst behaviours', the notion that taking-up a new behaviour (such as recycling) may lead to adoption of other, more environmentally-beneficial, behaviours (see DEFRA, 2008b; WWF-UK, 2009). Such a notion appears to hold the promise of changing a suite of behaviours in a cost-effective manner with little

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regulation or structural change. On the other hand, DEFRA also acknowledge that negative spill-over may exist, whereby taking up one behaviour (e.g., recycling) deters another (e.g., waste prevention).[1]

This view of a common motivational root underpinning pro-environmental behaviours has intuitive appeal. It also has some theoretical support from models of behaviour that postulate cross-situational goals or general values (Lindenberg & Steg, 2007; Rokeach, 1973; Schwartz & Bilsky, 1990). Furthermore, there is some – albeit limited – evidence of such spill-over effects in relation to pro-environmental behaviour (e.g., Whitmarsh, 2009). Recent studies suggest behaviour may be clustered in some way that reflects either similar 'types' of behaviour, in respect of context or frequency or different levels of environmental commitment (easy/difficult), or similar individual characteristics, such as values or demographics. Barr, Gilg, and Ford's (2005) UK study identified three such clusters – which they label 'purchase decisions' (shopping, composting and reuse), 'habits' (domestic water and energy conservation), and 'recycling' – and found these relate to different lifestyles (i.e., socio-demographic characteristics and values). This analysis did not extend to broader environmentally-significant action such as travel or political behaviours. Danish research on spill-over effects has found that individuals are fairly consistent within similar categories of behaviour, and that there are significant correlations across these categories – buying organic food and recycling (.31, $p < .05$); buying organic food and using alternative transport (.16, $p < .05$); recycling and using alternative transport (.17, $p < .05$) – which can be accounted for by common motivational causes (general environmental values and concern) (Thøgersen & Ölander, 2006). Despite these promising insights, it is still far from clear why or how spill-over effects occur and whether they are due primarily to contextual factors or individual motivations.

The broader literature on pro-environmental behaviour highlights the diversity of factors which influence different environmentally-significant behaviours. Although environmental values or concern may play a role, other motivations and structural factors often play a greater role (e.g., Bamberg & Schmidt, 2003; Jackson, 2005; Kollmuss & Agyeman, 2002; Schultz, Oskamp, & Mainieri, 1995; Steg, Vlek, & Slotegraaf, 2001), hampering the pursuit of a single model of behaviour for predicting pro-environmental behaviour (Darnton, 2008). Indeed, it is important to consider that 'pro-environmental behaviour' need not be motivated by environmental concern or values at all (Stern, 2000). Whitmarsh (2009), for example, found that the proportion of the public taking action explicitly out of concern for climate change was much lower than the proportion claiming to conserve energy; further, energy conservation was more commonly motivated by financial or health benefits than by environmental concern. There are also various psychological, social, economic and physical barriers that mitigate against environmental concerns being translated into pro-environmental behaviour (Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007; McKenzie-Mohr & Smith, 1999). This evidence would appear to undermine any expectation that people act consistently across diverse behavioural domains, or that there is a common motivational basis for pro-environmental behaviour.

This lack of generality across pro-environmental behaviours is consistent with the Theory of Planned Behaviour (TPB), which asserts that behavioural intention is determined by attitude towards performing the action, subjective norm (motivations to comply with the expectations of significant others) and perceived behavioural control (the extent to which the action is considered under one's control) (Ajzen, 1991). While much research on pro-environmental behaviour is focused at the broader level of 'general conservation stance' (e.g., Thøgersen & Ölander, 2006), the TPB (and its predecessor the Theory of Reasoned Action) emphasises that *specific* (behaviour-oriented) attitudes are more likely than broad orientations to predict behavioural intention (Ajzen & Fishbein, 1980).

### 1.2. Self-identity and pro-environmental behaviour

There have been various attempts to extend the TPB to encompass other potentially relevant determinants of behaviour, and thus improve its predictive power. A promising advance in this respect concerns self-identity (e.g., Sparks & Shepherd, 1992). This is generally understood to mean the label used to describe oneself (e.g., Cook, Kerr, & Moore, 2002), and is influenced both by personal motivations (for self-esteem, self-enhancement, and self-understanding) as well as social interaction in the form of demands and expectations of others and the various roles we perform (Ellmers, Spears, & Doosje, 2002; Stryker & Burke, 2000; Tajfel & Turner, 1986). Consistent with self-perception theories, individuals act in accordance with their own, and others', expectations of them (Bem, 1967). Self-identity serves both to differentiate oneself from others and to conform to the values, beliefs and behaviours of the social groups to which one belongs (Christensen, Rothberger, Wood, & Matz, 2004). Assertion of identity may be understood as an attempt to establish consistency in our attitudes and actions and continuity across experiences, and therefore appears to be highly relevant in exploring consistency (and, ultimately, spill-over effects) across pro-environmental behaviours.

There are various studies which highlight the identity-behaviour link (e.g., Biddle, Bank, & Slavings, 1987; Eagly, Chaiken, & Jovanovich, 1993; Stets & Biga, 2003). Consumption behaviours and adoption of new products, for example, are linked to identity (Cook et al., 2002; Grewal, Mehta, & Kardes, 2000). Self-identity has been found to be a significant predictor of behaviour over and above TPB variables, including in relation to pro-environmental action (Fekadu & Kraft, 2001; Sparks & Shepherd, 1992; Sparks, Shepherd, & Frewer, 1995; Terry, Hogg, & White, 1999). For example, people who see themselves as typical recyclers are more likely to recycle than those who do not perceive themselves as recyclers (Mannetti, Pierro, & Livi, 2004). Identity may even override attitude in cases where our role identity dictates we behave in a certain way, irrespective of how we feel about that behaviour (Charng, Pillavin, & Callero, 1988). Related literatures on place identity (sense of self linked to physical and symbolic attributes of particular locations; Proshansky, Fabian, & Kaminoff, 1983) also show this can influence action to protect the local area/ecologies from perceived threats from development (e.g., Devine-Wright, 2009).

Past behavioural frequency may moderate the relationship between self-identity and behaviour: self-identity influences intentions at low, rather than high, levels of past behaviour (Fekadu & Kraft, 2001; Smith et al., 2007). It may be that behaviour informs identity construction as people seek behavioural consistency (Bem, 1967), but that, as behaviour becomes routine and automatic (i.e., habitual; Verplanken & Orbell, 2003), it disappears from view and thus from self-identity. On the other hand, research by Sparks and Shepherd (1992) found that people who identify themselves as 'green consumers' are more likely to buy organic

[1] This is consistent with the economic literature on 'rebound effects', where material or energy efficiency measures free up resources that can be spent on other consuming activities thus reducing the net decrease in overall consumption (e.g., Herring & Sorrell, 2008).