

# Fun environmentalism! Potential contributions of autonomy supportive psychology to developing low carbon lifestyles in Australian households

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***Abstract:** To achieve sustainable levels of Australian household carbon emissions, individuals will have to adopt and maintain high impact pro-environmental behaviours across a number of behavioural domains. It is hypothesised that motivation type will be a critical factor in bringing about personally sustainable changes. In particular, self-determined (autonomous) motivation will be essential for generalisation of pro-environmental behaviour. If this hypothesis is supported, the next challenge is to identify optimal ways of promoting autonomous behaviour change, drawing on and expanding from Self-Determination Theory. It is proposed that a general move towards a positive, holistic approach to environmentalism is necessary, one aspect of which is to make environmental action more satisfying, interesting, and fun.*

The United Nations has called on first world countries to reduce their greenhouse gas emissions by 80% by 2050 to avoid the catastrophic consequences of runaway climate change (UNDP, 2007). As a first world nation, the Australian community contributes to the dangerous level of greenhouse gas emissions in the atmosphere by using resources at a much higher level than is environmentally sustainable, including energy, water and fuel used directly and indirectly by our households.

## Environmental Psychology and effective environmental behaviour

For pro-environmental behaviours to be effective at lowering our impact on the environment, and help to move Australian household carbon footprints from one of the worst in the world to sustainable levels, it will be essential that the pro-environmental behaviours adopted have high environmental impact, are maintained, and are generalised across multiple target behaviours. This paper will argue that the type of motivation people have for lifestyle behaviour change (i.e., their reasons for adopting pro-environmental behaviours and changing unsustainable habits) will be critical for how successful that change is. In particular, it is hypothesised that self-determined (autonomous) motivation will be essential for both generalisation and maintenance of pro-environmental behaviour. If this hypothesis is supported, the next challenge is to identify optimal ways of supporting autonomous pro-environmental behaviour change, drawing on and expanding from the recommendations of Self-Determination Theory (SDT, Deci & Ryan, 2000). It is proposed that a general move towards a positive, holistic approach to environmentalism is necessary, one aspect of which is to make environmental action more satisfying, interesting, and fun, through linking pro-environmental behaviour with the meeting of psychological needs for autonomy, competence and relatedness.

## Personally sustainable behaviour and motivation

When thinking about sustainability and pro-environmental behaviour, there are two aspects of sustainability to be considered. The first is in terms of environmental sustainability, where individual behaviour across societies impacts on our ability to “meet the needs of the present without compromising the ability of future generations to meet their needs”, as per the classic definition of sustainability (World Commission on Environment and Development, 1987, p. 24). The second aspect is the extent to which engaging in pro-environmental behaviours is sustainable at the individual level.

These types of actions require effort and, thus, we need to take into account the limited capacity that any one individual has.

We argue that actions that are more sustainable (i.e., easier to maintain) are those that do not need forcing, but rather, are seen as important to who we are, or are enjoyable or satisfying in and of themselves. These latter motivations for action are examples of self-determined motivation, where the locus of causality is internal, and action is taken upon one's own volition. This argument is supported by SDT, a theoretical perspective that proposes that actions are more likely to be maintained when they are underpinned by self-determined motivation (Deci & Ryan, 2000, Pelletier & Sharp, 2008).

This variable of autonomy or self-determination in motivation could be a key variable for generalisation and maintenance of environmental behaviour, meaning SDT and autonomy supportive techniques for promoting effective environmental behaviour have potential to contribute to the development of low carbon lifestyles.

## **Self-Determination theory, autonomous motivation, and behaviour**

According to Self-Determination theory, motivation for behaviour varies along a continuum of self-determination, which can be divided into two halves, namely, internalised (autonomous) motivation, extending to intrinsic motivation, and not-internalised motivation, with externally regulated motivation being the most controlled (least autonomous) type of motivation. Amotivation lies at the not-internalised end of the continuum, but is separate, as explained below. (Deci & Ryan, 2000).

Not-internalised motivations for behaviour are motivations that are driven by other people's goals, not one's own. *Externally regulated motivation* is the most externally controlled type of motivation, which is when a behaviour is performed to gain a reward or to avoid a punishment. *Introjected regulation* is the next motivation type on the continuum, when behaviour is driven by internal, self esteem based contingencies. People do things to feel proud or worthwhile, and avoid feeling guilty or worthless. Although internally driven, the behaviours are not valued for themselves and, if normative support is not strong, and there is no other internalised reason for engaging in the behaviour, then actions motivated in this way would cease. These types of motivations are related to both less behaviour (across a number of life domains) and worse psychological outcomes (Deci & Ryan, 2000).

Internalised or autonomous motivations for behaviour are when the reasons for acting are coming from within. *Identified regulation* of behaviour is when people have identified with the behaviour as important and valuable in itself. This is the first somewhat autonomous form of regulation, and the first step to internalising the rationale for a behaviour. *Integrated regulation* of behaviour is when people have identified the behaviour as important and valuable in itself, and *it has become integrated with their sense of self*. In this way, behaviours are undertaken both because they are valued, but also because it reinforces how the individual sees themselves. Hence, engaging in the behaviour is rewarding and satisfying, and reinforces a valued part of their identity.

At the top end of the continuum of self-determination of behavioural regulation is *intrinsic motivation*, defined as behaviours that do not need external consequences to motivate them, since they are interesting, valued or enjoyable in themselves.

At the other end of the continuum from intrinsic motivation is amotivation, which differs from other types of motivation, in that there is no perceived contingency between behaviour and the subsequent outcomes of behaviour (Deci and Ryan, 1985). Because amotivated people cannot see the link between their behaviour and its outcomes, they constantly doubt the value and worth of the action. Thus, it is unlikely that they will continue to act, or take up any new environmental behaviours. Pelletier, Dion, Tuson & Green-Demers (1999) refer to general amotivation towards the environment as global helplessness beliefs. These beliefs include thinking that the environmental situation involves enormous, severe and unsolvable problems, that are out of the range of any individual contribution.

Position on the motivational continuum is differentially related to behavioural outcomes, including maintenance of behaviour, engaging in and persisting at difficult behaviours, and positive psychological outcomes, such as wellbeing (Deci & Ryan, 2000). The theory also chronicles the process of identification with, and internalisation of values and rationales for behaviour.

Self-determination theory proposes that humans are growth-oriented organisms, who have an innate tendency to identify with rationales for behaviours that are useful for effective functioning but may not be inherently interesting (Deci and Ryan, 2000). Living sustainably can be taken as an example of a set of behaviours that are essential for the long term functioning of society, but do not have any immediate intrinsic payoffs, such as being enjoyable activities to engage in. Therefore, integration of motivation for these behaviours begins with agreement with a rationale for the behaviours, for example, agreeing that sustainable living is essential for long term societal functioning, and thus identifying pro-environmental behaviour as important and valuable.

Furthermore, there is a tendency to integrate these identified rationales into a coherent self, so that the behaviours become self-regulated, or self-determined. To continue the example, once a person has identified with pro-environmental behaviours as important (and has started engaging in them), they tend to integrate these behaviours into their sense of self. Part of their identity becomes 'someone who tries to live sustainably'.

It is these more autonomous forms of motivation which are related to engaging in a variety of pro-environmental behaviours (Green-Demers, Pelletier & Menard, 1997, Pelletier, Tuson, Green-Demers, Noels, & Beaton, 1998) greater maintenance (Pelletier et al 1998), and generalisation of pro-environmental behaviour (Pelletier, 2002) meaning SDT is a theory with potential to explain the lifestyle change which is needed in Australian houses.

## **Psychological needs and the social environment**

The process of integrating rationales for behaviour within the self, while assumed to be innate, is not taken for granted, as it can be supported or thwarted by the social environment around an individual, and how well this environment meets three basic psychological needs. In SDT psychological needs are identified as aspects of the social environment that provide essential support to psychological health. When psychological needs are met this results in well-being, growth, and integrity of self, whereas when these needs are not met a lack of well-being will result (Ryan & Deci, 2008).

The psychological needs identified by SDT are relatedness, competence and autonomy. Relatedness is the need to be connected to others (Deci & Ryan, 2000). It is the desire to love and care for, and be loved and cared for by others, a need first identified by attachment theory (Baumeister & Leary, 1995, Bowlby, 1958). Competence refers to the need to be effective within an environment, and obtain valued outcomes from it, while the need for autonomy is identified as the need for volition and choice, for regulation of behaviour to be internal, determined by the self (Deci & Ryan, 2000).

Thus, the ideal social environment for integration of motivation; leading to both better psychological health (and a coherent self) and better behavioural outcomes, is one that is accepting and encouraging, interesting, informational and challenging, and is autonomy-supportive. An environment which would thwart integration of motivation would be one that is rejecting, over (or under) challenging, and controlling. Differences in how autonomy-supportive, accepting and challenging social environments are, as well as individual differences in the ways people orient towards the environment, affect motivation for behaviours, which in turn influences behaviour.

While many pro-environmental behaviours may not be inherently interesting or enjoyable, they may become interesting and enjoyable because of their consequences. For example, composting food scraps is probably not an enjoyable activity in itself for many people, but it may be interesting and satisfying to someone with autonomous motivation towards the environment, because it is contributing to meeting goals of lowering your carbon footprint, which is important and valued, and possibly part of your identity.

SDT offers guidelines for making environmental behaviour more satisfying, by linking these types of actions directly to satisfaction of basic needs. In this paper we propose that this perspective suggests new approaches to changing environmentally-related behaviour. The aim and ideal goal is for people to engage in pro-environmental behaviour out of personal interest and choice.

## **Questions and Challenges**

Drawing on SDT to address the issue of Australian household carbon footprints suggests two main

avenues for research. First, there is a need to investigate the link between motivation type (e.g., autonomous and not-autonomous) and household pro-environmental behaviour. Research in this vein will examine how different types of motivation relate to the type and extent of engagement in household environmental behaviours. We argue that individuals who experience autonomous motivation in relation to environmental actions will engage in a greater number of environmental actions and will engage in actions that have greater environmental impact. Second, once the link between motivation type and household environmental actions is established, and assuming that autonomous motivation is identified as the most effective type of motivation, techniques aiming to promote and support autonomous motivation need to be developed and tested.

Consistent with this approach, an emphasis on supporting autonomy has been shown to be beneficial across a number of domains, including, for example, higher school achievement and better adjustment of children when teachers are autonomy-supportive (Chirkov & Ryan, 2001), greater employee satisfaction and trust in their company after managers went through an intervention to become more autonomy-supportive (Deci, Connell & Ryan, 1989), patients having autonomous motivation and engaging in more health behaviours when their healthcare providers are perceived to be autonomy-supportive (e.g. Williams, Grow, Freedman, Ryan & Deci, 1996, Williams, Rodin, Ryan, Grolnick and Deci, 1998).

With the goal of making environmental action more satisfying, interesting and fun, so that people engage in pro-environmental behaviour out of personal choice, a key approach could be to link action more closely with the satisfaction of the psychological needs of competence and relatedness as well as autonomy. While autonomy is seen as the key variable in SDT leading to self-determination of motivation (Deci & Ryan, 2000), satisfying any need should lead to more enjoyment and therefore intrinsic motivation. Interventions that could increase the experience of competence in pro-environmental behaviour, and the experience that pro-environmental behaviours can lead to connection with other people (and not rejection) are other options for interventions to be developed and tested.

Going further than this, with the idea of need satisfaction and enjoyment, we propose that an emphasis on positive emotions in environmental action (and fun) and a move away from negative emotions (such as guilt) will also enhance autonomous motivation, and lead to more effective environmental behaviour.

## **How to make environmental action satisfying, self-determined, interesting and fun?**

Self-determination theory identifies a number of key aspects of information and interventions that are likely to promote autonomous motivation: 1) providing a rationale for acting that individuals can identify with, 2) providing information about how to engage in the desired behaviours, 3) allowing individuals to have free choice of their actions, 4) acknowledgement by the information provider of the situation and experience of individuals, and the barriers they face (Deci, Eghrari, Patrick, & Leone, 1994).

It is hypothesised that interventions that adopt these guidelines should promote more autonomous motivation and, hence, lead to more effective pro-environmental household behaviour.

In addition to these guidelines, research guided by SDT and environmental psychology more generally, suggest other strategies that may be effective for promoting autonomous motivation. This includes the idea that individuals who develop their own solutions (as opposed to being given solutions by someone with a vested interest) could experience more self-determined motivation for action. This technique also acknowledges that everyone has a different situation and expertise about their own strengths and limitations. Also, developing own solutions for problems could enhance engagement and ownership of the solution, and it is hypothesised that this means people would be more likely to persist.

SDT also emphasises that rationales are a key component of engaging people, but there is little research on the specific content of rationales. It is possible that linking environmental behaviour and people's psychological needs through positive rationales for environmental action, could lead to more

autonomous motivation and effective environmental behaviour. An example of this type of rationale could include giving information about the potential for environmental behaviour to improve health by increasing physical activity and lowering stress, improve autonomy by (for example) getting more control over finances, improve relatedness through connecting with people, and competence by being part of a movement towards a healthier, safer future, and through all of the above, having fun.

As well as influencing rationales, investigation into linking all three psychological needs and environmental behaviour could lead to techniques for fostering environmental competence through presenting information in optimal ways, and techniques for building supportive, comfortable and fun social environments for environmental action could lead to both more environmental action, and help people connect with others, meeting their need for relatedness.

## **Amotivation, a key problem**

Although no research has been conducted to determine the proportion of the population who are experiencing amotivation towards the environment, it can be inferred from research on the gap between people's environmental concern and their behaviour (Kollmuss & Agyeman, 2002) and from research on the low levels of environmental action generally, that amotivation may be a key problem for behaviour change theorists.

Pelletier & Sharp (2008) identified events that are proposed to lead to amotivation towards the environment. These include events that highlight environmental issues but do not include any rationale for acting, present challenges that are too great and are perceived to be beyond the capacity of individuals to address, or that provide no information about the solution to the perceived problem.

In light of the scale of environmental issues such as climate change, finding ways to address amotivation is a key challenge. One potential way to counter amotivation to be tested is the proposal that developing realistic goals would be important in overcoming amotivation. Moving the focus away from the global situation to improvements that are possible on a personal scale could be a key aspect of developing goals on a realistic scale. To be realistic, information has to acknowledge that large environmental change is dependent on large numbers of people, therefore goals for individuals should not include outcomes that are dependent on the actions of anyone other than the individual.

A study of amotivation from the perspective of all three psychological needs could also offer insights into how amotivation develops, and how it could be countered. Understanding the relationship between amotivation and the psychological needs for autonomy, competence and relatedness could highlight whether any one need is particularly important for amotivation, such as (for example) feeling not competent enough to make a difference, or feeling alone and overwhelmed in the face of challenges (which could possibly be helped by enhancing relationships).

Research in this area could be a key step in giving people the skills to change their social environment so that they can meet their needs. Through this, people could learn to seek out supportive (and avoid controlling) environments, find the information needed to enhance their own competence, and take self-determined action.

## **Conclusion**

SDT offers a framework for developing techniques for promoting effective (generalised and maintained) pro-environmental behaviour in Australian households, with autonomous motivation proposed as the key variable. This paper explored only a few potentially autonomy-supporting intervention techniques, and proposed that supporting competence and relatedness of individuals could further enhance internalisation of motivation for environmental action, by making environmental action more satisfying, interesting and fun.

A running theme through SDT research is that there is a double bottom line, that supporting autonomous motivation results in both better behavioural outcomes, and better psychological outcomes such as wellbeing. This may be a critical future direction for research, both as environmental action becomes more and more necessary, and as people cope with the stress of future environmental disasters. It may also be that wellbeing is another essential element of environmental action, and a holistic approach to environmental action, including looking after the actors, and their psychological

needs, will be needed.

By drawing on a theoretical perspective that identifies fundamental human needs, how motivation relates to these needs, and how behavioural action can help to satisfy these needs, research utilising Self-determination theory has the potential to explain and promote more effective environmental behaviour and low carbon lifestyles in Australian households.

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