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TITLE: HOW I SEE ME – A META-ANALYSIS INVESTIGATING THE ASSOCIATION BETWEEN IDENTITIES AND PRO-ENVIRONMENTAL BEHAVIOUR

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1. Introduction

The past few years have been characterised by the climate crisis[1,2]. Extreme weather events are increasing, particularly in the global south[2,3]. It is slowly becoming apparent that we need large-scale behavioural change to mitigate this crisis[2,4]. Fires, floods, hurricanes and

climate related health issues require as dramatic a response as we are affording the current health crisis[2,5]. For now, however, many do not view climate change with the same urgency as COVID-19[2,6]. In this environment, how do we persuade people to take corrective action? We explore how to encourage pro-environmental behaviour (PEB) like reducing energy use in the home, using identity theory[2,7].

2. Background, History, Review-of Literature, and Methodology

Environmental groups like Extinction Rebellion often use campaigns to encourage PEBs that help preserve the planet and preventing further harm[2,8]. However, these campaigns may be ineffective because they do not focus on how individuals see themselves – their identity, and their role in preserving the world[2,9]. In this article, we show the power of identity when it comes to saving the planet[2,10].

2.1. Why are identities relevant for PEB research?

We are interested in encouraging PEB at any level of economy and difficulty – be it as easy as recycling or as difficult as installing smart meters, as cheap as turning off lights or as expensive as purchasing an electric car[2,11]. The likelihood an individual makes any of these changes depend on psychological determinants[2,12]. We undertook this research because we aimed to understand what these factors are, so that we can increase the effectiveness of such campaigns[2,13]. We focus on individuals because the collective impact of many people's small actions can lead to large global changes[2,14]. So how can we encourage people to make greener choices?

According to a recent systematic review, we need to tap into one of the many 'identities' people hold[2,15]. For example, if people identify as being an environmentalist, it becomes easier for them to engage in PEBs, due to a need to avoid cognitive dissonance[2,16]. However, research shows that there are many identities that affect PEBs, yet no theoretically guided testing has assessed how identities affect PEBs[2,17]. The present paper examines an analysis of the effect of identity on PEBs within the framework of identity theory[2,7].

2.2. Methodology

We conducted a peer reviewed pre-registered meta-analysis[17]. This meta-analysis assessed existing data on identities relevant for PEB using the preferred reporting items for systematic reviews and meta-analyses[18]. This approach enables us to pool the evidence together in one place and evaluate the overall effectiveness of identities on PEBs[19,20,21].

3. Results and Findings

Our random-effects meta-analysis comprising of 104 studies, shows identity associates with

PEB, with a medium effect size, showing the importance of identity[22]. The meta-regression revealed that identity has a stronger effect on PEB when both identity and behaviour are consistent with each-another, showing the importance of identity and behaviour congruency[23]. For example, group-based identities motivated group-based PEBs the best while not being limited to this[24]. We define individual and group focused identity and behaviour[25,26].

3.1.   Category 1: Individual (Me)

- Individual (me) identity: How I see myself personally, e.g. as an environmentalist, or a researcher[10].

- Individual (me) behaviour: Behaviour 'which is very largely determined by their individual characteristics and the nature of the person'[25].

3.2.   Category 2: Group (We)

- Group (we) identity: How I see myself in relation to other people, e.g. as part of a group of environmentalists, or researchers[15].

- Group (we) behaviour: Behaviours which are 'largely determined by group memberships of the participants and very little - if at all - by their personal relations or individual characteristics'[26].

Furthermore, as expected, the PEB measure, research design, and sample type used were methodological moderators influencing the identity-behaviour relationship[27].

4. Discussions and Conclusions

We show how we each hold multiple identities, split into two categories: Individual [2,28], and group[2,29]. For example, you could encourage someone to look after their local environment by reinforcing the importance of the people around them, or how having a healthy environment benefits them personally[2,30].

4.1.   What identity means for policy

This research shows that identity theory can be used by policymakers to nurture community-focused behaviour[2,31]. We believe that we can encourage PEB by identifying key identities and framing messages and interventions to change how people see themselves in relation to the world around them[2,28]. We believe that it is possible to utilise identity to encourage

PEB in three steps[2,28]:

1. Identify the relevant identity for the behaviour in question. That is, not all of the 100+ identities are relevant for all 600+ different types of actions studied. For example, a cyclist identity was not relevant for reducing car use but was relevant for increasing public transport use for work. Therefore, when interested in encouraging a particular behaviour, encouraging the appropriate identity is necessary. These levels of nuance are important for delivering effective messages[2].

2. Only choose pro-PEB identities. That is, those identities that seem positively related to the concept of PEB. For example, some identities (such as 'cyclist') relates to PEB positively because the identity is concerned with minimising harm to the planet. However, a 'motorist' identity relates negatively to PEB because it increases harm to the planet and is therefore inappropriate[2].

3. Finally, decide if the selected identity is an individual and/or the group one and emphasise this clearly. Tailor messages to be specific and signpost the personal/people that reflect individual/group identities, respectively. In other words, making the relevant identity prominent will increase the strength of the person's identity and thus increase the corresponding PEB related to it. For example, to encourage a cyclist identity (which we understand to increase usage of public transport for work) you could construct messages based around the following[2]:

a. Individual (me) focused cyclist identity – 'please think about the planet when going to work - positively imagine yourself cycling'[2].

b. Group (we) focused cyclist identity – 'please think about the planet when going to work - positively imagine yourself with others cycling, and your power as a group'[2].

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