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ECO-LABELS, CONSPICUOUS CONSERVATION AND MORAL LICENSING: AN INDIRECT BEHAVIOURAL REBOUND EFFECT

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ABSTRACT

Does the purchasing of eco-labelled products really support a transition towards more sustainable consumption? In this paper, we explore eco-labelling through the lens of the rebound literature, extending its rationale to products that are associated with a price premium in return for added environmental quality attributes. Reporting on two inter-related studies into the link between eco-labelled product purchasing and environmental resource consumption, we find that eco-labels flourish in more affluent economies characterised by higher levels of resource consumption; and that willingness to consume eco-labelled products is positively related to higher individual resource footprints, constituting an indirect behavioural consumer rebound effect.

INTRODUCTION

Sustainable consumption is advocated as a key approach to reduce environmental resource use, harmful emissions and waste generation associated with the use and disposal of consumer products and services (Middlemiss, 2018; Reisch and Thøgersen, 2015). The UN Sustainable Development Goal 12 on ‘ensuring sustainable consumption and production patterns’ targets, amongst others, material footprints, food loss, hazardous waste, recycling rates and the use of fossil fuels (UN DESA, 2021). The urgency of these challenges necessitates adequate governance responses, and a plethora of public and private sector initiatives are being implemented with the aim to achieve more sustainable modes of consumption. Eco-labelled products form a central element of this governance mix aimed at sustainable consumption.

Eco-labels inform consumers about a set of environmental quality attributes that are typically linked to a price premium paid in return for these environmental quality attributes (Grolleau et al., 2016). Even though eco-labelled products have long been found to occupy a relatively small niche in the market (ECRA, 2019; O'Rourke and Ringer, 2016), recent growth rates have accelerated, often outstripping those of conventional alternatives (ECRA, 2021). This raises the question whether the simple scaling-up of current approaches to eco-labelling will be

able to actually support the transition to more sustainable consumption patterns (Grolleau et al., 2016).

SUSTAINABLE CONSUMPTION, ECO-LABELS AND THE REBOUND EFFECT

In contrast to eco-efficiency improvements as the typical focal point of the rebound literature (Brookes, 1978, 1990; Khazzoom, 1980; Greening et al., 2000; Sorrell and Dimitropoulos, 2008), eco-labels are characterized by product differentiation and a price premium that is paid for certain product attributes. The size of this price premium varies substantially depending on the product category, with only marginal differences for products such as free-range eggs or fair-trade coffee, whereas much higher margins are applied to products such as organic chicken or organic milk when compared to conventional product alternatives (Chintakayala et al., 2018). Despite this notable difference, in this study we argue that the wider rebound literature can nevertheless be meaningfully extended to eco-labelled product purchases.

It has been shown that eco-labels – as currently practiced – appeal to very specific lifestyles, as shown by extant research into the role of social status (Brooks and Wilson, 2015; Griskevicius et al., 2010) and visibility of (sustainable) consumer expenditures (Brick et al., 2017; Heffetz, 2012; Schwartz et al., 2020). As such, retailers and product manufacturers have seized opportunities for product differentiation and gaining market share by combining marketing strategies for green credentials and luxury products along with very high mark ups that are tailored towards highly affluent consumers (Aschemann-Witzel and Niebuhr Aagaard, 2014; Marian et al., 2014; Sexton and Sexton, 2014). This strategy has contributed to eco-labelled products achieving growth rates that outstrip those of non-labelled products even though market share has remained relatively small in absolute terms (ECRA, 2021). This lifestyle-specific marketing of eco-labelled products links into the effects of ‘conspicuous conservation’ marketing strategies (Griskevicius et al., 2010), with an emphasis of status and visibility in driving pro-environmental purchasing behaviour.

This conspicuous conservation phenomenon also tallies with the notion of ‘moral licensing’, i.e. a socio-psychological mechanism that describes behavioural patterns in which individuals combine socially desirable activities with undesirable ones (cf. Dütschke et al., 2018; Merritt et al., 2010; Monin and Miller, 2001). Moral licensing could pose a serious problem for the contribution of eco-labelling to sustainable consumption patterns given that purchases of eco-labelled products have been characterized as a typical ‘low-cost’ pro-environmental behaviour type (Diekmann and Preisendörfer, 2003; Gifford, 2011): for affluent consumers, eco-labelled product purchasing represents a pro-environmental activity that is more convenient and easier to adopt than more impactful, radical activities that require more fundamental lifestyle changes. This low-cost pro-environmental behaviour could then be combined with other types of higher-cost behaviours that offset any incremental environmental quality improvements associated with the low-cost behaviour, thereby reflecting moral licensing.

We argue that conspicuous conservation and moral licensing dynamics might reduce or even fully offset the positive direct impacts associated with purchases of eco-labelled products, setting an indirect behavioural rebound effect (Dütschke et al., 2018; Tiefenbeck et al., 2013) in motion. Low-cost conspicuous conservation activity provides the consumer with a sense of satisfaction, in turn preventing the adoption of more impactful, high-cost pro-environmental behaviours. Along these lines, rather than providing a convenient (low-cost) entry point to sustainable consumption, eco-labels would in fact prevent the adoption of more meaningful

sustainable consumption behaviours. It is important to note that the combination of high-cost and low-cost behaviours (or highly conspicuous and less conspicuous conservation activities) should not necessarily be seen as a causal chain, in the sense of e.g. rewarding oneself with a chocolate bar after physical exercise. Instead, they can be seen as two complementary activities reinforcing each other.

METHODS

To interrogate whether purchasing of eco-labelled products represents a conspicuous consumption activity, setting in motion a moral licensing process and reflecting an indirect behavioural consumer rebound effect, we report on two inter-related studies into the link between consumption of eco-labelled products and different types of environmental resource consumption.

Study 1

The European Commission conducts Eurobarometer surveys consisting of approximately 1,000 face-to-face interviews per each member state in the European Union (EC Environment, 2020). The surveys collect data to enable the study of attitudes, motivations, behaviours and reactions towards a given topic. This study utilises data from four such Eurobarometer surveys to understand the relationship between eco-labelled product consumption and consumer-specific as well as country-specific characteristics that may help to explain consumption behaviour.

The dependent variable is individuals' response to purchase of eco-labelled products (as a proxy for the consumption of eco-labelled products). Independent variables are gender, age group, education, etc. at the individual level and gross domestic product (GDP), number of non-governmental organizations (NGOs), ecosystem vitality, etc. at the country level. We employ multi-level modelling in order to account for clustering effects at the country level. Model estimates were generated in STATA 15.0 (StataCorp, 2017) with a maximum likelihood estimator.

Study 2

This study utilises United Kingdom data on the region of England collected from different sources to understand the relationship between the willingness to pay for eco-labelled products and levels of environmental resource consumption. The dependent variable represents the proportion of people responding 'yes' to willingness to pay more for environmentally friendly products. In other words, it is the probability of an individual's willingness to pay more for environmentally friendly products, in a given LSOA. Since the values of the dependent variable lie between bounds (in this case 0 and 1), following Papke and Wooldridge's (1996) suggestion, we have decided to use Generalised Linear Model with binomial family and logit link function so that the predictions are also between the bounds. We have developed three separate models to avoid collinearity issues between GHG, Material and Water consumption. Model estimates were generated in STATA 15.0 (StataCorp, 2017).

RESULTS

Eco-labelled products thrive in more affluent markets. Our first, multi-level, study focuses on an international comparative analysis of EU-27 countries in order to explore factors

that drive consumers' willingness to buy eco-labelled products. We utilize Eurobarometer data (EC Environment, 2020), covering 105,917 consumer responses for the years 2008, 2011, 2014 and 2017. Given the nested structure of our dataset (individuals within countries), we apply a multi-level modelling technique (Raudenbush and Bryk, 2002). Our analytical model builds on extant research that has identified a range of individual-level determinants of eco-labelled product consumption (Diamantopoulos et al., 2003; Fisher et al., 2012; Jones III et al., 2017). In addition, previous research has identified considerable country-level differences in sustainable consumption behaviours (Koos, 2011; Lo, 2016), which is also mirrored by the dataset used in this study.

We find a notable increase of self-reported eco-labelled product purchasing over time, ranging from 18 per cent (2008) through 20 per cent (2011) to 23 per cent (2014), before reverting back to 20 per cent of European consumers (2017). A number of individual-level characteristics are found to drive eco-labelled product purchasing, including age, gender and education levels. Furthermore, respondents living in urban areas are significantly more likely to be willing to purchase eco-labelled products than those based in rural areas. Beyond the individual consumer, we also observe significant country-level differences in perspectives on eco-labelled products. Crucially, GDP per capita emerges as a significant driver of the willingness to pay a premium for eco-labelled products. Eco-labelled products are thus found to thrive in more affluent markets. At the same time, it is well-documented that higher levels of economic development are generally associated with higher levels of resource consumption (Hoekstra and Wiedmann, 2014). Furthermore, a significantly negative link between ecosystem vitality and eco-labelled products shows that damage to the natural environment is associated with a higher market share of eco-labelled products. Interestingly, eco-labelled products also thrive in markets characterized by lower levels of obesity.

Customers of sustainable food products have unsustainable environmental consumption footprints. In our second study, we investigate individual-level consumption behaviour, and more specifically the link between willingness to pay for eco-labelled products and different types of environmental resource consumption in an English setting. In order to do so, we combine several large-scale datasets (Census, TransUnion, Defra/ University of Leeds) that among others cover demographic information, attitudinal data, environmental resource consumption for a representative sample of English consumers. Datasets were merged using "lower layer super output areas" (LSOAs) as the unit of analysis. We developed three separate models in order to account for the fact that greenhouse gas emissions, material resource use and water consumption are not conceptually independent from each other, and thus to avoid potential multicollinearity issues among those parameters.

The analysis of English consumers to a large degree corroborates the main patterns emerging from the European study reported above. Crucially, however, a significantly positive relationship between environmental resource consumption and eco-labelled product purchasing was identified across all three model specifications. Consumers' willingness to pay for eco-labelled products is consistently higher for LSOAs with higher environmental consumption footprints. This pattern is particularly pronounced for levels of greenhouse gas emissions. For material resource consumption and in particular for water consumption, a more modest – but nevertheless significantly positive – relationship with eco-labelled products is identified.

DISCUSSION

Our findings raise a number of questions regarding the effectiveness of product eco-labelling schemes a voluntary, consumer-centred governance mechanism aimed at sustainable consumption. The international comparative analysis in Study 1 has shown that self-reported eco-labelled product purchases are flourishing in more affluent European markets. The UK-level analysis reported in Study 2 has demonstrated that at the level of individual consumers, the purchasing of eco-labelled products is inextricably linked to a set of unsustainable behaviours that counteract the potentially positive impacts of eco-labelled product consumption. In other words, eco-labelled product purchasing is associated with higher – rather than lower – environmental consumption footprints rather than indicating more sustainable consumption patterns. Conceptually, we have argued that eco-labelled product consumption reflects an indirect behavioural consumer-level rebound effect.

A crucial point to note is that eco-labelled products are typically more expensive compared to conventional alternatives and are often marketed as luxury goods. Current practice shows that the mark-ups applied by retailers are dramatically higher than the relatively modest increase in production costs incurred by eco-labelled products (Chintakayala et al., 2018). As such, eco-labelled products bear some similarity with Veblen goods and the model of conspicuous consumption, according to which consumers use brand labels to indicate their social standing and membership to certain groups (Babutsidze and Chai, 2018; Bagwell and Bernheim, 1996; Binder and Blankenberg, 2017). Due to their relative positioning vis-à-vis conventional alternatives, eco-labelled products are then likely to be locked into a market niche, limiting access to mainstream consumers. Worse still, the indirect behavioural consumer-level rebound effect that is associated with eco-labels effectively supports unsustainable consumption behaviours.

It is important to note that from the perspective of individual consumers, the adoption of eco-labels should nevertheless be encouraged, as it forms a necessary complement in the governance mix if the transition to sustainable consumption is to be achieved. However, the above findings imply that fundamental changes are needed in the mechanics of eco-labelling schemes as well as regarding their role in the wider governance mix. For corporate practice, this means that eco-labelled products will need to be made more accessible to mainstream consumers in order to increase market penetration. This also entails efforts to reduce the commonly added luxury premium to the price of eco-labelled products and to align marketing activities with those of conventional mainstream products.

Our findings illustrate the limited effectiveness of primarily market-based approaches that shift the responsibility for (un)sustainable consumption to the level of the individual consumer. Behaviour change frameworks commonly highlight the role of infrastructure and system changes as the focal point of successful programmes (Klenert et al., 2018; Michie et al., 2011; McDonald et al., 2012). For high-cost and high-impact behaviour change challenges, policymakers need to take a more active approach, implementing infrastructure (e.g. a single and comprehensive national recycling and reuse system) and policy changes (e.g. banning the worst environmentally performing products) in the transition to sustainable consumption. For companies, products standards organisations and engaged NGOs, there has to be a change of emphasis for eco-labels from managing environmental and social risks in the supply chain to a focus on helping consumers to reduce resource consumption in their day-to-day environmental challenges. An example where this has been a success is mandatory cross product category energy labelling for household appliances and this approach should be replicated for other product categories such as carbon labelling for food (Camilleri et al., 2019).

CONCLUSION

In this paper, we have explored eco-labelling as a governance mechanism through the lens of the rebound literature. While theorizing of the rebound effect has traditionally been centred on the notion of eco-efficiency, we have extended its rationale to products that are associated with a price premium in return for an added environmental quality attribute, namely eco-labelled products. Reporting on two inter-related studies into the link between willingness to consume eco-labelled products and different types of environmental resource consumption, we have found that eco-labelled products flourish in more affluent economies that are characterised by higher levels of overall resource consumption; and that willingness to consume eco-labelled products is positively related to higher individual carbon, water and material footprints. In other words, eco-labelling in its current form is inextricably linked to higher – rather than lower – levels of resource consumption. We have thus argued that eco-labelling is associated with an indirect behavioural consumer rebound effect. Our study contributes theoretically by extending the rebound literature beyond eco-efficiency towards products that are associated with a price premium. Applying the rebound effect to this context provides us with an analytical lens through which pro-environmental policy instruments can be evaluated, in order to identify systems-wide effects that may, on the aggregate, result in back-firing.

REFERENCES AVAILABLE FROM THE AUTHORS