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Sustainable consumption in capability perspective: Operationalization and empirical illustration

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ABSTRACT

The present research combines the capability approach (CA) with the theory of planned behavior (TPB) to investigate the effects of social norms and personal autonomy on sustainable consumption behavior. The approaches bear some similarities, but differ in that the CA attaches more importance to autonomy and highlights the indirect effects of social influence. In contrast to TPB, the CA suggests indirect norm effects (on behavior) by shaping attitudes and the perception of freedom of choice. Furthermore, the CA hints at the motivational power of personal autonomy for behavioral choices. We develop a combined model to test our assumptions for two sustainable consumption behaviors (i.e., purchase of organic food and mobility behavior). Testing the combined model based on cross-sectional data of the German socio-economic panel (GSOEP-IS) confirms the significance of the CA for sustainable consumption. The policy implications of the findings are enhancing people's opportunities for sustainable consumption in order to strengthen sustainable behavior.

1. Introduction

The capability approach (CA) is known as a leading paradigm for the definition and analysis of well-being that emphasizes the importance of freedom for well-being (Gasper, 2007). As such the link to sustainability is not clear from the outset (Leßmann and Rauschmayer, 2013a). However, the CA can be used to conceptualize the role of freedom for sustainability (Rauschmayer et al. forthcoming). Broadly, the aim of "sustainability" is to sustain well-being for current and future generations (WCED, 1987). The CA specifically looks how sustainability influences individual freedom and well-being and at the freedom of individuals to contribute to sustainability. The latter question clearly relates to sustainable consumption that, if defined in a broad sense, comprises market and non-market activities, including pro-environmental behavior (PEB). We define PEB as a behavior that "consciously seeks to minimize the negative impact of one's actions on the natural and built world (e.g. minimize resource and energy consumption, use of non-toxic substances, reduce waste production)" (Kollmuss and Agyeman, 2002: 240).

There have been a few attempts to link sustainable consumption (or sustainability) and the CA empirically from a macro-perspective as well as conceptually (Casini and Bernetti, 1996, Canova et al., 2005, Comim and Rie Varea, 2007, Di Giulio et al., 2012, Robeyns and van der Veen, 2007 and Neumayer, 2012). We propose to combine the CA with the theory of planned behavior (TPB) that has often been used for empirical research on sustainable consumption. Both approaches aim at explaining volitional behavior and refer to freedom of choice (or control) as a predictor for behavior. However in contrast to TPB, the CA ascribes instrumental and *intrinsic* value to freedom of choice. It thus employs a conception of human motivation as proposed by self-determination theory (Deci and Ryan, 2008) which views freedom of choice as an ingredient to a person's well-being. Further, the CA differs from TPB in modeling social influence on behavior. While TPB mainly posits a direct effect of social norms on intentions and behavior, the CA also suggests indirect norm effects by shaping attitudes and the perception of freedom of choice. As our results show both deviations of our model to the standard TPB model are confirmed hinting at the motivational power of autonomy and the importance of more indirect ways of social influence. We further aim to use the

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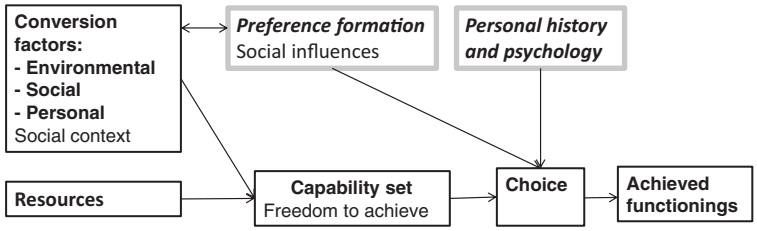

Fig. 1. Stylized representation of capability formation (adapted from Robeyns 2005).

model for operationalizing and investigating capabilities for sustainable consumption.

The paper is structured as follows: In Section 2 we introduce the capability approach and its links to sustainable consumption. In the third section we outline our model for empirically investigating sustainable consumption. This entails a brief introduction of TPB and the explication of our combined CA and TPB model. In the fourth section we apply the model on German data. The fifth section discusses the empirical results and raises possible questions of future research. The last section briefly concludes.

2. The capability approach and sustainable consumption

The CA, first brought forward by Amartya Sen, defines well-being in terms of the "functionings" a person can achieve – her "capability". "Functionings" refer to the various doings and beings that constitute a life people value and have reason to value. They range from elementary ones like being adequately nourished to rather complex ones like taking part in the life of the community (Sen, 1999:75). Resources and conversion factors are necessary prerequisites for achieving functionings. For example, in order to achieve the functioning "riding a bike" availability of a bike (resource) is necessary. At the same time, possessing a resource is often not sufficient to achieve the functioning in question. The person also needs to be able to use the resources in order to "convert" them into functionings, for example the person must have the physical skills necessary for biking (Leßmann, 2011).[1] While "functionings are *constitutive* of a person's being" (Sen, 1992:39) the freedom to choose among various combinations of functionings matters as well. This is what Sen calls "capability": "A person's 'capability' refers to the alternative combinations of functionings that are feasible for her to achieve." (Sen, 1999:75) Which of functionings are feasible depends on both – resources and conversion factors at the person's disposal (see Fig. 1 for a schematic representation of the CA).

The CA offers two interpretations of consumption: First, by taking resources modeled as the budget set into account, Sen refers to traditional microeconomic consumer choice theory. This interpretation restricts consumption to marketable goods and services. However, the second interpretation offers a much broader conception of consumption as "achieving functionings" that includes the purchase of marketable goods and services and extends to behavior in a broader sense. This interpretation rests on the conceptual analogy between the budget set and the capability set (Sen, 1992): Just as the consumer can choose any bundle of goods from the budget set an individual can choose any combination of functionings from her capability set. Sustainable consumption in this sense demands that "individuals today consider the capability-sets of future people in their current choices" (Leßmann and Rauschmayer, 2013b:99). The rationale for this demand is to respect the importance of freedom for human well-being as Sen (2013: 10) highlights: "If [contributing to SD by sustainable consumption] is to be done through compulsion and force, rather than volition and consent, then some freedom (which may be worth preserving) would have been immediately sacrificed, in trying to conserve other things."

From a CA perspective, sustainable consumption (or PEB) provides individuals with an opportunity to contribute to general goal of sustainability. Denying (or decreasing) this opportunity (e.g., by economic restrictions) may undermine social inclusion.[2] Hence, there are (at least) two reasons for investigating people's capabilities for sustainable consumption empirically: Firstly, for assessing their contribution to SD in general as well as secondly for examining whether current people's freedom is respected.

So far empirical applications of the CA have focused on the evaluation of well-being and poverty (for an overview see Leßmann, 2011). For investigating sustainable consumption special attention to the freedom aspect of capability is required. There are essentially two ways of capturing the freedom of choice a person enjoys: Either direct measures taken from the empirical literature on autonomy and empowerment are applied (see Ibrahim and Alkire, 2007 and Alkire, 2009 for an overview) or freedom is measured indirectly by looking at the opportunities and constraints a person faces (e.g., Anand and van Hees, 2006; Burchardt and Le Grand, 2002). In general, freedom is domain-specific and varies across a person's life domains. Therefore Ibrahim and Alkire (2007) suggest using domain-specific questions on freedom. Similarly, it is easier to name specific opportunities or identify context-specific constraints (barriers) when measuring freedom indirectly. However, this demands to adjust the questions and develop a measure specifically for the context at hand, in our case for sustainable consumption.

3. Combining the CA with the theory of planned behavior for operationalizing sustainable consumption

For an empirical analysis of capabilities for sustainable consumption two questions arise: First, what behaviors or functionings to focus on and, second, how to model a person's capabilities? We address the first question by restricting our focus to pro-environmental behavior (PEB; see introduction), although such behavior may not exclusively be directed towards sustainability (i.e., the well-being of current and future generations). For the second question, we refer to the theory of planned behavior (TPB, Ajzen, 1991), a model widely applied in PEB research.

TPB focuses on a person's intention to perform a certain behavior which is jointly determined by the person's attitudes, subjective norms (i.e. the perceived behavioral expectations of important reference persons) and perceptions of behavioral control (i.e. efficacy and control expectations). Behavioral intentions, in turn, mediate the influence of these three proximal predictors on actual behavior (Ajzen, 1991; see Fig. 2).

[1] Robeyns (2005) distinguishes three kinds of "conversion factors": (a) personal conversion factors such as physical characteristics and skills, (b) social conversion factors such as institutions (e.g. social norms) that regulate the access to work, education and so on and (c) environmental conversion factors such as climate and geographical features.

[2] The assumption, that PEB has positive social status implications (at least in Western societies) is supported by recent empirical evidence (Griskevicius, Tubur, and Van denbergh, 2010). PEB, thus, reflects a socially valued form of participation, that, when denied (e.g., by economic restrictions), may hint at "new" social inequalities.