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## Pathways to Civic Engagement with Big Social Issues: An Integrated Approach

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## **Pathways to Civic Engagement with Big Social Issues: An Integrated Approach**

### **Abstract**

Individual actions designed to address issues of public concern is a common theme in the discourse on how to mobilize resources and target efforts toward sustainable practices. We contribute to this area by (1) developing and empirically validating a multi-dimensional scale for civic engagement; (2) synthesizing and testing the adequacy of the theory of planned behavior (TPB) and the value–belief–norm (VBN) theory in explaining civic engagement; and (3) considering how an individual’s orientation, identity, and beliefs motivate moral thinking and action. The focus is on the important social issues of global warming and climate change, income inequality, and world poverty and hunger. We follow both correlational and configurational approaches to examine symmetric and asymmetric causal relationships, respectively. The findings from a sample of 819 US citizens reveal that the TPB and VBN theory can adequately explain civic engagement, after we control for the influence of past experience. In addition, while belief in a just world inhibits the occurrence of adverse consequences and the formation of positive attitudes, social value orientation and moral identity facilitate them. Notably, at least two causal conditions need to be present for adverse consequences to emerge, while moral identity is almost a necessary condition for the development of positive attitudes. We conclude with a discussion of important implications for researchers and practitioners.

**Keywords:** Civic engagement; Theory of planned behavior; Value–belief–norm theory; Social value orientation; Belief in a just world; Moral identity; Sustainability

## **Pathways to Civic Engagement with Big Social Issues: An Integrated Approach**

One's philosophy is not best expressed in words; it is expressed in the choices one makes ...  
and the choices we make are ultimately our responsibility.  
—Eleanor Roosevelt

### **Introduction**

In the past years, attention has continued to be paid to severe global economic, social, and environmental problems, most often under the sustainable development heading (United Nations, 2015). To address the world's most pressing challenges, including poverty, economic inequality, and climate change, and achieve a better and more sustainable future that leaves no one behind, governments, organizations, civil society, and individuals alike all need to work together to do their part (Le Blanc, 2015; Sachs, 2012). However, the very scale and complexity of the issues makes many people feel powerless and/or ineffective and reduces the belief that their own behavior can make a difference (Hume, 2010; Mulligan, 2018). This is certainly not the case though, as the engagement of people, individually and collectively, is crucial for addressing big social issues (Swinburn et al., 2019). People can act as agents of change in their roles as parents, customers, employees, employers, citizens, and elected officials. Their influence is greatest at the micro level (e.g., family and friends), but people also have an opportunity to create influence at the macro level (e.g., being a consumer, using social media, having a voice in governance) (Harrison et al., 2005; Labrecque et al., 2013). People are decision makers who communicate their preferences with other decision makers; they can advocate, lobby, and vote for issues that concern them and use their purchases like marketplace votes to create pressure for both public- and private-sector policy actions (Gabriel and Lang, 2015; Keck and Sikkink, 2014). Meaningful individual and collective actions can therefore have an impact that, through ripple effects, helps

create momentum for wider behavior change (Larana, 2009; McKenzie-Mohr, 2011) and assists in putting the world on a sustainable trajectory (Osbaldiston and Schott, 2012).

In the continued debate on how to mobilize resources and motivate efforts toward sustainable development, some pundits criticize the discipline of marketing for what it does and/or for what it fails to do. Frequently cited criticisms are that marketing collaborates more closely with for-profit than non-profit organizations, does little to help people at the bottom of the pyramid lift themselves out of poverty, undermines the lives of people with little money or few possessions, misleads consumers and prioritizes sales over ethics, encourages the purchase of products in ever-increasing amounts, or contributes to unsustainable economic growth (e.g., Bertrand et al., 2006; Fry and Polonsky, 2004; Mendel, 2005).

Yet such criticism is not always well-founded. A growing number of marketing studies have focused on non-profit organizational effectiveness (e.g., Arnett et al., 2003; Shabbir et al., 2007) and charitable giving (e.g., Sargeant et al., 2010; Skarmeas and Shabbir, 2011), considered advertising ethics (e.g., Hyman et al., 1994; Shabbir and Thwaites, 2007; Shabbir et al., 2014), professional codes of conduct (e.g., Reast et al., 2008; Schlegelmilch and Öberseder, 2010) and corporate social initiatives (e.g., Bhattacharya and Sen, 2004; Maignan and Ferrell, 2004), addressed consumer ethical decision making (e.g., O'Fallon and Butterfield, 2005; Shanahan and Hyman, 2003) and consumer concerns about business practices (e.g., Leonidou and Skarmeas, 2017; Phelps et al., 2000), and promoted healthy lifestyles (e.g., Nikolova and Inman, 2015; Wansink and Huckabee, 2005) and sustainable consumption (e.g., Leonidou and Leonidou, 2011; Sheth et al., 2011). In addition, studies have tried to understand the issue of poverty, explain how companies could serve bottom of the pyramid markets, and devise mechanisms for poverty alleviation (e.g., Anderson et al., 2010; Karnani, 2007; Varman et al., 2012). Thus, a fair

number of studies apply marketing concepts to examine the facilitators and barriers to behavior change in the upstream (e.g., organizations) or downstream (i.e., individual) level with a view to addressing issues of public concern and improving personal and societal welfare (Lee and Kotler, 2015; Kotler, 2011; Truong, 2014).

The present study contributes to this body of research in three ways. First, we develop and validate a new, multi-dimensional civic engagement scale. Over the years, prior research across fields such as psychology (Watts and Flanagan, 2007), sociology (Schofer and Fourcade-Gourinchas, 2001), political science (Stolle and Hooghe, 2005), and philosophy (Villa, 2001) has devoted a great deal of attention to the civic engagement construct. However, research on civic engagement phenomena has been hampered by the lack of consensus on its conceptualization and limitations in its measurement. Previous studies have combined voluntary work, working for non-political groups, fund-raising for charities, support to corporate socially responsible actions, boycotting, participation in political and non-political activities, and activism to assess civic engagement and used both formative and reflective items to measure it (e.g., Gil de Zúñiga et al., 2012; Omoto et al., 2010; Shah et al., 2005). In addition, more than two decades have passed since civic engagement was used to refer to people's connections with their communities, not merely with politics (Putnam, 1995), and the world has changed greatly since then; the rise of the Internet and the dramatic growth of social media are but some examples that have wrought change. Drawing on recent developments in the literature (Kumar and Pansari, 2016), civic engagement is viewed as comprising donations, purchases, references, and influence. Enhanced understanding of civic engagement and its components can help public policy makers and managers in for-profit and non-profit organizations evaluate people's attitudes and behavior

toward social issues, prioritize and allocate resources to those components that need immediate attention, and design effective strategies that embrace and highlight social causes.

Second, this study examines civic engagement through the lenses of two influential theories of human behavior: the theory of planned behavior (TPB) (Ajzen, 1991) and the value–belief–norm (VBN) theory (Stern, 2000). The former is fundamental to explaining an individual’s behavior grounded in rational choice-based deliberation across a wide range of contexts (Armitage and Conner, 2001); the latter was specifically developed to predict individuals’ environmentally responsible behavior (Stern et al., 1999). A small number of studies have used the TPB in conjunction with VBN theory to explain pro-environmental behavior (Han, 2015; Kaiser et al., 2005; Oreg and Katz-Gerro, 2006). We draw on both theories to explore the inter-relationships between TPB and VBN variables, consider the relative importance among drivers, and develop a unifying model of civic engagement. Merging these two well-established theories, rather than using them in isolation, may allow for an integrated and enhanced understanding of the process leading to civic engagement.

Third, to provide a holistic picture of the role of these two theories in the decision-making process underlying pro-social behavior, we draw on the theoretical perspectives of social value orientation (SVO) (Messick and McClintock, 1968), moral identity (Aquino and Reed, 2002), and belief in a just world (BJW) (Lerner, 1980). These related research streams have emerged independently, and none has incorporated the effects of the others while accounting for phenomena of pro-social behavior. To the best of our knowledge, our work is the first to synthesize insights from the distinct, though related, social-psychological constructs of SVO, moral identity, and BJW to advance understanding of the relative efficacy of each construct, help

locate predictors within a broad nomological network, and propose a parsimonious but comprehensive model of civic engagement.

Our civic engagement investigation focuses on the important issues of climate change and global warming, income inequality, and world poverty and hunger. For this study, we recruited 819 participants through Amazon Mechanical Turk (MTurk), a crowdsourcing online market research platform that allows researchers (as requesters) to submit human intelligence tasks (HITs) to be completed by paid workers. To analyze the data and test model relationships, we used both partial least squares-structural equation modeling (PLS-SEM) and fuzzy-set qualitative comparative analysis (fsQCA). The results are supportive of our conceptualization and provide a basis for a discussion on the processes that underpin pro-social behavior and social change. Next, we present an overview of the theories and constructs that guided this study.

## **Conceptual Framework**

### Civic Engagement

Engagement has received growing interest across a range of disciplines, including philosophy, political science, sociology, and psychology. This is understandable, given that civically responsible individuals recognize themselves as members of a larger social fabric, perceive social problems as partly their own, and focus on work for the common good (Colby et al., 2000). In addition, studies on engagement in organizational behavior literature have demonstrated that employee engagement results in positive job attitudes, lower absenteeism and turnover, customer satisfaction, and enhanced individual and team performance (for reviews, see Crawford et al., 2010; Harter et al., 2002). Although there is no agreed-on definition of employee engagement, the term usually refers to an individual's involvement and satisfaction with and enthusiasm for work (Harter et al., 2002). Likewise, there is no agreement on the definition of



engagement in marketing literature, though most studies conclude that customer engagement extends beyond purchases to encompass activities that have a brand or firm focus (e.g., Van Doorn et al., 2010; Vivek et al., 2012), and findings show that customer engagement contributes to firm value and enhances performance (e.g., Kumar and Pansari, 2016; Verhoef et al., 2010).

We view civic engagement as individual actions designed to address issues of public concern (APA, 2018). Because of its mobilizing force, civic engagement can activate change in individuals' behavior and thus generate public support, which is *sine qua non* in the solution of large-scale problems (e.g., Larana, 2009; Stern et al., 1999). Furthermore, drawing on Arnett's (2003) work in the non-profit marketing area and the recent investigations of Kumar et al. (2010) and Kumar and Pansari (2016), we view civic engagement as comprising four dimensions: donations, purchases, references, and influence. Our conceptualization encompasses non-profit and for-profit organizations as well as traditional and electronic word of mouth (WOM) and thus emphasizes the central role of individual behavior in general and consumer behavior in particular in solving big social problems.

Donations refer to the action of making a contribution, usually to a charity. Prior studies have identified a broad range of determinants of charitable giving, including demographic factors (e.g., income, education, religious affiliations), personal values, economic and psychological motivations, recipients' characteristics, and social relations (for reviews, see Bekkers and Wiepking, 2011; Sargeant and Woodliffe, 2007). Recent writings stress the role of social identification and a cause-congruent identity in influencing donations to a charitable cause (e.g., Park and Lee, 2015; Winterich and Barone, 2011). People who care deeply about a good cause are compelled to get involved and provide what is needed to accomplish a definite end. By virtue

of a cause-congruent identity, donating emphasizes the importance of social relationships and connectedness, helping others in need, and living up to social obligations.

Purchases concern consumers' support of socially responsible organizations. Consumers may reflect their values and beliefs by what they purchase and do not purchase (e.g., Moraes et al., 2011; Shaw et al., 2006). When appraising a company, compliance with ethical and social requirements is of prime importance for individuals engaged in social causes (Castaldo et al., 2009; Vitell, 2015). Consumers who embrace social issues use corporate responsibility as a major purchasing criterion and incorporate societal well-being in their purchase decisions (Maignan, 2001; Öberseder et al., 2013). To express their concern about corporate behavior and demonstrate their support to responsible business, they avoid purchasing from companies that do not conform with ethical standards, prefer products of companies with a good reputation in terms of social responsibility, and are even willing to make a sacrifice (e.g., pay more or buy at a less convenient location) for products of socially oriented companies (Walker and Kent, 2013).

References are another form of engagement with a social cause. When people care deeply about an issue, they spread favorable WOM and make extensive, positive referrals to others in their reference group (De Matos and Rossi, 2008). People frequently provide recommendations to present themselves in ways that engender positive impressions of others (and of themselves), regulate their emotions, help others make more informed decisions, connect with others, and persuade others (Berger, 2014). Direct recommendations are effective because information provided from an informal, non-commercial source is generally perceived as more objective and trustworthy (Villanueva et al., 2008). Therefore, providing personal referrals can increase social awareness, facilitate knowledge sharing, help in recruiting supporters who would not be attracted by traditional marketing activities, and contribute to the overall social cause.

Influence reflects the impact of an individual on social media (Trusov et al., 2009). The popularity of social media has skyrocketed in recent years (Statista, 2018). The rise of social media facilitates increased active participation and a high degree of network inter-connectedness among users (Hennig-Thurau et al., 2013). Today, people engage with social media often and have multiple social media accounts to present themselves, stay up-to-date with news, and become part of a community of friends and like-minded people (Kaplan and Haenlein, 2010). Using social media (e.g., social networking sites, blogs, video- and photo-sharing sites) makes it easy to find, proffer, and exchange information and share thoughts, feelings, and experiences on topics of common interest. As social media users influence others within a social network, these effects ripple out not only across but also beyond the social network (Hanna et al., 2011).

#### Theory of Planned Behavior

Since its development as an extension of the theory of reasoned action (Ajzen and Fishbein, 1980), scholars have widely embraced and applied the TPB (Ajzen, 1991) to predict and explain individuals' intentions to engage in various pro-social behaviors and activities (e.g., De Leeuw et al., 2015; Fielding et al., 2008). Rooted in social psychology, the TPB maintains that individuals' intentions or motivational factors to engage in a specific behavior are contingent on attitude toward the behavior, subjective norm, and perceived behavioral control (Ajzen, 1991).

According to Ajzen (1991), attitude toward the behavior refers to favorable or unfavorable evaluation of the expected consequences of engaging in the behavior. Subjective norm denotes expectations of whether significant others would approve of and endorse the behavior and reflects the perceived social pressure to engage, or not to engage, in the behavior and the motivation to comply with the expectations of relevant others (Ajzen, 1991). Perceived behavioral control refers to beliefs about the existence of certain control factors (e.g., skills,

resources, opportunities) that are likely to facilitate or impede individuals' engagement in the behavior (Ajzen, 1991).

The TPB predicts that individuals' intention to engage in pro-social behaviors results from beliefs in their ability to engage in actions that can improve human conditions (perceived behavioral control), favorable support and acceptance of peers and family (subjective norm), and positive attitudes toward pro-social behaviors. Its usefulness in explaining how individuals' beliefs and attitudes drive pro-social behaviors notwithstanding, the TPB is often criticized (e.g., Conner and Armitage, 1998; Klöckner and Blöbaum, 2010) for omitting conceptually independent and related variables (i.e., values and moral components) that can further predict and explain individuals' decisions to engage, or refuse to engage, in various pro-social behaviors.

#### Value–Belief–Norm Theory

To account for certain kinds of values and moral components that can enrich understanding of why individuals engage in pro-social behaviors, scholars have widely used VBN theory (e.g., Oreg and Katz-Gerro, 2006; Poortinga et al., 2004). Grounded in social psychology, this theory builds on the norm activation framework (Schwartz, 1977) and postulates that individuals' sense of obligation (i.e., personal norm) is a key determinant of their decision to engage in pro-social behaviors (Stern, 2000). According to Stern (2000), personal norm reflects individuals' feelings of moral obligation related to engaging in pro-social behaviors. Personal norm is influenced by adverse consequences and ascribed responsibility. The former captures individuals' awareness of the consequences of engaging in pro-social behavior; the latter reflects individuals' feelings of being responsible for the consequences of engaging in pro-social behavior (Stern, 2000).

Essentially, VBN theory holds that socially responsible actions occur in response to (1) awareness that the current conditions pose threats to valuable others or objects (adverse consequences), (2) understanding that it is possible to engage in pro-social-related activities to alleviate those threats and ameliorate the current situation (ascribed responsibility), and (3) personal norms that are linked to individuals' self-expectations and impel them to act in ways that improve the human condition (sense of obligation). VBN theory broadens the norm activation framework (Schwartz, 1977) by asserting that individuals' values and ecological worldviews precede awareness of consequences (Steg et al., 2005; Stern, 2000).

### Social Value Orientation Theory

The concept of SVO theoretically extends the assumption of rational self-interest by proposing that, in reality, individuals set broader goals than self-interest. In this direction, SVO conceptualizes a three-category typology related to different preference patterns of outcomes for the self and others: (1) cooperation (i.e., maximizing outcomes for the self and others), (2) individualism (i.e., maximizing outcomes for the self with little or no regard for others' outcomes), and (3) competition (i.e., maximizing relative advantage over others' outcomes (Messick and McClintock, 1968). In line with this conceptualization, we assume that individuals vary in their motivations or goals when evaluating different resource allocations between themselves and others. For example, an individual may want to maximize his or her own payoff (individualism), maximize (competition) or minimize (inequality averse) the difference between his or her own and the other person's payoff, or maximize joint payoffs (pro-social).

The SVO typology has served as a theoretical foundation for many studies aiming to understand individuals' judgments of and responses to others with whom they are interdependent

(e.g., Van Lange and Kuhlman, 1994). Research has found that the concept affects cognitions and accounts for behavior across a range of interpersonal decision-making domains, including negotiations (De Dreu and Boles, 1998) and resource dilemmas (Roch et al., 2000; Roch and Samuelson, 1997). Although research suggests that SVO interacts with different emotional states and, in turn, influences the propensity to cooperate (Zeelenberg et al., 2008), its role in influencing attitudes and intentions toward pro-social behaviors specifically is less well documented. We expect the inclusion of the SVO variable to improve the empirical fit of our framework and the ability of the proposed theories to predict pro-social behaviors.

#### Moral Identity Theory

Individuals hold moral beliefs that shape a specific aspect of their personality (Blasi, 1983; Reynolds and Ceranic, 2007). Moral identity refers to self-conception organized around a set of moral traits (Aquino and Reed, 2002). Individuals' moral identity is the central feature of their moral self and reflects a self-regulatory process that drives moral attitudes and behaviors (Aquino and Reed, 2002). Moral identity determines which behaviors can be judged as morally pertinent (whether certain actions are right or wrong) and prompts individuals to engage in pro-social behaviors that are consistent with their moral beliefs and identity, linking moral reasoning to behavior (Blasi, 1983; Hardy, 2006). In essence, moral individuals feel obligated to engage in pro-social activities directed at averting what they perceive as socially unjust because they are more apprehensive about adverse human conditions that are inconsistent with their moral identity and beliefs (Detert et al., 2008).

#### Just-World Theory

BJW consists of a set of interrelated beliefs, ideas, and values about the nature of the world that helps people understand reality and existence; it reflects whether individuals perceive the world as a just place (Lerner and Miller, 1978; White et al., 2012). The just-world theory proposes that, in general, individuals have the need to believe that the world is a just place where they get what they deserve and deserve what they get (Lerner and Miller, 1978; Rubin and Peplau, 1975).

Without such a belief, individuals will be reluctant to pursue long-term goals (Lerner and Miller, 1978). Moreover, those who believe in a just world but experience injustice in their environment are committed to take actions to reinstate justice (Lerner and Miller, 1978). Lipkus et al. (1996) argued that BJW concept can be divided into two dimensions: (1) self and (2) others. A belief in a just world for the self (BJW-S) represents a personal resource involved in self-perception and coping strategies, while belief in a just world for others (BJW-O) refers to the application of the justice motive in the interpretation of the social environment (Bègue and Bastounis, 2003). BJW-O is a more relevant concept for examining pro-social behavior than BJW-S because it is activated when interpreting social phenomena and events. Empirical evidence suggests that BJW-O is significantly associated with discrimination against the elderly, stigmatization of poverty, and greater penal punishment while BJW-S is weakly or not correlated with these behaviors (Bègue and Bastounis, 2003).

### **Research Model**

To uncover factors that predict civic engagement with certain big social issues, we draw on two well-established research traditions: (1) the TPB (Ajzen, 1991), which is based on rational choice-based deliberation, and (2) the VBN (Stern et al., 2000), which is grounded in values and moral norms. In line with the TPB, we postulate that attitude, subjective norm, and perceived

behavioral control influence civic engagement. In line with prior research in the realm of TPB, we control for the effects of subjective norm on attitude and of past experience on current behavior (e.g., Conner and Armitage, 1998; Han et al., 2010). In keeping with the sequential process of VBN theory, we assume that awareness of adverse consequences for a valued object induces ascribed responsibility to take action, which in turn activates a moral obligation to perform the behavior in question. Our goal is to integrate, rather than use in isolation, these two theories to provide a unifying model that better explains the process leading to civic engagement. To this end, we included the impact of subjective norm on sense of obligation to act and the impact of sense of obligation on attitude toward the behavior (Bamberg et al., 2007; Han, 2015), while we position sense of obligation, attitude, subjective norm, and perceived behavioral control as precursors of civic engagement.

To enhance understanding of the role of TPB and VBN theory in the decision-making process underlying civic engagement, we draw on the theoretical perspectives of SVO (Messick and McClintock, 1968), moral identity (Aquino and Reed, 2002), and BJW (Lerner, 1980), which have attracted considerable attention in morally relevant situations in general (e.g., when one's self-interest and the interest of others are at odds; Hardin, 1998) and in the ethics and sustainability domains in particular (e.g., Ashkanasy et al., 2006; Reed et al., 2007; Van Dijk et al., 2004). SVO theory proposes that a person's social values can explain how people evaluate different resource allocations between themselves and others (Bogaert et al., 2008), moral identity theory suggests that the attitudes and behaviors of individuals reflect their own moral values (Reed et al., 2007), and BJW serves as an interpretive lens for understanding the nature of the world that affects people's thoughts, attitudes and behaviors (White et al., 2012).



The TPB has been criticized for being utility oriented and neglecting the role of moral considerations in explaining attitudes and behaviors (e.g., Kaiser and Scheuthle, 2003; Kaiser, 2006), an important oversight in morally relevant situations such as environmental protection, income inequality, and world poverty. To address this shortcoming, we incorporate the morally relevant concepts of SVO, moral identity, and BJW into the TPB and position them as meaningful antecedents of people's attitudes toward issues of public concern.

VBN theory maintains that individuals' biospheric, altruistic, and egoistic values and ecological worldviews precede their awareness of adverse consequences, which in turn leads to ascribed responsibility and sense of obligation (Stern et al., 1999). Values represent large, universal principles that reinforce the development of life goals and standards (Schwartz, 1977), while worldview refers to the way people see and understand the world (Bègue and Bastounis, 2003). We conceptualized values and worldview at a general level (i.e., SVO, moral identity, and BJW) to provide a comprehensive framework that applies in diverse pro-social contexts, rather than solely pro-environmental situations. SVO refers to the distinction between the pro-self and the pro-social, and adverse consequences are likely to be more salient for individuals with a pro-social value orientation (Gärling et al., 2003). By reflecting on and calling attention to what is right or wrong, moral identity is likely to make individuals more cognizant of the threats that current conditions pose to valuable objects (Aquino and Reed, 2002). Consideration of justice is an essential part of people's worldviews and is likely to determine the extent to which they perceive consequences to be serious enough (Bègue and Bastounis, 2003). Accordingly, SVO, moral identity, and BJW are investigated as predictors of adverse consequences.

Fig. 1 illustrates our research model and the constructs examined. The model comprises 10 key constructs: Values and worldview constructs (i.e., SVO, moral identity, and BJW), which

are positioned as antecedents of adverse consequences and attitude; VBN constructs (i.e., sense of obligation, ascribed responsibility, and adverse consequences), with sense of obligation considered as a predictor of civic engagement; and TPB constructs (i.e., attitude, subjective norm, and perceived behavioral control), which are examined as predictors of civic engagement. Our model also takes into account the sequential process of VBN theory (i.e., adverse consequences lead to ascribed responsibility, which in turn results in sense of obligation), examines the effects of subjective norm on attitude and sense of obligation, assesses the influence of sense of obligation on attitude, and controls for the effect of past experience on civic engagement. Based on a review of the literature, these theories and constructs relating to behavior were identified as important in explaining civic engagement. Taken together, the research model and construct associations examined shed light on why and how individuals become engaged with issues of public concern. Our model is built on the premise that an integrated and comprehensive approach is needed, one that brings together different theoretical perspectives, to better understand civic engagement.

Figure 1

## **Methodology**

### **Data Collection**

We gathered data for this study using an online questionnaire through MTurk. Use of this platform is time effective and cost-efficient, minimizes the risk of interviewer bias, and offers a good opportunity to sample and reach a large and diverse audience (Hulland and Miller, 2018). HITs (e.g., questionnaires, experiments, exercises) can be completed on a computer or a mobile device using simple templates or web links prepared with external online questionnaire tools

(e.g., Qualtrics, SurveyMonkey) (Buhrmester et al., 2011). Workers can browse available HITs, select those they want to complete, and receive payment on successful completion of each HIT.

We used a questionnaire designed through Qualtrics as the research instrument. The questionnaire included 59 structured scaled questions to capture respondents' beliefs, attitudes, values, and motivations. As a prerequisite, respondents needed to be at least 18 years of age, to reside in the United States, and to have successfully completed a high percentage (95%) of prior HITs. An online questionnaire link was provided to respondents along with detailed instructions about the task. Respondents were paid the equivalent of approximately \$9 per hour for participation. We received 911 responses in total; we dropped 92 responses because of a high number of missing items (22), static or replicated answer patterns (43), and extremely quick completion times (27). Thus, the final sample consisted of 819 responses.

We developed three versions of the questionnaire, to ensure variation in responses, avoid problems with restricted range, and enhance the generalizability of the findings (Blair and Zinkhan, 2006; Rindfleisch, Malter, Ganesan, and Moorman, 2008). The first version asked respondents about the social issue of climate change and global warming<sup>1</sup>, the second focused on the issue of income inequality, and the third centered on the issue of world poverty and hunger. To identify the chosen three social issues we relied on objective, secondary sources. The World Economic Forum seemed appropriate here because it is an independent, non-profit international organization, tied to no political, partisan or national interests and committed to improving the state of the world by engaging business, political, academic and other leaders of society.

According to the World Economic Forum (World Economic Forum, 2017), these three issues are

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<sup>1</sup> Although climate change (i.e., long-term change in the earth's climate) technically connotes all forms of climatic deviation, including global warming (i.e., increase in the earth's average surface temperature), many people find it difficult to distinguish climate change from global warming and the two terms are often used interchangeably in the literature (e.g., McCright, 2010).

the most prevalent environmental, social, and economic issues facing society today. Each respondent could randomly access only one of the three survey variations, a process managed automatically by the randomizer element in Qualtrics. Of the 819 responses in the final sample, 267 referred to climate change and global warming, 281 to income inequality, and 271 to world poverty and hunger. The sample was fairly balanced in terms of gender, level of education achieved, marital status, employment, and annual household income. Appendix 1 provides the demographic characteristics of the samples.

### Measure Development and Validation

We identified appropriate scales for the focal constructs following a careful review of the literature and adapted them to better suit each of the three contexts tapped in our questionnaire. Unless otherwise stated, we used a 7-point Likert response format. We developed an initial draft of a structured questionnaire and asked four academics experienced in marketing research to comment on the face validity of the items for each construct. These experts highlighted some inconsistencies in the measures employed, and we made the necessary modifications to improve the content of some of the items. For instance, in some cases ‘we’ was replaced with ‘I’, spelling was changed to match the study’s context, and meaning variations across the three versions of the questionnaire were appropriately addressed. Subsequently, we pre-tested the questionnaire on 21 US citizens using a procedure identical to the one used for the main data collection. These respondents had similar characteristics to those included in the final sample but exhibited high familiarity with, involvement with, and knowledgeability of all areas covered in the questionnaire. Importantly, no problems with the questionnaire were reported at this stage, as

respondents commented favorably about the structure, flow, and clarity. Appendix 2 provides a detailed list of the items used in this study along with the source of the measures.

#### Operationalization of SVO: The SVO Slider Measure

We used the measure of SVO proposed by Murphy et al. (2011), which allows for greater explanatory potential of SVO through increased statistical power than other measures in the literature. More specifically, we treat SVO as a continuous property to reflect how much an individual is willing to sacrifice to make another individual better off (or perhaps worse off). Although this quantification of interdependent utilities can be captured more accurately through a continuous scale, most of the existing SVO measures produce categorical data (e.g., the triple-dominance measure, Van Lange et al., 1997; see also De Dreu and Boles, 1998). Nonetheless, the unfortunate practice of reducing continuous variables to categories results in less than full explanatory power of measures, due to discarded information related to people's social preferences and unnecessary sacrifice of statistical power (see Cohen, 1983).

The literature also refers to the SVO measure used in this study as the SVO slider measure (Murphy et al., 2011). This measure consists of six primary items, each of which represents a resource allocation task over a well-defined continuum of joint payoffs. For example, item 5 requires the individual to choose his or her own payoff value  $x$ , between 50 and 100, whereas the other person's payoff would be  $150 - x$ . The individual must indicate the chosen allocation that reflects his or her most preferred joint distribution. The six items, which we adopt from Murphy et al. (2011), correspond to the most common idealized social orientations reported in the literature (i.e., altruistic, pro-social, individualist, and competitive). Each individual evaluates all six items and, for each one, indicates the most preferred joint

distribution. These responses then yield a single index of SVO, as follows: first, we calculate the mean allocation for self ( $M_s$ ) and the mean allocation for the other ( $M_o$ ) across the six items. Second, we plot  $M_s$  and  $M_o$  on the X- (horizontal) axis and Y- (vertical) axis, respectively, of the Cartesian coordinate system, as shown in Fig. 2.

Figure 2

We compute the inverse tangent (i.e., arctangent) of the ratio between these means, which results in a single index score of a person's SVO.

$$SVO^\circ = \arctan\left(\frac{(M_o - 50)}{(M_s - 50)}\right).$$

The tangent function is one of the three most common trigonometric functions. In a right triangle, the tangent of an angle is the length of the opposite side divided by the length of the adjacent side. In the ABC triangle presented on the right-hand side of Fig. 2, highlighted in light blue color, the tangent of angle  $\theta$  is the length of the opposite side (i.e., mean payoff to other;  $M_o$ ) divided by the length of the adjacent side (i.e., mean payoff to self;  $M_s$ ). We subtract 50 from each of these means before estimating the inverse tangent, to “shift” the base of the resulting angle to the center of the circle (50, 50). With this trigonometric approach, a perfect pro-social individual who endeavors to maximize joints gains (and is inequality averse) would have an angle (i.e., SVO index score) of 45 degrees (see Fig. 2), suggesting that the mean allocation for the other (i.e., opposite side of angle  $\theta$ ) is equal to the mean allocation for the self (i.e., adjacent side of angle  $\theta$ ). Altruists should have sharper angles than pro-socials because their mean payoff to the other should be higher than that to the self. Following the same logic, pro-socials should have sharper angles than individualists, and individualists should have sharper angles than competitive types. In other words, low SVO index scores (or smaller  $\theta$  angles) are suggestive of a competitive type of social orientation, while high SVO scores (or sharper  $\theta$

angles) are indicative of an altruistic SVO (for more information on the SVO slider measure and relevant primary slider measure items, see Murphy et al., 2011).

#### Operationalization of Moral Identity and BJW

We obtained the five-item moral identity scale from Chowdhury and Fernando (2014).

Specifically, respondents viewed a set of nine adjectives (e.g., caring, generous, honest) and read a statement about how a person with these characteristics could have been “you or it could be someone else”. Then, they were instructed to visualize that person and asked to express whether being a person with these characteristics was important to them. We measured BJW using seven items derived from the work of Lipkus et al. (1996) that aim to capture individuals’ belief about the nature and fairness of society for people in general (BJW-O).

#### Operationalization of TPB

To measure attitude, we employed the four-item semantic differential scale of Leonidou and Skarmeas (2017) that taps into respondents’ views about the particular issue polled (i.e., climate change and global warming, income inequality, and poverty and hunger). We measured subjective norm and perceived behavioral control using scales adapted from Han (2015). The items of subjective norm focused on whether people of importance to the individual approve or disapprove of acting on the issue in question. The items of perceived behavioral control focused on the control the respondent has over the decision to do something about the particular issue.

#### Operationalization of VBN Theory

We used three separate variables to capture VBN theory. The four-item construct of adverse consequences from Steg et al. (2005) taps into the seriousness of the cited problems for society and/or the planet. We measured ascribed responsibility and sense of obligation with three and four items, respectively, adapted from Han (2015). The ascribed responsibility items centered on the responsibility that every individual has in causing the cited problems. The sense of obligation items focused on the moral obligation of individuals to take action to solve the cited problems.

#### Operationalization of Civic Engagement

The four-dimensional construct of civic engagement assesses the extent to which the respondent engages in individual behavior to address issues of public concern (APA, 2018). The civic engagement measure comprises four components: donations, which include financial or non-financial contributions to charities that tackle the stated issue of public concern; purchases, which involves adapting purchase behavior to conform to the particular issue in question; references, which capture the concept of promoting and providing positive WOM for a particular issue to friends and relatives; and influence, which focuses on attempts to influence the wider community's opinions about a particular issue by using social networking and social media tools.

To operationalize the dimensional structure of civic engagement and develop items for each of its dimensions, we consulted the literature (e.g., Arnett et al., 2003; Kumar et al., 2010; Kumar and Pansari, 2016), and then conducted four focus groups with 46 post-graduate business students from the United States. The focus groups helped us better understand the constituent elements of civic engagement. For example, they showed that voluntary work, participation in protests or rallies, and writing or circulating petitions were not common among participants; rather, they tended to engage in political activity through their role as consumers and vote with



their purchases (e.g., Moraes et al., 2011; Shaw et al., 2006). Furthermore, the focus groups helped us identify additional items, adapt existing ones to match the specific characteristics of the research setting, and establish adequate content and face validity. We also used quantitative input from 52 individuals to purify the measure items and verify the dimensionality and reliability of the scale. Finally, we used MTurk to collect data from 91 US-based respondents and verified that the final four-dimensional civic engagement scale adequately performs within a system of related constructs and exhibits sufficient nomological validity.

To further confirm the dimensionality of civic engagement, we specified three different models. Model 1 is a higher-order four-dimensional model comprising donations, purchases, references, and influence as second-order dimensions; Model 2 is a one-dimensional model with all 15 items measuring the four variables organized under one first-order dimension; and Model 3 is a first-order model comprising donations, purchases, references, and influence as independent first-order dimensions. A comparison of the three models using confirmatory factor analysis in EQS 6.2 revealed that Model 1 had the best model fit; it was significantly better than Model 2 ( $\Delta\chi^2_{(2)} = 185.73, p < 0.01$ ) and Model 3 ( $\Delta\chi^2_{(4)} = 3080.26, p < 0.01$ ). Finally, we tested the accuracy of measuring civic engagement with a single item capturing the essence of civic engagement. The results showed a strong positive correlation ( $p < 0.01$ ) between the civic engagement scale and the single item, providing further confidence in the validity of the civic engagement measures.

### Control Variables

Recognizing that past experience with the specific societal and environmental issues examined in the study might play an important role in influencing current behavior, we included past

experience as a control variable. A three-item scale derived from Schlosser (2006) served to tap respondents' familiarity with, involvement with, and knowledgeability of the particular issue under consideration. In addition, we included one Likert-scale item as a priori marker variable to assess Common Method Variance (CMV) (Malhotra et al., 2006).

### The PLS-SEM Method

PLS-SEM is an evolving variance-based modeling technique used to maximize the explained variance of the dependent latent constructs. It does so by estimating partial model relationships in an iterative sequence of ordinary least squares (Hair et al., 2011). This statistical approach is robust because of its bootstrapping capabilities, reliable even for theory testing applications, and effective with complex models (Sarstedt et al., 2014). We implemented PLS-SEM in this study through SmartPLS 3.2.3 software (Ringle et al., 2015). As a correlational approach, PLS-SEM treats relationships as symmetric and allows the estimation of net effects.

We first specify a path model and extract information from the outer (measurement) model to identify the relationships between constructs and their corresponding indicators. The process involves examining how strongly each indicator loads onto its specified construct, verifying validity, and assessing reliability (Hair et al., 2014). We then use information from the inner (structural) model, through a bootstrapping procedure of 5,000 sub-samples, to identify the nature and significance of the relationships between latent variables, and we assess the explained variance ( $R^2$ ) and predictive relevance ( $Q^2$ ) for each of the endogenous model constructs.

### The FsQCA Method

FsQCA was originally introduced by Ragin (2000) and differs from regression-based and other correlational methods in several ways (Mahoney and Goertz, 2006; Pajunen, 2008). As opposed

to correlational techniques, which estimate the net effects of a set of independent variables on an outcome variable, fsQCA identifies the alternative combinations of conditions (i.e., alternative configurations) that collectively lead to a given outcome (Schneider, Schulze-Bentrop, and Paunescu, 2010; Skarmeas, Leonidou, and Saridakis, 2014).

Configurational approaches such as fsQCA can provide new insights into the examined relationships compared with conventional correlational methods; this was the main motivation behind our approach. In contrast with correlational methods, which rely on the assumptions of linearity, net-effect estimation, and unifinality (Fiss, 2007), configurational theory stresses the importance of non-linearity (i.e., relationships between variables are not always symmetric or linear), synergetic effects (i.e., focus on the estimation of combinations of effects rather than on net effects), and equifinality (i.e., alternative configurations can explain a given outcome). In studies applying correlational techniques, most researchers use two- and three-way interaction effects to examine configurations. From a theoretical perspective, although configurations may well exceed the limit of three variables, empirically three-way interactions represent the boundaries of interpretable regression analysis (Dess et al., 1997). Furthermore, correlational methods do not account for equifinality; although they test for non-linearity through interaction effects, it is assumed that a given relationship holds strong across all points of the dataset.

As a configurational approach, fsQCA treats relationships between variables as asymmetric and offers a more holistic view of how different combinations of antecedent conditions may collectively lead to a given outcome. FsQCA involves analyzing set relationships. Thus, researchers must initially convert all variables into sets by assigning membership values to conditions on a scale from 0 (non-membership) to 1 (full membership), with 0.5 as the crossover point or point of maximum ambiguity. This allocation is known as set

calibration. The technique examines causal relationships through systematic comparisons. Unlike traditional correlational methods, fsQCA relies on Boolean algebra to establish causal conditions strongly related to a particular outcome (Ragin, 2008).

The main aim of fsQCA is to analyze sufficient and necessary causes to produce an outcome. A necessary condition is present in all instances of the outcome, while a condition is sufficient if a particular outcome occurs whenever the condition is present (Ragin, 2008). However, alternative conditions can also lead to the same outcome, suggesting that there are multiple sufficient causes (Ragin, 2008). In fsQCA, the derived solutions and each solution term are usually assessed on the basis of two measures: consistency and coverage. Consistency refers to the percentage of causal configurations of similar composition that lead to the same outcome value. If the consistency of a configuration is low, there is insufficient empirical evidence to support the given configuration, and therefore it should be considered less relevant than other configurations with higher consistency. Coverage refers to the number of cases for which a configuration is valid; how many cases in the dataset having high membership in the outcome condition are represented by a particular configuration. Coverage reflects how much of the outcome is covered (explained) by a given solution and its relevant solution terms (i.e., pathways) (Ragin, 2008). Unlike consistency, low configuration coverage does not imply less relevance. In cases in which a result occurs through multiple causal configurations, a single configuration can have low coverage but still be useful to explain a set that causes a particular outcome (Woodside and Zhang, 2012).

## **Analysis and Results**

### PLS-SEM Results

The outer (or measurement) model in PLS-SEM describes the relationship between the latent variables and their measures (i.e., their corresponding indicators) and provides information to evaluate the quality, validity, and reliability of the measures employed (Hair et al., 2014).<sup>2</sup> During preliminary analysis, it was evident that we needed to drop one of the items (i.e., moral identity, item 3) from further analysis because it had a negative correlation with the other items comprising the scale. We subsequently re-ran the model without this item. Convergent validity was met, as each item loaded significantly onto its specified construct, with the lowest value being 0.62 (perceived behavioral control, item 1) compared with the minimum value of 0.50 required for acceptable factor loading (Hair et al., 2006). The average variance extracted (AVE) for each variable was well above the recommended 0.50 threshold, with values ranging from 0.56 to 0.90 (see Table 1). Our constructs were reliable; Cronbach's alpha ( $\alpha$ ) and composite reliability ( $\rho$ ) scores were very high (ranging from 0.84 to 0.97) and well above the commonly accepted minimum threshold of 0.70 (Cronbach, 1951; Fink and Litwin, 1995). We assessed discriminant validity in two ways: (1) with the AVE-SV method, which found that each construct's AVE was greater than its shared variance with other constructs (Fornell and Larcker, 1981), and (2) with the heterotrait-monotrait ratio (HTMT) of correlations method, in which all values were lower than the strict 0.85 threshold (Henseler et al., 2015). The results of both tests provide strong evidence of discriminant validity in our sample.

Table 1

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<sup>2</sup> We initially conducted a measurement invariance test of the factors used in our empirical model, using the procedure suggested by Henseler, Ringle, and Sarstedt (2016) for SmartPLS 3.2.3. First, it was established that the three datasets had identical indicators, data treatment, model specification, and algorithm settings. This allows for configural invariance to be met. Second, we employed the permutation procedure with 5,000 permutations and 5% level of significance for each dataset. In all cases the original correlations ( $c$ ) exceeded the 5% quartile of the permutation procedure correlations, providing evidence of compositional invariance. Third, we used multigroup analysis to establish the equality of the composites' mean values and variances. The permutation test results (5,000 permutations) show that the mean value and variance between the three groups do not significantly differ in results ( $p < .05$ ). These findings indicate that there are no differences in the three datasets attributed to measurement.

To address the possibility of CMV in the sample, we used the partial correlation technique (Podsakoff et al., 2003). Specifically, we used the variable “products made in the United Kingdom are superior in terms of quality than products from Germany” as our marker variable, since it was conceptually unrelated to any of our study variables. We subsequently calculated a CMV-adjusted correlation matrix (Malhotra, Kim, and Patil, 2006) and observed that all significant bivariate correlations among our study variables remained statistically significant, while a comparison of the original and the CMV-adjusted correlation matrices revealed only small and statistically non-significant differences ( $p > 0.05$ ). This indicates that CMV is unlikely to be an issue of concern in this study.

To test the conceptual model, we used the information from the inner (or structural) model, which describes the relationships between the latent variables. Issue dummies were included to control for the effect of the issue in question.<sup>3</sup> We ran the analysis using a bootstrapping procedure of 5,000 subsamples (see Table 2) and relied on blindfolding to calculate the  $Q^2$  for each endogenous variable. This ranged from 0.13 (i.e., adverse consequences) to 0.39 (i.e., sense of obligation), which indicates that the model exhibits adequate predictive relevance. Regarding R-square, both the TPB and VBN theory, along with past experience and issue dummies, work well together, as these explain more than 58% of the explained variance of civic engagement. In addition, 45% of the variance of attitude is explained by SVO, moral identity, BJW, sense of obligation, subjective norm and the issue dummies. Furthermore, SVO, moral identity, BJW and issue dummies explain 17% of adverse consequences. Moreover, VBN theory seems to work quite well, as adverse consequences (with

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<sup>3</sup> Multi-group analysis using SmartPLS 3.2.3 was conducted to ascertain differences among the three groups. The results showed that the subjective norm–attitude link was not significant in the world poverty and hunger subsample and a few other links became stronger or weaker but did not materially change, depending on the issue polled. The results are available upon request. We thank an anonymous reviewer for suggesting this comparison.

issues dummies) explain 34% of ascribed responsibility, which, along with subjective norm, explains 51% of sense of obligation.

Table 2

Regarding the effect size, the analysis shows generally strong relationships between exogenous (i.e., SVO, moral identity, BJW, subjective norm, and past experience) and endogenous (i.e., adverse consequences, ascribed responsibility, sense of obligation, attitude, and civic engagement) variables ( $p < 0.01$ ). Specifically, the results reveal that SVO ( $\beta = 0.14$ ,  $t = 4.01$ ,  $p < 0.01$ ) and moral identity ( $\beta = 0.31$ ,  $t = 7.84$ ,  $p < 0.01$ ) had a positive effect on adverse consequences, while BJW had a negative impact ( $\beta = -0.21$ ,  $t = -6.58$ ,  $p < 0.01$ ). The same pattern of results emerges for the drivers of attitude toward the social issue. For example, as in the case of adverse consequences, SVO ( $\beta = 0.10$ ,  $t = 3.33$ ,  $p < 0.01$ ) and moral identity ( $\beta = 0.12$ ,  $t = 3.77$ ,  $p < 0.01$ ) had a positive association with attitude, but BJW ( $\beta = -0.19$ ,  $t = -6.50$ ,  $p < 0.01$ ) was negatively related to attitude. In line with VBN theory, adverse consequences had a positive impact on ascribed responsibility ( $\beta = 0.52$ ,  $t = 17.21$ ,  $p < 0.01$ ), which in turn favorably influenced sense of obligation ( $\beta = 0.32$ ,  $t = 7.91$ ,  $p < 0.01$ ). The results also show that sense of obligation ( $\beta = 0.28$ ,  $t = 7.11$ ,  $p < 0.01$ ), along with two of the three elements of the TPB—namely, attitude ( $\beta = 0.08$ ,  $t = 2.71$ ,  $p < 0.01$ ) and subjective norm ( $\beta = 0.26$ ,  $t = 7.62$ ,  $p < 0.01$ )—contributed positively to civic engagement. While the TPB highlights the importance of a person's perception of control in determining intention and behavior, perceived behavioral control did not influence civic engagement ( $\beta = 0.03$ ,  $t = 1.23$ ,  $p > 0.10$ ) in our study.

#### FsQCA Results

To provide further insights into the results derived from PLS-SEM, we examined all the relationships using fsQCA. Our aim was to identify alternative configurations (i.e., combinations of antecedent conditions) explaining our outcomes (i.e., adverse consequences, attitude toward social issue, sense of obligation, and civic engagement). Table 3 presents the derived sufficient conditions for a high membership score in each of the four outcome sets. We estimated complex solutions because, in contrast with parsimonious and intermediate solutions, they make no simplifying assumptions (Skarmeas et al., 2014; Woodside, 2013).

Table 3

All four models show consistency values well above the usual threshold of 0.75, with coverage values ranging between 0.70 and 0.73 (Ragin, 2008; Woodside and Zhang, 2012). Based on the explanation of consistency and coverage measures provided earlier in the methods section, our results indicate that each of the derived solutions leads to the given outcome conditions at least 75% of the times they occur in the dataset, which implies that there is sufficient empirical evidence to support the given configurations. Furthermore, 70%–73% of all cases in our dataset exhibiting the given outcome conditions are represented by our derived solutions, which indicates that the vast majority of cases with the examined outcomes are covered (explained) by our derived solutions.

#### Configurations Explaining Adverse Consequences

The model examining adverse consequences derived three causal pathways. The pathways show that high levels of adverse consequences require the absence of BJW, combined with high levels of either SVO (i.e., altruistic SVO [pathway 1]) or moral identity (pathway 2). Alternatively, the joint presence of high SVO (altruistic orientation) and moral identity may also lead to high levels



of adverse consequences, regardless of the presence or absence of BJW (pathway 3). The solution has high consistency (0.78) and satisfactory coverage (0.72). These results suggest that the presence of altruistic SVO and moral identity facilitates the occurrence of adverse consequences, while BJW plays an inhibiting role.

#### Configurations Explaining Attitude toward the Social Issue

Six alternative causal pathways result in the formation of positive attitude toward the given social issue. Our findings suggest that the formation of positive attitude requires the joint presence of at least two causal conditions. More specifically, in the absence of BJW, high levels of moral identity should jointly occur with high levels of sense of obligation (pathway 2) or subjective norm (pathway 3). Alternatively, in the absence of BJW, the joint presence of both altruistic SVO and sense of obligation is sufficient for the presence of positive attitude toward the social issue (pathway 1).

As Table 3 shows, a high level of moral identity is almost a necessary condition for the presence of positive attitude, as the particular causal condition is required in five of the six derived recipes. More specifically, moral identity combined with altruistic SVO and sense of obligation (pathway 4) or subjective norm (pathway 5) is sufficient for the presence of positive attitude. Finally, positive attitude may also occur as a result of moral identity, combined with sense of obligation and subjective norm (pathway 6). The solution as a whole has satisfactory consistency (0.89) and high coverage (0.70). In line with our expectations, BJW has a deleterious effect on the formation of a positive attitude toward the social issue, while all other causal conditions facilitate the formation of positive attitude.

### Configurations Explaining Sense of Obligation

The model examining the presence of sense of obligation suggests one pathway, with a consistency score of 0.92 and coverage of 0.73. Our results show that high levels of sense of obligation require the joint presence of ascribed responsibility and subjective norm. Evidently, each of these causal conditions is necessary and their joint occurrence is sufficient for the given outcome to be present.

### Configurations Explaining Civic Engagement

The model examining civic engagement suggests three pathways. Past experience is a necessary condition for high levels of civic engagement as it is present in all configurations. At the same time, sense of obligation must be jointly present with either subjective norm (pathway 1) or positive attitude toward the social issue (pathway 2). If both subjective norm and positive attitude occur simultaneously, they may compensate for the absence of perceived behavioral control and lead to high levels of civic engagement (pathway 3). The solution as a whole has satisfactory consistency (0.90) and high coverage (0.72), which indicates that the TPB and VBN theory work well together in explaining civic engagement, after controlling for past experience.

## **Discussion and Conclusion**

This study developed and validated a multi-dimensional civic engagement scale comprising donations, purchases, references, and social influence. We link extant marketing research with the greater social good and enhance understanding of how to foster individual behaviors that can lead to a more sustainable and inclusive development path. Specifically, in this work we examined civic engagement from the perspective of two influential theories of human behavior—the TPB and VBN theory—while also drawing on the antecedent roles of three well-

established theoretical perspectives: SVO, moral identity, and BJW. We tested the proposed conceptual model by using both a correlational (i.e., PLS-SEM) and a configurational (i.e., fsQCA) approach as a means to provide deeper insights into the examined inter-relationships.

Rather than merely focusing on the estimation of net effects, we used fsQCA to identify alternative combinations of antecedent conditions that lead to each outcome. Table 4 illustrates the derived results regarding the causal recipes (i.e., configurations of pathways) associated with high membership scores in the four outcome conditions (i.e., adverse consequences, attitude, sense of obligation, and civic engagement).

Table 4

As Table 4 shows, the fsQCA results indicate that the joint presence of SVO (altruistic orientation) and moral identity is a sufficient (though not necessary) condition for the development of adverse consequences. This finding partially supports our PLS-SEM results on the positive relationship of SVO and moral identity with adverse consequences. The fsQCA findings further show that adverse consequences can be present, even in the absence of either of these two drivers, if BJW is also absent. In other words, the fsQCA provides evidence in support of the existence of asymmetric relationships among variables. Correlational approaches, such as PLS-SEM, treat relationships as symmetric, in that high levels of SVO and moral identity, as well as low levels of BJW, are necessary and sufficient for high levels of adverse consequences to occur. In a similar vein, the PLS-SEM findings show that low levels of adverse consequences occur with low levels of SVO and moral identity, as well as high levels of BJW. For fsQCA, although high levels of SVO and moral identity are sufficient for the development of adverse consequences, they do not represent a necessary condition. Adverse consequences may occur

even when moral identity (or SVO) is not present, indicating that additional causal recipes are associated with high levels of adverse consequences (pathways 1 and 2).

The derived fsQCA results for the formation of positive attitude toward the social issue offer partial support to our PLS-SEM results on the positive relationship of SVO, moral identity, sense of obligation, and subjective norm with attitude, as well as on the negative relationship between BJW and attitude. Again, the fsQCA findings reveal the existence of asymmetric relationships, suggesting that none of the antecedent conditions is by itself necessary for the formation of positive attitude. The fsQCA identified six alternative configurations explaining the formation of positive attitude. Each of the drivers of attitude can potentially be present or absent, depending on the additional conditions that synergistically occur in the given causal recipe.

By contrast, the fsQCA results indicate that the joint presence of ascribed responsibility and subjective norm is both a necessary and sufficient condition for high levels of sense of obligation. This finding fully confirms our PLS-SEM results on the positive and symmetric relationship of both variables with the given outcome condition.

Finally, the fsQCA results for civic engagement fully confirm the PLS-SEM results on the positive and symmetric influence of past experience. For all other drivers of civic engagement, the results derived from the two approaches partially agree on the facilitating role of sense of obligation, attitude, and subjective norm; however, fsQCA provides additional insights into the examined relationships, as none of the three antecedent conditions is by itself necessary for the development of civic engagement. Apart from the presence of past experience, which is a necessary condition, all other antecedents can be present or not, depending on the additional conditions that synergistically occur in the given causal pathway. In total, fsQCA

identified three alternative pathways for high levels of civic engagement. Evidently, apart from past experience, all other antecedents have an asymmetric relationship to civic engagement.

### Theoretical Implications

This study focuses on articulating the role of civic engagement in addressing big social issues. To date, the literature on civic engagement has been plagued by conceptual diversity, measurement differences, and a lack of theoretical underpinnings (e.g., 2012; Omoto et al., 2010; Shah et al., 2005). Drawing from recent theoretical and empirical work on engagement (Kumar and Pansari, 2016), we develop a valid, holistic, and parsimonious measure of civic engagement. Our measure of civic engagement comprises 15 items representing the four dimensions of donations, purchases, references, and influence. It can be used in various contexts of public life, such as environmental protection, income inequality, and world poverty to ascertain what prompts individuals to make a related donation, support responsible business practices through their purchases, and spread offline and online favorable WOM about the issue at hand.

To theoretically explain precursors of individual actions designed to address issues of public concern, we developed a framework that integrates the TPB and VBN theory into a parsimonious model of civic engagement. To the best of our knowledge, this study is one of the first to document that attitude, subjective norm, and perceived behavioral control along with sense of obligation capture independent, civic engagement-relevant information. This is important because research based solely on the TPB or VBN perspectives is likely to aggrandize the impact of the respective focal constructs on civic engagement. Furthermore, our work demonstrates that including three theories that are well suited to the study of a wide range of morally relevant situations—namely, SVO, moral identity, and BJW—can improve the

explanatory power of the TPB and VBN theory in predicting civic engagement. These findings are important because VBN theory is designed to address one type of pro-social behavior (i.e., pro-environmental) rather than the entire class and the TPB has been criticized for neglecting morally grounded actions (Han, 2015; Kaiser et al., 2005; Oreg and Katz-Gerro, 2006). Our findings suggest that SVO, moral identity, and BJW activate the sequential process of awareness of adverse consequences to ascribed responsibility to a sense of obligation and shape attitude. Taken together, these findings suggest the both the TPB and VBN theory can be meaningfully extended to include values and worldviews that transcend the situational nature of beliefs and enhance understanding of the role of moral considerations in explaining civic engagement.

#### Practical Implications

Our research also has important implications for public policy makers and managers in both non-profit and for-profit organizations. Our measure of civic engagement can help practitioners track people's attitudes and behavior toward issues of public concern on a regular basis and thus understand more clearly which areas of public life succeed or fail in gaining support. In addition, by assessing the donations, purchases, references, and influence facets of civic engagement, our measure can serve as a tool for evaluating and tracking the components that need attention immediately and/or over time. To this end, practitioners can allocate available resources more efficiently. Moreover, by monitoring the levels of civic engagement with a particular issue over time, practitioners may become more cognizant of the dynamics between marketing efforts and civic engagement and gain a better understanding of how to set reasonable goals for gradually building civic engagement.

Furthermore, in light of our findings, policy makers can elicit additional insights and draw useful conclusions by combining both configurational and correlational approaches such as those presented herein. The goal is to increase levels of civic engagement by identifying and implementing relevant strategies. Managers of non-profit organizations can use promotional messages with strong moral priming to activate individuals' moral and pro-social identities in an attempt to generate positive perceptions and responses. However, managers also need to be careful with regard to the way people perceive life as fair and the world as just; such perceptions may lead individuals to derogate the poor or people suffering and become oblivious to the many, interrelated, and complex structural factors that contribute to the problem. Perhaps a way to overcome this is to present evidence, stories, or metaphors of people meeting fates they did not deserve or failing to receive rewards they did deserve, with a view to conveying that the world is not always just after all and thereby encouraging positions that help reduce injustice instead of entrenching it. In addition, convincing people about the importance of the issues affecting the world today from a societal and moral responsibility standpoint is critical for inspiring them to do good through their donations to organizations and groups, individual purchases, and reference and influence behaviors. Public policy makers could focus on education for children and adults to enhance knowledge about the importance of the issues and develop marketing campaigns targeting households to emphasize their moral responsibility and obligation to help positively affect societal issues of importance to the world.

#### Limitations and Further Research

The findings, however, should be interpreted in light of certain limitations. First, the United States served as the empirical context for this study and we used an online panel to collect data.

It would be interesting to examine whether our results hold elsewhere, since a number of idiosyncrasies might have influenced them. Future research should assess the generalizability of our findings using both offline and online samples. In addition, the significance of the findings necessitates replication of the study in other country settings with similar or different cultural, economic, and societal conditions. For example, it would be particularly useful to compare the results between developed and developing countries, low- and high-context cultures, and oppressive and democratic political and socio-economic systems.

Second, we focused on three important environmental and social issues: climate change and global warming, income inequality, and world poverty and hunger. While some differences exist between the three groups, particularly regarding effect strength, the overall pattern of results is consistent. It will be interesting to examine these differences in greater detail and theorize any variations in effect significance and strength. In addition, examining whether the model and relevant results hold for other important issues, such as oppression, injustice, and corruption, might help enhance the generalizability of our conclusions.

Third, the cross-sectional design of this study allows for only a snapshot of civic engagement drivers and limits our ability to fully justify cause-and-effect relationships. Although we extract conclusions based on theoretical associations between model variables, conducting experimental and longitudinal research might help establish causality and/or verify the stability of the conceptual model over time.

Fourth, while merging the TPB and VBN theory together provided important insights, identifying additional theories such as deontology and teleology (e.g., Barnett et al., 2005) and stakeholder theory (e.g., Selsky and Parker, 2005) that can work in a complementary or competitive way can help further knowledge in this area. Importantly, more interdisciplinary



research is needed to better understand the systemic drivers of complex, large-scale societal problems and provide specific, evidence-informed recommendations to address them (Swinburn et al., 2019).

Finally, although the civic engagement scale appears valid in our research, there is a need to examine situations under which certain dimensions are stronger or weaker, and explore the possible outcomes of the construct. Interestingly, the constituents of civic engagement are likely to vary depending on the specifics of the issues being addressed. For example, individuals may be less focused on purchases and more focused on providing positive WOM, influencing others' opinions via social networking and social media tools, and even donating time and effort in protests, rallies, and other activities when considering political issues. Accordingly, the implications for managers in for-profit and non-profit organizations and policy makers may vary based on the specific components of civic engagement. For example, marketers may more concerned with consumers who prefer and/or pay a premium price for products linked with a social cause and practitioners in nonprofit organizations may focus on private donors. Thus, another direction for research would be to investigate alternative types of civic engagement (e.g., signing petitions, joining groups supporting an issue or boycotting) and assess its individual components in relation to the issue in question.

We hope that the ideas presented here will motivate further research on the many challenges associated with addressing the root causes of big social problems, influencing pro-social behavior change, and achieving social good.

**Compliance with Ethical Standards**

Conflict of Interest: All authors declare that they have no conflict of interest.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

This article does not contain any studies with animals performed by any of the authors.

Informed consent: Informed consent was obtained from all individual participants included in the study.

## References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Anderson, J. L., Markides, C., & Kupp, M. (2010). The last frontier: Market creation in conflict zones, deep rural areas, and urban slums. *California Management Review*, 52(4), 6-28.
- APA (2018). Civic engagement. American Psychological Association, Retrieved February 28, 2018 from <http://www.apa.org/education/undergrad/civic-engagement.aspx>.
- Aquino, K., & Reed II, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83(6), 1423-1440.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471-499.
- Arnett, D. B., German, S. D., & Hunt, S. D. (2003). The identity salience model of relationship marketing success: The case of nonprofit marketing. *Journal of Marketing*, 67(2), 89-105.
- Ashkanasy, N. M., Windsor, C. A., & Treviño, L. K. (2006). Bad apples in bad barrels revisited: Cognitive moral development, just world beliefs, rewards, and ethical decision-making. *Business Ethics Quarterly*, 16(4), 449-473.
- Bamberg, S., Hunecke, M., & Blöbaum, A. (2007). Social context, personal norms and the use of public transportation: Two field studies. *Journal of Environmental Psychology*, 27(3), 190-203.
- Barnett, C., Cafaro, P., & Newholm, T. (2005). Philosophy and ethical consumption. In R. Harrison, T. Newholm, & D. Shaw (Eds.), *The ethical consumer*, 11-24. London, UK: Sage.
- Bègue, L., & Bastounis, M. (2003). Two spheres of belief in justice: Extensive support for the bidimensional model of belief in a just world. *Journal of Personality*, 71(3), 435-463.
- Bekkers, R., & Wiepking, P. (2011). A literature review of empirical studies of philanthropy: Eight mechanisms that drive charitable giving. *Nonprofit and Voluntary Sector Quarterly*, 40(5), 924-973.

- Berger, J. (2014). Word of mouth and interpersonal communication: A review and directions for future research. *Journal of Consumer Psychology*, 24(4), 586-607.
- Bertrand, M., Mullainathan, S., & Shafir, E. (2006). Behavioral economics and marketing in aid of decision making among the poor. *Journal of Public Policy & Marketing*, 25(1), 8-23.
- Bhattacharya, C. B., & Sen, S. (2004). Doing better at doing good: When, why, and how consumers respond to corporate social initiatives. *California Management Review*, 47(1), 9-24.
- Blair, E., & Zinkhan, G. M. (2006). Nonresponse and generalizability in academic research. *Journal of the Academy of Marketing Science*, 34(1), 4-7.
- Blasi, A. (1983). Moral cognition and moral action: A theoretical perspective. *Developmental Review*, 3(2), 178-210.
- Bogaert, S., Boone, C., & Declerck, C. (2008). Social value orientation and cooperation in social dilemmas: A review and conceptual model. *British Journal of Social Psychology*, 47(3), 453-480.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1), 3-5.
- Butterfield, K. D. (2005). A review of the empirical ethical decision-making literature: 1996–2003. *Journal of Business Ethics*, 59(4), 375-413.
- Castaldo, S., Perrini, F., Misani, N., & Tencati, A. (2009). The missing link between corporate social responsibility and consumer trust: The case of fair trade products. *Journal of Business Ethics*, 84(1), 1-15.
- Chowdhury, R. M., & Fernando, M. (2014). The relationships of empathy, moral identity and cynicism with consumers' ethical beliefs: The mediating role of moral disengagement. *Journal of Business Ethics*, 124(4), 677-694.
- Cohen, J. (1983). The cost of dichotomization. *Applied Psychological Measurement*, 7(3), 249-253.
- Colby, A., Ehrlich, T., Beaumont, E., Rosner, J., & Stephens, J. (2000). Higher education and the development of civic responsibility. In T. Ehrlich (Ed.), *Civic responsibility and higher education*, 21-43. Westport, CT: American Council on Education.

Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of Applied Social Psychology, 28*(15), 1429-1464.

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology, 95*(5), 834-848.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.

De Dreu, C. K. W., & Boles, T. L. (1998). Share and share alike or winner take all? The influence of social value orientation upon choice and recall of negotiation heuristics. *Organizational Behavior and Human Decision Processes, 76*(3), 253-276.

De Leeuw, A., Valois, P., Ajzen, I., & Schmidt, P. (2015). Using the theory of planned behavior to identify key beliefs underlying pro-environmental behavior in high-school students: Implications for educational interventions. *Journal of Environmental Psychology, 42*, 128-138.

De Matos, C. A., & Rossi, C. A. V. (2008). Word-of-mouth communications in marketing: A meta-analytic review of the antecedents and moderators. *Journal of the Academy of Marketing Science, 36*(4), 578-596.

Dess, G. G., Lumpkin, G. T., & Covin, J. G. (1997). Entrepreneurial strategy making and firm performance: Tests of contingency and configurational models. *Strategic Management Journal, 18*(9), 677-695.

Detert, J. R., Treviño, L. K., & Sweitzer, V. L. (2008). Moral disengagement in ethical decision making: A study of antecedents and outcomes. *Journal of Applied Psychology, 93*(2), 374-391.

Fielding, K. S., McDonald, R., & Louis, W. R. (2008). Theory of planned behaviour, identity and intentions to engage in environmental activism. *Journal of Environmental Psychology, 28*(4), 318-326.

Fink, A., & Litwin, M. S. (1995). *How to measure survey reliability and validity*. Thousand Oaks, CA: Sage.

Fiss, P. C. (2007). A set-theoretic approach to organizational configurations. *Academy of Management Review, 32*(4), 1180-1198.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3) 382-388.

Fry, M. L., & Polonsky, M. J. (2004). Examining the unintended consequences of marketing. *Journal of Business Research*, 57(11), 1303-1306.

Gabriel, Y., & Lang, T. (2015). *The unmanageable consumer*. London, UK: Sage.

Gärling, T., Fujii, S., Gärling, A., & Jakobsson, C. (2003). Moderating effects of social value orientation on determinants of proenvironmental behavior intention. *Journal of Environmental Psychology*, 23(1), 1-9.

Gil de Zúñiga, H., Jung, N., & Valenzuela, S. (2012). Social media use for news and individuals' social capital, civic engagement and political participation. *Journal of Computer-Mediated Communication*, 17(3), 319-336.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, CA: Sage.

Hair, J. F., Black, C. W., Babin, J. B., & Anderson, E. R. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Pearson Education.

Hair, J. F., Ringle, C.M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.

Han, H. (2015). Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior. *Tourism Management*, 47(2), 164-177.

Han, H., Hsu, L. T. J., & Sheu, C. (2010). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325-334.

Hanna, R., Rohm, A., & Crittenden, V. L. (2011). We're all connected: The power of the social media ecosystem. *Business Horizons*, 54(3), 265-273.

Hardin, G. (1998). Extensions of "The Tragedy of the Commons." *Science*, 280(5364), 682-683.

Hardy, S. A. (2006). Identity, reasoning, and emotion: An empirical comparison of three sources of moral motivation. *Motivation and Emotion*, 30(3), 205-213.

- Harrison, R., Newholm, T., & Shaw, D. (2005). *The ethical consumer*. London, UK: Sage.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*(2), 268-279.
- Hennig-Thurau, T., Hofacker, C. F., & Bloching, B. (2013). Marketing the pinball way: Understanding how social media change the generation of value for consumers and companies. *Journal of Interactive Marketing, 27*(4), 237-241.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2016). Testing measurement invariance of composites using partial least squares. *International Marketing Review, 33*(3), 405-431.
- Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115-135.
- Hulland, J., & Miller, J. (2018). "Keep on Turkin". *Journal of the Academy of Marketing Science, 46*(5), 789-794.
- Hume, M. (2010). Compassion without action: Examining the young consumers consumption and attitude to sustainable consumption. *Journal of World Business, 45*(4), 385-394.
- Hyman, M. R., Tansey, R., & Clark, J. W. (1994). Research on advertising ethics: Past, present, and future. *Journal of Advertising, 23*(3), 5-15.
- Kaiser, F. G. (2006). A moral extension of the theory of planned behavior: Norms and anticipated feelings of regret in conservationism. *Personality and Individual Differences, 41*(1), 71-81.
- Kaiser, F. G., & Scheuthle, H. (2003). Two challenges to a moral extension of the theory of planned behavior: Moral norms and just world beliefs in conservationism. *Personality and Individual Differences, 35*(5), 1033-1048.
- Kaiser, F. G., Hübner, G., & Bogner, F. X. (2005). Contrasting the theory of planned behavior with the value-belief-norm model in explaining conservation behavior. *Journal of Applied Social Psychology, 35*(10), 2150-2170.

- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59-68.
- Karnani, A. (2007). The mirage of marketing to the bottom of the pyramid: How the private sector can help alleviate poverty. *California Management Review*, 49(4), 90-111.
- Keck, M. E., & Sikkink, K. (2014). *Activists beyond borders: Advocacy networks in international politics*. Cornell University Press.
- Klößner, C. A., & Blöbaum, A. (2010). A comprehensive action determination model: Toward a broader understanding of ecological behaviour using the example of travel mode choice. *Journal of Environmental Psychology*, 30(4), 574-586.
- Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of Marketing*, 75(4), 132-135.
- Kumar, V., & Pansari, A. (2016). Competitive advantage through engagement. *Journal of Marketing Research*, 53(4), 497-514.
- Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T., & Tillmanns, S. (2010). Undervalued or overvalued customers: Capturing total customer engagement value. *Journal of Service Research*, 13(3), 297-310.
- Labrecque, L. I., Esche, J. V. D., Mathwick, C., Novak, T. P., & Hofacker, C. F. (2013). Consumer power: Evolution in the digital age. *Journal of Interactive Marketing*, 27(4), 257-269.
- Larana, E. (2009). *New social movements: From ideology to identity*. Philadelphia: Temple University Press.
- Le Blanc, D. (2015). Towards integration at last? The sustainable development goals as a network of targets. *Sustainable Development*, 23(3), 176-187.
- Lee, N. R., & Kotler, P. (2016). *Social marketing: Changing behaviors for good*. London, UK: Sage.
- Leonidou, C. N., & Leonidou, L. C. (2011). Research into environmental marketing/management: A bibliographic analysis. *European Journal of Marketing*, 45(1/2), 68-103.



- Leonidou, C. N., & Skarmeas, D. (2017). Gray shades of green: Causes and consequences of green skepticism. *Journal of Business Ethics*, 144(2), 401-415.
- Lerner, M. J. (1980). The belief in a just world. In *The belief in a just world. Perspectives in Social Psychology* (pp. 9-30). Boston: Springer.
- Lerner, M. J., & Miller, D. T. (1978). Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin*, 85(5), 1030-1051.
- Lipkus, I. M., Dalbert, C., & Siegler, I. C. (1996). The importance of distinguishing the belief in a just world for self versus for others: Implications for psychological well-being. *Personality and Social Psychology Bulletin*, 22(7), 666-677.
- Mahoney, J., & Goertz, G. (2006). A tale of two cultures: Contrasting quantitative and qualitative research. *Political Analysis*, 14(3), 227-249.
- Maignan, I. (2001). Consumers' perceptions of corporate social responsibilities: A cross-cultural comparison. *Journal of Business Ethics*, 30(1), 57-72.
- Maignan, I., & Ferrell, O. C. (2004). Corporate social responsibility and marketing: An integrative framework. *Journal of the Academy of Marketing Science*, 32(1), 3-19.
- Malhotra, N. K., Kim, S. S., & Patil, A. (2006). Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research. *Management Science*, 52(12), 1865-1883.
- McCright, A. M. (2010). The effects of gender on climate change knowledge and concern in the American public. *Population and Environment*, 32(1), 66-87.
- McKenzie-Mohr, D. (2011). *Fostering sustainable behavior: An introduction to community-based social marketing* (3rd ed.). Gabriola Island: New Society Publishers.
- Mendel, D. (2005). *Double jeopardy: Why the poor pay more*. Baltimore: Annie E. Casey Foundation.
- Messick, D. M., & McClintock, C. G. (1968). Motivational bases of choice in experimental games. *Journal of Experimental Social Psychology*, 4(1), 1-25.
- Moraes, C., Shaw, D., & Carrigan, M. (2011). Purchase power: An examination of consumption as voting. *Journal of Marketing Management*, 27(9/10), 1059-1079.

- Mulligan, M. (2018). *An introduction to sustainability: Environmental, social and personal perspectives* (2nd ed.). New York: Routledge.
- Murphy, R., Ackerman, K., Handgraaf, M. (2011). Measuring social value orientation. *Judgment and Decision Making*, 6(8), 771-781.
- Nikolova, H. D., & Inman, J. J. (2015). Healthy choice: The effect of simplified point-of-sale nutritional information on consumer food choice behavior. *Journal of Marketing Research*, 52(6), 817-835.
- Öberseder, M., Schlegelmilch, B. B., & Murphy, P. E. (2013). CSR practices and consumer perceptions. *Journal of Business Research*, 66(10), 1839-1851.
- Omoto, A. M., Snyder, M., & Hackett, J. D. (2010). Personality and motivational antecedents of activism and civic engagement. *Journal of Personality*, 78(6), 1703-1734.
- Oreg, S., & Katz-Gerro, T. (2006). Predicting proenvironmental behavior cross-nationally: Values, the theory of planned behavior, and value-belief-norm theory. *Environment and Behavior*, 38(4), 462-483.
- Osbaldiston, R., & Schott, J. P. (2012). Environmental sustainability and behavioral science: Meta-analysis of proenvironmental behavior experiments. *Environment and Behavior*, 44(2), 257-299.
- Pajunen, K. (2008). Institutions and inflows of foreign direct investment: A fuzzy-set analysis. *Journal of International Business Studies*, 39(4), 652-669.
- Park, K., & Lee, S. S. (2015). The role of beneficiaries' group identity in determining successful appeal strategies for charitable giving. *Psychology & Marketing*, 32(12), 1117-1132.
- Peattie, K., & Peattie, S. (2009). Social marketing: A pathway to consumption reduction? *Journal of Business Research*, 62(2), 260-268.
- Phelps, J., Nowak, G., & Ferrell, E. (2000). Privacy concerns and consumer willingness to provide personal information. *Journal of Public Policy & Marketing*, 19(1), 27-41.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.

- Poortinga, W., Steg, L., & Vlek, C. (2004). Values, environmental concern, and environmental behavior: A study into household energy use. *Environment and Behavior*, 36(1), 70-93.
- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W. E., Luchs, M. G., Ozanne, L. K., & Thøgersen, J. (2011). Sustainable consumption: Opportunities for consumer research and public policy. *Journal of Public Policy & Marketing*, 30(1), 31-38.
- Putnam, R. D. (1995). Tuning in, tuning out: The strange disappearance of social capital in America. *PS: Political Science & Politics*, 28(4), 664-684.
- Ragin, C. (2000). *Fuzzy-set social science*. Chicago/London: University of Chicago Press.
- Ragin, C. (2008). *Redesigning social inquiry: Fuzzy sets and beyond*. Chicago: University of Chicago Press.
- Reast, J., Palihawadana, D., & Shabbir, H. (2008). The ethical aspects of direct to consumer advertising of prescription drugs in the United Kingdom: Physician versus consumer views. *Journal of Advertising Research*, 48(3), 450-464.
- Reed, A., Aquino, K., & Levy, E. (2007). Moral identity and judgments of charitable behaviors. *Journal of Marketing*, 71(1), 178-193.
- Reynolds, S. J., & Ceranic, T. L. (2007). The effects of moral judgment and moral identity on moral behavior: An empirical examination of the moral individual. *Journal of Applied Psychology*, 92(6), 1610-1624.
- Rindfleisch, A., Malter, A. J., Ganesan, S., & Moorman, C. (2008). Cross-sectional versus longitudinal survey research: Concepts, findings, and guidelines. *Journal of Marketing Research*, 45(3), 261-279.
- Ringle, C.M., Wende, S., & Becker, J.-M. (2015). *SmartPLS 3*. Bönningstedt: SmartPLS. Retrieved from <http://www.smartpls.com>
- Roch, S. G., & Samuelson, C. D. (1997). Effects of environmental uncertainty and social value orientation in resource dilemmas. *Organizational Behavior and Human Decision Processes*, 70(3), 221-235.

- Roch, S. G., Lane, J. A. S., Samuelson, C. D., Allison, S. T., & Dent, J. L. (2000). Cognitive load and the equality heuristic: A two-stage model of resource overconsumption in small groups. *Organizational Behavior and Human Decision Processes*, 83(2), 185-212.
- Rubin, Z., & Peplau, L. A. (1975). Who believes in a just world? *Journal of Social Issues*, 31(3), 65-89.
- Sachs, J. D. (2012). From millennium development goals to sustainable development goals. *Lancet*, 379(9832), 2206-2211.
- Sargeant, A., & Woodliffe, L. (2007). Gift giving: An interdisciplinary review. *International Journal of Nonprofit and Voluntary Sector Marketing*, 12(4), 275-307.
- Sargeant, A., Ford, J. B., & West, D. C. (2006). Perceptual determinants of nonprofit giving behavior. *Journal of Business Research*, 59(2), 155-165.
- Sargeant, A., Shang, J., & Shabbir, H. (2010). The social marketing of giving: A framework for public policy intervention. *Public Management Review*, 12(5), 635-662.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2014). PLS-SEM: Looking back and moving forward. *Long Range Planning*, 47(3), 132-137.
- Schlegelmilch, B. B., & Öberseder, M. (2010). Half a century of marketing ethics: Shifting perspectives and emerging trends. *Journal of Business Ethics*, 93(1), 1-19.
- Schlosser, A. E. (2006). Learning through virtual product experience: The role of imagery on true versus false memories. *Journal of Consumer Research*, 33(3), 377-383.
- Schneider, M.R., Schulze-Bentrop, C., & Paunescu, M. (2010). Mapping the institutional capital of high-tech firms: A fuzzy-set analysis of capitalist variety and export performance. *Journal of International Business Studies*, 41(2), 246-266.
- Schofer, E., & Fourcade-Gourinchas, M. (2001). The structural contexts of civic engagement: Voluntary association membership in comparative perspective. *American Sociological Review*, 66(6), 806-828.
- Schwartz, S. H. (1977). Normative influences on altruism. *Advances in Experimental Social Psychology*, 10, 221-279.

- Selsky, J. W., & Parker, B. (2005). Cross-sector partnerships to address social issues: Challenges to theory and practice. *Journal of Management*, 31(6), 849-873.
- Shabbir, H. A., Hyman, M. R., Reast, J., & Palihawadana, D. (2014). Deconstructing subtle racist imagery in television ads. *Journal of Business Ethics*, 123(3), 421-436.
- Shabbir, H., & Thwaites, D. (2007). The use of humor to mask deceptive advertising: It's no laughing matter. *Journal of Advertising*, 36(2), 75-85.
- Shabbir, H., Palihawadana, D., & Thwaites, D. (2007). Determining the antecedents and consequences of donor-perceived relationship quality—A dimensional qualitative research approach. *Psychology & Marketing*, 24(3), 271-293.
- Shah, D. V., Cho, J., Eveland Jr, W. P., & Kwak, N. (2005). Information and expression in a digital age: Modeling Internet effects on civic participation. *Communication Research*, 32(5), 531-565.
- Shanahan, K. J., & Hyman, M. R. (2003). The development of a virtue ethics scale. *Journal of Business Ethics*, 42(2), 197-208.
- Shaw, D., Newholm, T., & Dickinson, R. (2006). Consumption as voting: An exploration of consumer empowerment. *European Journal of Marketing*, 40(9/10), 1049-1067.
- Sheth, J. N., Sethia, N. K., & Srinivas, S. (2011). Mindful consumption: A customer-centric approach to sustainability. *Journal of the Academy of Marketing Science*, 39(1), 21-39.
- Skarmeas, D., & Shabbir, H. A. (2011). Relationship quality and giving behaviour in the UK fundraising sector: Exploring the antecedent roles of religiosity and self-construal. *European Journal of Marketing*, 45(5), 720-738.
- Skarmeas, D., Leonidou, C. N., & Saridakis, C. (2014). Examining the role of CSR skepticism using fuzzy-set qualitative comparative analysis. *Journal of Business Research*, 67(9), 1796-1805.
- Statista (2018). Most famous social network sites worldwide as of January 2018, ranked by number of active users (in millions). Retrieved February 25, 2018 from <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>.

Steg, L., Dreijerink, L., & Abrahamse, W. (2005). Factors influencing the acceptability of energy policies: A test of VBN theory. *Journal of Environmental Psychology*, 25(4), 415-425.

Stern, P. C. (2000). New environmental theories: Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424.

Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6(2), 81-97.

Stolle, D., & Hooghe, M. (2005). Inaccurate, exceptional, one-sided or irrelevant? The debate about the alleged decline of social capital and civic engagement in Western societies. *British Journal of Political Science*, 35(1), 149-167.

Swinburn, B. A., Kraak, V. I., Allender, S., Atkins, V. J., Baker, P. I., Bogard, J. R., Brinsden, H., Calvillo, A., De Schutter, O., Devarajan, R., Ezzati, M., Friel, S., Goenka, S., Hammond, R. A., Hastings, G., Hawkes, C., Herrero, M., Hovmand, P. S., Howden, M., Jaacks, L. M., Kapetanaki, A. B., Kasman, M., Kuhnlein, H. V., Kumanyika, S. K., Larijani, B., Lobstein, T., Long, M. W., Matsudo, V. K. R., Mills, S. D. H., Morgan, G., Morshed, A., Nece, P. M., Pan, A., Patterson, D. W., Sacks, G., Shekar, M., Simmons, G. L., Smit, W., Tootee, A.,

Vandevijvere, S., Waterlander, W. E., Wolfenden, L., & Dietz, W. H. (2019). The global syndemic of obesity, undernutrition, and climate change: The Lancet Commission report. *Lancet*, [https://doi.org/10.1016/S0140-6736\(18\)32822-8](https://doi.org/10.1016/S0140-6736(18)32822-8).

Truong, V. D. (2014). Social marketing: A systematic review of research 1998–2012. *Social Marketing Quarterly*, 20(1), 15-34.

Trusov, M., Bucklin, R. E., & Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: Findings from an internet social networking site. *Journal of Marketing*, 73(5), 90-102.

United Nations, (2015). Transforming our world: The 2030 agenda for sustainable development. UN General Assembly Resolution 70/1, Available from:

[http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)

- Van Dijk, E., De Cremer, D., & Handgraaf, M. J. (2004). Social value orientations and the strategic use of fairness in ultimatum bargaining. *Journal of Experimental Social Psychology*, 40(6), 697-707.
- Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, 13(3), 253-266.
- Van Lange, P. A. M., & Kuhlman, D. M. (1994). Social value orientations and impressions of a partner's honesty and intelligence: A test of the might versus morality effect. *Journal of Personality and Social Psychology*, 67(1), 126-141.
- Van Lange, P. A.M., Otten, W., De Bruin, E., & Joireman, J. (1997). Development of prosocial, individualistic, and competitive orientations: Theory and preliminary evidence. *Journal of Personality and Social Psychology*, 73(4), 733-746.
- Varman, R., Skålén, P., & Belk, R. W. (2012). Conflicts at the bottom of the pyramid: Profitability, poverty alleviation, and neoliberal governmentality. *Journal of Public Policy & Marketing*, 31(1), 19-35.
- Verhoef, P. C., Reinartz, W. J., & Krafft, M. (2010). Customer engagement as a new perspective in customer management. *Journal of Service Research*, 13(3), 247-252.
- Villa, D. (2001). *Socratic citizenship*. Princeton, NJ: Princeton University Press
- Villanueva, J., Yoo, S., & Hanssens, D. M. (2008). The impact of marketing-induced versus word-of-mouth customer acquisition on customer equity growth. *Journal of Marketing Research*, 45(1), 48-59.
- Vitell, S. J. (2015). A case for consumer social responsibility (CnSR): Including a selected review of consumer ethics/social responsibility research. *Journal of Business Ethics*, 130(4), 767-774.
- Vivek, S. D., Beatty, S. E., & Morgan, R. M. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of Marketing Theory and Practice*, 20(2), 122-146.
- Walker, M., & Kent, A. (2013). The roles of credibility and social consciousness in the corporate philanthropy-consumer behavior relationship. *Journal of Business Ethics*, 116(2), 341-353.

Wansink, B., & Huckabee, M. (2005). De-marketing obesity. *California Management Review*, 47(4), 6-18.

Watts, R. J., & Flanagan, C. (2007). Pushing the envelope on youth civic engagement: A developmental and liberation psychology perspective. *Journal of Community Psychology*, 35(6), 779-792.

White, K., MacDonnell, R., & Ellard, J. H. (2012). Belief in a just world: Consumer intentions and behaviors toward ethical products. *Journal of Marketing*, 76(1), 103-118.

Winterich, K. P., & Barone, M. J. (2011). Warm glow or cold, hard cash? Social identity effects on consumer choice for donation versus discount promotions. *Journal of Marketing Research*, 48(5), 855-868.

Woodside, A. G., & Zhang, M. (2012). Identifying x-consumers using causal recipes: “Whales” and “jumbo shrimps” casino gamblers. *Journal of Gambling Studies*, 28(1), 13-26.

Woodside, A.G. (2013). Moving beyond multiple regression analysis to algorithms: Calling for adoption of a paradigm shift from symmetric to asymmetric thinking in data analysis and crafting theory. *Journal of Business Research*, 66(4), 463-472.

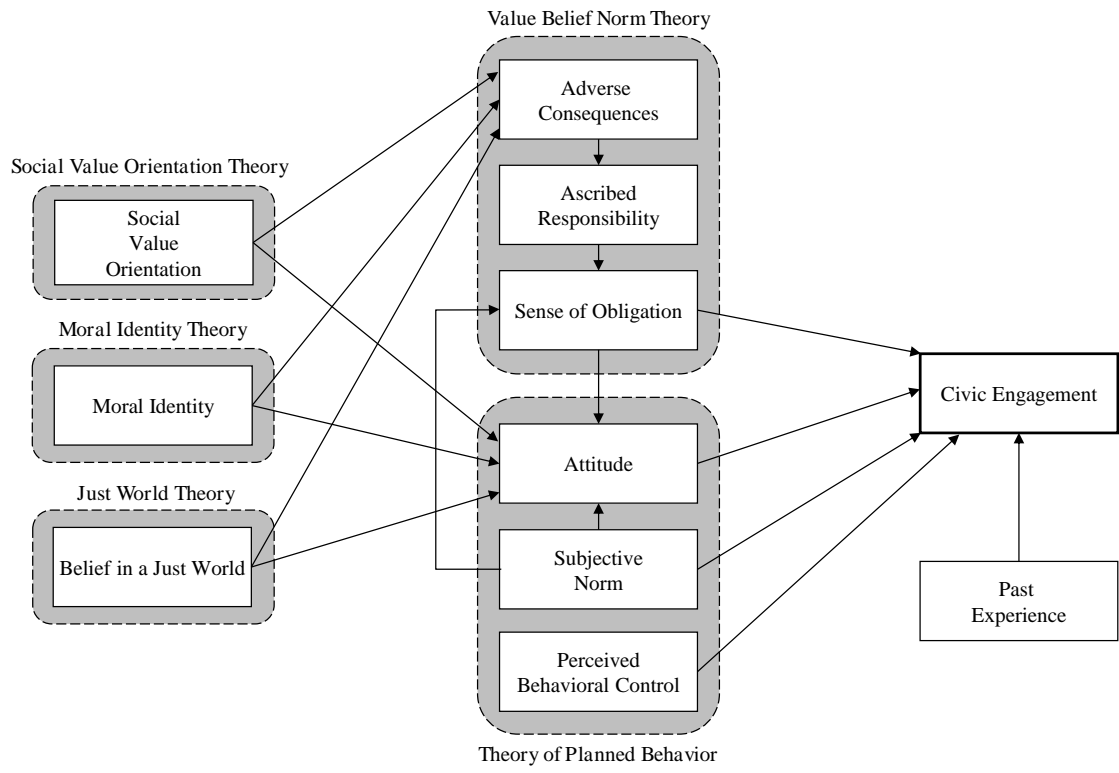
World Commission on Environmental Development. (1987). *Our common future*. New York: Oxford University Press.

World Economic Forum (2017). *Global Shapers Survey*. Retrieved November 20, 2017 from [http://shaperssurvey2017.org/static/data/WEF\\_GSC\\_Annual\\_Survey\\_2017.pdf](http://shaperssurvey2017.org/static/data/WEF_GSC_Annual_Survey_2017.pdf).

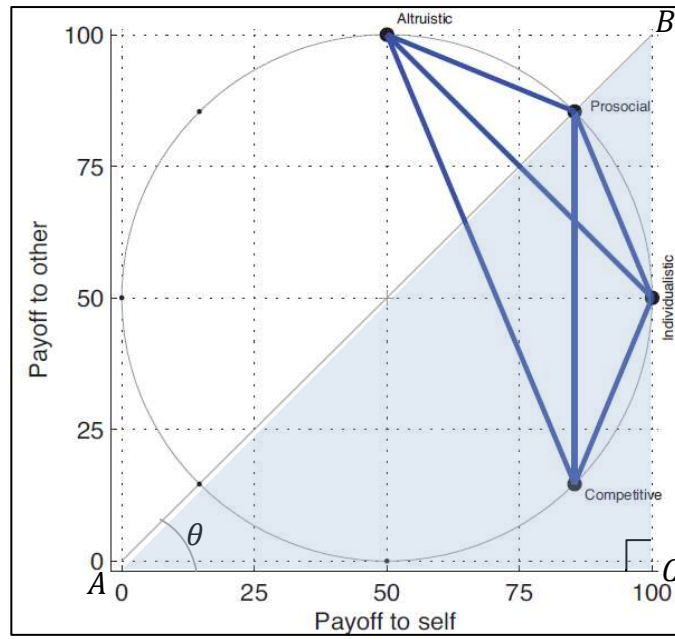
Zeelenberg, M., Nelissen, R. M. A., Breugelmans, S. M., & Pieters, R. (2008). On emotion specificity in decision making: Why feeling is for doing. *Judgment and Decision Making*, 3(1), 18-27.



**Fig. 1** Research model



Notes: → = paths examined in this study; [ ] = first-order constructs; [ ] = second-order construct; [ ] = theoretical frameworks.

**Fig. 2** Translating SVO index scores into social orientation types

**Table 1** Correlations, reliability, and validity

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
<b>Measures</b>	<b>Correlations</b>										
1. Social value orientation	1										
2. Moral identity	0.18	1									
3. Belief in a just world	-0.04	0.03	1								
4. Adverse consequences	0.20	0.30	-0.18	1							
5. Ascribed responsibility	0.11	0.23	0.09	0.50	1						
6. Sense of obligation	0.23	0.29	0.02	0.52	0.59	1					
7. Attitude	0.24	0.29	-0.16	0.75	0.49	0.58	1				
8. Subjective norm	0.12	0.21	0.08	0.55	0.53	0.65	0.54	1			
9. Perceived behavioral control	0.09	0.33	0.05	0.36	0.39	0.40	0.36	0.38	1		
10. Civic engagement	0.23	0.17	0.00	0.50	0.50	0.66	0.51	0.63	0.38	1	
11. Past experience	0.08	0.14	0.02	0.18	0.25	0.40	0.21	0.34	0.25	0.52	1
	<b>Reliability and validity</b>										
Cronbach's alpha ( $\alpha$ )	-	0.85	0.95	0.94	0.94	0.95	0.92	0.95	0.85	0.95	0.84
Composite reliability ( $\rho$ )	-	0.90	0.95	0.96	0.96	0.96	0.95	0.97	0.90	0.96	0.89
AVE	-	0.70	0.75	0.85	0.90	0.87	0.81	0.88	0.69	0.56	0.74

Notes: Correlations greater than  $|\pm 0.07|$  are significant at the  $p < 0.05$  level, and correlations greater than  $|\pm 0.09|$  are significant at the  $p < 0.01$  level.

**Table 2** PLS-SEM results

<b>Paths</b>	<b>Path coefficients</b>	<b>t-values</b>
Social value orientation → Adverse consequences	0.14	4.01**
Moral identity → Adverse consequences	0.31	7.84**
Social value orientation → Adverse consequences	-0.21	-6.58**
Adverse consequences → Ascribed responsibility	0.52	17.21**
Ascribed responsibility → Sense of obligation	0.32	7.91**
Subjective norm → Sense of obligation	0.47	13.18**
Social value orientation → Attitude	0.10	3.33**
Moral identity → Attitude	0.12	3.77**
Belief in a just world → Attitude	-0.19	-6.50**
Sense of obligation → Attitude	0.36	6.81**
Subjective norm → Attitude	0.28	6.35**
Sense of obligation → Civic engagement	0.28	7.11**
Attitude → Civic engagement	0.08	2.71**
Subjective norm → Civic engagement	0.26	7.62**
Perceived behavioral control → Civic engagement	0.03	1.23
<b>Controls</b>		
Issue dummy 1 → Adverse consequences	0.04	1.10
Issue dummy 2 → Adverse consequences	0.13	3.97**
Issue dummy 1 → Ascribed responsibility	-0.31	-9.78**
Issue dummy 2 → Ascribed responsibility	-0.28	-9.17**
Issue dummy 1 → Sense of obligation	-0.08	-2.31*
Issue dummy 2 → Sense of obligation	-0.08	-2.47*
Issue dummy 1 → Attitude	0.05	1.40
Issue dummy 2 → Attitude	0.15	5.27**
Issue dummy 1 → Civic engagement	0.08	2.96**
Issue dummy 2 → Civic engagement	0.17	5.99**
Past experience → Civic engagement	0.35	13.27**
<b>Adjusted R<sup>2</sup></b>		
Adverse consequences 0.17, Ascribed responsibility 0.34, Sense of obligation 0.51, Attitude 0.45, Civic engagement 0.58.		
<b>Q<sup>2</sup></b>		
Adverse consequences 0.13, Ascribed responsibility 0.27, Sense of obligation 0.39, Attitude 0.33, Civic engagement 0.28.		

Notes: Issue dummy 1 = Income inequality; Issue dummy 2 = World poverty and hunger.

\*p < 0.05; \*\*p < 0.01.

**Table 3** Configurations explaining the outcome set conditions

Complex solution	Raw coverage	Unique coverage	Consistency
<b>Adverse consequences</b>			
Model: $f_{adcons} = f(f_{svo}, f_{mid}, f_{bjw})$			
$f_{svo} \sim f_{bjw}$	0.46	0.06	0.85
$f_{mid} \sim f_{bjw}$	0.55	0.15	0.84
$f_{svo} * f_{mid}$	0.51	0.11	0.84
solution coverage: 0.71; solution consistency: 0.78			
frequency cutoff: 33.00; consistency cutoff: 0.85			
<b>Attitude</b>			
Model: $f_{att} = f(f_{svo}, f_{mid}, f_{bjw}, f_{sobl}, f_{snorm})$			
$f_{svo} \sim f_{bjw} * f_{sobl}$	0.39	0.05	0.93
$f_{mid} \sim f_{bjw} * f_{sobl}$	0.45	0.01	0.94
$f_{mid} \sim f_{bjw} * f_{snorm}$	0.44	0.01	0.93
$f_{svo} * f_{mid} * f_{sobl}$	0.44	0.01	0.93
$f_{svo} * f_{mid} * f_{snorm}$	0.42	0.01	0.93
$f_{mid} * f_{sobl} * f_{snorm}$	0.57	0.07	0.93
solution coverage: 0.70; solution consistency: 0.89			
frequency cutoff: 1.00; consistency cutoff: 0.92			
<b>Sense of obligation</b>			
Model: $f_{sobl} = f(f_{ares}, f_{snorm})$			
$f_{ares} * f_{snorm}$	0.73	0.73	0.92
solution coverage: 0.73; solution consistency: 0.92			
frequency cutoff: 87.00; consistency cutoff: 0.92			
<b>Civic engagement</b>			
Model: $f_{civeng} = f(f_{pexp}, f_{pbc}, f_{snorm}, f_{att}, f_{sobl})$			
$f_{pexp} * f_{snorm} * f_{sobl}$	0.67	0.08	0.92
$f_{pexp} * f_{att} * f_{sobl}$	0.63	0.04	0.91
$f_{pexp} \sim f_{pbc} * f_{snorm} * f_{att}$	0.40	0.01	0.94
solution coverage: 0.72; solution consistency: 0.90			
frequency cutoff: 1.00; consistency cutoff: 0.94			

**Table 4** Configurations for high levels of the outcome conditions\*

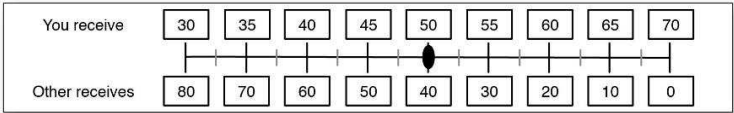
Antecedent condition		Outcome condition															
		Adverse consequences				Attitude						Sense of obligation		Civic engagement			
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	∅	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	∅	1 <sup>st</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	∅
SVO		•		•	∅	•			•	•		∅					
Moral identity			•	•	∅		•	•	•	•		∅					
BJW		○	○		∅	○	○	○				∅					
VBN	Adverse consequences																
	Ascribed responsibility											•		•			
	Sense of obligation					•	•		•		•	∅	•	•			∅
TPB	Perceived behavioral control															○	∅
	Subjective norm							•		•	•	∅	•			•	∅
	Attitude													•	•		∅
Past experience													•	•	•		•

\*Black circles indicate high presence of a condition, and white circles indicate low presence (i.e., absence) of a condition. Large black (white) circles indicate a core-necessary condition of presence (absence). “∅” indicates a peripheral (not necessary) condition. Blank spaces in a pathway indicate “don’t care”.

**Appendix 1** Sample demographics

<b>Demographic variables</b>	<b>Overall sample (n = 819)</b>	<b>Climate change and global warming (n = 267)</b>	<b>Income inequality (n = 281)</b>	<b>World poverty and hunger (n = 271)</b>
<b>Gender</b>				
Female	394 (48.1%)	130 (48.7%)	140 (49.8%)	124 (45.8%)
Male	421 (51.4%)	135 (50.6%)	139 (49.5%)	147 (54.2%)
Prefer not to say	4 (0.5%)	2 (0.7%)	2 (0.7%)	-
<b>Age</b>				
18-25	107 (13.0%)	37 (13.9%)	29 (10.3%)	41 (15.1%)
26-35	371 (45.3%)	117 (43.8%)	133 (47.3%)	121 (44.7%)
36-45	180 (22.0%)	58 (21.7%)	61 (21.7%)	61 (22.5%)
46-55	85 (10.4%)	28 (10.5%)	33 (11.8%)	25 (9.2%)
56-65	63 (7.7%)	25 (9.4%)	20 (7.1%)	18 (6.6%)
More than 65	13 (1.6%)	3 (1.2%)	5 (1.8%)	5 (1.9%)
<b>Occupation</b>				
Student	36 (4.4%)	9 (3.3%)	13 (4.6%)	14 (5.2%)
Housework	43 (5.3%)	16 (6.0%)	14 (5.0%)	13 (4.8%)
Employed	525 (64.1%)	171 (64.0%)	182 (64.8%)	173 (63.8%)
Unemployed	37 (4.5%)	8 (3.0%)	14 (5.0%)	15 (5.5%)
Self-employed	151 (18.4%)	56 (21.0%)	48 (17.1%)	47 (17.3%)
Retired	17 (2.1%)	5 (1.9%)	7 (2.5%)	5 (1.8%)
Other	10 (1.2%)	2 (0.8%)	3 (1.1%)	4 (1.5%)
<b>Education</b>				
Primary	41 (5.0%)	13 (4.9%)	16 (5.7%)	12 (4.4%)
Secondary	253 (30.9%)	85 (31.8%)	87 (31.0%)	81 (29.9%)
Undergraduate degree	424 (51.8%)	137 (51.3%)	143 (50.9%)	144 (53.1%)
Postgraduate degree	93 (11.4%)	30 (11.2%)	31 (11.0%)	32 (11.8%)
Other	8 (1.0%)	2 (0.7%)	4 (1.4%)	2 (0.7%)
<b>Annual household income</b>				
Less than \$20,000	115 (14.0%)	43 (16.1%)	40 (14.2%)	32 (11.8%)
\$20,000–\$39,999	226 (27.6%)	74 (27.7%)	78 (27.7%)	74 (27.3%)
\$40,000–\$59,999	183 (22.4%)	64 (24.0%)	54 (19.2%)	65 (24.0%)
\$60,000–\$79,999	144 (17.6%)	40 (15.0%)	56 (20.0%)	48 (17.7%)
\$80,000 or more	151 (18.4%)	46 (17.2%)	53 (18.9%)	52 (19.2%)
<b>Marital status</b>				
Single	355 (43.3%)	121 (45.3%)	110 (39.1%)	124 (45.8%)
Divorced/separated	60 (7.3%)	16 (6.0%)	26 (9.3%)	18 (6.6%)
Widowed	2 (0.2%)	-	1 (0.4%)	1 (0.4%)
Married/long term relationship	400 (48.8%)	130 (48.7%)	142 (50.5%)	128 (47.2%)
Other	2 (0.4%)	-	2 (0.4%)	-

## Appendix 2 Constructs, scales, and items

Construct, Scale, and Source	Items
<p><b>Social value orientation</b></p> <p>Source: Murphy et al. (2011)</p>	<p>In this task, imagine that you have been randomly paired with another person, whom we will refer to as <b>the other</b>. This other person is someone you do not know and will remain mutually anonymous. All of your choices would be completely confidential. You will be making a series of decisions about allocating resources between you and this other person. For each of the following questions, please indicate the distribution you prefer most by <b>selecting the button below the payoff allocations</b>. You can only make one selection for each question. Your decisions will yield money for both yourself and the other person. In the example below, a person has chosen to distribute the payoff so that he/she receives \$50, while the anonymous other person receives \$40. (Each individual evaluated six items/tasks like the one presented below).</p> 
<p><b>Moral identity</b></p> <p>(Likert scale: 1 = strongly disagree, 7 = strongly agree)</p> <p>Source: Aquino and Reed (2002); Chowdhury and Fernando (2014)</p>	<p>Listed below are some characteristics that might describe a person: Caring, Compassionate, Fair, Friendly, Generous, Helpful, Hardworking, Honest, and Kind. The person with these characteristics could be you or it could be someone else. For a moment, visualize the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, please indicate how strongly you agree or disagree with each of the following statements.</p> <ol style="list-style-type: none"> <li>1. It would make me feel good to be a person who has these characteristics.</li> <li>2. Being someone who has these characteristics is an important part of who I am.</li> <li>3. I would be ashamed to be a person who had these characteristics. (Reverse)</li> <li>4. Having these characteristics is not really important to me. (Reverse)</li> <li>5. I strongly desire to have these characteristics.</li> </ol>
<p><b>Belief in a just world</b></p> <p>(Likert scale: 1 = strongly disagree, 7 = strongly agree)</p> <p>Source: Lipkus et al. (1996)</p>	<ol style="list-style-type: none"> <li>1. I feel that the world treats people fairly.</li> <li>2. I feel that people get what they deserve.</li> <li>3. I feel that people treat each other fairly in life.</li> <li>4. I feel that people earn the rewards and punishments they get.</li> <li>5. I feel that people treat each other with the respect they deserve.</li> <li>6. I feel that people get what they are entitled to have.</li> <li>7. I feel that a person's efforts are noticed and rewarded.</li> </ol>
<p><b>Adverse consequences</b></p> <p>(Likert scale: 1 = strongly disagree, 7 = strongly agree)</p> <p>Source: Steg et al. (2005)</p>	<ol style="list-style-type: none"> <li>1. (a) Global warming and climate change; (b) income inequality; (c) world poverty and hunger are/is serious problems in our society.</li> <li>2. (a) The exhaustion of fossil fuels; (b) the distribution of income in an uneven manner among a population; (c) resource misallocation or scarcity are/is a serious problem in our society.</li> <li>3. (a) The exhaustion of energy sources; (b) the gap between different individuals' or households' disposable income; (c) persistent world poverty, hunger and mal-nutrition are/is a serious problem in our society.</li> <li>4. Global warming and climate change; (b) income inequality; (c) world poverty and hunger are/is serious problems threatening the future of our planet/humanity.</li> </ol>
<p><b>Ascribed responsibility</b></p> <p>(Likert scale: 1 = strongly disagree, 7 = strongly agree)</p> <p>Source: Han et al. (2015)</p>	<ol style="list-style-type: none"> <li>1. I believe that every individual is partly responsible for (a) global warming and climate change problems caused by humanity; (b) the problem of income inequality; (c) world poverty and hunger caused by humanity.</li> <li>2. I feel that every individual is jointly responsible for (a) global warming and climate change deteriorations caused by humanity; (b) deteriorations of income distribution; (c) world poverty and hunger caused by humanity.</li> <li>3. Every individual must take responsibility for (a) global warming and climate change problems caused by human activities; (b) income inequalities caused by human decision making; (c) world poverty and hunger caused by human activities.</li> </ol>
<p><b>Sense of obligation</b></p> <p>(Likert scale: 1 = strongly disagree, 7 = strongly agree)</p> <p>Source: Han et al. (2015)</p>	<ol style="list-style-type: none"> <li>1. I feel morally obliged to do something about (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> <li>2. I feel personally obliged to adjust my behavior to reduce (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> <li>3. I feel a moral obligation to take (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger into account when shopping.</li> <li>4. I feel personally obliged to try to help fight (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger by making decisions towards that direction (e.g., selecting environmentally friendlier products and services).</li> </ol>
<p><b>Attitude</b></p> <p>(-3/+3 semantic differential scale)</p>	<ol style="list-style-type: none"> <li>1. I dislike/like the idea of protecting (a) the planet from climate change and global warming; (b) societies from the uneven distribution of income; (c) humanity from world poverty and hunger.</li> </ol>



<p>Source: Leonidou and Skarmeas (2017)</p>	<ol style="list-style-type: none"> <li>2. I am unconcerned/concerned with the protection of (a) the planet from climate change and global warming; (b) societies from the uneven distribution of income; (c) humanity from world poverty and hunger.</li> <li>3. I think too much/little attention is given to the protection of (a) the planet from climate change and global warming; (b) societies from the uneven distribution of income; (c) humanity from world poverty and hunger.</li> <li>4. I think that protecting (a) the planet from climate change and global warming; (b) societies from the uneven distribution of income; (c) humanity from world poverty and hunger is important/unimportant.</li> </ol>
<p><b>Subjective norm</b> (Likert scale: 1 = strongly disagree, 7 = strongly agree)  Source: Han et al. (2015)</p>	<ol style="list-style-type: none"> <li>1. Most people who are important to me think I should do something about (a) climate change and global warming (b) the social issue of income inequality; (c) world poverty and hunger.</li> <li>2. Most people who are important to me would want me to adjust my behavior to (a) reduce climate change and global warming; (b) help reduce the gap between different individuals' or households' disposable income; (c) reduce world poverty and hunger.</li> <li>3. People whose opinions I value would want me to take (a) climate change and global warming into account when shopping; (b) income inequality into account when making purchasing decisions; (c) world poverty and hunger when shopping.</li> <li>4. People whose opinions I value would prefer if I try to help fight (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger by making decisions towards that direction (e.g., selecting environmentally friendlier products and services).</li> </ol>
<p><b>Perceived behavioral control</b> (Likert scale: 1 = strongly disagree, 7 = strongly agree)  Source: Han et al. (2015)</p>	<ol style="list-style-type: none"> <li>1. Whether or not I do something about (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger is completely up to me.</li> <li>2. I am confident that if I want, I can adjust my behavior to reduce (a) climate change and global warming; (b) income inequality between different individuals or households; (c) world poverty and hunger.</li> <li>3. If I want, I can take (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger into account when shopping.</li> <li>4. If I want, I have the opportunity to make purchasing decisions that fight (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> </ol>
<p><b>Civic engagement</b> (Likert scale: 1 = strongly disagree, 7 = strongly agree)  Source: Kumar and Pansari (2016)</p>	<p>Donations</p> <ol style="list-style-type: none"> <li>1. I donate to organizations that fight (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> <li>2. I provide financial support to groups fighting (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> <li>3. I donate to charities that work to end (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> </ol> <p>Purchases</p> <ol style="list-style-type: none"> <li>1. I buy from companies that try to fight (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> <li>2. I buy products that are linked with (a) climate change and global warming alleviation; (b) income inequality alleviation; (c) world poverty and hunger alleviation.</li> <li>3. If a company charges me more for its products so it can invest back into fighting (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger, I'm okay with that.</li> <li>4. I often pay more for products are linked with (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger alleviation.</li> </ol> <p>References</p> <ol style="list-style-type: none"> <li>1. I promote the environmental cause of (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> <li>2. I encourage my friends and relatives to fight (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> <li>3. I inform my friends and relatives about (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> <li>4. I invite my friends and relatives to join the fight against (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> </ol> <p>Influence</p> <ol style="list-style-type: none"> <li>1. I do NOT actively discuss (a) climate change and global warming; (b) income inequality issues; (c) world poverty and hunger on any media. (Reverse)</li> <li>2. I love blogging about (a) the environmental cause of climate change and global warming; (b) the humanitarian cause of income inequality; (c) world poverty and hunger.</li> <li>3. I upload posts to social media about (a) the environmental cause of climate change and global warming; (b) the humanitarian cause of income inequality; (c) the humanitarian cause of world poverty and hunger.</li> <li>4. On social media, I try to influence my contacts' opinion about (a) climate change and global warming; (b) income inequality; (c) world poverty and hunger.</li> </ol>
<p><b>Past experience</b> (-3/+3 semantic differential scale)</p>	<ol style="list-style-type: none"> <li>1. I am unfamiliar/ familiar with (a) global warming and climate change; (b) income inequality; (c) world poverty and hunger issues?</li> <li>2. I am not involved/involved with (a) global warming and climate change; (b) income inequality; (c) world poverty and hunger issues?</li> </ol>

Source: Schlosser (2006)	3. I am not knowledgeable/knowledgeable about (a) global warming and climate change; (b) income inequality; (c) world poverty and hunger issues?
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\* Respondents were randomly assigned to one of three different contexts: global warming and climate change, income inequality, or world poverty and hunger.