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Using the Social Identity Approach to Support Sustainable Consumer Behaviours

The Relationship Between Moral Violations, Politized Identification and
Private-Sphere Behaviour

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Abstract

The purpose of this research was to investigate whether communicating moral violations increases politicized identification (with the pro-environmental movement) and if identification with the pro-environmental movement positively correlates with private-sphere pro-environmental behavior intention (measured as green purchase intention). This study conducted an online between-subjects experiment in which the communication of a moral violation was manipulated to measure its effects on politicized identification. The correlation between identification with the pro-environmental movement and private-sphere pro-environmental behavior intention was also measured. The results showed no significant difference in politicized identification between the two conditions, while a significant and moderate positive correlation was found between identification with the pro-environmental movement and private-sphere pro-environmental behavior intention. The lack of a significant difference between the two conditions may be attributable to several reasons, including that climate change could possibly already be chronically associated with moral violations. Further research would do well to eliminate possible confounds to provide a cleaner test of the causal relationship between communicating moral violations and politicized identification.

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Introduction

The accumulated behaviors of individual consumers are impacting the natural environment at unprecedented levels (Stern, 2000). Due in part to our patterns of consumption, society and businesses are faced with environmental degradation and climate change, pointing to the necessity of changing the way we do business (Menon & Menon, 1997).

The “attitude-behavior gap” is well-known in the sustainability literature. Whereas consumers describe holding positive attitudes towards pro-environmental behaviors (Trudel & Cotte, 2009), they frequently do not follow through with sustainable actions (Auger & Devinney, 2007; Gatersleben et al., 2002; Kollmuss & Agyeman 2002; Young et al., 2009). This inconsistency between consumers’ reported attitudes and their actual behaviors may be the toughest challenge to overcome for firms that endeavor to encourage sustainable consumption (Johnstone & Tan, 2015; Prothero et al., 2011).

The attitude-behavior gap in environmental consumerism exists because climate change and related global environmental problems present themselves to consumers as common goods dilemmas (Aitken et al., 2011; Gupta & Ogden, 2009; Hardin, 1968; Huckelba & Van Lange, 2020). Such large-scale global problems are only solvable by collective efforts and not by individuals alone. The environmental impact of a single person’s private-sphere pro-environmental behavior is negligible on a planetary scale and attempting to present climate change as a problem of individual behavior may lead one to feel helpless and fearful of others’ free-riding (Salomon et al., 2017; Simpson, 2006). So, although consumers hold favorable attitudes about environmental conservation, their purchase decisions are based on maximizing

self-interest because they see the costs of cooperating outweighing the uncertain utility obtained from doing so (Gupta & Ogden, 2009).

Indeed, approaches in line with the theory of planned behavior (Ajzen & Fishbein, 2005; Bamberg & Möser, 2007) or the norm-activation model (Klöckner & Blöbaum, 2010; Schwartz & Howard, 1984) propose that whether or not a person engages in pro-environmental behavior depends on their personal cost-benefit calculations, sense of personal efficacy and expectations of personally significant others. However, this perspective on the factors behind pro-environmental behavior fails to consider the capacity of humans to incorporate collectives in the self, as described in the social identity approach (SIA; Reicher et al., 2010; Tajfel & Turner, 1979). In this alternative approach, humans can define themselves not only as idiosyncratic persons ('I') but also through their group memberships ('we'). When individuals self-categorize as a collective, a cognitive shift occurs in which they calculate collective rather than personal cost-benefit analyses, tune their behavior to the norms of the group rather than personally significant others and consider whether they are efficacious as a group rather than as an individual.

When individuals come to see themselves through the lens of "We" rather than "I", it is assumed that they view their individual behavior as being part of collective action (Fritsche et al., 2018). As such, when an individual identifies with an agentic, pro-environmental group their feelings of helplessness may be alleviated and they may be motivated to take action in line with group goals (Fritsche et al., 2018; Salomon et al., 2017; Tajfel & Turner, 1979). Furthermore, Nolan et al. (2008) demonstrated that considering oneself as a member of a group with pro-environmental norms inclines one to act pro-environmentally through normative influence.

Given the potential that identifying with a pro-environmental group has for overcoming the attitude-behavior gap in green consumerism, finding means of cultivating such self-categorizations is of interest.

Research in line with the social identity model of collective action (SIMCA; Van Zomeren et al., 2012), presents one potential path towards cultivating social identities by proposing that individuals are more likely to identify with a politicized group (i.e., one that works for social change in the face of conflict and opposing interests; Simon & Klandermans, 2001) if that group is geared towards defending a shared moral belief perceived to be violated by an antagonistic outgroup (Van Zomeren et al., 2012). Indeed, research has shown that the perceived violation of moral principles predicts identification with a preexisting movement (Mazzoni et al., 2015), as well as politicizes groups in situations where no organized movement is yet to exist (Kutlaca et al., 2017). Politicized pro-environmental group identities in the context of climate change may be a certain environmental organization (Bamberg et al., 2015), environmental activists in general (Brick & Lai, 2018; Dono et al., 2010), or the environmental movement as a whole (Dunlap & McCright, 2008).

As such, if an individual were to perceive a moral belief of theirs to be violated and a pro-environmental politicized identity as geared towards defending that moral belief, the SIMCA would predict that individual to be more likely to self-categorize as a member of that group. In turn, research in line with the SIA (see Fritsche et al., 2018) would predict that social identification with the pro-environmental group would lead an individual to be more likely to behave sustainably in both their public and private lives (i.e., consumer behaviors).

Climate change may be understood as an intergroup conflict instigated by moral violations because, while mitigating the worst consequences of climate change will require transformative systemic change on a planetary scale (Masson-Delmotte et al., 2019) groups with the most power, like the fossil fuel industry barons, have vested interests in maintaining the status quo and are actively protecting those interests despite environmental and human costs (Schmitt et al., 2020). In fact, greed is one of the primary reasons for doubt that global warming can be effectively mitigated (Marlon et al., 2019). Ultimately, it can be argued that the transformative systemic changes needed to significantly tackle climate change are more likely to occur if individuals combine their efforts to undermine powerful groups with vested interests in the status quo, which has been the call to action of a number of pro-environmental organizations (e.g., Greenpeace, 350, Fridays for Future).

However, whereas previous work looked to what extent politicized identification was determined by individuals' perception of moral violation, the link between moral violations and politicized identification was correlational rather than causal. Whether communicating a moral violation as well as a politicized group geared at defending the relevant moral belief directly leads to politicized identification remains under-researched.

Furthermore, while notions of collective climate action have typically been restricted to public-sphere behaviors (Ruepert et al., 2015), research in line with the SIA argues that they should apply to private-sphere behaviors as well (Fritsche et al., 2018). This is because it is the cognitive shift from personal to social identity salience rather than the kind of behavior that converts individual behavior into collective action (Masson & Fritsche, 2021). Yet, a recent meta-analysis found only a weak correlation between pro-environmental social identities and

pro-environmental private-sphere behaviors (Schulte et al., 2020). The weak correlation could possibly be explained by the fact that the included studies solely measured participants identification with ‘pro-environmentalist people’ and ‘environmentalists’, which are frequently negatively stereotyped as being eccentric and militant (Bashir et al., 2013; Klas et al., 2018), suggesting a narrower focus on public sphere-behaviors like activism. Identification with the pro-environmental movement as a whole was completely absent in the analysis with regards to private-sphere behaviors (Schulte et al., 2020). As such, this thesis aims to answer the following research question: What is the relationship between communicated moral violations, identification with the pro-environmental movement and private-sphere pro-environmental behavior intention (measured as green purchase intention)?

This thesis aims to determine whether communicating moral violations works as a causal factor in politicizing individuals. As such, a between-subjects experiment will be conducted, in which the presence of a moral violation will be manipulated and effects on politicized identification will be measured. Furthermore, this research also aims to provide further support for a positive correlational relationship between pro-environmental politicized identification and private-sphere pro-environmental behaviors. Therefore, this study will measure politicized identification as identification with the pro-environmental movement as a whole and will also gather data on green purchase intention.

Findings from this study can shed light on how green marketers could communicate climate change to consumers if they wish to capture benefits of the social identity approach. This entails gaining a deeper understanding of the effectiveness of communicating moral violations,

as well as of which social identities are most fruitful to cultivate with regards to overcoming the attitude-behavior gap in green consumerism.

Marketers should be interested in understanding how to facilitate sustainable consumer behavior for many reasons. For one, the consumption mentality encouraged by traditional marketing is a root cause of environmental problems (Csikszentmihalyi, 2000; Peattie & Peattie, 2009). Secondly, firms that are able to catch the wave of sustainability will have higher odds of thriving long-term and enjoying strategic benefits (Banerjee et al., 2003). Indeed, firms can potentially gain greater long-term profits not only by operating more sustainably, but also by discovering new business models centered around sustainable consumption (Kotler et al., 2010). Lastly, a business focus on sustainability can spur innovation, drive organizational efficiency, and motivate employees (Hopkins et al., 2009). Instead of solely aiming for the green consumer segment then, sustainable marketers may wish to increase the size of their market for the joint gain of the firm and planet. As such, firms that behave truly sustainably should desire that consumers realize and embrace their values and commitments to boost sustainable consumption and enhance the strategic benefits of the firm.

This thesis will proceed with a review of the relevant literature. This will be followed by the rationale for choosing the adopted methodological approach and a detailed account of how the research was conducted, including sampling, data collection, data analysis, and research ethics. Next, the results of the research will be reported, followed by a discussion including the interpretation of the results, the contribution to knowledge and the practical implications.

Theoretical Framework

The Social Identity Approach

The social identity approach (SIA; Reicher et al., 2010; Tajfel & Turner, 1979) postulates that the self-concept is comprised of both personal as well as social identities. While personal identity incorporates unique facets of the self, social identities are derived from the groups one belongs to. The SIA posits that when an individual categorizes themselves as belonging to a certain social group they start to think and act as members of that group rather than as unique individuals; the psychological focal point shifts from the 'I' to the 'we'. In essence, categorization leads one to accentuate the similarities among themselves and fellow ingroup members, as well as to accentuate the differences among themselves and relevant outgroups. This ultimately leads an individual to assimilate to the norms, values, ideologies and behaviors of the salient social group they identify with while distancing themselves from the norms of relevant outgroups.

Social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner et al., 1987) form the basis of the social identity approach. Self-categorization occurs when an individual places themselves in a social category and thinks of themselves as belonging to that category. Self-categorization theory (Turner et al., 1987) aims to explain how, when, and why individuals categorize themselves as members of certain groups. Turner et al. (1987) describe self-categorization as a component of an individual's self-concept, meaning the cognitive representations they hold about who they are. In specific terms, self-categorization is based on cognitively grouping oneself and others as similar ("us"), in contrast to members of another category ("them"). Self-categorization theory proposes that self-categorization is hierarchical. As

such, personal and social identity are distinguished as distinct levels of self-categorization.

Whereas personal identity refers to an individual's unique sense of self, social identity refers to the sense of self an individual holds from belonging to a collective group, with traits and characteristics shared among its members (Turner et al., 1994). There are practically no limits to the categories one can identify with, from small to large-scale groups or even all humanity at the most superordinate level of identification (Rosenmann et al., 2016).

When and Why do People Self-Categorize?

Self-categorization theory states that the salience of a category in a given situation is what determines whether or not an individual categorizes themselves in terms of that collective category (Turner, 1999; Turner et al., 1987). In this context, salience means the extent to which a group membership shapes social perception and behavior in a given situation (Oakes, 1987), as well as the extent to which group members perceive themselves as being similar to others in their group, and dissimilar to members of other groups (Turner, 1999). Stated differently, self-categorization depends on the extent to which a social category becomes psychologically activated in a given situation (Veenstra & Haslam, 2000). Whether a certain distinction between ingroup and outgroup becomes salient depends on its relative accessibility and fit (Oakes, 1987). A category's accessibility depends on its situational accessibility, meaning an individual's immediate social context, as well as its chronic accessibility, or the degree to which a certain self-categorization is frequently activated across a variety of situations.

A category's fit depends on its comparative and normative fit (Turner et al., 1994). Comparative fit rests on the meta contrast ratio, which theorizes that individuals will be perceived as comprising a category so long as the differences among them are perceived to be

less than the differences from other people. These differences depend on features upon which individuals can be divided. Important to understand in the context of this research is that such features may be ideological and deal with moral beliefs. Normative fit refers to the degree to which the perceived behavior or characteristics of a group of people match the knowledge-based expectations of the perceiver (Turner et al., 1987; see also Livingstone, 2014). As such, normative fit proposes that individuals will be more inclined to categorize into ingroups and outgroups when the differences between groups line up with stereotypic expectations.

When a social category is psychologically activated, a process of depersonalization is set in motion whereby individuals begin to see themselves as interchangeable representatives of the group to which they self-categorize (Turner et al., 1994). This motivates individuals to view themselves and their behavior as being aligned with the ingroup prototype, the position that maximizes similarity to the ingroup and maximizes differences from relevant outgroups (Rabinovich et al., 2012). This cognitive alignment with the ingroup prototype causes a shift from personal to group-based perceptions, leading the individual to integrate the collective into their self-concepts (Smith & Henry, 1996). As such, individuals come to adopt the norms, values and ideologies of their ingroup. While self-categorization is one piece of the picture, social psychological research (e.g., Tajfel & Turner, 1979) points out that individuals regularly assign emotional significance to and derive meaning from their self-categorizations.

Defining Social Identification

Social identification deals with the degree to which an individual incorporates a certain group membership into their self-concept. Definitions in the literature often describe social identification as being a multidimensional phenomenon. Henri Tajfel (1978), whose writings

represent the basis of social identity theory (Tajfel, 1978; Tajfel & Turner, 1979, 1986) defined social identity as “that part of an individual's self-concept, which derives from his [or her] knowledge of his [or her] membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, 1981, p. 251). While it is important to recognize social identification as a multidimensional concept, Postmes et al. (2013) have shown that a single-item measure of social identification is valid and reliable. Social identity theory proposes that when an individual categorizes at the group level, they become motivated to perceive a positive distinction between their group and relevant outgroups and to protect their group's identity and status, even at a personal cost at times (Jetten et al., 1999). As such, social identities can lead to social conflicts, as groups compete with each other to improve their statuses.

Social Identity Model of Collective Action (SIMCA)

Van Zomeren et al.'s (2008) Social Identity Model of Collective Action (SIMCA) ties the SIA to collective activist action. Based on a meta-analysis of the social-psychological literature, the SIMCA predicts that collective action (intention) is determined by *group identification*, the experience of *group-based injustice* and perception of *group efficacy*. *Moral conviction* was later integrated into the original SIMCA, because these convictions were shown to predict group identification, anger, efficacy and collective action (Van Zomeren et al., 2012).

The extended SIMCA highlights the significance of morality in shaping social identities. Morality deals not only with good and bad, rather it has to do with right and wrong. Judgments about harm are crucial in comprehending morality. Indeed, “morality is understood through the lens of harm” (Gray et al., 2012, p. 109). Based on judgments of harm, moral convictions are

powerful and subjective beliefs about right and wrong, which are considered undisputable, universal truths (Skitka, 2010). Though moral convictions are only one operationalization of moral beliefs, it can be argued that they are one of the strongest expressions of moral belief (e.g., Skitka, 2010; Van Zomeren, 2013).

The fluid, context-dependent character of self-categorization is well-suited to why moral transgressions may act as key contextual triggers in collective action. Namely, whereas moral beliefs undoubtedly hold intrinsic motivational power (e.g., Schwartz & Bardi, 2001; Skitka & Bauman, 2008), the perception of them being violated motivates people to protect them (see also Tetlock, 2002; Tetlock et al., 2000). In fact, individuals who hold moral convictions should be inclined to act on their convictions because they legitimize and demand action (Skitka & Bauman, 2008; Skitka et al., 2005). In that sense, the perception of moral violation makes social categories salient at once, such that one is either with or against "them". Indeed, while research has shown that people may often fail to act upon their values, this inconsistency could potentially be explained by the fact that values are abstract in nature, whereas behaviors are more tangible and specific to a situation (Maio, 2010; Maio et al., 2009). As such, value protection models (e.g., Skitka, 2002; Skitka & Mullen, 2002) suggest that the impetus to defend transgressed moral beliefs acts to bridge any gap that may exist between abstract values and behavioral manifestations of protecting them. Or, to put it another way, knowing what one believes in might not carry the same motivational weight as knowing what one will not condone, after being exposed to a contextual trigger that transgresses their moral beliefs. According to research, different operationalizations of moral belief should follow the same process of value protection. Other operationalizations of moral beliefs may include values that go beyond specific

situations, as opposed to issue-specific moral convictions (e.g., Schwartz, 1992; Schwartz & Bardi, 2001) or rights individuals believe they should be entitled to throughout a range of situations (Kutlaca et al., 2017; Mazzoni et al., 2015).

It is possible to derive moral standards from group ideology (Turner et al., 1987), but they can also be derived from individual convictions (Skitka et al., 2005). As moral convictions are undisputable and considered universal (Hare, 1981; Kant, 1786, 1947; also see Haidt et al., 2003) they directly link the individual to higher-order principles and they demand that an individual abides by those principles. This may entail a certain type of depersonalization in which the individual is depersonalized in terms of a principle or ideal, rather than a particular group. Therefore, the violation of these standards might bring together people who share the same convictions, regardless of the groups they may be part of. Indeed, moral convictions can form the foundation of emerging social identities. Van Zomeren et al. (2012) define these as morality-based groups, while McGarty et al. (2009) refer to them as opinion-based groups. Held together by collective beliefs about perceptions of harm, morality-based groups uphold a stance based on a moral conviction. In other words, the groups bring together people who believe a certain behavior or action is either moral or immoral. Identification with a morality-based group seems to be fundamentally linked to an outgroup; social identity itself, in this case, would be meaningless without an outgroup. In this sense, morality-based social identities most probably consist of both affirmational and negational elements (see Zhong et al., 2008, on negational categorization); Due to the oppositional beliefs between the ingroup and outgroup, identifying with the ingroup also means that one is "not them."

While moral convictions can give rise to emerging social identities, they may also increase identification with existing social groups if that identity is geared towards achieving a goal or principle in line with the conviction (Van Zomeren et al., 2012). Using self-categorization terminology, this signifies a normative fit between the content of the social identity and the specific moral conviction (Turner et al., 1987). Identification with a politicized group (e.g., a social movement or activist group) is especially important in the context of collective action because, unlike broader and more ambiguous group identities, politicized groups have a distinct moral essence (Oakes et al., 1994) and contain clear normative and action-oriented meaning (Klandermans, 2014; Stürmer & Simon, 2004). A politicized collective identity is defined as one that works for social change in the face of conflict and opposing interests (Simon et al., 1998; Simon & Klandermans, 2001). Politicized environmental identities in the context of climate change might be a specific environmental organization (Bamberg et al., 2015), environmental activists in general (Brick & Lai, 2018; Dono et al., 2010), or the environmental movement as a whole (Dunlap & McCright, 2008). In sum, research in line with the extended SIMCA suggests that the perceived transgression of moral beliefs makes both the specific moral belief as well as the normatively fitting identity salient (Subašić et al., 2008).

It has been argued that the process of politicization reflects a qualitative shift in identity, in which sympathizers come to regard themselves as activists (Klandermans, 2014; Livingstone, 2014; Simon & Klandermans, 2001; Subašić et al., 2008). Turner-Zwinkels et al. (2015, 2017) provided further support for this by focusing on the underlying meaning individuals attribute to politicized groups, namely their identity contents (i.e., defined as the meaning one connects with an identity, Turner-Zwinkels et al., 2015, 2017). In line with the concept of normative fit, they

found a greater overlap among self-generated personal and political identity content in the case of politicized identities. They also found that politicized identities contained more self-generated moral content than un-politicized identities and that politicized identities were predicted by an overlap in moral identity content.

The extended SIMCA has been supported across various collective action contexts (Van Zomeren, 2013). Indeed, research has found the four main motives, as well as their consolidative conceptualization in the SIMCA, to have external validity in both advantaged and disadvantaged group member contexts (Van Zomeren, 2013). In terms of the SIMCA's internal validity, experimental research has backed some of the SIMCA's suggested causal relationships. Van Zomeren et al. (2008, Study 2), for example, found that collective action can be causally affected by group identification. Miller et al. (2009) found causal evidence that group-based anger leads to collective action, while van Zomeren et al. (2010) found causal evidence that group efficacy leads to collective action. As a result, the SIMCA's internal validity appears to be fairly good. What is lacking in the literature, however, is the causal effect of moral violation on politicized identification. As such, this thesis aims to test this proposal by experimentally manipulating the communication of a moral violation and measuring its effects on politicized identification.

This leads to the first hypothesis:

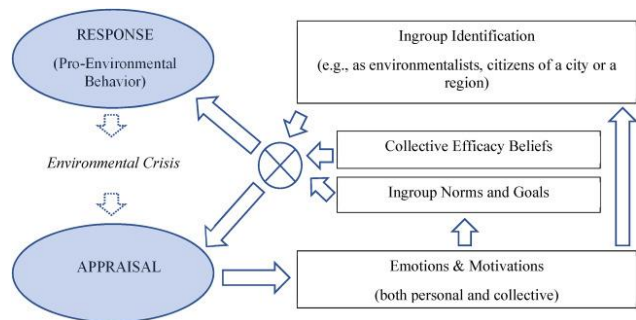
H1: The communication of a moral violation will significantly increase politicized identification (measured as identification with the pro-environmental movement).

SIMPEA

The social identity approach was formally applied to the environmental context with Fritsche et al.'s (2018) Social Identity Model of Pro-Environmental Action (SIMPEA, see Fig. 1). SIMPEA generalizes previous collective action theorizing (McGarty et al. 2009; van Zomeren et al., 2008) to both public and private-sphere behavior. The model takes a collective cognition approach in outlining how individuals appraise and respond to global environmental crises such as climate change. The SIMPEA accounts for the gap left by individualistic models of pro-environmental behavior with the proposition that ingroup identification (i.e. the strength of an individual's psychological bond with their group), collective efficacy beliefs (i.e. an individual's perception of the group as being capable to reach its goals), ingroup norms and goals (i.e. an individual's perception of what is prototypical and normative for the group) and group-based emotions determine both private- and public-sphere environmental action.

Figure 1

SIMPEA Model



Note. This figure was taken from *A social identity model of pro-environmental action (SIMPEA)* by Fritsche, I., Barth, M., Jugert, P., Masson, T., & Reese, G (2018) in *Psychological Review*, 125(2), 245–269, p.89.

Specifically, the model proposes that an initial environmental appraisal leads to both personal and collective emotions and motivations. Collective emotions and motivations, in turn, shape collective goals and norms of environmental behavior. Collective goals and norms, together with the degree of ingroup identification and perception of collective efficacy, then, drive the environmental behavior of group members as well as their environmental appraisal (in a recursive cycle). Furthermore, it is assumed that ingroup norms, identification and collective efficacy interact to predict environmental action, such that higher in-group identification and collective efficacy will increase group-members likelihood of acting in line with group goals (Fritsche et al., 2018).

SIMPEA aims to provide a comprehensive account of the factors that influence collective climate action. Collective climate action refers to any action taken by members of a group as representatives of the group being driven by the environmental-related goals of the group. While notions of collective climate action have frequently been restricted to public-sphere behaviors (Ruepert et al., 2015), SIMPEA argues that collective climate action applies to private-sphere behaviors as well (Fritsche et al., 2018). This is because it is the cognitive shift from personal to social identification rather than the type of behavior that causes the transformation from individual behavior to collective action. Indeed, individuals perceive a variety of private-sphere behaviors including purchasing decisions as being part of their participation in a social movement (Dobernig & Stagl, 2015).

Core Variables of a Collective Perspective

The research presented in the following paragraphs supports that the four proximal predictors of pro-environmental action proposed in SIMPEA (ingroup identification, ingroup

norms, collective efficacy beliefs, collective emotions and motivations) do indeed drive collective climate action. Each of these factors will be discussed in further detail to provide a deeper understanding of why the social identity approach may be so fruitful in overcoming the attitude-behavior gap in green consumerism.

Ingroup Identification

As social identification provides the psychological basis for collective efficacy as well as group norms and goals, identification is the necessary first step for group-based action to occur. Individuals must clearly self-categorize with a group and feel psychologically attached to the group (Leach et al., 2008). Identification has the ability to influence the way we react to and appraise environmental crises. As such, social identification will only lead to pro-environmental behavior when the group one identifies with shares pro-environmental goals and norms and is perceived as having agency (Masson & Fritsche, 2014; Vesely et al., 2021). These include groups that are intrinsically related to environmental problems, such as environmentalists, environmental activists or the environmental movement as a whole (Botetzagias & van Schuur, 2012; Dono et al., 2010; Schmitt et al., 2019; Schulte et al., 2020).

Ingroup Norms

Ingroup norms refer to the attitudes and behaviors that are perceived to be prototypical of the group. Group norms act as reference points for group members' environmental behavior; they guide and give purpose to group members' actions and behaviors. Furthermore, people may conform to the norms of the group to which they identify to embody distinct and valued social identities (Masson & Fritsche, 2014). Much research has shown that salient pro-environmental

norms of a relevant ingroup encourage people to decrease their negative environmental impacts (Fritsche et al., 2018; Jaeger & Schultz, 2017; Mertens & Schultz, 2021).

Collective Efficacy

The concept of collective efficacy refers to an individual's belief that their group can achieve its goals (Bandura, 2000; van Zomeren et al., 2008), such as mitigating global warming. It has been demonstrated that collective efficacy can increase private climate action by means of increasing an individual's sense of personal efficacy (Jugert et al., 2016). This suggests that people may feel empowered not only through collective agency but they may project their perceived individual capabilities to the collective level (Fernández-Ballesteros et al., 2002). Research has shown identification with standing collectives, such as the pro-environmental movement to be a strong factor in increasing both personal (Greenaway et al., 2015, Mattingly & Lewandowski, 2013) and collective efficacy (van Zomeren et al., 2008).

Emotions

As a result of categorizing at a group level, collective identity can also lead to collective emotions, or emotions that one feels on behalf of one's group (von Scheve & Ismer, 2013; Smith & Mackie, 2015). Collective emotions have their origin in appraisals of the ingroup as a whole, independent of individual actions or consequences. Thus, individuals can feel collective guilt despite not feeling personally responsible for an ingroup's contribution to climate change. Collective emotions such as guilt, anger and fear can spur people to action in the context of pro-environmental collective action (van Zomeren et al., 2008; Harth et al., 2013). Recent work on

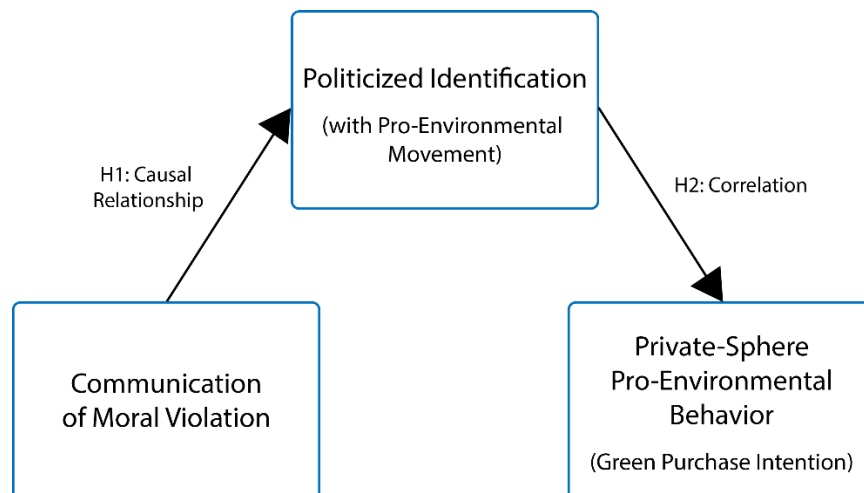
pro-environmental action has explored positive emotions as well, including hope (Hasan-Aslih et al., 2019) and optimism (Hornsey & Fielding, 2016). This leads to the second hypothesis:

H2: Identification with the pro-environmental movement will be positively correlated with private sphere pro-environmental behavior intention (measured as green purchase intention).

The relationships proposed by this research are illustrated in the conceptual model in Figure 2.

Figure 2

Conceptual Model



Method

This study conducted a between-subjects online experiment in which the independent variable of moral violation saliency (moral violation present vs not present) was manipulated to measure its effects on the dependent variable of politicized identification (identification with the pro-environmental movement). Furthermore, private-sphere pro-environmental behavior

intention, operationalized as green purchase intention, was also measured to determine its correlation with identification with the pro-environmental movement.

Research Strategy

This thesis took a quantitative experimental approach because the aim was to test for a causal relationship between the communication of a moral violation and politicized identification. This methodological approach allowed the researcher to detect whether the manipulation led to any significant difference in the dependent variable “politicized identification”. As the manipulation, that is whether or not a moral violation was communicated, was the only thing to change in the study, any significant difference in politicized identification could be causally attributed to the experimental condition. In addition, to support the proposed relationship that the communication of a moral violation would only affect green purchase intention through politicized identification, the researcher also tested for an effect of the manipulation on green purchase intention. Doing so allowed the researcher to determine whether any effect found in green purchase intention was consistent with that found in politicized identification, as predicted by the correlational relationship between the two variables.

As mentioned, this study also took a correlational approach in determining the relationship between identification with the pro-environmental movement and green purchase intention. This methodological approach was taken to ultimately validate the reasoning behind attempting to encourage individuals to identify with the pro-environmental movement in the first place. As the underlying intention was to explore a potential means of overcoming the attitude-behavior gap in green consumerism, a correlational approach allowed the researcher to

numerically determine the type and strength of relationship between identification with the pro-environmental movement and green purchase intention.

Research Design

The sample consisted of 96 participants (60 females, 35 males, one preferred not to answer, $M_{age} = 29.83$, $SD = 11.613$). Two participants were identified as outliers in the experimental condition for identification and were therefore removed when conducting t-tests for identification, resulting in a final $N = 94$. Both of them were male, leading to 33 male participants included in further testing.

The online experiment was created using Qualtrics and was then distributed via two international survey exchange groups on Facebook. A post was created that asked members of the group to complete the survey in exchange for completion of their survey. The two Facebook groups were “Student Survey Exchange” and “Survey Exchange / Survey Group / Survey Participants - Dissertation, Thesis”. These groups were both self-described as providing a way for students to perform data collection for their Surveys/Thesis/Projects/Ph.D./etc. The sampling procedure used in this thesis can be justified because there is no reason to believe that sampling participants in this manner would lead to any less valid results than sampling participants from a physical university campus. In fact, the social distancing guidelines during the Covid-19 pandemic encouraged the online collection of data. Furthermore, the effect of moral violation on politicized identification should not be limited to any specific group in general. Indeed, anyone who perceives their moral beliefs to be violated should experience the same psychological processes described in value protection models (Skitka, 2002; Skitka & Mullen, 2002) and be motivated to defend their transgressed moral beliefs. Furthermore, as climate change represents a

global problem, sampling from an international student platform is appropriate for this research. Additionally, the moral beliefs communicated as being violated in the experimental condition can also be considered universal in nature (see Schwartz, 2005).

Procedure

The online experiment was created using Qualtrics. It began with an introduction page, where individuals were told that they would be presented with information relevant to climate change and be asked to answer a few questions. Afterwards they were presented with a page containing the informed consent form. They were informed that they could drop out of the study at any time and that their answers would remain anonymous and confidential. Additionally, they were informed about the temporary, safe storage of the data collected during this experiment as well as the deletion of all data after the conclusion of the thesis. All participants had indicated consent to proceed to the rest of the experiment. Then, participants were randomly assigned to the control condition or the moral violation manipulation condition via the randomizer function of Qualtrics.

The control condition presented general information regarding the risks of climate change. The experimental condition included the information in the control condition but additionally presented information regarding the fossil fuel industry barons' anti-environmental behaviors to represent a moral violation. A full description of the conditions can be found in Appendix A. After being presented with the stimulus (moral violation salient vs control) participants were asked to indicate their answers to six statements in total on a 5-point-Likert scale measuring their politicized identification (with the pro-environmental movement) as well as their private-sphere pro-environmental behavior intention (green purchase intention).

Lastly, all participants were debriefed. The purpose of this study was disclosed and they were provided with contact information and sources for additional information regarding climate change as well as the SIMCA and SIMPEA model. After 96 participants had responded to the survey, the survey was closed and all data was exported from Qualtrics directly into SPSS Statistics, which was used for the entire statistical analysis of the data.

Measures and Data Processing

All scales were based on existing scales. They consisted of three items each. All items were assessed on 5-point Likert response scales (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree). One scale measured social identification as identification with the pro-environmental movement (Ashmore et al., 2004), the other measured private-sphere pro-environmental behavior intention as green purchase intention (Chan, 2001). All scales can be found in Appendix B.

The collected data was exported from Qualtrics and imported into and interpreted with SPSS. First, the reliability of the used scales was tested. Before conducting the test of correlation between politicized identification and green purchase intention it was determined whether the data met all necessary assumptions. These included the assumptions of normality, linearity and homoscedasticity. Data was then bootstrapped because the assumption of normality was not met. Next, the correlation (Pearson's correlation, including both groups) between identification with the pro-environmental movement and green purchase intention was measured using SPSS. Following the test of correlation, the data was split by condition (control vs experimental) and checked for outliers, normality and homogeneity. Bootstrapping of the data was applied when necessary. Next, an independent t-test for both politicized identification as well as green

purchase intention was run using SPSS. The data was securely saved to a hard drive and will be available until the conclusion of the thesis.

Research Ethics

As the experimental study of this thesis aimed to trigger social identifications with the pro-environmental movement through communicating moral violations, a discussion of research ethics is necessary. To begin with, none of the content presented in the control or experimental condition was fabricated by the researcher. The experiment presented information relevant to climate change as well as a moral violation. The climate change information falls in line with the Intergovernmental Panel on Climate Change's Report (Masson-Delmotte et al., 2019) as well as with the general scientific consensus on climate change (Cook et al., 2016). Furthermore, climate change information was kept as neutral as possible to only present objective statements. The information presented in the moral violation condition is congruent with a recent article from the *Journal of Social Issues* (Schmitt et al., 2020), as well as reports from various environmental organizations. As such, the researcher has not purposefully attempted to manipulate individuals with false information. With regards to encouraging identification with the pro-environmental movement, the researcher argues that such identifications appear necessary to successfully mitigate the worst impacts of climate change and related global environmental problems. Considering warnings from scientists and the lack of progress in meeting international climate goals (Masson-Delmotte et al., 2019), a strong social movement pushing for meaningful transformative change appears to be a sensible way forward. Furthermore, with regards to communicating moral violations, identifying impediments to progress is key to overcoming them, as it can create pressure for moral violators to behave morally. All participants were

debriefed after finishing the experiment. A thorough debrief ensured that participants understood the process that was supposed to be triggered by the manipulation, making them aware of the intended effect it could have on them. They were provided with an explanation of the purpose of this study, references for additional relevant information and an email address to contact the researcher.

Results

Scale Construction

The scales of politicized identification and green purchase intention both consisted of three items that were measured using 5-point Likert scales. To perform the necessary analyses of the data the individual items of the respective scales were reconstructed into two new variables. The variable “mean identification” was constructed, representing the mean of the three identification items, while the variable “mean purchase intention” was constructed, representing the mean of the three green purchase intention items.

Reliability Testing

Politicized Identification Scale

To verify that the items chosen to measure politicized identification were reliable, Cronbach’s α was calculated using SPSS. The politicized identification scale had an acceptable reliability with a Cronbach’s $\alpha=.729$. All items could be included in the scale.

Green Purchase Intention Scale

The items of the scale measuring green purchase intention also had to be tested for reliability. Again, Cronbach’s α was calculated using SPSS. The purchase intention scale had

very high reliability with a Cronbach's $\alpha=.905$. As well as for the politicized identification scale, all items could be included in the scale.

Testing Hypothesis 1

H1: The communication of a moral violation will significantly increase politicized identification (measured as identification with the pro-environmental movement).

This paragraph will introduce the descriptives of the dependent variable “politicized identification”, including the tests for normality and homogeneity of variance. Next, it will present the t-test of “politicized identification”. This will be followed by the descriptives and the assumption testing for “green purchase intention” as well as the t-test for this variable.

Results for “Politicized Identification”

Descriptive Statistics. Out of the sample ($N=94$; 60 females, 33 males, 1 prefer not to answer; $M_{age} = 29.66$, $SD = 11.480$), 49 were randomly assigned to the control condition and 45 were randomly assigned to the experimental condition. For the experimental condition, the mean was $M_E = 3.659$ with a standard error $SE_E = .110$ (Tab. 2). The mean for the control condition was slightly lower with $M_C = 3.524$, $SE_C = .127$ (Tab. 1).

Table 1

Descriptives for the DV Politicized Identification in the Control Condition

Descriptive Statistics ^a											
	N	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Identification Scale	49	1.33	5.00	3.5238	.12748	.89235	.796	-.279	.340	-.260	.668
Valid N (listwise)	49										

a. Condition = control

Table 2

Descriptives for the DV Politicized Identification in the Experimental Condition

Descriptive Statistics ^a											
	N Statistic	Minimum Statistic	Maximum Statistic	Mean		Std. Deviation Statistic	Variance Statistic	Skewness		Kurtosis	
				Statistic	Std. Error			Statistic	Std. Error	Statistic	Std. Error
Identification Scale	45	2.00	5.00	3.6593	.11035	.74022	.548	.133	.354	-.536	.695
Valid N (listwise)	45										

a. Condition = experimental

Fig. 3 shows the boxplot of the experimental condition for identification, revealing two outliers (participants 50 and 51). These two data points fell outside the 1,5 interquartile range. To determine whether they would need to be removed for further analysis a histogram was computed (Fig. 4). The histogram shows more clearly that the two outliers influence the distribution of the data. After removing the outliers, the distribution looks more similar to a normal distribution (Fig. 5). After the data was prepared, it was tested for normality and homogeneity.

Figure 3

Boxplot Showing two Outliers

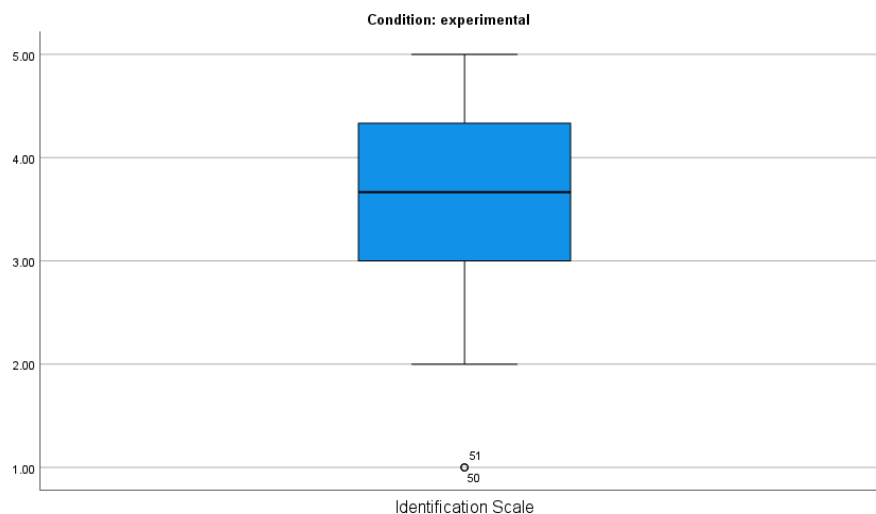
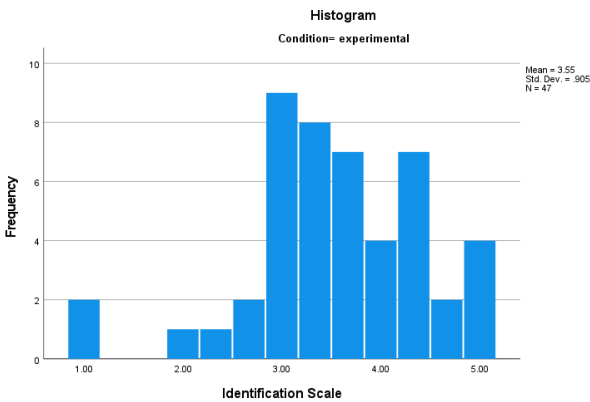
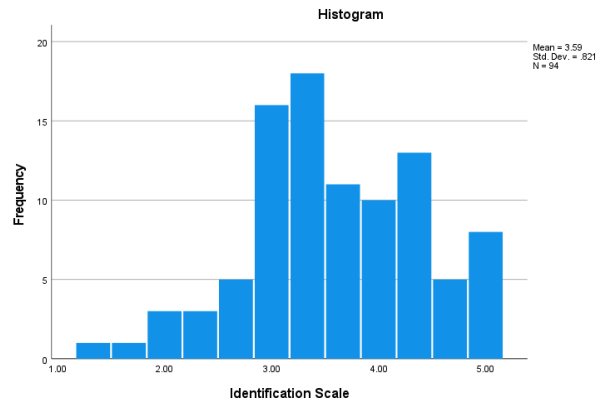


Figure 4

Histogram for the Experimental Condition of Politicized Identification Showing two Cases as Outliers

**Figure 5**

Histogram for the Experimental Condition After Removing Outliers, the Distribution is now Normal



Testing for Normality and Homogeneity. To assure the validity of the independent t-test the assumptions of a normal distribution and homogeneity were tested. The assumption of normality was tested by using the z-score for skewness and kurtosis. It is calculated by dividing the respective statistic by its standard error. This results in the following z-scores:

$$Z_{skewC} = -.279/.340 = -.821$$

$$Z_{kurtC} = -.260/.668 = -.390$$

$$Z_{skewE} = .133/.354 = .376$$

$$Z_{kurtE} = -.536/.695 = -.771$$

Interpreting these z-scores shows that the assumption of normality was met. All z-scores fall within the +/- 1.96 range. The assumption of homogeneity was tested by calculating the variance ratio (VR). Here the largest variance is divided by the smallest variance. Since there are only two groups, both variance statistics were used. This resulted in the following equation:

$VR = .796 / .548 = 1.453$. For a sample of $N = 30-60$, a variance ratio of < 2 meets the assumption of homogeneity.

T-Test Results “Politicized Identification”. There was no significant difference between the control condition ($M = 3.524$, $SE = .127$) and the experimental condition ($M = 3.659$, $SE = .110$) (Tab. 3) with $t(91.090) = -.803$, $p = .424$ (95% CI $[-.470, .199]$) (Tab. 4). The effect size was small with Cohen’s $d = -.165$ (Tab. 5).

Table 3

SPSS Output for the Group Statistics of Politized Identification

Group Statistics					
	Condition	N	Mean	Std. Deviation	Std. Error Mean
Identification Scale	control	49	3.5238	.89235	.12748
	experimental	45	3.6593	.74022	.11035

Table 4

SPSS Output of the Independent T-Test Performed for H1

Independent Samples Test								
		t-test for Equality of Means					95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Identification Scale	Equal variances assumed	-.797	92	.428	-.13545	.16995	-.47298	.20208
	Equal variances not assumed	-.803	91.090	.424	-.13545	.16860	-.47035	.19946

Table 5*Effect Sizes for the Independent T-Test Performed for H1*

		Independent Samples Effect Sizes			
		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Identification Scale	Cohen's d	.82311	-.165	-.569	.241
	Hedges' correction	.82990	-.163	-.565	.239
	Glass's delta	.74022	-.183	-.588	.225

Results for “Green Purchase Intention”

Following the lack of a significant difference in politicized identification among conditions, as expected, it was found that there was no significant difference in green purchase intention among conditions. This paragraph will introduce the descriptives of the dependent variable “green purchase intention”, including the tests for normality and homogeneity of variance. Afterward, it will report the t-test for the variable “green purchase intention”.

Descriptive Statistics. No significant outliers were found for the green purchase intention sample (N = 96; 60 females, 35 males, 1 prefer not to answer; $M_{age} = 29.83$, $SD = 11.613$), resulting in 49 participants randomly assigned to the control condition and 47 randomly assigned to the experimental condition. For the experimental condition, the mean was $M_E = 4.199$ with a standard error $SE_E = .095$ (Tab. 6). The mean for the control condition was slightly higher with $M_C = 4.293$, $SE_C = .089$ (Tab. 7).

Table 6*Descriptives for the DV Purchase Intention in the Experimental Condition*

Descriptive Statistics ^a											
	N	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Average_Purchase_Intention	47	2.67	5.00	4.1986	.09546	.65445	.428	-.339	.347	-.613	.681
Valid N (listwise)	47										

a. condition = Experimental

Table 7*Descriptives for the DV Purchase Intention in the Control Condition*

Descriptive Statistics ^a											
	N	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Purchase Intention Scale	49	2.33	5.00	4.2925	.08942	.62595	.392	-.681	.340	.549	.668
Valid N (listwise)	49										

a. Condition = control

Testing for Normality and Homogeneity. The data revealed no significant outliers. The assumptions of a normal distribution and homogeneity were tested once more using the same calculation as before. This resulted in the following z-scores:

$$ZskewC = -.681/.340 = -2.00 \quad ZkurtC = -.549/.668 = .822$$

$$ZskewE = -.339/.347 = -.977 \quad ZkurtE = -.613/.681 = -.901$$

Since the “ZskewC” statistic fell outside the +/- 1.96 range the assumption of normality was not met. Homogeneity was tested as before with the same calculation. This resulted in the following equation: $VR = .428/.392 = 1.09$. As such, the assumption of homogeneity was met. The data was bootstrapped with 1000 samples.

T-Test Results “Green Purchase Intention”. There was no significant difference between the control condition ($M= 4.293$, $SE=.089$) and the experimental condition ($M=4.199$, $SE=.095$) (Tab. 8) with $t(93.301)=-.718$, $p=.474$ (95% CI $[-.326, .167]$) (Tab. 9; Tab. 10). A Cohen’s $d=-.147$ represents a small effect (Tab. 11).

Table 8

SPSS Output for the Group Statistics of Purchase Intention

				Group Statistics				
				Statistic	Bias	Bootstrap ^a		
condition		N	Std. Error			Lower	Upper	
Average_Purchase_Intention	Experimental			N		47		
		Mean		4.1986	-.0044	.0939	4.0119	4.3828
		Std. Deviation		.65445	-.00451	.05644	.53843	.75550
		Std. Error Mean		.09546				
	Control	N		49				
		Mean		4.2925	-.0005	.0897	4.1001	4.4666
		Std. Deviation		.62595	-.01225	.06717	.49035	.74644
		Std. Error Mean		.08942				

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Table 9

SPSS Output of the Independent T-Test Performed for Purchase Intention

				Independent Samples Test		
				t-test for Equality of Means		
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Average_Purchase_Intention	Equal variances assumed	-.719	94	.474	-.09394	.13068
	Equal variances not assumed	-.718	93.301	.474	-.09394	.13080

Table 10*Bootstrap for Independent T-Test Performed for Purchase Intention*

Bootstrap for Independent Samples Test

		Mean Difference	Bias	Std. Error	Bootstrap ^a	
					95% Confidence Interval	
					Lower	Upper
Average_Purchase_Intention	Equal variances assumed	-.09394	-.00387	.12492	-.32627	.16678
	Equal variances not assumed	-.09394	-.00387	.12492	-.32627	.16678

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Table 11*Effect Sizes for the Independent T-Test Performed for Purchase Intention*

Independent Samples Effect Sizes

		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Average_Purchase_Intention	Cohen's d	.64006	-.147	-.547	.254
	Hedges' correction	.64522	-.146	-.543	.252
	Glass's delta	.62595	-.150	-.551	.252

a. The denominator used in estimating the effect sizes.
 Cohen's d uses the pooled standard deviation.
 Hedges' correction uses the pooled standard deviation, plus a correction factor.
 Glass's delta uses the sample standard deviation of the control group.

Testing Hypothesis 2

To test whether there was a significant positive correlation between identification with the pro-environmental movement and green purchase intention as indicated by the SIMPEA model, the researcher conducted a Pearson test for correlation using SPSS. The following paragraphs will include the testing of the assumptions of normality, as well as the assumptions of linearity and homoscedasticity. Afterward, Pearson's r will be reported.

Descriptive Statistics

To test for correlation, the data was not split into the two conditions (experimental vs control). Table 12, therefore, displays the descriptives for the whole sample (N = 96). The mean for identification is $M_{Ident} = 3.535$ with a $SE = .091$. For the purchase intention, the mean is $M_{PI} = 4.247$, $SE = .065$.

Table 12

Descriptives for Purchase Intention and Identification

	Descriptive Statistics									
	N	Minimum	Maximum	Mean		Std. Deviation	Skewness		Kurtosis	
				Statistic	Std. Error		Statistic	Std. Error	Statistic	Std. Error
Average_Identification	96	1.00	5.00	3.5347	.09122	.89375	-.476	.246	.350	.488
Average_Purchase_Intention	96	2.33	5.00	4.2465	.06516	.63843	-.500	.246	-.164	.488
Valid N (listwise)	96									

Testing for Normality

The data revealed no significant outliers. The assumption of a normal distribution was tested with the same calculation as above. However, when testing for correlation, all participants from both conditions were included. This results in the following z-scores:

$$Z_{skewIdent} = -.476/.246 = -1.935 \quad Z_{kurtIdent} = .350/.488 = .717$$

$$Z_{skewPI} = -.500/.246 = -2.033 \quad Z_{kurtPI} = -.164/.488 = -.336$$

Interpreting these z-scores shows that the assumption of normality is not met. Specifically, the

Z_{skewPI} statistic falls outside of the +/- 1.96 range.

Testing for Linearity and Homoscedasticity

Additionally, for correlation, the data has to be tested for linearity as well as homoscedasticity. To test for a linear relationship, a scatterplot of the data with a line of fit was created on SPSS. As can be seen in Fig. 6, the variables display a positive linear relationship. With an $R^2 = .344$, the effect is small, but the assumption of linearity was indeed met. This R^2 value means that 34.4% of the variance in green purchase intention can be explained by identification with the pro-environmental movement. To test for homoscedasticity, a scatterplot with the z-scores of the predicted values (z_{pred}) against the z-score of the residuals (z_{resid}) in the model was assessed (Fig. 7). As can be seen in Figure 7, there is no systematic relationship between the values predicted by the model and the errors in the model. As such the assumption of homoscedasticity was met.

Figure 6

Scatterplot With a Fit-Line.

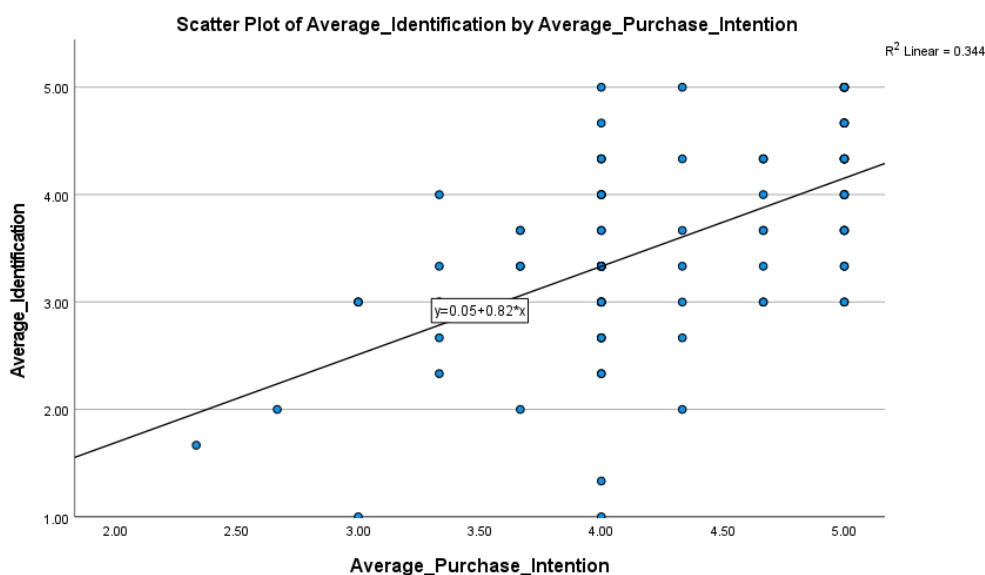
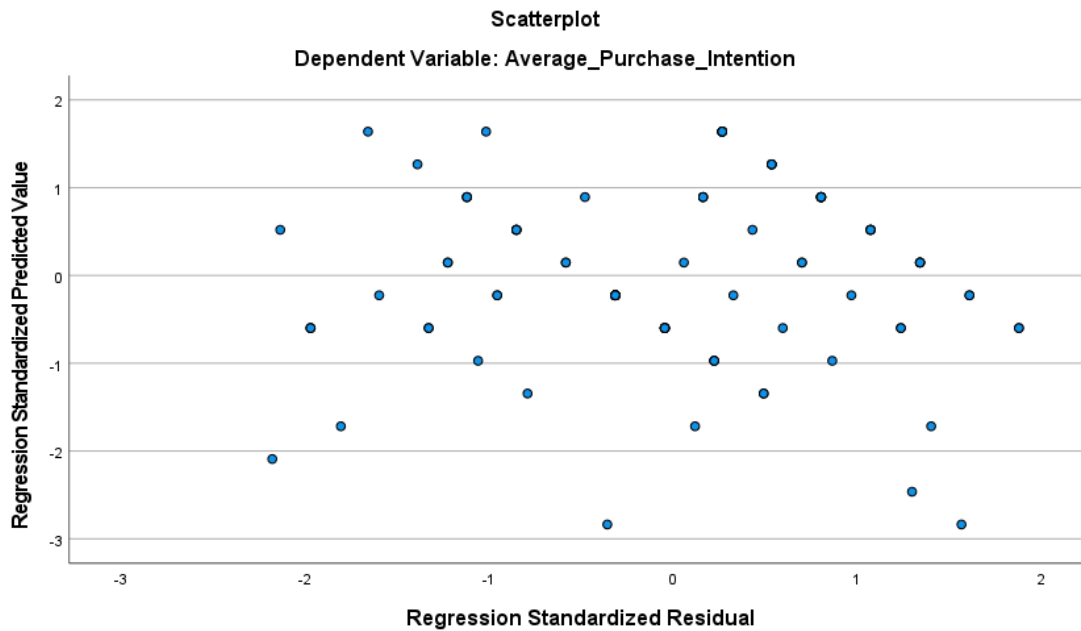


Figure 7*Scatterplot for standardized residuals****Pearson's Test***

Since the assumption of normality was not met, the data was bootstrapped with 1000 samples. Then the correlation between identification with the pro-environmental movement and green purchase intention was tested using SPSS's bivariate correlation (Tab. 13). The Pearson's test shows that identification with the pro-environmental movement was significantly related to how likely participants intended to purchase green products, $r = .586$, 95% CI [.452, .699], $p < .001$. A Pearson's $r = .586$ indicates a moderate positive correlation between the two variables.

Table 13*Correlation for Identification and Purchase Intention, including Bootstrapped CIs*

		Average_Identification	Average_Purchase_Intention		
Average_Identification	Pearson Correlation	1	.586**		
	Sig. (2-tailed)		<.001		
	N	96	96		
	Bootstrap ^b	Bias	0	-.001	
		Std. Error	0	.063	
		95% Confidence Interval	Lower	1	.452
			Upper	1	.699
Average_Purchase_Intention	Pearson Correlation	.586**	1		
	Sig. (2-tailed)	<.001			
	N	96	96		
	Bootstrap ^b	Bias	-.001	0	
		Std. Error	.063	0	
		95% Confidence Interval	Lower	.452	1
			Upper	.699	1

** . Correlation is significant at the 0.01 level (2-tailed).

b. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Discussion

This thesis set out to test if communicating a moral violation would have the hypothesized effect of increasing politicized identification with the pro-environmental movement and if such self-categorization would positively correlate with private-sphere pro-environmental behavior intention measured as green purchase intention. Results from this research were unable to provide definitive support for a causal relationship between communicating moral violations and politicized identification. However, this research did find a significant positive correlation

between identification with the pro-environmental movement and green purchase intention, as indicated by research in line with the SIMPEA (Fritsche et al., 2018).

The fact that this research did not find support for a causal relationship between communicating moral violations and triggering politicized identification does not necessarily mean that one does not exist. Indeed, moral violations have been shown to be a key factor in collective action (Van Zomeren, 2013). It makes sense that one must first perceive something to be wrong before deciding to join a group that fights for social change (i.e., politicized group; Simon & Klandermans, 2001). As such, communicating information that something is wrong, expressed as a moral violation, could either provide new information or make previously known information salient. If that information resonates as a moral violation and an individual is aware of a group that is specifically geared at protecting the relevant moral belief, it is intuitive that an individual may be more likely to identify with that group.

The lack of a statistically significant difference between the two conditions of politicized identification may be due to several factors. While research has shown violated moral beliefs to be significant predictors of politicized identification (Van Zomeren, 2013; Mazzoni et al., 2015; Kutlaca et al., 2017), it is possible that the politicizing effects of moral violation communication were suppressed by that of mere climate change threat, which has been shown to motivate individuals to join groups, as a means of regaining control (Fritsche et al., 2018; Stollberg et al., 2017).

An alternative explanation could be that a moral violation was salient in both conditions regardless of the explicit manipulation in the experimental condition. For example, if participants already chronically associated climate change with moral violations, then the control condition in

which climate change alone was made salient may have been enough to make those moral violations salient, thereby making the experimental manipulation redundant. Another possibility is that the moral violation manipulation did not have the intended effect, that is participants may not have perceived the information presented in the experimental condition to violate their moral beliefs. It is also possible that participants were uncertain if they could trust the information presented in the experimental condition to be accurate, thereby making them uncommitted to identifying for those reasons.

The lack of significance could have to do with a lack of normative fit as well. For example, participants may not have associated the pro-environmental movement with a group that is specifically geared towards tackling the moral violation presented in the manipulation. If such were the case, the motivation to protect one's violated moral beliefs would not incline individuals to identify with the group in question. It is also possible that simply communicating moral violations may not have the immediate effect of politicizing individuals. Social identification entails integrating a social group into one's self-concept and attaching value and emotional significance to it (Tajfel, 1981). So, while an initial communication of moral violations may make the relevant moral belief and normatively fitting social identity salient, it may not necessarily be enough to immediately increase one's sense of attachment to that identity. Ultimately, while this research did not find support for a causal relationship, this may be due to any of the factors listed above.

With regards to correlation, identification with the pro-environmental movement significantly and moderately predicted green purchase intention as indicated by SIMPEA (Fritsche et al., 2018). This further supports that politicized identities and notions of collective

climate action need not be restricted to public-sphere behaviors (see Ruepert et al., 2015). A possible explanation for moderate levels of correlation could be that, while the pro-environmental movement undoubtedly shares pro-environmental goals and norms which guide individuals' behaviors, participants may have associated those goals and norms more strongly with public-sphere behaviors than private-sphere behaviors. Indeed, a recent meta-analysis supports that a pro-environmental social identity is more strongly associated with public-sphere pro-environmental action than private-sphere pro-environmental behavior (Schulte et al., 2020). The present research, however, did find a significantly higher correlation between pro-environmental social identification and private-sphere pro-environmental behavior (intention) than that found in Schulte et al.'s (2020) meta-analysis. While Schulte et al. (2020) found only a weak positive pooled mean correlation of $r = .35$ with a total sample of $N = 2,598$ participants, the present research found a Pearson's $r = .586$, which indicates a moderate positive correlation. Furthermore, in Schulte et al.'s (2020) meta-analysis, pro-environmental social identification predicted on average a variance of 12% of an individual's private sphere pro-environmental behavior or behavior intention, such as purchasing green products. In the present study, 34.4% of the variance in green purchase intention could be explained by identification with the pro-environmental movement. As proposed in the introduction, a possible explanation for the differences found could be that the included studies in Schulte et al.'s (2020) meta-analysis solely measured participants' identification with 'pro-environmentalist people' and 'environmentalists', which are often stereotyped negatively as being eccentric and militant (Bashir et al., 2013; Klas et al., 2018), which suggests a narrower focus on public sphere-behaviors like activism.

Practical Implications

In terms of sustainable marketers communicating moral violations to reap benefits from the SIA, it is possible that simply communicating moral violations may not have the immediate effect of politicizing individuals. As discussed, social identification involves more than just a recognition of similarities, it involves emotional attachment and integrating an identity into one's self-concept (Reicher et al., 2010; Tajfel & Turner, 1979). As such, simply making moral violations salient by communicating them, through packaging or advertising, for example, may not immediately lead to such strong attachments. However, it is also possible that simply communicating moral violations may have the immediate effect of politicizing individuals and that the current study did not capture this effect for any of the reasons discussed previously. Nonetheless, a necessary precondition is that consumers perceive the moral violation presented to resonate with their own beliefs and to normatively fit a social identity geared at protecting those beliefs. Regarding the practical implications of the moderate correlation between identification with the pro-environmental movement and private-sphere pro-environmental behavior intention, social movements and sustainable marketers alike may wish that correlation to be stronger. As the norms and goals of a social identity guide and give purpose to group members' actions and behaviors (Fritsche et al., 2018), it is key that interested parties communicate that private-sphere pro-environmental behavior is a norm and goal of the relevant identity. Nonetheless, in terms of cultivating social identities as a means to overcoming the attitude-behavior gap in green consumerism, the present research suggests that aiming for identification with the pro-environmental movement as a whole is more fruitful than aiming for identification with environmentalists (see Schulte et al., 2020).

Critical Reflection on Limitations and Directions for Further Research

A key limitation of the present study regards its lack of definitive support for a causal relationship between communicating violated moral beliefs and triggering politicized identification. Further experimental research should seek to eliminate factors that may have been the cause of the lack of statistical significance between the two conditions, as discussed above. This could be accomplished by implementing manipulation checks into the research design in further research. Such checks could focus on determining whether participants perceived their moral beliefs to be violated and whether they believed the proposed normatively fitting group to be geared towards combating those violations. A further check could also ask participants in both conditions whether or not they were already aware of the moral violation presented in the experimental condition and whether or not they chronically associated the moral violation presented with climate change. This question could come at the end of the experiment as to not confound the responses given in the control condition. Results from this question would allow the researcher to determine the relative politicizing effects of previously known information made salient vs. new information made salient, which could provide interesting insights. Such a check would also provide insights into the effectiveness of the moral violation manipulation presented in the experimental condition. As discussed previously, if individuals in the control condition already chronically associated climate change with the moral violation presented, this could negate the effectiveness of the experimental condition.

Another limitation of the present study was that green purchase intention rather than actual behavior was measured. As pro-environmental behavior has come to be an injunctive norm in most societies (Barth et al., 2021) this could lead to social desirability bias, where

participants exaggerate how likely they are to purchase green products. Further research would benefit from measuring actual behaviors. Furthermore, because this research analyzed a pro-environmental movement, its results might not be generalizable to other movements. In future studies, it would be worth exploring if these findings could be applied to other situations, with different moral violations, within the scope of collective action.

Conclusion

This study was unable to provide explicit evidence of a causal relationship between communicating moral violations and triggering politicized identification. Yet, this does not necessarily mean that no causal relationship exists, as the lack of a significant finding could be due to a number of confounding factors. Future research should narrow down possible confounds to provide a cleaner test of the causal relationship between communicating moral violations and politicized identification. This research did find a significant and moderate positive correlation between pro-environmental identification and private-sphere pro-environmental behavior intention, compared to the weak correlation found by Schulte et al. (2020). While Schulte et al.'s (2020) meta-analysis solely measured participants' identification with 'pro-environmentalist people' and 'environmentalists', which are often stereotyped negatively as being eccentric and militant (Bashir et al., 2013; Klas et al., 2018), this study measured identification with the pro-environmental movement as a whole. As identification with the pro-environmental movement could help bridge the attitude-behavior gap in green consumerism, it is worth further exploring ways in which pro-environmental groups and sustainable marketers could communicate moral violations such that they resonate with individuals' moral beliefs and incline them to identify with groups that are perceived to act sustainably in their private lives.

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Appendices

Appendix A - Conditions

Participants were asked to carefully read the text. In the control condition, participants read the following text taken and altered from the Greenpeace official website (“8 Reasons Why We Need to Phase out the Fossil Fuel Industry,” 2021):

As reported by the Intergovernmental Panel on Climate Change, the science is clear: we cannot continue burning coal, oil, and gas if we are going to avoid the worst impacts of the climate crisis. We need to take transformative action in the next decade to completely phase out fossil fuels. If we are able to limit global warming to 1.5°C (2.7°F) above pre-industrial levels, we will reduce the risk of extreme heatwaves, heavy precipitation, droughts, sea-level rise, polar melting, expanding health risks, and other dangerous climate impacts worldwide.

In the moral violation condition, this information was preceded by a paragraph taken and altered from the Greenpeace official website (“8 Reasons Why We Need to Phase out the Fossil Fuel Industry,” 2021) stating:

Yet, as reported by various environmental organizations, fossil fuel corporations have discovered roughly five times more oil, gas, and coal reserves than we can afford to burn and still limit warming to 1.5°C. Those reserves represent billions of dollars in profits for fossil fuel executives and shareholders. Fossil corporations have known about the scale of the climate threat for decades, but far from warning the public, they spent millions on a campaign to sow doubt and disinformation and millions more in lobbying and campaign contributions to block any concerted governmental climate action.

Appendix B - Scales

Variable	Dimension	Comment	Items	Reference
Social Identification with the pro-environmental movement	Evaluation	The evaluative component, regards to what extent an individual sees the social identity in question in a positive or negative light. As such, it denotes an individual's attitude to that identity.	"I would be glad to be a member of the pro-environmental movement."	Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: Articulation and significance of multidimensionality. <i>Psychological Bulletin</i> , 130(1), 80–114. https://doi.org/10.1037/0033-2909.130.1.80
	Attachment and interdependence	Attachment and interdependence capture an individual's feelings of emotional connection and sense of oneness with the group.	"I feel connected to persons who are members of the pro-environmental movement"	
	Importance	importance regards to what extent an individual perceives the social identity as important to their self-concept. According to Ashmore et al. (2004), this is the dimension researchers usually refer to when referring to the 'strength of identification'.	"Being a member of the pro-environmental movement would be an important part of my self-image"	
Green purchase intention	Purchase Intention	Purchase intention is typically defined as a precondition for	"I would consider buying green products"	Chan, R. Y. K. (2001). Determinants of Chinese

		fostering actual purchase behaviors. As such many studies measure purchase intention as a means to test consumers actual behavior.	“I would switch to other brands for ecological reasons” “I would switch to green versions of products”	consumers’ green purchase behavior. <i>Psychology and Marketing</i> , 18(4), 389–413. https://doi.org/10.1002/mar.1013
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