# **Corporate Purpose and Employee Sustainability Behaviors**

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#### **Corporate Purpose and Employee Sustainability Behaviors**

Abstract: This paper examines the effects of employees' sense that they work for a purpose-driven company on their workplace sustainability behaviors. Conceptualizing corporate purpose as an overarching, relevant, shared ethical vision of why a company exists and where it needs to go, we argue that it is particularly suited for driving employee sustainability behaviors, which are more ethically complex than the types of employee ethical behaviors typically examined by prior research. Through four studies, two involving the actual employees of construction companies, we demonstrate that purpose drives the sustainability behaviors of employees by causing them to take psychological ownership of sustainability. In addition, we show that the sustainability-enhancing effect of purpose is stronger when employees perceive that they have higher autonomy in enacting their sustainability actions and for those employees for whom being moral is more central to their sense of self.

*Keywords:* corporate purpose; employee sustainability behaviors; sustainability ownership; job autonomy; moral identity centrality.

#### **Introduction**

"Purpose goes beyond ethics, a moral code that somebody [else] has defined. You have to define it yourself. You have to think about your impact on society, and not wait for somebody to impose it on you. Purpose is a form of societal ethics."

Indra Nooyi, CEO, Pepsico, 2018

"Purpose unifies management, employees, and communities. It drives ethical behavior and creates an essential check on actions that go against the best interests of stakeholders." Larry Fink, Chairman & CEO, Blackrock Inc., 2019

The notion of a corporate purpose, or a company's reason for existing, has been ascendant in the business world since the start of this century, culminating in its re-articulation by Business Roundtable, an association of chief executives of leading US companies, as a commitment to benefit not just a company's shareholders but all of its stakeholders (i.e., also customers, employees, suppliers, and communities; Business Roundtable 2019). This is reflected in not just the veritable explosion in the number of certified "B-Corps" organizations in recent years (Kohan 2021), but also in the increasing number of companies worldwide (Blount and Leinwand 2019) trying to articulate and live by their purpose. At the heart of this purpose imperative among businesses today is their urgent desire – and need – to be more sustainable in a world buffeted by increasingly palpable social and environmental upheavals. Being a purpose-driven company, or one in which all employees understand, are motivated by, and act in line with the organization's purpose (Gartenberg 2021), is increasingly viewed as a precondition for effective sustainability as many companies continue to struggle to be truly sustainable despite their best intentions and efforts (Bhattacharya, 2019).

Given their focus on stakeholder welfare and common conceptual roots in stakeholder theory (Freeman et al. 2004), it is not surprising that the notions of corporate purpose and sustainability are both intrinsically ethical (Schuler et al. 2017) and, in fact, related (Gartenberg 2021; George et al. 2021). Yet, while research has documented positive links between employees' perceptions that the company for which they work has a purpose beyond maximizing profits or shareholder value – a notion we refer to simply as purpose – and not just firm financial performance (Gartenberg et al. 2019) on the one side and employee motivation, perceived self-determination, and work engagement (e.g., Parmar et al. 2019) on the other, no work thus far, to the best of our knowledge, has investigated how, when, and why purpose can make a business more sustainable, in terms of both its environmental and social impact (van Tuin et al. 2020).

This paper investigates a key route through which purpose enables a company to be more sustainable: by increasing the sustainability behaviors of its employees (i.e., employee sustainability behaviors or ESB). We draw on prior research on business ethics, stakeholder theory, corporate sustainability, employee psychology, and purpose (e.g., Kellner et al. 2019; Kim et al. 2017; Peck et al. 2020) to characterize ESB as ethical behaviors that are different from the types of employee ethical behaviors typically examined by prior research (e.g., Boiral et al. 2015, 2018). Our central assertion is that purpose, which we define in line with Gartenberg (2021) as the beliefs of employees "about the meaning of [their] firm's work beyond quantitative measures of financial performance" (Gartenberg et al. 2019, p. 3), is particularly suited to drive ESB because it helps establish the firm as an essentially ethical entity in the eyes of employees, encouraging them to take ownership of the company's ethical efforts in the sustainability domain. Furthermore, we propose that this purpose-ownership-ESB link is positively reinforced by the amount of independence and flexibility employees perceive they have in enacting their sustainability actions (i.e., sustainability autonomy or SA). Finally, we provide further support for our ethics-based conceptualization of the purpose-ESB link by demonstrating that the interactive role of purpose and SA in driving ESB is even stronger for those employees for whom being moral is more central to their sense of self (i.e., those with higher morality-identity centrality or MIC; Aquino and Reed 2002).

Four studies, two involving the actual employees of companies from the construction industry, provide support for our basic assertions regarding the interactive effects of purpose, SA, and MIC on employees' psychological ownership of sustainability (i.e., sustainability ownership or SO) and ESB. In doing so, our paper makes several contributions. First, our work is the first to demonstrate the driving role of purpose in making companies more sustainable through employees' sustainability ownership and actions, responding, thus, to the recent call by Gartenberg (2021) for more empirical research on the purpose-sustainability link. Second, we contribute to the domain of business ethics by conceptualizing a company's purpose as its overarching ethical vision, employees' perceptions of which help frame, motivate, and ultimately drive their ethical actions in the sustainability domain. Third, we contribute to the literature on psychological ownership (e.g., Peck et al. 2020; Liu et al. 2012) by establishing SO as the key psychological substrate underlying the relationship between ESB and their key drivers. Finally, we contribute to the sustainability literature (e.g., Carmeli et al. 2017; Kim et al. 2017) by suggesting that the behaviors of employees, in contrast to that of consumers, hinges on not just their own individual-level ethical tendencies (i.e., MIC) but also on how these interact with job-level (i.e., SA) and organization-level (i.e., purpose) factors that allow and motivate them, respectively, to behave ethically. Put differently, our work sheds light on certain previously unexplored but crucial job- and individual-level contingencies that determine the effectiveness of perceived purpose in guiding the ethical behaviors of employees.

Next, we develop our conceptual framework, leading up to our predictions (summarized in Figure 1). We then present the four studies that test our predictions. We end with a discussion of the conceptual and practical implications of our findings.

-Figure 1 here-

#### **Conceptual Framework**

#### **Employee Sustainability Behaviors (ESB)**

Employees engage in a range of ethical behaviors in the workplace with varying levels of complexity (Hunt and Vitell 1986). At one end are a myriad of basic, routine behaviors that meet certain minimum moral standards of society or adhere to prevalent ethics norms in the workplace (see Trevino et al. 2014). These include refraining from accepting a bribe, lying and cheating, and using the company's resources for personal purposes and, generally, being honest (e.g., Fu 2014). At the other end are what Trevino et al. (2014) call "extraordinary ethical behaviors that go beyond society's moral minima" (p. 637) and are typically, but not necessarily, discretionary (e.g., charitable giving, whistle blowing, and, more generally, organizational citizenship behaviors or OCB).

Among such "extraordinary ethical behaviors," most germane for our research, are a set of sustainability-oriented behaviors investigated as employee green behaviors (Francoeur et al. 2021), or "actions and behaviors that employees engage in that are linked with and contribute to or detract from environmental sustainability" (Ones and Dilchert 2012, p. 87), and more specifically, organizational citizenship behaviors for the environment (i.e., OCBE; Boiral et al. 2015, 2018). Interestingly, while the ethicality of sustainability behaviors is rooted in the minimization (maximization) of a company's harmful (beneficial) effects in both the environmental and social domains (Paille et al. 2019), employee green behaviors and OCBE are restricted to only one of these two non-economic dimensions of sustainability (i.e., the environment). Far less investigated are what we call, based on prior research (Pellegrini et al., 2018), employee sustainability behaviors (i.e., ESB), which encompass not just their pro-environmental behaviors but also their pro-social

ones (Pellegrini et al. 2018), contributing more completely, together with their efforts towards a company's economic goals, to greater sustainability.

Importantly, three key aspects of employees' sustainability-oriented behaviors (i.e., green behaviors, OCBE, ESB) render these as particularly complex ethical behaviors, making these less likely to be motivated by – and implementable through – not just the relatively objective and concrete ethics codes and programs (i.e., rules; Zoghbi-Manrique-de-Lara 2010) prevalent in companies but also, more broadly, employees' perceptions of the often formal ethical procedures, policies, and management systems in their companies (i.e., ethical climate; Lu and Lin 2014). First, since sustainability involves going beyond the moral minima to maximizing the welfare of a multitude of stakeholders (Freeman et al. 2020) rather than just that of the firm, the sustainabilityoriented behaviors of employees are, like other complex ethical behaviors (Hunt and Vitell 1986), not so much about right and wrong as they are about the coherent and reinforcing balancing of the diverse needs, goals, and rights of different stakeholder groups and issues, which are likely distinct and sometimes even conflicting (e.g., between social justice, environmental integrity, and economic efficiency). In that, the decision to engage in such behaviors is a choice not "between good and evil but rather among various goods" (Kibert et al. 2011). Second, sustainability-oriented behaviors pertain, by definition, to the company's obligation to future generations, which requires a more abstract, longer-term ethical perspective wherein short-term benefits to one stakeholder group may need to be traded off with longer-term benefits to another. Finally, deliberative, rulebased ethical reasoning may not work as well for such behaviors (Kibert et al. 2011) due to both employees' general inexperience with sustainability issues as well as their more basic cognitive limitations in the face of the complexity and uncertainty inherent in the "grand challenges" of sustainability.

These differences point to the need for companies interested in encouraging ESB to frame the ethical issues at the heart of sustainability in an expansive manner, going beyond mutually exclusive and opposed solutions (i.e., dualistic choices) between social, environmental, and economic goods to create, ideally, a broad, sincere, relevant and shared organizational vision that is caring (Carmeli et al. 2017) and energizing (George et al. 2021) rather than coercive and punitive (Kibert et al. 2011). The basic premise of our work is that employees' sense of a meaningful and authentic corporate purpose comprises such a guiding ethical frame, encouraging employees to engage deeply and holistically with the notion of sustainability, taking psychological ownership of it and, thus, being more likely to perform ESB. We elaborate on this premise next.

#### **Corporate Purpose**

Corporate purpose, often articulated as an explicit statement (see Appendix A), is the reason why a business exists (Ellsworth 2002). However, both scholars and practitioners underscore that an explicit purpose statement is neither necessary nor sufficient for a company to be purpose-driven (Gartenberg 2021). For purpose to be meaningful and affect action, it needs to be cascaded, enacted and absorbed throughout the organization, through appropriate and sustained communications and actions, to reside ultimately in the minds of all employees as a sense for why their company exists, beyond just making money. Notably, purpose is fundamentally different from its mission, vision, and values in that it is more outward-focused: purpose asks what the company does for others, rather than how it sees itself or where it wishes to be in relation to its competitors (Kenny 2014). As well, purpose and corporate social responsibility (CSR), while related in their focus on the triple bottom line value in terms of people, planet, profit, are not the same. CSR refers to "a socio-political movement which generates private self-regulatory initiatives, incorporating public and private international law norms seeking to ameliorate and mitigate the social harms of and to promote

public good by industrial organizations" (Sheehy 2015), whereas corporate purpose is articulated in terms of the benefit or good a particular business provides to society at large. More practically, whereas CSR is a volitional activity restricted to certain departments of a company (Bhattacharya 2019), purpose is the overarching guiding force that permeates all corners of an organization (including its CSR activities) and drives all aspects of the business.

Purpose answers the fundamental question "why does a company do what it does?" and is, at least today, articulated in terms of the value a business provides to not just its shareholders but to society at large, through its multitude of stakeholders. In that, the contemporary notion of corporate purpose is rooted in the deontological perspective of Kantian ethics, which stakeholder theory (Freeman et al. 2004) articulates as the ethical responsibility business organizations have "to protect and promote the interests of their stakeholders" (Kaptein 2008, p. 981). In other words, purpose is an inherently ethical notion; in the words of Bartlett and Ghoshal (1994), it is "a company's moral response to its broadly defined responsibilities, not an amoral plan for exploiting commercial opportunity" (p. 88).

Given this, we contend that purpose helps establish the firm as an essentially ethical entity in the eyes of its employees, guiding, their ethical actions in a diversity of domains. More specifically, we argue that purpose is particularly effective as a motivating ethical manifesto for the more complex "extraordinary ethical behaviors that go beyond society's moral minima" Trevino et al. 2014, p. 637), such as ESB. This is because a firm's purpose serves as a unifying, relevant, ethical frame that drives ethical behaviors (Freeman et al. 2020) by embodying and fostering a general ethic of care (Carmeli et al. 2017) towards its stakeholders, rooted in concern for the good of others rather than through the "rational, universal, principle or rule-based and impersonal approaches to ethics" (Carmeli et al. 2017, p. 1381) that often guide the more basic ethical behaviors of employees (e.g., honesty). What then might be the psychological mechanism through which an employee's sense of their employer's purpose encourages ESB? We suggest that rather than guide such complex ethical behaviors through a deliberative and logical understanding of their rightness (i.e., a cognitive mechanism), purpose works in a more holistic, comprehensive, and experiential way to cause employees to feel psychological ownership of sustainability (Avey et al. 2012). This mediating role of sustainability ownership (i.e., SO) is discussed next.

### The Role of Sustainability Ownership

We define SO as a state in which employees feel as though sustainability, or a piece of it, is their 'own' (Pierce et al. 2001). Based on recent findings that people can feel psychological ownership of not just material possessions but also public goods and even intangible objects such as ideas, cultures, and movements (e.g., Peck et al. 2020), we argue that employees can feel SO. By being directed toward an intangible notion (i.e., sustainability), rather than a particular organization, set of tasks, or work role, SO is conceptually different from other work-related psychological states such as organizational identification (Dutton et al. 1994), psychological empowerment (Spreitzer 1995), and work engagement (Schaufeli et al. 2002).

Why might purpose be an effective driver of SO? Research on psychological ownership coalesces on three basic human needs that it fulfills: (a) self-identity, or the need to define, express and feel good about oneself, (b) belongingness, or the need for personal meaning through connections, and (c) efficacy, or the need to feel competent and in control. Thus, to the extent that most humans have a fundamental need to see themselves as good, ethical people and corporate purpose helps establish the firm as an essentially ethical entity, engagement in ESB as part of and for such an entity satisfies employees' self-identity and belongingness needs.

To elaborate, given that a company's purpose renders it a force for good for its stakeholders, it confers on its sustainability efforts, which is also stakeholder-oriented, a clarity and significance (Pierce et al. 2009) that it lacks when it is articulated in the face of a shareholder-value creation goal. By explicating the firm's contribution to society, purpose renders sustainability an issue that employees are likely to view as worthier of ownership with the promise of greater job and even life meaningfulness. In other words, articulating corporate purpose allows employees to not only understand why sustainability matters and makes sense for the firm (Gartenberg 2021) but also embeds the latter (sustainability) in the former (purpose), engendering a stronger, more enduring attachment (Bartlett and Ghoshal 1994) or ownership of it. Similarly, by reminding them that they are helping to find solutions to some of the world's most pressing problems through their jobs, purpose also makes salient that employees are an integral, contributing part of a larger ethical movement.

Support for our assertion that employees' perceptions that they work for a purpose-driven company will strengthen their SO also comes from the literature on work meaningfulness and the role of sensemaking therein (see Rosso et al. 2010 for review). A large body of work points to people's fundamental quest for meaning in their work lives (e.g., Cartwright and Holmes 2006). Because this meaning is typically rooted in the self-esteem, social connectedness, and self-efficacy employees derive from one or more aspects of their work (Rosso et al. 2010), psychological ownership, such as that of sustainability, can be construed as a pivotal, possibly volitional mechanism for generating work meaningfulness. Now, employees' acceptance of sustainability as a valid source of self-identity and belongingness-based work meaning is likely to occur through the process of sensemaking, or their scanning, reading, and interpretation of relevant cues to that effect from their work environment (Weick 1995). Clearly, the general ethic of care (Carmeli et al. 2017) towards its stakeholders embodied and signaled by a company's purpose is likely to facilitate

such sensemaking, encouraging SO in employees' quest for work meaningfulness. In support of this sensegiving function of purpose in fostering SO, Kempster et al. (2011) propose that purpose, cascaded by leadership, seeks to manage employees' meanings toward achieving good for humans (e.g., sustaining communities, reducing an organization's carbon footprint). As well, in the context of the adoption of an educational innovation, Ketelaar et al. (2013) show that teachers take psychological ownership of the innovation, but only when they view it through a sensemaking lens. In short, then purpose enables employees to make sense of the extent to which sustainability provides them with work meaningfulness through the fulfilment of key personal and social needs, triggering SO.

SO, in turn, is likely to be the key driver of ESB, encompassing a variety of behaviors, undertaken all across the organization – from the mailroom (e.g., recycling paper) to the boardroom (e.g., allocating resources to sustainability). SO is likely to make employees feel positively about sustainability, view it as part of their extended self (Belk 1988), and trigger a sense of responsibility toward it, making them more likely to commit to sustainability, both affectively and cognitively (Liu et al. 2012), and engage in ESB even when these are not necessarily part of the formal job expectations (Organ 1988). In sum:

H1: Employees' perceptions that they work for a purpose-driven company increases ESB. This purpose-ESB relationship is mediated by sustainability ownership (SO).

#### The Moderating Role of Sustainability Autonomy

An important aspect of employees' jobs is the degree to which they have autonomy over decisions pertaining to their job responsibilities (Chan and Lam 2011). We proffer the more specific notion of sustainability autonomy (i.e., SA), defined as the degree to which a company allows its employees substantial freedom, independence, and discretion in incorporating sustainability into their jobs, as a key enabler of the purpose-SO- ESB link.

Why might this be so? First, research in organizational behavior points to specific job characteristics, such as autonomy and participative decision making, as drivers of a perceived sense of control, producing in turn greater job and organizational ownership (Pierce et al. 2009). Perceived control, which fulfils the need for efficacy as noted above, is the perception that one is able - through ability, resources, and opportunities - to realize desirable outcomes through one's own actions (Liu et al. 2012). Thus, allowing employees significant freedom or autonomy in terms of how they can incorporate sustainability into their jobs is likely to empower them and enhance their feelings of control over sustainability (Piccolo et al. 2010).

Since the effect of purpose on ESB is theorized to occur primarily through the fulfilment of two (i.e., self-identity and belongingness) of the three needs underlying the link between purpose and SO, we argue that allowing the fulfillment of the remaining need – efficacy – will allow a fuller expression of purpose on SO to manifest. Put differently, we expect the three needs to act synergistically in driving SO, with the effects of the two needs underlying the purpose-SO link amplified when the third need (i.e., efficacy) is also better satisfied, through greater SA. Our assertion is supported by a recent strand within the psychological ownership literature which posits that "the three determinants of psychological ownership are complementary (rather than just additive), and, therefore, interact to produce the state of psychological ownership" (Townsend et al, 2009, p. 8).

More generally, one of the most fundamental insights to emerge from employee psychology (see Kellner et al. 2019) is that for effective behavior, performance, or goal achievement, employees need to not only be motivated, but to also have the ability and opportunity to perform the behavior or achieve the goal. Given that SA grants employees both the ability and opportunity to perform the sustainability behaviors in which their company's purpose motivates them to engage, we can expect the effect of purpose on SO to be stronger in the presence of greater SA. In essence, while purpose motivates employees to help fulfill the company's ethical manifesto (i.e., provides the "why" of sustainability), this motivating impetus is likely to be greater when job autonomy enables ownership by giving employees control over the way in which they integrate sustainability into their daily jobs (i.e., the "how to" of sustainability).

H2: The effect of employees' perceptions that they work for a purpose-driven company on ESB is moderated by their perceptions of SA. Specifically, the mediated link between purpose and ESB via SO is stronger for employees with higher levels of perceived SA than for those with lower levels.

#### Individual Differences in Responsiveness: The Role of Moral Identity Centrality

It is likely that not all employees will respond alike to sustainability-related aspects of their work environment. Specifically, if indeed both purpose and ESB are ethical constructs and their link is an ethics-based one, then the extent to which purpose and SO produce ESB should depend on the importance to employees of belonging to an ethical organization, in part by engaging in ethical actions for it (Flannery and May 2000). Some pertinent research (Moore et al. 2019) suggests that employees are likely to vary in the extent to which being a moral person (e.g., caring, compassionate, fair, generous) is central to their overall sense of self or identity (Aquino and Reed 2002; Edinger et al. 2019). Moreover, the more central being a moral person is to an employee's identity (i.e., high moral identity centrality or MIC), the more likely it is that this aspect of their identity will be salient at work and, thus, interact with the contextual influences in the workplace to affect their ethical behaviors. In line with this, a recent study documents a positive link between MIC and sustainability behaviors, at least in the consumer domain (e.g., green products; Wu and Yang 2018) due to the greater feelings of responsibility for environmental damage among high MIC consumers.

Building on this research, we propose a three-way interaction between employees' perceptions of the company's purpose, SA, and MIC such that the interactive effects of purpose

and SA on sustainability behaviors via SO will be stronger for employees who are higher on MIC than those who are lower. This is because higher MIC employees will not only be more aware and attuned to aspects of their jobs that allow and encourage them to be more moral (i.e., greater moral attentiveness or reflectiveness; Reynolds 2008), by engaging in ESB, but also be more sensitive to company and job characteristics pertaining to sustainability (i.e., purpose and SA) in their sensemaking efforts. Specifically, when such employees perceive their company to have a purpose (i.e., the motivation) and feel that they have the necessary autonomy to incorporate sustainability into their work life (i.e., the opportunity and ability), they will be especially likely to take ownership and act to a greater extent relative to their counterparts for whom being moral is less central to their sense of self. Thus, formally:

H3: The interactive relationship of employees' purpose perceptions and SA on ESB via SO is moderated by MIC. Specifically, the interaction is stronger for employees with higher levels of MIC as compared to those with lower levels.

## **Overview of Studies**

We tested our hypotheses through four studies including one experiment and three surveys, collectively comprising the responses of more than 1,600 employees. Two of these surveys (studies 1 and 3) were conducted in collaboration with two separate companies from the construction industry. We chose these companies because they have a large environmental footprint and do not belong to an industry that is well-known for their sustainability performance (Kucukvar and Tatari 2013), thus guarding against the possibility of ceiling effects in our studies. In addition, given our theory testing objectives, we chose two companies from the same industry to control for industry-specific effects across these two real-world studies. The first study provides evidence for our assertion that employees' perceptions of their company's purpose make them take ownership of sustainability, which in turn leads to increased ESB. To establish causality and to replicate the

findings in Study 1, Study 2 replicates this mediation model in a single-factor between-subjects scenario experiment (purpose versus shareholder value-maximization) using a hypothetical company. In Study 3, we find support for H2 (i.e., the indirect effect of employees' perceptions of purpose on ESB via SO moderated by SA). Finally, in Study 4, a survey with Mturk respondents who were employed by for-profit companies, we test our full conceptual model including the moderating effects of both SA and MIC (i.e., H3).

#### Study 1

The goal of this study was to test the mediating role of SO in the link between purpose and ESB in a real-world context. We surveyed employees of a company producing heavy machinery used in construction, farming, and other industries. This company has revenues exceeding \$4 billion, a global workforce of greater than 10,000, and operations in greater than 35 countries. We were able to obtain the cooperation of the Indian subsidiary of the company, which consists of multiple factories employing nearly half of the company's global workforce.

#### **Procedure and Sampling**

The company agreed to send the survey to those employees from the Indian subsidiary for whom there was an email address on file. We distributed our online survey, which was positioned as a research collaboration between the company and one of our universities, by email to 1,877 (i.e., those with email addresses) out of the roughly 5,000 employees; a couple of reminders were sent within two weeks of the launch. Availability of the email address was the only selection criterion applied. Thus, the list of addressees includes employees from all levels and divisions of the company. The survey closed three weeks after the initial mailing; 573 employees had taken the

survey (response rate = 30.53%). Of these 573 respondents, we excluded 55 because they did not provide consent to participate in the survey. An additional 154 respondents dropped out due to listwise deletion, leaving an effective sample size of 364. Detailed respondent demographics for all studies are provided in Table 1 as well as Appendix G.

## -insert Table 1-

At the beginning of the survey, we explained the purpose of the study and how the data would be handled to obtain respondents' informed consent. We then explained it was a survey about sustainability and defined the term. After this introduction, respondents were asked to answer a series of questions about their sustainability behaviors at work, followed by a series of items intended to measure their level of SO. Subsequently, the respondents provided their perceptions of their company's purpose. At the end of the survey, we collected respondents' age, gender, and education level.

## Measurement and Scale Evaluation<sup>1</sup>

Purpose was measured using three items (e.g., "[COMPANY NAME] has a higher purpose beyond profit maximization," Cronbach's alpha = .86). The questionnaire included three SO items (5-point measure: 1 = strongly disagree, 5 = strongly agree, e.g., "I feel a sense of ownership of [COMPANY NAME]'s sustainability efforts," Cronbach's alpha = .85). Please see Table 2 for the full list of items and Table 3 for an overview of the descriptive statistics and correlations.

- -insert Table 2-
- -insert Table 3-

We measured ESB by asking respondents to report up to five sustainability behaviors they engage in at work using open text boxes. We then counted how many valid behaviors each respondent reported (0 – 5; Mean = 1.49; S.D. = 1.70), excluding those responses that did not

qualify as ESB.<sup>2</sup> Specifically, 47.80% of respondents reported no such behaviors, 7.97% reported one, 14.56% reported two, 14.56% reported three, 7.42% reported four, and 7.69% reported five. Note that since our interest here is more with employees' participation in sustainability rather than the significance of the task completed, all qualified behaviors are treated the same (and assigned one point). In general, the behaviors reported in the open text boxes reveal that employees find manifold ways to make their organizations more sustainable, as shown in the examples below:

## Environmental Sustainability Behaviors:

- "Advising dealer engineers for proper handling and disposal of all waste material including metals, plastics and fluids"
- "Less use of papers, print-outs"
- "Working on elimination of one-time plastic packaging"
- "Always share a car for commute to reduce expenses and pollution"
- "Monitoring and controlling the water consumption per machine"

## Social Sustainability Behaviors:

- "Making mandatory for suppliers to follow company Safety Guidelines"
- "Improve skill level of women and make them employable, self-dependent"
- "Landscape and plantation development"
- "Rural growth"
- "Care for local community"

Appendix E contains a summary of checks for non-response bias, discriminant validity, and common method bias for all studies.

## **Hypothesis Testing**

To test H1, we used the mediation analysis technique provided in the *medeff* Stata package, developed by Hicks and Tingley (2011). Company purpose is the independent variable X, ESB is the dependent variable Y, and SO is the mediator M. While purpose and ESB are significantly correlated (r = .11; p = .03), the direct effect of purpose on ESB becomes non-significant ( $\beta = .07$ ; p = .47) when SO is included in the model. Company purpose has a significant, positive effect on

SO ( $\beta$  = .38; p = .00), which in turn has a significant positive effect ( $\beta$  = .31; p = .01) on ESB. Further, the indirect effect of purpose on ESB via SO is positive and significant ( $\beta$  = .12 [.03; .22]), thus providing support for the mediation proposed in H<sub>1</sub>.

In sum, using a sample of real employees, this study demonstrates, in line with our theorizing, that when employees perceive their company to have a purpose, they engage in more sustainability behaviors through an increase in their SO. To ensure the causal validity of these results, the next study manipulates purpose, in the form of a formal purpose statement that respondents are exposed to in their role as employees, to test the mediating role of SO in the link between purpose and ESB.

#### Study 2

#### **Procedure and Sampling**

We used Prolific to recruit 210 survey respondents and randomly assigned them, in line with other experimental studies in this area (e.g., Parmar et al. 2019), to one of two experimental conditions (purpose vs. shareholder value-maximization). Respondents were evenly distributed across the two conditions, and the experimental groups were well-balanced with respect to respondent characteristics (age, gender, and sustainability importance; see Table 1 and Appendix G for demographic details).

After providing consent, respondents were asked to imagine themselves as the Director of Product Innovation at Sarion, a fictitious company in the food industry.<sup>3</sup> They were then provided with background information on the company as well as their specific daily work tasks (see Appendix C). To maximize task realism and ecological validity, we based this information on a real job advertisement for the position of Director of Product Innovation posted by a large food

manufacturer. In addition, to ensure that respondents could relate to this scenario, we limited survey participation to full-time employees with a completed college degree in the United States. Following the background information, respondents were presented with the company's purpose statement; one half of them read a statement about the company's purpose while the other half read that the company was focused on shareholder value:

[PURPOSE] "Sarion defines its purpose as "Nourishing families so they can flourish and thrive." The CEO regularly highlights the importance of Sarion's purpose in his internal and external communication. This purpose guides all of the company's policies and procedures, from procurement to marketing to packaging."

[SHAREHOLDER VALUE] "Sarion emphasizes the importance of maximizing shareholder value. The CEO regularly highlights the significance of financial gains in his internal and external communication. The principle of shareholder primacy guides all of the company's policies and procedures, from procurement to marketing to packaging."

Note that the purpose statement we use is consistent with our conceptualization of the construct as a stakeholder-centric, ethic of care-based ethical frame that motivates employee action in a diversity of workplace domains, particularly ESB. After this experimental manipulation, respondents were asked a series of questions about ESB, followed by items measuring their level of SO. Subsequently, we presented respondents with a series of questions about their perceptions of Sarion's purpose, which served as a manipulation check. Lastly, we included survey items pertaining to respondent characteristics (age, gender, sustainability importance).

## **Measurement and Scale Evaluation**

To measure ESB, we asked respondents how likely (5-point scale: 1 = very unlikely, 5 = very likely) they would be to engage in five different sustainability behaviors germane to the position of Director of Product Innovation (e.g., "procuring sustainably sourced ingredients that are 10% more expensive than regular ingredients," Cronbach's alpha = .82). Second, we measured SO by asking respondents to indicate the extent of their agreement (5-point scale: 1 = strongly disagree,

5 = strongly agree) with five statements relating to SO (e.g., "sustainability at Sarion is something that belongs to me," Cronbach's alpha = .85). For a complete list of all variables as well as their respective measures please see Table 2, and refer to Table 3 for an overview of the descriptive statistics and correlations.

#### **Manipulation Check**

To test whether our treatment worked as intended, we included three manipulation check items in our survey. The first is a binary measure asking respondents what they think Sarion's purpose is, "to nourish families so they can flourish and thrive" or "to maximize shareholder value." The other two manipulation checks ask respondents about the extent to which Sarion's purpose is appealing and inspiring, respectively (5-point scales: 1 = not at all, 5 = to a great extent).<sup>4</sup> Using ANOVAs, we find that the means for each of the three manipulation check items are significantly higher in the purpose group than in the shareholder value maximization group (mean<sub>purpose</sub> = 0.94; mean<sub>shareholder value</sub> = 0.18, F = 297.57, p = .00; mean<sub>purpose</sub> = 4.07; mean<sub>shareholder value</sub> = 3.03, F = 39.22, p = .00; mean<sub>purpose</sub> = 3.96; mean<sub>shareholder value</sub> = 3.08, F = 33.76, p = .00). Thus, our treatment worked as intended.

#### **Hypothesis Testing**

As a first step, we used an ANOVA to test whether SO and ESB are significantly different across the experimental groups. Indeed, we find significantly higher means for both SO (mean<sub>purpose</sub> = 3.81; mean<sub>shareholder value</sub> = 3.56, F = 5.84, p = .00) and ESB (mean<sub>purpose</sub> = 4.03; mean<sub>shareholder value</sub> = 3.69, F = 12.78, p = .00) in the purpose group as compared to the shareholder value group. To specifically test for the mediating effect of SO, we again used mediation analysis in Stata (Hicks and Tingley 2011). In line with our theorizing, purpose has a significant positive effect on SO ( $\beta$  = .26; p = .02). SO, in turn, has a positive and significant effect on ESB ( $\beta$  = .46; p = .00). The direct effect of the treatment on ESB is significant and positive ( $\beta$  = .23; p = .01), as is the indirect effect of the treatment via SO on ESB ( $\beta$  = .12; [.02; .23]).<sup>5</sup> Based on these results, H<sub>1</sub> is supported in an experimental context as well.

#### Study 3

In this study, conducted in collaboration with another company from the construction sector, we test H2, i.e., the moderating effect of SA on the indirect effect of purpose on ESB via SO. The partner company is one of the largest manufacturers and suppliers of formwork and scaffolding systems in the world, with around 9,500 employees in 70 subsidiaries and 160 warehouse locations. Headquartered in Germany, the company generated sales of more than 1.5 billion euros in 2018. For the purpose of our study, we partnered with the German headquarters and were permitted to survey the employees via the company's Intranet.

## **Procedure and Sampling**

The study was conducted as an anonymous survey in which the link to the survey was posted on the company's Intranet for four weeks. While the survey was accessible to all employees of the company in all locations worldwide, it was not possible for us to ascertain how many employees actually visited the Intranet during that time period, depriving us of the opportunity to estimate a response rate on the 241 responses received.

The survey was presented as a collaboration of the company with one of our universities with the goal of understanding ESB. At the beginning of the survey, similar to Study 1, we explained that this was a survey about sustainability, how the data would be handled, and obtained respondents' informed consent. Respondents were then asked to rate a set of statements on 7-point scales (1 = strongly disagree, 7 = strongly agree). We first asked respondents about ESB, followed by items intended to measure their level of SO. Subsequently, we elicited respondents' perceptions of their company's purpose, followed by questions about their level of SA at work. At the end of the survey, we gathered their demographic information (see Table 1 and Appendix G for respondent demographics).

## **Measurement and Scale Evaluation**

Due to the company's concern about the length of the questionnaire, we had to shorten some of our measures. To measure ESB, we use a three-item scale (e.g., "I take initiatives to act in environmentally friendly ways at work," Cronbach's alpha = .85). To measure SO, we construct an index consisting of three individual items (e.g., "I feel a sense of ownership of [COMPANY NAME]'s sustainability efforts," Cronbach's alpha = .86). We measured company purpose via a single item, "[COMPANY NAME] is inspired by the problems facing our planet." We used two items to measure autonomy, "[COMPANY NAME] gives me a chance to use my personal initiative or judgment in carrying out sustainability initiatives" and "[COMPANY NAME] provides me with significant autonomy in making sustainability-related decisions" (r = .82). A full list of all items can be found in Table 2, and descriptive statistics and correlations in Table 3.

#### **Hypothesis Testing**

We again used causal mediation analysis in Stata (Hicks and Tingley 2011) to estimate the models. In the model used to test H1, perceived company purpose is the independent variable X, ESB is the dependent variable Y, and SO is the mediator M. As expected, company purpose has a significant, positive effect on SO ( $\beta = .25$ ; p = .00), which in turn has a significant positive effect ( $\beta = .65$ ; p = .01) on ESB. The indirect effect of purpose on ESB via SO is positive and significant ( $\beta = .17$  [.09; .25]), thus replicating support for H1.

To test H2, we estimate an additional model in which purpose is the independent variable X, ESB is the dependent variable Y, SO is the mediator M, and SA is the moderator W. We find a significant interaction effect of purpose and SA on SO ( $\beta = .09$ ; p = .01). Figure 2 illustrates the average marginal effects of purpose on SO at different levels of SA (95% confidence intervals): the coefficient for purpose is statistically insignificant at low levels of SA, becomes significant when SA reaches a value of about 4, and increases to a size of approximately .40 when SA reaches a value of 7. We also find that the index of moderated mediation is significant ( $\beta = .06$ ; [.02; .10]), which provides support for H2.

#### -Figure 2 here-

#### Study 4

The goal of our final study is to replicate the findings from our previous studies with a large crossindustry sample and to test  $H_3$ , i.e., the moderating role of MIC. To do so, we conducted an online survey among full-time employees in the United States with a variety of job and industry backgrounds.

## **Procedure and Sampling**

We collected the data through an online survey of 1,019 respondents that was distributed via the platform Amazon Mturk. Of those, 205 respondents dropped out of the model due to listwise deletion, leaving an effective sample size of 814. Such a large sample enables us to better represent the different industries and types of jobs real world respondents come from. We thus did not filter

for specific industries. We screened respondents to include only US-based respondents who were currently employed by a for-profit company. At the beginning of the survey, we explained the purpose of the study and how the data would be handled and sought respondents' informed consent to participate.

After giving consent, respondents were asked to rate a set of statements on 7-point scales (1 = strongly disagree, 7 = strongly agree). We elicited respondents' ESB, level of SO, perceptions of their employer's purpose, SA, and finally moral identity centrality (MIC), in that order. Toward the end of the questionnaire, we measured demographics (see Table 1 and Appendix G for respondent demographics).

#### **Measurement and Scale Evaluation**

To measure purpose, we use a three-item measure similar to the one we used in Study 1 (Cronbach's alpha = .91). SA is measured using six items (e.g., "my company gives me a chance to use my personal initiative or judgment in carrying out sustainability initiatives," Cronbach's alpha = .97). We measure SO using a six-item measure similar to those used in previous studies (e.g., "I feel ownership of my company's sustainability efforts," Cronbach's alpha = .93). To measure ESB, we use three items (e.g., "I get involved in social and volunteer work that benefits my community," Cronbach's alpha = .85). Lastly, to measure MIC, based on Aquino and Reed (2002), respondents were asked to read a list of nine characteristics that might describe a person: caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, and kind. We then use a four-item measure, using the positively worded items based on Aquino and Reed's (2002) moral identity centrality internalization measure (e.g., "I strongly desire to have these characteristics," Cronbach's alpha = .88).<sup>6</sup> This reduced version of the MIC measure has been used

and validated in previous research (Edinger et al. 2019). A full list of all items can be found in Table 2, and descriptive statistics and correlations are available in Table 3.

#### **Hypothesis Testing**

We again used causal mediation analysis in Stata (Hicks and Tingley 2011) to estimate the models. In the model used to test H1, company purpose is the independent variable X, ESB is the dependent variable Y, and SO is the mediator M. In line with our theorizing, purpose has a significant positive effect on SO ( $\beta = .26$ ; p = .00). SO, in turn, has a positive and significant effect on ESB ( $\beta = .57$ ; p = .00). The direct effect of purpose on ESB is significant and positive ( $\beta = .11$ ; p = .00), as is the indirect effect via SO ( $\beta = .29$ ; [.25; .33]). Based on these results, H1 is supported.

To test H2, we estimate an additional model in which purpose is the independent variable X, ESB is the dependent variable Y, SO is the mediator M, and SA is the moderator W. We find a significant interaction effect of purpose and SA on SO ( $\beta = .04$ ; p = .00), which in turn has a significant positive effect on ESB ( $\beta = .64$ ; p = .04). We also find that the index of moderated mediation is significant ( $\beta = .02$ ; [.01; .04]), which provides support for H2.

In the third model, purpose is the independent variable X, ESB is the dependent variable Y, SO is the mediator M, SA is the moderator W, and MIC is the second moderator Z. To test H3, all four interaction terms are included as predictors of SO (i.e., SA\*purpose, SA\*MIC, purpose\*MIC, and SA\*purpose\*MIC). We find a significant three-way interaction between purpose, SA, and MIC ( $\beta = .04$ ; p = .00). Figure 3 illustrates the average marginal effects of purpose on SO at different levels of SA and MIC (95% confidence intervals). Specifically, the black line shows the effect of purpose on SO at different levels of SA for respondents with low (i.e., one standard deviation below the mean) MIC., It is evident, while the line has a slight downward slope, the difference between low values and high values of SA is statistically non-significant, meaning that for respondents with

low MIC, the effect of purpose on SO does not vary with different levels of SA. The gray line shows the effect of purpose on SO at different levels of SA for respondents with high (i.e., one standard deviation above the mean) MIC. The line has a relatively steep upward slope, which indicates that for respondents with high MIC, the effect of purpose on SO increases significantly as SA increases. The index of moderated moderated mediation is significant ( $\beta = .02$ ; [.01; .03]), which provides support for H3.

#### -Figure 3 here-

To ensure that our hypothesized model is superior to other plausible configurations of our constructs, such as one in which ownership is the independent variable, purpose the mediator, and ESB the dependent variable, we conducted a variety of alternative model checks which we report in Appendix D. Our hypothesized model fits the data better than all other plausible model alternatives.

One potential weakness of our empirical package is that our results may not be fully comparable across studies due to variation in the measures used,<sup>7</sup> which was necessitated by the partner companies in studies 1 and 3 requiring us to slightly adapt the operationalization of our constructs. To address this issue, we repeat our hypothesis tests using only those survey items measuring purpose, ownership, and autonomy that are common to all four studies. Using these alternative measures, all coefficients retain their statistical significance and only change minimally in size (.01 in either direction), thus further bolstering our confidence in our results. Detailed results for the robustness checks are provided in Appendix F.

#### **General Discussion**

The four studies in this paper deliver convergent support for our theorizing, establishing not only the driving role of purpose in employees' sustainability workplace behaviors via sustainability ownership, but also the conceptually intriguing moderating roles of sustainability autonomy and moral identity centrality. It is worth noting that these findings are robust across study type (surveys, experiment), respondent type (online panels, employees of two companies, one in Germany and one in India), and the operationalization of the focal constructs. We find that the purpose employees perceive in their companies is a key driver of their sustainability behaviors at work, due at least in part to their greater psychological ownership of sustainability. This positive sequence is (positively) reinforced further by both employees' perceptions of autonomy to implement sustainability initiatives as well as their individual predispositions to be moral.

Our findings contribute to four streams of research. First, and most fundamentally, our research adds to the literature on business ethics. We assert, in contrast to the moral minima of traditional ethical behaviors that forbid employees to take bribes or be dishonest, ESB that focus on stakeholder welfare maximization are far more complex, and we show that purpose – the ethical North star of the company – is effective at moving the needle of such behaviors. We argue that purpose is particularly effective because it is an abstract, inspiring, and collective call to ethical action, rather than a nuts-and-bolts articulation of how to behave sustainably, which is difficult given the idiosyncratic and multilevel tradeoffs inherent in balancing people, planet, and profit goals. Also, we show that when the ethical mandate is broad, as with purpose, rather than concrete, as with ethical rules/requirements etc., employees have more leeway in understanding and enacting sustainability behaviors. As a consequence, autonomy in this domain (i.e., SA) becomes particularly important, as it allows employees to take the broad call to ethical action, and then enact in the ways they are best able to and best see fit. Finally, we show that individuals who are more ethically primed to begin with (i.e., are high in MIC), and thus more attuned to ethical frames such

as purpose, are more likely to engage in such ESB. These contingencies render purpose a "thick" ethical concept and provides Kantian ethics-based novel insights into the "role of business in society (Islam and Greenwood 2021; p. 2)" and how corporate purpose can help shape "business ethics for social change (p. 3)" rather than just for the firm's benefit. In that, our research comprises an explicitly business ethics-based response to recent calls (e.g., Gartenberg 2021) to clarify the link between purpose and sustainability.

Second, our results extend the emerging literature on corporate purpose. Most newsworthy is that our studies underscore the important and previously unexamined role of company purpose in the sustainability behaviors of employees. The notion of purpose has of late captured the imagination of the business world, but the scholarship on it and its effects on employee- and firm-related outcomes is thus far scant. Our research adds to the incipient body of work in this domain by demonstrating the driving role of employees' sense that their company has a purpose in their SO and, importantly, sustainability-related behaviors.

Third, our articulation of the notion of SO and its links adds to our extant understanding of psychological ownership in two key ways. First, while prior research has pointed to the validity of the ownership notion in the context of public goods such as the environment, we are the first, to the best of our knowledge, to demonstrate the ownership of sustainability per se, documenting empirically its importance to sustainability-related behaviors in the workplace. In doing so, our work also broadens the scope of psychological ownership in organizational contexts. Specifically, prior research in this domain has focused exclusively, and understandably, on organizational and job ownership as drivers of pro-employee and pro-company outcomes (Pierce et al. 2001). Our research shows that employees can also take ownership of business- *and society*-relevant issues such as sustainability yet produce outcomes similar to those wrought by the more basic organizational and job-related ones. Second, while prior organizational research has focused

predominantly on the control-conferring drivers of ownership (e.g., Liu et al. 2012), our findings show that the effect of such drivers can be enhanced when self-identity or meaning-conferring drivers of ownership –company purpose in our case – are also operative. In other words, the different needs guiding ownership can actually interact in the context of sustainability.

Finally, this article enriches the stakeholder theory literature. Although we study only one key stakeholder group (employees), we show that an ethically rooted, authentic, stakeholder-centric orientation as manifested through a firm's purpose can in fact help businesses be more sustainable. Furthermore, by showing the synergistic ways in which a job characteristic like autonomy and an individual ethical characteristic like moral identity centrality help magnify the impacts of purpose on sustainability ownership and sustainability behaviors, we establish that while stakeholder orientation is indeed necessary for this transition, it is by no means sufficient for moving employees' sustainability-related behaviors.

The results of this paper offer guidance for managers as well. First, in light of the strong and consistent link between SO and ESB noted in all of our empirical studies, understanding the role of business in society – in itself an ethical exercise – and defining a corporate purpose that goes beyond shareholder primacy to articulate the company's role in society is a necessary first step. Second, purpose alone may not be enough to build ownership, as it works in conjunction with autonomy to do so. Providing autonomy is particularly important in the context of sustainability because challenges are often context specific. Take food waste for example. In some countries it is primarily on the farm, in others at the table (Bhattacharya and Polman 2017). In other words, firms should set specific sustainability targets, but leave the achievement mechanisms to individual business units and/or geographies. Third, our results surrounding MIC suggest that companies truly serious about engaging their employees in the pursuit of sustainability might want to actively prime their employees' moral identity when issuing calls to action concerning sustainability. Nudges (e.g., signage, dashboards, webcasts, sustainability ambassadors, etc.) may be required to orient the segment that cares less about being moral towards sustainability behaviors.

#### **Limitations and Future Research Directions**

As with virtually all research, our paper has some limitations that future research ought to address. First, although our experiment establishes the causal link between a company's purpose and employees' corresponding behaviors, our results would be more externally valid if we had independent experimental data from the two companies with which we worked, corroborating the self-reported measures as well as objective behaviors in which they engage. Such data was not available to us, and we hope future research can continue this line of investigation.

Second, while we asserted that purpose is essentially an ethical construct, we did not explicitly establish this in our study. Anecdotal, qualitative research (e.g., Bhattacharya 2019) certainly points us in this direction, but future research should explore this link more rigorously. Following Gartenberg (2021), research should aim to create a standardized measure of employee beliefs specifically regarding the meaning of the corporation's existence, which would help establish the ethical nature of the corporate purpose construct. Further, future research should carefully investigate the potentially distinct psychological mechanisms that underlie employees' responses to corporate purpose statements versus value statements or more specific corporate social responsibility communications. Third, and relatedly, it would be worth investigating the conditions under which a company's stated purpose might diverge from its employees' perceptions thereof (i.e., our focal construct). More specifically, research could also delineate the sensemaking pathways by which stated purpose translates into employees' perceptions of purpose, and how potential divergences may alter the effects of purpose on ESB. Fourth, there may be other drivers and moderators of sustainability ownership (e.g., firm culture), or other personality traits such as openness to experience and extraversion that we were not able to explore in this study. Especially given the fact that there was quite some variation in employees' sustainability behaviors, it would be important to gain a holistic understanding of what drives these behaviors. We hope future researchers develop more fleshed-out versions of the model presented here, which would also shed light on why as many as 47% of our respondents in Study 1 did not report any sustainability behaviors at all, and how to effectively change that. Finally, we could not capture the longitudinal nature of the effect of purpose over time (i.e., stages of consciousness; Boiral et al. 2018) as well as the evolution of sustainability ownership of employees; these would be worthwhile future research endeavors.

	Study 1	Study 2	Study 3	Study 4	
Age	Min: 21 years Max: 56 years Mean: 37 years	Min: 21 years Max: 58 years Mean: 31 years	18-25 years: 10.3 % 26-40 years: 54.4 % 41-55 years: 27 % > 55 years: 8.3 %	Min: 18 years Max: 77 years Mean: 49 years	
Gender	Male: 93.8 % Female: 6.2 %	Male: 60.5 % Female: 39.5 %	Male: 68.9 % Female: 29 % Other: 2.1 %	Male: 48.8 % Female: 49.8 % Other: 3.3 %	
Education	High school: 1.5 % Bachelor's: 47 % Master's: 26.4 % Professional: 17.9 % Other: 7.3 %	Bachelor's: 49.1 % Master's: 44.3 % Professional: 5.2 % Other: 1.4 %	Job training: 13.3 % High school: 9.5 % Bachelor's: 32 % Master's: 34 % Other: 11.2 %	High school: 25.9 % Bachelor's: 48.5 % Master's: 18 % Professional: 6.9 % Other: 0.7 %	
Management designation	Yes: 80.7 % No: 19.3 %	n/a	Yes: 24.5 % No: 75.5 %	Yes: 46.2 % No: 53.8 %	
Income	n/a	n/a	< 2,000€: 16.6 % 2,000-3,500€: 28.2 % > 3,500€: 55.2 %	< 2,000\$: 16.6 % 2,000-3,500\$: 28.2 % > 3,500\$: 55.2 %	
Organizational tenure	Min: 0 years Max: 34 years Mean: 7 years	n/a	n/a	Min: 0 years Max: 51 years Mean: 7 years	
Department	n/a	n/a	Marketing/Sales: 19.5 % Finance: 28.2 % Technology: 28.2 % Production: 24.1 %	n/a	
Company location	n/a	n/a	Headquarter: 65 % Other Germany: 10 % Other Europe: 10 % Southeast Asia: 4 % North America: 3 % UAE: 3 % Other: 5 %	n/a	
Company size	n/a	n/a	n/a	Min: 0 employees Max: 1000000 employees Mean:13469 employees	
Industry	n/a	Services: 33.3 % Communication: 17.1 % Finance: 16.7 % Public Admin: 10 % Manufacturing: 5.7 % Retail: 4.8 % Other: 12.4 %	n/a	n/a	

Table 1. Summary of Respondent Demographics

Construct/Scale	Study 1 Survey Items	α			
	[COMPANY NAME] has a higher purpose beyond profit maximization.	u.			
Purpose (5-point scale; 1=strongly disagree;	[COMPANY NAME] is inspired by the problems facing our planet.				
5=strongly agree)	[COMPANY NAME] wants to make a difference in people's lives, not just make profits.				
SO (5-point scale; 1=strongly disagree; 5=strongly agree)	I feel a sense of ownership of [COMPANY NAME]'s sustainability efforts. I view every business decision which I make through the sustainability lens. [COMPANY NAME]'s sustainability is MY responsibility.				
ESB (count; 0-5)	Coded	n/a			
	Study 2				
Construct/Scale	Survey Items				
Purpose	Experimental manipulation (see text)	n/a			
SO	I feel a sense of ownership of Sarion's sustainability efforts.				
(5-point scale;	Sustainability at Sarion is MY topic. Sarion's sustainability is MY responsibility.	.85			
1=strongly disagree;	Sustainability at Sarion is something that belongs to me.	.85			
5=strongly agree)	I feel that I own Sarion's sustainability efforts.				
	Procuring sustainably sourced ingredients that are 10% more expensive than				
	regular ingredients.				
	Prioritizing the development of healthy foods that are high in nutritional value.				
ESB	Educating consumers about the environmental and health impacts of different				
(5-point scale; 1=very	food products.				
unlikely; 5=very	Approaching the packaging department with ideas on how to reduce the plastic	.82			
likely)	waste caused by new food products.				
	Pushing back against a superior who is critical of your environmentally and				
	socially conscious product strategy.				
Purpose	What do you think Sarion's purpose is: "nourishing families so they can flourish				
(binary)	and thrive" or "maximizing shareholder value"?	n/a			
Purpose	To what extent is Sarion's stated purpose appealing?				
(5-point scale; 1=not at		n/a			
all; 5=to a great extent)	To what extent is Sarion's stated purpose inspiring?				
	Being sustainable is the most important thing a firm can do.				
Sustainability	Sustainability of a firm is essential to its long-term profitability.				
importance (5-point scale;	The overall effectiveness of a business can be determined to a great extent by the				
1=strongly disagree; 5=strongly agree)	degree to which it is sustainable. Sustainability is critical to the survival of a business enterprise.				
	Businesses have social and environmental responsibilities beyond making profits.				
	Study 3				
Construct/Scale	Study 5 Survey Items	α			
Purpose (7-point scale; 1=strongly disagree; 7=strongly agree)	[COMPANY NAME] is inspired by the problems facing our planet.	n/a			

# Table 2. Measurement and Scale Evaluation

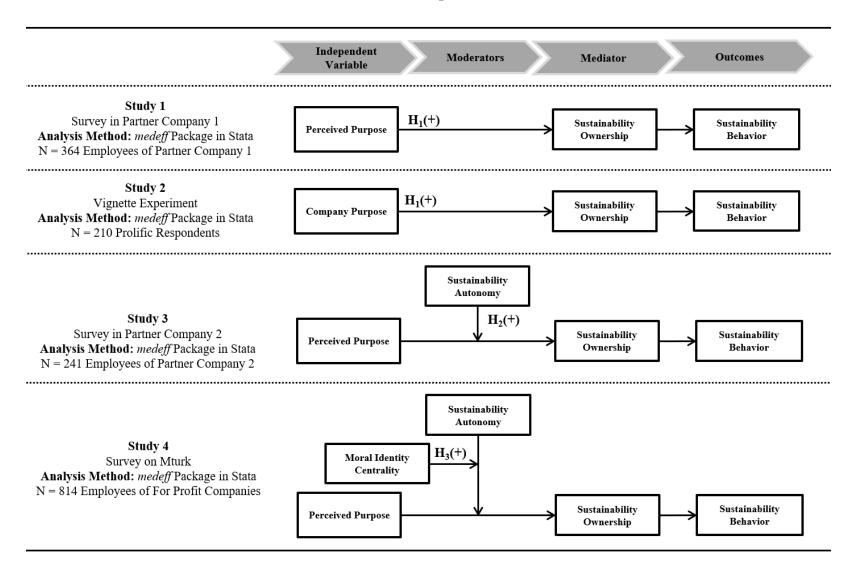
SA	[COMPANY NAME] gives me a chance to use my personal initiative or			
(7-point scale;	judgment in carrying out sustainability initiatives.			
1=strongly disagree;	[COMPANY NAME] provides me with significant autonomy in making			
7=strongly agree)	sustainability-related decisions.			
SO	I feel a sense of ownership of [COMPANY NAME]'s sustainability efforts.			
(7-point scale;	I view every business decision which I make through the sustainability lens.			
1=strongly disagree;	[COMPANY NAME]'s sustainability is MY responsibility.			
7=strongly agree)	Test - ' 'd'ed'			
ESB	I take initiatives to act in environmentally friendly ways at work.			
(7-point scale; 1=strongly disagree;	I consider the wellbeing of our planet and its people in every business decision I make.			
<b>e</b> .				
7=strongly agree)	I constantly think about how to make [COMPANY NAME] more sustainable.			
Construct/Scale	Study 4 Survey Items	α		
Purpose	My company has a higher purpose beyond profit maximization.	u		
(7-point scale;	My company is inspired by the problems facing our planet.			
1=strongly disagree;		.91		
7=strongly agree)	My company wants to make a difference in people's lives, not just make profits.			
	My company gives me a chance to use my personal initiative or judgment in			
	carrying out sustainability initiatives.			
	My company allows me to make a lot of sustainability-related decisions on my			
	own.			
SA	My company provides me with significant autonomy in making sustainability-			
(7-point scale;	related decisions.			
1=strongly disagree;	My company allows me to make decisions about what methods I use to make it	.97		
7=strongly agree)	more sustainable.			
	My company gives me considerable opportunity for independence and freedom			
	in how I make it more sustainable.			
	My company allows me to decide on my own how to go about doing achieving			
	its sustainability goals.			
	I feel that I can contribute to making my company more sustainable.			
SO	I have a complete understanding of my company's sustainability efforts.			
(7-point scale;	I have invested ideas and creativity to help my company be more sustainable.			
1=strongly disagree;	I feel a sense of ownership of my company's sustainability efforts.	.93		
7=strongly agree)	Sustainability is MY topic.			
	I view every business decision which I make through the sustainability lens.			
ESB	I adequately complete assigned duties in environmentally friendly ways.			
(7-point scale;	I take initiatives to act in environmentally friendly ways at work.	.85		
1=strongly disagree;	I get involved in social and volunteer work that benefits my community.			
7=strongly agree)	T. 11 1 P.1 1, 1 4 4 4 4 5 5 5 5			
MIC	It would make me feel good to be a person who has these characteristics.			
(7-point scale;	Being a person who has these characteristics is an important part of who I am.	.88		
1=strongly disagree;	I am actively involved in activities that communicate to others that I have these			
7=strongly agree)	characteristics.			
	I strongly desire to have these characteristics.			

Study 1									
Variable	Ν	Min	Max	Μ	SD	1	2	3	4
Purpose	364	1	5	3.92	1.01				
SO	364	1	5	4.41	.80	.48			
ESB	364	0	5	1.49	1.70	.11	.17		
Study 2									
Variable	Ν	Min	Max	Μ	SD	1	2	3	4
Purpose	210	0	1	.51	.50				
SO	210	1	5	3.69	.78	.17			
ESB	210	1	5	3.86	.72	.24	.52		
			Study	3					
Variable	Ν	Min	Max	Μ	SD	1	2	3	4
Purpose	238	1	7	3.62	1.59				
Autonomy	240	1	7	3.67	1.47	.32			
SO	241	1	7	4.36	1.39	.29	.42		
ESB	241	1	7	4.79	1.39	.29	.31	.68	
			Study	4					
Variable	Ν	Min	Max	Μ	SD	1	2	3	4
Purpose	814	1	7	4.39	1.77				
SA	814	1	7	4.48	1.69	.52			
SO	814	1	7	4.27	1.56	.57	.74		
ESB	814	1	7	4.71	1.46	.48	.49	.70	
MIC	814	1	7	5.68	1.19	.23	.20	.23	.42

 Table 3. Descriptive Statistics and Correlations

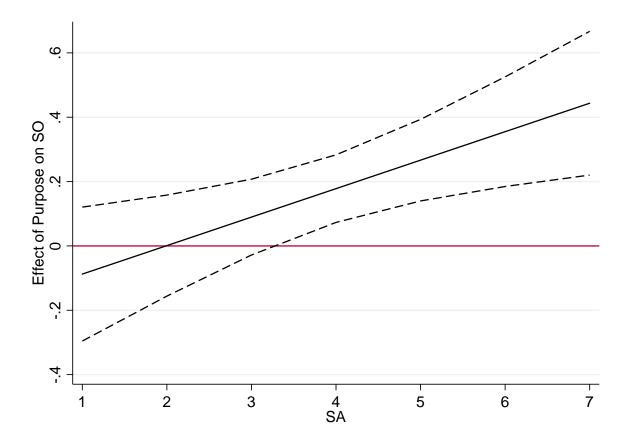
## FIGURE 1

# **Illustration of Conceptual Framework**



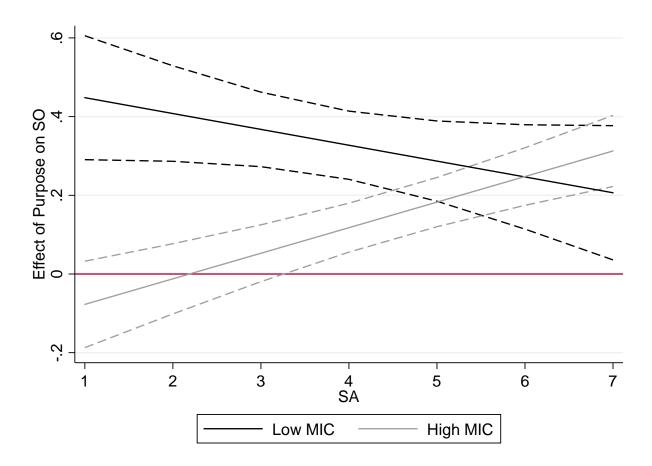
# FIGURE 2

# Average Marginal Effects for Study 3









Industry	Company/Brand	Purpose
Beauty and Fashion	Dove	Helping women reconsider and redefine what beauty is.
	L'Oreal	To create the beauty that moves the world.
	Nike	To bring inspiration and innovation to every athlete in the
		world (if you have a body, you are an athlete).
Entertainment	Disney	To create happiness for people of all ages, everywhere.
	Hulu	To captivate and connect people with stories they love by
		creating amazing experiences.
	Lego	To inspire and develop children to think creatively, reason
		systematically and release their potential to shape their
		own future - experiencing the endless human possibility.
Finance	Barclays	To help people achieve their ambitions.
	BlackRock	To help more and more people experience financial well-
		being.
	ING Group	Empowering people to stay a step ahead in life and in
		business.
Food and Beverages	Nestle	Enhancing quality of life and contributing to a healthier
		future.
	Kellogg's	To nourish families so they can flourish and thrive.
	Starbucks	To inspire and nurture the human spirit.
Health and Pharmaceuticals	CVS	Helping people on their path to better health.
	Merck	To discover, develop and provide innovative products and
		services that save and improve lives around the world.
	Pfizer	Working together for a healthier world.
Retail	Ikea	To create a better everyday life for the many.
	Target	To help all families discover the joy of everyday life.
	Walmart	Saving people money so they can live better.
Technology	Facebook	To give people the power to build community so that we
		can bring the world closer together.
	Google	To organize the world's information and make it
		universally accessible and useful.
	Microsoft	To empower every person and organization on the planet
Transportation	Ford	to achieve more.
		To make people's lives better by making mobility
	Lyft	accessible and affordable.
		Improving people's lives with the world's best
		transportation.
	Tesla	To accelerate the world's transition to sustainable energy.

Appendix A. Examples of Purpose Statements

#### Appendix B. Pretest

## **Procedure and Sampling**

We collected the data through an online survey that was distributed via the platform Prolific. The sample size is 297. We screened respondents to include only those who were currently employed by a for-profit company. At the beginning of the survey, we explained the purpose of the study and how the data would be handled, followed by a question on respondents' informed consent to participate.

After the informed consent, respondents responded to several questions, all on 7-point Likert scales (1 = I do not agree; 7 = I fully agree). We first elicited respondents' sustainability-related behaviors, followed by their perceptions of SO and sustainability autonomy. At the end of the questionnaire, we included a section measuring demographics and controls (age, gender, education, industry of the company for which they work, and size of the company).

#### **Measurement and Scale Evaluation**

We relied on established scales to the extent possible to measure our constructs, adapting them to fit our context where necessary. For instance, to measure sustainability-related behaviors, we relied on a measure developed and used by de Roeck and Farooq (2018) which we slightly altered. To capture sustainability autonomy, we drew inspiration from the "controlling the object" measure reported in Brown et al. (2014) as well as the "perceived control" measure reported in Menon (2001). Finally, we developed our SO scale based on existing measures capturing psychological ownership (e.g., Brown et al. 2014) which we adapted to the specific context of sustainability.

In support of content validity, factor analyses reveal that all items have high factor loadings on the factors that they intend to measure (all loadings are above .76) and low cross-loadings on other factors. A formal test of the Fornell-Larcker criterion (Fornell and Larcker 1981) further attests to the discriminant validity of the scales used; the average variance extracted of the constructs is higher than the highest squared correlation between the constructs. Finally, the Cronbach alpha values for all scales are above .85, indicating requisite internal consistency.

#### Appendix C. Experimental Scenario

Imagine you are the Director of Product Innovation within the Research & Development unit of Sarion, a large food manufacturing company. You have been with the company for several years.

As Director of Product Innovation, you are responsible for gathering, analyzing, and interpreting market data to identify emerging trends in the food industry. In addition, your tasks include evaluating the feasibility of new product ideas (timelines, budget, etc.) and making the case for new products to Sarion's leadership team. Moreover, you are in charge of overseeing the development of new products by food scientists, which includes creating prototypes for marketing, testing new recipes, and assessing the nutritional content of new products. Lastly, you are tasked with managing project budgets and preparing financial analysis reports for senior executives.

Founded in the United States 30 years ago, Sarion prides itself with producing quality products at affordable prices. Today it operates in seven countries across North America and Europe, employing more than 10,000 people. The company produces a variety of food products, including canned goods, dairy substitutes, and baby foods.

#### Appendix D. Study 4 Alternative Models

Our fourth study tested our full moderated moderated mediation model as displayed in Figure 1. To make sure that this model is superior to alternative, theoretically possible models, we computed comprehensive additional analyses of such possible model alternatives which we will report in the following.

First, to ensure that the order of the constructs in our basic mediation model which we tested in studies 2, 3, 4, and 5 fits the data better than alternative orders, we tested our initial model of the moderated moderated mediation (with purpose as IV, ownership as mediator, and behaviors as DV) against three alternative models with altered orders of these constructs, i.e.:

- 1. Alternative model 1: ownership as IV, purpose as mediator, behaviors as DV
- 2. Alternative model 2: behaviors as IV, ownership as mediator, purpose as DV
- 3. Alternative model 3: purpose as IV, behaviors as mediator, ownership as DV

Because the models which we compare are non-nested, as suggested in extant research, we relied on Bayesian Information Criterion (BIC) comparisons for our alternative model testing (Lin et al. 2017), whereby a low BIC value indicates a better fit of the model. Results of our additional analyses indicate that our initial model (BIC= 32147.738) outperforms all alternative models considered (indicated by a lower BIC value of the initial model):

- 4. Alternative model 1: BIC = 32534.350;  $\Delta$ BIC = 386.612
- 5. Alternative model 2: BIC = 32916.623;  $\Delta$ BIC = 768.885
- 6. Alternative model 3: BIC = 32584.772;  $\Delta$ BIC = 437.034

Appendix E. Checks for Non-Response Bias, Discriminant Validity, and Common Method Bias

## Study 1

To test for nonresponse bias, we compared the demographics of early and late respondents (Tollin and Christensen 2019). If non-response bias is present, later respondents should be more similar to non-respondents and less similar to early respondents. Dividing the sample into early and late respondents, we found that the first 182 respondents are on average slightly younger than the second 182 respondents ( $m_1 = 35.67$ ,  $m_2 = 37.70$ , p = .03), and the proportion of women is somewhat higher among early respondents than it is among late respondents ( $m_1 = .09$ ,  $m_2 = .03$ , p = .02). However, given that the real-world differences in age and gender between the two groups are small and they are similar in terms of education, we believe that nonresponse bias likely does not pose a serious concern.

A formal test of the heterotrait-monotrait ratio of correlations (HTMT) attests to the discriminant validity of the measures, as the HTMT between company purpose and SO is .52, which is well below the threshold of .85 (Henseler et al. 2015; Vorhees et al. 2016).

Common method bias is likely not a concern, as the variables in the model are measured differently: two multi-item measures and one count variable. Nevertheless, we conducted a Harman's single-factor test (Harman 1967) of all individual items included in the model. The results show that 43% of the variance is explained by a single factor, which is below the threshold of 50%. We also conducted a common latent factor test, introducing a new latent variable that is related to all manifest variables. Those paths are constrained to be equal, and the variance of the common factor is constrained to be one. The unstandardized coefficient for the common latent factor is .46, which is below the threshold of .50 (Hair et al. 2009).

#### Study 2

A formal test of the heterotrait-monotrait ratio of correlations (HTMT) attests to the discriminant validity of the measures, as the HTMT between ESB and SO is .64, which is well below the threshold of .85 (Henseler et al. 2015; Vorhees et al. 2016).

## Study 3

As in Study 1, we tested for nonresponse bias by contrasting the demographics of early versus late respondents (Tollin and Christensen 2019), and do not find any differences on education, income, orgender. Therefore, nonresponse bias is not a serious concern.

A formal test of the heterotrait-monotrait ratio of correlations (HTMT) attests to the discriminant validity of the scales used, as the HTMT between ESB and SO is .80, which is below the threshold of .85 (Henseler et al. 2015; Vorhees et al. 2016).

Common method bias is likely not a major concern for this study because we examine a moderating effect, which respondents are less likely to be able to anticipate (Wilden and Gudergan 2015). Nevertheless, we conducted a Harman's single-factor test (Harman 1967) of all individual items that are part of the model and found that the variance explained by a single factor (43%) is below the threshold. Additionally, we used a common latent factor to estimate the loadings on every item in the path model, in addition to each item's loading on its theoretical construct. Comparing the estimated path model relationships with and without the common latent factor, there are no notable differences; all conceptualized paths maintain their statistical significance when the common latent factor is introduced into the model (Wilden and Gudergan 2015). This suggests that common method bias is not a problem.

## Study 4

A formal test of the heterotrait-monotrait ratio of correlations (HTMT) attests to the discriminant validity of the measures: the HTMT between ESB and SO is .79, and that between SA and SO is .78; both of these values are below the threshold of .85 (Henseler et al. 2015; Vorhees et al. 2016).

As in the previous study, common method bias is unlikely to pose a serious problem since we investigate a moderating effect (Wilden and Gudergan 2015). Nevertheless, we again conducted a Harman's single-factor test (Harman 1967) of all the individual items included in the model and find that the amount of variance explained by a single factor (48%) is below the threshold of 50%. Similar to our previous studies, we also used a common latent factor to estimate the loadings on every item in the path model, in addition to each item's loading on its theoretical construct. Comparing the estimated path model relationships with and without the common latent factor, there are no notable differences; all conceptualized paths maintain their statistical significance when the common latent factor is introduced into the model (Wilden and Gudergan 2015). Thus, common method variance is not a serious concern.

#### Appendix F. Results for Robustness Checks

In all four studies, we measure purpose via a single item ("My company is inspired by the problems facing our planet"; the exception is study 2 where we experimentally manipulated purpose instead of measuring it), SO via a single item ("I feel a sense of ownership of my company's sustainability efforts"), and SA via an index consisting of two items ("My company gives me a chance to use my personal initiative or judgment in carrying out sustainability initiatives"; "My company provides me with significant autonomy in making sustainability-related decisions").

Study 1. Company purpose has a significant, positive effect on SO ( $\beta = .35$ ; p = .00), which in turn has a significantly positive effect ( $\beta = .36$ ; p = .00) on sustainability behaviors. Further, the indirect effect of purpose on sustainability behaviors via SO is positive and significant ( $\beta = .13$  [.06; .21]), thus providing support for the mediation proposed in H<sub>1</sub>.

Study 2. The purpose manipulation has a significant positive effect on SO ( $\beta = .39$ ; p = .00). SO, in turn, has a positive and significant effect on sustainability behaviors ( $\beta = .45$ ; p = .00). The direct effect of the treatment on behaviors is significant and positive ( $\beta = .31$ ; p = .00), as is the indirect effect of the treatment via SO on sustainability behaviors ( $\beta = .18$ ; [.08; .29]).

Study 3. We find a significant interaction between purpose and SA on SO ( $\beta = .11$ ; p = .00). We also find that the index of moderated mediation is significant ( $\beta = .05$ ; [.02; .08]), which provides support for H<sub>2</sub>.

Study 4. We find a significant three-way interaction between purpose, SA, and MIC ( $\beta = .04$ ; p = .00). The index of moderated moderated mediation is significant ( $\beta = .01$ ; [.00; .02]), which provides support for H<sub>3</sub>.

#### Appendix G. Respondent Demographics

## Study 1

In the sample, 80.7% of the respondents report to work on management level and organizational tenure ranges from zero to 34 years with an average of 7 years. The age of the respondents ranges from 21 to 56 with an average of 37 years. With regard to gender, 93.8% of respondents reported being male and 6.2% female. In our sample, 1.5% of respondents have a high school degree, 47% a bachelor's degree (or equivalent), 26.4% a master's degree (or equivalent), 17.9% a professional degree, and the remaining 7.3% chose "other."

## Study 2

The age of the respondents ranges from 21 to 58 with an average of 31 years. With regard to gender, 60.5% of respondents reported being male and 39.5% female. In our sample, 49.1% have a bachelor's degree (or equivalent), 44.3% a master's degree (or equivalent), 5.2% a professional degree, and the remaining 1.4% chose "other." Finally, with regard to industry, 33.3% of respondents work in services (including education and healthcare), 17.1% in communication, 16.7% in finance/insurance/real estate, 10% in public administration, 5.7% in manufacturing, 4.8% in retail, and the remaining 12.4% in other industries.

# Study 3

In our sample, 24.5% of employees reported belonging to the management level and 17.8% reported to be responsible for a team of one to five employees (8.7%, six to 10 employees; 4.1%, 11 to 15 employees; and 4.6%, more than 15 employees). Out of the whole group of respondents, 19.5% came from Marketing and Sales, 28.2% from Finance and Organization, 28.2% from Product and Technology, and 24.1% from Production. In terms of age, 10.3% of respondents reported to belong to

the age cohort of 18 to 25 years, 54.4% 26 to 40 years, 27% 41 to 55 years, and 8.3% over 55 years of age. With regard to gender, 29% of respondents reported to be female, 68.9% male, and 2.1% other. Out of all respondents, 13.3% reported to have finished a job training as a highest educational degree, 9.5% are high school graduates, 32% have a bachelor's degree, 34% have a master's degree, and 11.2% reported to have other degrees. Further, 16.6% of employees reported to earn less than 2,000€ per month, 28.2% between 2,000 and 3,500€, and 55.2% more than 3,500€. Finally, with regard to their location, 65% of respondents were located at the company's headquarter in Germany, 10% at other German sites, 10% at other European sites, 4% at sites in South East Asia, 3% in North America, 3% in the United Arab Emirates, 1% in Central and South America, 1% in North Africa, 1% in South Africa, and 1% in other regions.

## Study 4

In the sample, 46.2% of the respondents reported they work on management level, and organizational tenure ranges less than one year to 51 years with an average of seven years. In terms of the size of the companies, the average number of employees is 13,262. The age of the respondents ranges from 18 to 77 with an average of 48.8 years. With regard to gender, 49.8% of respondents reported being female, 48.8% male, and 3.3% other. In our sample, .8% are without an educational degree, 26% have a high school degree, 48.2% a bachelor's degree, 18% a master's degree, and 7.1% a professional degree. Further, 33.4% reported to earn less than \$2,000, 39% between \$2,000-3,500, and 27.7% more than \$3,500.

<sup>1</sup> The scales in our studies are based on previous studies, our own conceptual/qualitative work, and a pretest we conducted with the goal of assessing the measurement scales. For more detailed information on the pretest and scale development, please see Appendix B.

<sup>2</sup> We excluded behaviors that did not relate to sustainability as defined at the beginning of the survey as well as behaviors that were named more than once by the same respondent. Examples of behaviors we excluded include, "I respect each and every decision taken by management," "to hear customer problems and resolve," and "cost reduction in all possible areas."

<sup>3</sup> Respondents were led to believe that Sarion was a real company, and we debriefed them at the end of the survey.

<sup>4</sup> As a supplementary analysis, we ran two serial mediation models in which corporate purpose is the independent variable, the item asking respondents whether Sarion's purpose is inspiring/appealing is the first mediator, SO the second mediator, and sustainability behavior the dependent variable. The two models yield a positive and statistically significant serial mediation coefficient ( $\beta = .10$ ; [.05; .16] for both). We interpret these results as additional support for our propositions as they indicate that respondents who perceive Sarion's purpose as appealing and inspiring have a higher level of SO than those who do not, which in turn leads to increased sustainability behaviors.

<sup>5</sup> The indirect effect of purpose on sustainability behaviors via SO remains statistically significant ( $\beta$  = .09; [.01; .17]) when we control for respondents' age, gender, and sustainability importance. To measure sustainability importance, we use a modified version of Turker's (2009) "importance of CSR scale."

<sup>6</sup> Recent studies have chosen to use only the internalization subscale to represent moral identity centrality while ignoring the self-importance subscale (e.g., Aquino et al. 2009). While the internalization subscale consists of five items, we opted to exclude one of them, as it is negatively

worded and thus can pose a problem in terms of reliability and validity when combined with positively worded survey items (e.g., Chyung et al. 2018).

<sup>7</sup> While the limited comparability of our results across studies poses a potential problem, we argue that there is also a benefit to using different measures. Specifically, despite the variation in measurement, the results of the different studies deliver a consistent picture, which supports the robustness of our findings.

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