



# Demoralization Effects of Sustainability: Development of a Theoretical Framework and Exploratory Pilot-Study on Moralization and Demoralization Effects in (M)Eating Behavior

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Sustainability is not only a moral compass for organizations of all kinds and shapes; increasingly it can be identified as social representation influencing social practices and behavior. Conceptually inspired by the idea of preferences, conventions, and moral convictions influencing individual behavior and an innovative concept of moral harmonization strategies, this paper introduces a theoretical framework for the conceptualization of moralization effects in sustainability communication in general and food choices in particular. The framework is linked to empirical data from an exploratory qualitative pilot study, in which we conducted guideline-based interviews with 25 international students to gather information on individual perceptions of food choices and eating behaviors. Interview data were analyzed using inductive category formation to explore what role sustainability plays on an individual level in terms of coming in as a value or norm and how much sustainability as a normative principle influences individual decision-making processes and behavior. Based on the results of the pilot study, we hypothesize that food is less “morally overloaded” than expected and sustainability is not a moral imperative related to specific eating behavior. In line with previous findings, our results confirmed that food choices and changes in meat consumption involve a multi-faceted and complex decision-making process, which among others may be heavily influenced by inherent social norms within a person’s social network, including family, friends as well as important other peers. Thus, with this preliminary study, we critically challenge existing literature on the influence of sustainability as moral imperative guiding and influencing individual behavior, at least in the domain of food and eating behavior. To elaborate on our proposed framework, additional empirical research is needed from a cultural, sustainability, language, and communication perspective.

**Keywords:** sustainability, food, eating behavior, social representations, moral conviction, communication, moralization, sustainability dissonance harmonization

## INTRODUCTION

Sustainability is defined as a guiding principle for how we treat our resources, a normative concept that emphasizes three dimensions of an agenda for the future of our earth: the economic, environmental, and social dimensions (Purvis et al., 2019). The program for action in these dimensions has been outlined by the so-called Brundtland Report (Imperatives, 1987), and further developed into the Sustainable Development Goals (SDGs) and national and regional agendas (United Nations, 2015).

Today, sustainability as a principle of the action sits at the core of a societal discourse on meeting climate change-related global challenges as well as progress and social and cultural transformation (United Nations, 2015). However, the claim that sustainability impregnates all societal areas of action and reflection is still to be met. On the one hand, sustainability is increasingly fundamental in organizations to provide legitimacy, guide the taking of responsibility, and possess a “license to operate” in terms of the acceptance that is granted to an organization by the community (Newig et al., 2013; Rasche et al., 2017; Hurst and Johnston, 2021). On the other hand, sustainability seems to be a highly complex principle with a strong normative and therefore moral character (Vogt, 2010; Vogt and Weber, 2019), which requires comprehensiveness, transparency, proximity, and balance to avoid being (ab)used by organizations and predominantly corporates to replace what was innovation or future orientation a decade ago.

On an individual level, it gets even harder to deal with sustainability as a normative principle, bringing in a certain degree of morality in everyday life choices regarding transportation and mobility, food, or retail (Weder et al., 2019, 2021; Fischer et al., 2021). While sustainable consumption is framed as meeting the needs of the present without compromising the ability of generations in the future to meet their own needs—and thus going back to the first definitions of sustainability (WCED SWS, 1987)—, it is much harder to provide a definition of sustainable consumption practices (Glavi and Lukman, 2007; Balderjahn et al., 2013; Geiger et al., 2018). This leads to well-debated and studied attitude-behavior-gaps (Carrington et al., 2014; White et al., 2019; Kilian and Mann, 2020), and normative influences on food choices (Dowd and Burke, 2013; Zhou et al., 2013; Chekima et al., 2019) and other areas of consumption (see overview in Pristl et al., 2021). In the case of food and meat consumption and production, sustainability concerns, which originally involved the direct impact of modern, intensive farming methods on natural ecosystems and human health back in the 1960s, are nowadays framed within a wider understanding of sustainability and thus have continuously expanded to aspects such as the use of non-renewable and renewable natural resources, the impacts on atmosphere and climate, soil fertility and land and water management, biodiversity, pesticides use, animal welfare, waste disposal, economic practices and environmental policies (Oosterveer and Sonnenfeld, 2011). Although increasing availability of information on food trends, ecological costs of

food, etc. may positively impact individual habits and more sustainable consumption, science-based sustainability arguments for eating less meat seem to have not reached the consumers yet, as people may avoid taking personal and moral responsibility for sustainable consumption by using psychological defenses leading to beliefs that meat is natural, normal, necessary, and nice (de Boer et al., 2017; Corallo et al., 2019; Zahra et al., 2022).

On the other hand, eating habits and behavior are shaped by the social and cultural contexts in which people grow up and live (Murcott, 1995). Throughout a person’s life, course, specific—consciously or subconsciously taken—food choices may vary according to the social network, social norms, and expectations (Feunekes et al., 1998; Wethington, 2005; Zahra et al., 2022). Additionally, food choices and eating habits may even be influenced by phenomena such as eating disorders like anorexia or bulimia nervosa, obesity, or “fads” and “trends” in dietary choices (Rozin, 2006; Khawandanah and Tewfik, 2016). While obesity, which has turned into a public health threat, and anorexia pose relevant topics above all in developed Western Countries, food shortage remains an unsolved issue in many other parts of the world including for instance the African and parts of the Asian continent. On a macro scale, regulatory authorities, farmer organizations, powerful processing industries, and in particular food retail companies pose decisive actors who shape food choices and eating practices (Spaargaren et al., 2012). Considering globalization as a key principle of modern society, power in the food sector has increased for the retail sectors and has decreased for farmers and farmer organizations (Spaargaren et al., 2012). To sum up, several interrelating factors, including informational cues or social influence on the individual level, which may facilitate but also hinder sustainable behavior, come into play when food choices are being made.

For the study at hand, we focus on what role sustainability plays on an individual level in terms of moralizing food choices and eating behavior and on how much sustainability as a normative principle influences individual decision-making processes and behavior. According to pertinent literature in the field of moral psychology, moral emotions, moral cognition, and moral identity are crucial to the moralization process. Regarding moral cognitions, early psychological research related beliefs about what is morally appropriate and inappropriate mainly to reasoning and reflection processes on whether an act causes harm to other’s welfare or infringes individual rights (Piaget, 1965; Kohlberg, 1969; Turiel, 1983; Shweder et al., 1997). However, more recent research revealed that the focus on harm and individual rights, which is rather popular for American and Western systems, is too narrow-minded and that concerns with loyalty, authority, and purity, which could be even equally relevant in other cultures such as Hindu India, also serve as fundamental principles and as bases of moral cognition (Graham et al., 2009, 2011; Haidt, 2013). Moral identity, which refers to the importance of morality to a person’s identity, is represented by a combination of one’s moral principles, concerns, and goals that—when integrated together—form a key basis of one’s self-concept (Blasi, 1983; Colby and Damon, 1993). Hence, moral identity connects moral reasoning and moral values to moral behavior in terms of the more strongly individuals identify as moral, the

more they are likely to behave morally (Rozin et al., 1999; Aquino and Reed, 2002; Aquino et al., 2009; Hertz and Krettenauer, 2016). Therefore, people will experience significant dissonance that motivates a realignment between behavior and identity if they fail to engage in behaviors that are consistent with their moral self-concept or if they engage in behaviors that contradict their moral identity (Alicke et al., 1995; Stets and Carter, 2011; Barkan et al., 2015). Finally, pertinent literature from the field of moral psychology highlights the importance of the link between emotions and morality, or more precisely between moral emotions, moral values, and the experience of morality (Damasio, 1994; Rozin et al., 1999; Haidt, 2003, 2012; Mullen and Skitka, 2006). When individuals engage in morally questionable thoughts or behaviors that trigger a moral emotional response including negative emotions such as anger, disgust, shame, or guilt, they are more likely to make negative moral judgments about themselves, which compels them to adjust their thoughts or adapt their behavior, so they live up to their own moral standards (Rozin et al., 1999; Wheatley and Haidt, 2005; Horberg et al., 2009; Wisneski and Skitka, 2017).

With respect to moralization, we furthermore refer to the process of converting individual preferences into values, which for example may involve cognitive routes such as reading through a product label or may be related to strong affective experiences such as seeing pictures of animal cruelty (Rozin et al., 1997). With respect to our research, an example could be the conversion of meat consumption from a personal preference into an immoral activity. The public debate could establish a case that meat consumption and production is harmful to the environment and to animal welfare (Oosterveer and Sonnenfeld, 2011), a clearly immoral act. As a consequence of moral aspects, governments may force corporations to implement the Sustainable Development Goals (SDGs) (United Nations, 2015), which in turn could entitle individuals, who feel more disgusted by the smell of meat and annoyed when looking at meat, to censure meat-eaters.

In this process, it is necessary to consider the differentiation between attitudes, preferences, and beliefs in social psychology (Skitka et al., 2021). Psychological research defines beliefs as representations of the cognitive dimensions, or more precisely as description and perception of a stimulus in one's environment (e.g., an object), its characteristics, and its relationship with other stimuli, that an individual holds and trusts to be true with a certain level of confidence, where the strengths of these thoughts, which may vary across individuals, may influence values and attitudes toward the stimulus and resulting behavior (Katz, 1960; Fishbein and Raven, 1962). Values, which usually do not operate in isolation but rather are part of an integrated value system that is composed of a cluster of similar values, and which similarly to beliefs relate to cognitive processes and allow the prediction of behaviors, are defined as enduring beliefs that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence (Rokeach, 1973). Furthermore, values are categorized either as terminal values, which are based on desired states and objectives achieved (e.g., financial security or inner harmony) that an individual strives for or as instrumental values,

which reflect modes of behavior (e.g., honesty or responsibility) that enable an individual to achieve terminal values (Rokeach, 1973). Differences between values and preferences include that values are subject to institutional and legal support, which does not apply to preferences, that values are—compared to preferences—much more likely to be transmitted in the social environment, and that values are more durable than preferences, more central to the self, and more internalized (Rozin et al., 1999; Schwartz, 1999). Finally, an attitude toward a stimulus (e.g., an object or a situation), which is defined as an organization of several beliefs around the respective stimulus, differs from a value in terms of having more impact on behavior and in terms of referring to a set of beliefs instead of a single belief (Allport, 1954; Rokeach, 1973). Importantly, attitudes toward a stimulus can cover a range from extremely positive to extremely negative reactions toward that specific stimulus, and they do not necessarily need to be consistent, meaning that positive and negative attitudes might be expressed toward the same stimulus at different times (Wood, 2000).

Thus, a certain behavior like not eating meat can be based on sustainability as a value, which emerged either from an attitude, that has been developed from a certain tradition or convention, or from preferences that have been developed through certain life events and experiences, or from beliefs, described as a moral conviction. Moralization types, on which we will elaborate in more detail in the literature section of this paper, include (1) moral recognition, which includes the recognition and problematization of a personal preference or habit e.g., for meat consumption, (2) moral amplification, which involves validation and strengthening of an existing moral attitude, or (3) demoralization, where people try to avoid moralization because of the disruption and dissonances that might come along with it (Skitka et al., 2021).

Thus, we aim at introducing a theoretical framework for the conceptualization of moralization effects with a specific focus on sustainability communication in general and on certain social practices in particular; here, we focus on food choices, which today have become a “moral morass” (Ankeny, 2016). Discussions about food production and consumption are increasingly loaded with morality, expressed in moral language—not only in mediated “burgeoning debates” (ibid.) and frames like local, made in, free-range, organic, palm oil-free, fair trade, etc. (Honkanen et al., 2006). Sustainability is increasingly part of public discourses (Peterson and Norton, 2007), and the communicative construction of sustainability, including its morality and normative character is debated predominantly from an environmental communication perspective (i.e., Peterson, 1997). Coming from a social constructivist perspective and complementing a communication perspective with a psychological perspective on consumption, food choices, and related communication processes, we add to the existing work and conceptualize sustainable communication as communicatively constructed morality. Moreover, our theoretical framework is inspired by the Sustainability Dissonance Harmonization (SDH) model, which has been developed by Weder et al. (2020). This new model for coping with cognitive and moral dissonance and value

incongruences combines Festinger's (1962), Lowell's (2012), and Gardiner's (2013, p. 307) using different aspects of each model to acclimatize it to the notion of sustainability, which is applied to sustainable food choices in the paper at hand. We will relate this idea of demoralization with the concept of moralization or moral amplification, which is well-researched in (social) psychology (related to food and eating behavior Feinberg et al., 2019; Skitka et al., 2021), further represented in the domain theory of attitudes and the psychological program of moral conviction and imperatives, mainly driven by Crimston et al. (2018) and Skitka et al. (2018).

Referring to existing studies on eating behavior being or becoming a moral issue (e.g., as mentioned, Feinberg et al., 2019) and to studies on sustainable consumption and influences on communication (i.e., Golob et al., 2019), we aim to link the theoretical framework on moralization and demoralization effects to empirical data by conducting an exploratory qualitative pilot-study. In this study, we conducted guideline-based interviews with 25 international students to gather information on individual perceptions of food choices and eating behavior, with a specific focus on the role of environmental and sustainability concerns. In our work, we differentiate between values, attitudes, and behavior as well as preferences, conventions, and moral imperatives to learn more about the potential effects of sustainability as the principle on moralization or demoralization. Interview data were analyzed using inductive category formation (Mayring, 2014; Mayring and Fenzl, 2019) to explore sustainability as the principle of moralization or demoralization. From an empirical perspective, we are predominantly interested in moralization effects in sustainability communication in general and in individual social practices, with a focus on food-related decisions and practices. Therefore, this study offers new insights into how to develop a better understanding of changed practices by combining communication with a psychological and behavioral studies perspective. Hence, the results of our work can be valuable to a multi-disciplinary array of scientific researchers, including communication scientists and psychologists, and actors such as companies, institutions, regulatory authorities, and policymakers, who build upon the insights on food choices and eating habits and their connection to sustainability issues to address questions, problems, and solutions around the transition to sustainable food consumption and food production.

## SUSTAINABILITY, COMMUNICATION, AND MORALITY

With the literature overview at hand, we introduce a concept of sustainable communication as communicatively constructed morality. The background is a social constructivist perspective on communication, which understands individual sense-making as a communication process, either mediated or as interpersonal conversations. Thus, the concept presented in the following offers a new understanding of contradictions and dissonances and therefore of the degree of morality and moral uncertainties in sustainability-related conversations, while complementing

existing studies on attitudes and morality as well as sustainable consumption practices and therefore a social-psychology with a communication perspective.

### Sustainability as a Social Norm?

Going beyond the existing literature on sustainability as a global framework (Dower, 2004) or even a master frame for corporate behavior (Weder et al., 2021), we want to introduce a philosophical and cultural perspective on sustainability as the norm (Thompson, 1997; Pristl et al., 2021). As such, from a micro- and consumer-perspective, sustainability is an ideal that is expressed through attitudes toward a certain issue or object and in form of positive or negative feelings. Sustainability as a value of treating resources in a particular way sits at the core of critical reflections on specific activities and behavior (Weder et al., 2021); more precisely: sustainability as a value principle is needed and used to evaluate something or a specific behavior or action as "bad" or "good." Values are expressions of or beliefs in the specific worth of objects and processes, their quality, or specific behaviors and actions (Leiserowitz and Fernandez, 2008); values have the potential to invoke strong feelings and, as mentioned, are used as norms or standard to judge behavior or the quality of an object. While values are rather abstract and "trans-situational" (Leiserowitz and Fernandez, 2008), attitudes are focused on a specific situation and derive from and reflect abstract values.

Attitudes are value-based, and, thus, a person might have a certain attitude toward a specific car like a utility vehicle or coupé utility (UTE), which is a family car with a built-in cargo tray for carrying goods, as a "high-CO<sub>2</sub>-emission"-car or specific food like an Avocado as "non-local" and therefore "high-CO<sub>2</sub>-emission"-food as well (Testa et al., 2018), which then reflects the extent to which this person values sustainability and tries to produce fewer emissions by eating local and seasonal food and framing this as environmentally sustainable (Ankeny, 2016). Social psychology differentiates between attitudes that have been developed from a certain tradition, custom, or convention, preferences that have been developed through certain life events and experiences, and very strong beliefs, described as moral conviction (Skitka et al., 2021). Thus, a certain behavior like not eating meat, not eating Avocados, or not driving a UTE can be based on sustainability as a value that emerged through

- either a convention: we always had meat only on Sundays; we live in rural Australia and "need" a UTE, or
- with certain preferences made: I want to be healthy and not eat all the fatty sausages, or
- as belief and, thus, as a moral imperative: animal agriculture and eating meat are one of the biggest causes of global warming, similar to UTEs.

Apparently, morality can appear in different degrees (more or less intense, more or less factual and absolute, more or less credible, more or less emotional, and more or less intolerant as well as more or less motivating). This has been discussed over decades at the intersections of philosophy, ethics, theology, and psychology (i.e., Schwartz, 1987; Gert, 1998; Pettit, 2018). Consequently, sustainability as a normative principle, as a guidepost, and principle of action (see introduction) can be

more or less “moralized”. Sustainability tells us about human-nature relationships, ecocultural identities, and the challenges related to the climate crisis, and it reflects as a principle the individual as well as collective responsibility toward “the other” (nature, community, people, environment, society, etc.). From a constitutive and micro-perspective, the degree of morality is what makes the difference, as it shows if people have certain preferences or follow conventions or if they are more intensively and emotionally convinced. Therefore, we see the need for a more thorough understanding of sustainability bringing morality into individual behavior, choices, and decision-making processes, and further developing the idea of sustainability as a social norm and value which can be more or less moralized.

## Moralization and Demoralization

Generally, morality is not only debated from a philosophical perspective. As highlighted in the introduction, studies in psychology and specifically in social psychology and moral psychology seek to understand where morality comes from and how (much) morality influences individual behavior; this is consequently applied in different settings, looking at CEOs and Managers and their responsibility and ethical values (e.g., Grover et al., 2019; Yuan et al., 2019), as well as influencers (e.g., Berne-Manero and Marzo-Navarro, 2020; Yalcin et al., 2020), journalists (e.g., Atanasova, 2019), or individuals *per se*, mostly framed as “consumer” (e.g., Trudel, 2019; White et al., 2019; Salmivaara and Lankoski, 2021). In the later section of the paper titled “Eating as social practice” we provide first insights into where morality comes from and how it influences behavior in the domain of food.

For the study at hand, we seek to understand what role sustainability plays on an individual level in terms of coming in as a value or norm and, thus, moralizing food choices and eating behavior. Therefore, we try to better understand how much sustainability as a normative principle influences individual decision-making processes and behavior and how much it creates possible cracks in established practices and common-sense beliefs. Here, we firstly draw on the concept of moral convictions. In social psychology, there is a program of studies on moral convictions (Skitka et al., 2021), which draws on traditional theories of morality (i.e., Turiel, 1983) and social intuitionist theory. These concepts suggest that individual feelings of moral right and wrong may be rooted in gut-level emotional reactions to any given stimulus (Graham et al., 2009; Haidt, 2012). Studies show that moral judgments are often affectual and accompanied by strong emotions (Skitka et al., 2005, p. 897). Even further, scholars note that increased emotional investment and conviction may cause one to take moral action and motivate a formerly disinterested person to become interested, informed, and active on a given issue (Snow and Soule, 2010). Very recent research finds strong links between anger, disgust, and moral conviction (Wisneski and Skitka, 2017; Clifford, 2019; Garrett, 2019) and how much this is related to sustainability as a moral framework. In short, the literature suggests strong links between emotion and moral conviction.

From a wider perspective, the above briefly sketched domain theory of attitudes distinguishes moral conviction and therefore the idea of sustainability as a moral imperative from

conventions (coordination rules which are authority or group dependent) and from preferences (mindless habits, personal taste, rather subjective) (Skitka et al., 2021). Therefore, the study at hand analyzes how much sustainability as a normative principle influences food choices and eating habits, and whether sustainability has the character of a moral imperative. In other words: Where does morality come in, when people make decisions on buying or not buying an avocado or meat? Are people influenced by a key event, which makes them recognize and problematize meat-eating? Or are people already aware of the problem and their morality is validated and strengthened by a certain key event or product label? Or, lastly, do people try to avoid moralization because of the disruption and dissonances that might come along with it? Here, we draw mainly on the theoretical differentiation between (1) moral recognition, (2) moralization (moral amplification), and (3) demoralization (Skitka et al., 2021), which will be further explained in the following. As outlined above, the reason behind this differentiation is that we seek to conceptualize and understand what stimulates certain consumption practices, food choices, and eating habits, and where values, and norm like sustainability comes in.

### Ad (1) Moral Recognition

If someone has “mindless habits,” in terms of eating meat without thinking about any alternatives, moralization can be stimulated by being exposed to something that gives this preference or habit moral significance (Skitka et al., 2021). Feinberg et al. (2019) study focusing on meat consumption is an analysis of these defining moments influencing the moralization of a preference, like being exposed to an information-dense persuasive message or even a “moral shock” (seeing pictures of animal cruelty or a documentary, e.g., seaspiracy, Sivertsvik, 2021). Markowitz (2012) differentiates between “ethicists” and “non-ethicists” when considering moral assessment/reasoning of individual influence on climate change. Feinberg et al. (2019) refer to the central role of communication by pointing out that it is unlikely to be sufficient to moralize preexisting preferences without any additional persuasive messaging about (hedonic) benefits or harm. Therefore, we define moral recognition as communicative moments (media, conversation) that determine change.

### Ad (2) Moral Amplification

In case the attitudes and habits are already defined and recognized or even conventional, a further moralization can take place; from our point of view, asking where sustainability comes in as a possible moral stimulus, it seems to be possible that it does not necessarily need a massive benefit (gain) or harm (loss) or even shock to increase or amplify moral attitudes; the connection between incidental emotional cues and moral judgment has proven to be tenuous (Landy and Goodwin, 2015; Skitka et al., 2021). From a (strategic) communication perspective this can be interpreted in a way that people who have an existing moral recognition will possibly develop a moral imperative and a strong attitude toward sustainability (Pristl et al., 2021). Skitka et al. (2021) list processes that are involved in moral amplification: for example, moralization will happen

more likely when people are already aware of prescriptive norms (for/against their initial attitude); when people are not too much attached to thinking about their hedonic benefits; when conformity and group pressure and loyalty are more salient; and even when there is the potential for counter-moralization of one's initial position. Again, moralization is stimulated by defining communicative moments (like a documentary, as mentioned above)—but does not necessarily need shocks or “wake up calls.” At this point, we already see the potential of bridging social-psychological interpretations of morality with existing literature on sustainable consumption, predominantly coming from a marketing perspective, which has a specific focus on stimuli and communicative “triggers” for more sustainable consumer behavior [see Ad (1)].

### Ad (3) Demoralization

At least, thinking about de- or counter-moralization and the potential to crack conventions and existing norms, demoralization seems to be an interesting process, which goes beyond shifting conventions and norms to actually a decrease in evaluating a certain behavior from a morality point of view. Skitka et al. (2021) point out that there is mixed evidence about the resistance to moral convictions, the potential for attitude change, and the question of what might crack or decrease the morality of this conviction (Luttrell et al., 2016; Bastian and Loughnan, 2017; Clifford, 2019). There are hints that

- being exposed to belief-inconsistent information (dissonance),
- shifts in moral cognitions (harms, that are reconstrued as neutral or even as benefits),
- emotional de-escalation,
- and moralization of an alternative position on the issue,

might process that lead to demoralization. Therefore, it seems to be legitimate and even necessary to further understand if sustainability rather amplifies morality (and maybe even works as a moral imperative) or rather demoralizes people. In the case of demoralization, it may ease and “de-escalate” feelings, bring in alternative positions and offer justifications for what people do, and therefore may lead to a “harmonization” of people's behavior and decisions. At this point, Skitka et al. (2021) recommend further research and a better conceptual understanding of processes of demoralization, which we will offer in the following with the concept of “moral harmonization.”

### Moral Harmonization Strategies

To follow the recommendation of Skitka et al. (2021) and further elaborate demoralization strategies, we relate to the Sustainability Dissonance Harmonization (SDH) model presented by Weder et al. (2020), which is an innovative model for coping with cognitive and moral dissonance (see **Figure 1**).

The SDH model is derived from Festinger's (1962) cognitive dissonance model through the idea that not only two conflicting cognitions but also two coping strategies, namely belief adjustment and behavioral justification, must be harmonized. Furthermore, using Lowell's (2012) moral dissonance model, conducting unsustainable actions would harm others in the long run, which, according to the model demonstrates that

unsustainable actions could be seen as immoral behaviors. Finally, from Gardiner's (2013, p. 301–321) moral corruption model, justification inclination toward the individual's own beliefs was included in the SDH model. Simply put, sustainability dissonance harmonization suggests that when it comes to sustainability-related internal dissonance, which would occur by doing unsustainable actions, individuals will try to harmonize their conflicting thoughts by justifying their immoral (unsustainable) behavior using logic, which is inclined toward convenience in their lifestyle. With the complementary model, it can be expressed that dissonance and related strategies to reduce it are related to the complexity of a certain issue. Thus, we can show that sustainability as the normative framework does not only influence individual behavior with its certain degree of morality; much more, confronted with it, individuals try to deconstruct sustainability to make it applicable in their behavior or cope with dissonance appearing with unsustainable behavior. To better explain harmonization strategies, we will apply the concept to food and eating behavior.

## FOOD AND EATING BEHAVIOR AS SOCIAL PRACTICE

In recent years there has been a growing critical debate about meat consumption due to health risks, environmental concerns, and economic aspects. With respect to the broad spectrum of sustainability concerns related to meat production and consumption (Oosterveer and Sonnenfeld, 2011), which were highlighted briefly in the introduction of this paper, it seems to be an easy task to identify defining moments of moral recognition—and related communication, mainly in the media. Being one of the most energy-intensive and ecologically heavy foods, meat products are said to be highly unsustainable (Dagevos and Voordouw, 2013). On the contrary, the need for sustainable food choices has become more familiar to consumers, going hand in hand with organizations increasingly displaying more information on sustainability as a core value in their products and processes (Wognum et al., 2011). Critical issues like mass meat production, animal cruelty, methane/CO<sub>2</sub> problems, climate change, etc. are highly mediatized—from social media to documentaries (Gottwald and Weder, 2021). To identify the degree of morality that influences eating behavior and food choices referring to sustainability as a core value or moral imperative, eating as social practice, related ideologies, and possible moments of change need to be further explored.

### Eating as Social Practice

Eating habits and behavior are shaped by social and cultural contexts (Bourdieu, 1984; Murcott, 1995; Gallimore and Lopez, 2002) that people internalize and enact as a result of the social structures and cultures in which they grew up and have lived. They can stand as a ritual for cultural or religious celebrations (for example the holy communion, or the Id-Al-Fitr) or as a daily routine that offers structure and comfort through predictability. At the same time, our personal food

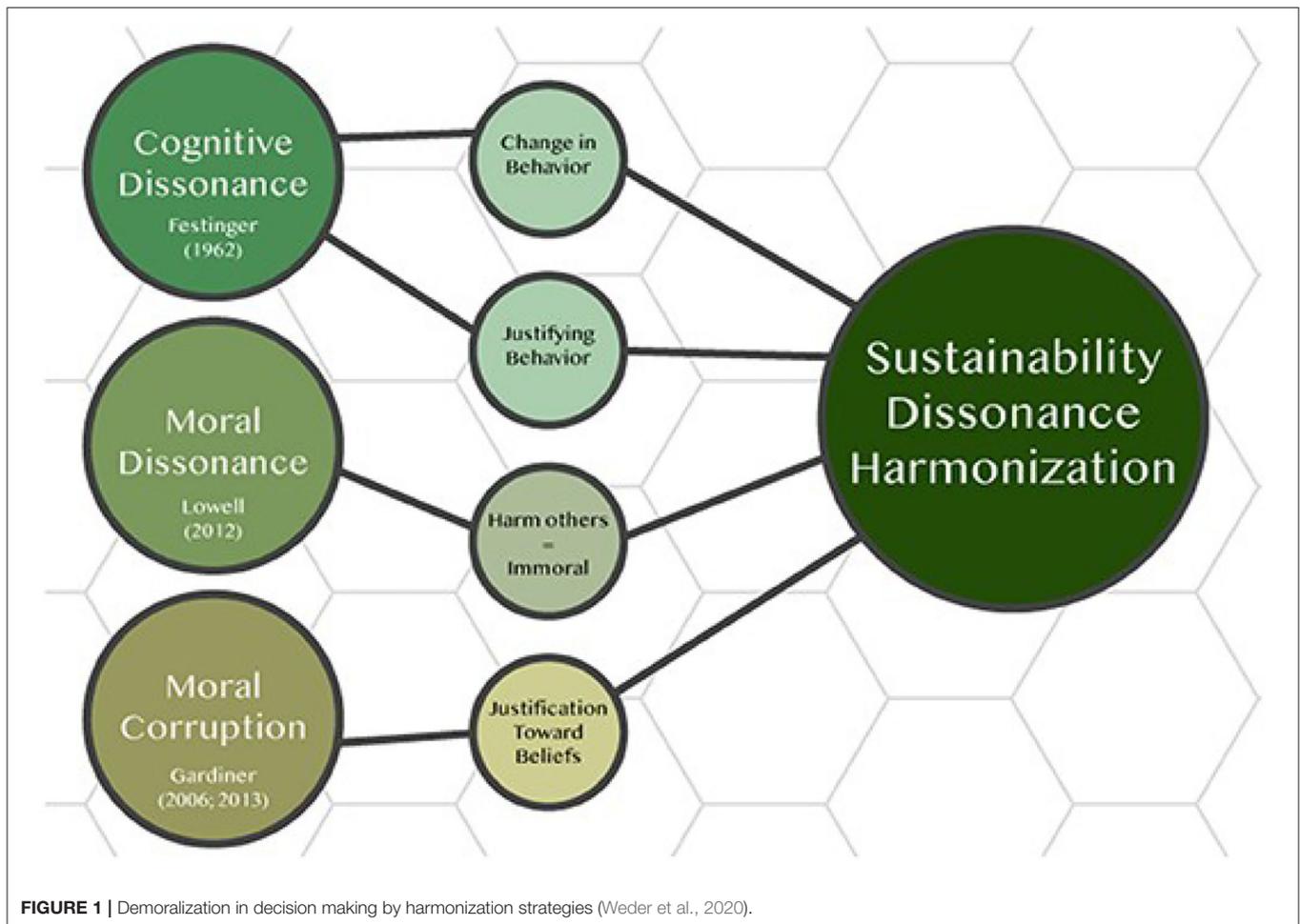


FIGURE 1 | Demoralization in decision making by harmonization strategies (Weder et al., 2020).

choices, shaped and internalized throughout our childhood and adolescence, can provide a sense of identity (Jastran et al., 2009; Sobal and Bisogni, 2009). The relevance of family feeding stems from the recognition of the family as a key social environment and setting for the development of eating patterns and food preferences (Campbell and Crawford, 2001; Delormier et al., 2009).

This social practice also comes with certain demands, it can be a constant battle between personal desire and social acceptance. Therefore, specific—consciously or subconsciously taken—food choices can vary according to our social surroundings and expectations (Feunekes et al., 1998; Jastran et al., 2009). For example, the evaluation of the body mass index of a densely interconnected social network of 12,067 people over a period of 32 years in the Framingham Heart Study showed that weight gain in one person was associated with weight gain in his or her friends, siblings, spouse, and neighbors, leading to the conclusion that obesity may spread through social ties (Christakis and Fowler, 2007). At the moment of deciding on eating a specific food, several factors come into play, culminating in the final food choice. This decision-making process is often led by social norms—being defined as standards or rules, considered acceptable in a particular social group. These norms can—and this has been mentioned before—facilitate but also hinder

sustainable behavior (Farrow et al., 2017; Salmivaara et al., 2021).

Studies guided by the theory of planned behavior have confirmed the association between perceived eating norms and eating behavior (Ball et al., 2010; Lally et al., 2011). Moving through life, the social circle might change and a transition or shift in a person's life course can influence changes in food choices (Wethington, 2005), for example changing residence due to attending University. This turning point, which could even be accompanied by (slight) changes in one's social network, could lead to having to cook for oneself for the first time or to a change in eating routines, which could mark a moment of change and—possibly—moral recognition. Thus, the complexity of social influence and the decision-making processes when choosing food—also in regard to sustainable decisions—poses a major challenge for several disciplines and research fields. Moralization and demoralization based on sustainability as a value and possible moral imperative in these complex decision-making processes can be best exemplified by looking at veganism.

### Veganism: Trend, Choice, or Example for Moral Conviction?

The most commonly stated personal motivation to adopt and follow a vegan diet is a concern about the ethics of raising

and slaughtering non-human animals (Murcott, 1995; Fox and Ward, 2008; Hussar and Harris, 2009; Ruby, 2012). Concern for personal health and the environment are other common motivators (Hoffman et al., 2013). In some cases, the dietary restriction is based on external factors, such as financial aspects or taste preferences. In Western societies, most individuals following a plant-based diet made a conscious decision to convert from a meat-eating diet (Beardsworth and Keil, 1992). Reasons include concern about animal welfare, environmental sustainability, and personal health. Rosenfeld and Burrow (2017) offer three types of motivations in their Unified Model of Vegetarian Identity (UMVI): prosocial, personal, and moral goals. Definite personal values expressed in food choice, such as ecological ideologies, are reported typical for vegetarians (Lindeman and Sirelius, 2001). Ethically motivated vegetarians mainly adopt their plant-based diets for reasons of animal welfare, focusing primarily on moral considerations, and trying to create a consistency between their personal beliefs and their diets (Jabs et al., 1998). Moral and normative contemplations (evaluation) and values as motivators for environmentally significant behavior are being further discussed in different contexts (Bieling et al., 2020). Schwartz's "Norm-Activation Theory" (Schwartz, 1968) suggests that moral or pro-social behaviors are the result of a personal set of norms to act in a particular way. These norms arise from an awareness of the consequences of one's actions and the willingness to take responsibility for those consequences. As such, meat consumption leads to a negative effect on meat-eaters, if they are confronted with a dissonant view of themselves that is unfavorable (Aquino and Reed, 2002; Bastian and Loughnan, 2017).

Still, when looking at the awareness and acknowledgment of the environmental impact meat consumption has, several studies show that there still seems to be a gap between the consumers' environmental attitudes and the resulting behavior (de Boer et al., 2017; Hoek et al., 2017). The science-based sustainability arguments for eating less meat do not seem to reach the consumers (de Boer et al., 2016). Apparently, there is the need to identify where morality comes in, and what role sustainability plays in stimulating moralization and/or demoralization, offering the above-mentioned harmonization strategies. Thus, we aim to complement the theoretical framework with empirical data from a pilot study to obtain an insight into whether sustainability is perceived as a moral imperative telling the individual what is good and bad regarding their food-related choices, practices, and eating behavior.

## METHODOLOGY

The push-pull model that Feinberg et al. (2019) offer for an understanding of (m)eating behavior is used in many consecutive studies; we will not further elaborate on the potential for further descriptive behavioral studies. Instead, from an interdisciplinary, sustainability communication perspective, our empirical work aims to complement the authors' thoughts on the theoretical conceptualization of moralization and demoralization effects in

(m)eating behavior by spotlighting specific phenomena in food choices and sustainable eating behaviors. With our qualitative exploratory pilot study, we seek to better understand whether and how sustainability influences eating behavior and food choices, particularly in terms of moralization or demoralization. Hence, a specific focus is on understanding how (much) sustainability as a moral imperative influences individual eating behavior and food-related social practices.

To gather information on individual perceptions of food choices and sustainable eating behaviors, we conducted guideline-based interviews with 25 international students aged between 20 and 40 years from universities in Austria, Australia, and Indonesia. The intention of our sample of international students from different countries, who could join the study for reasons of personal interest regardless of their origin, gender, or eating habits, was to avoid a limitation to the view of western, educated, industrialized, rich, and democratic societies (Henrich et al., 2010). The students were interviewed between April 2020 and August 2020 in face-to-face settings, in telephone interviews, or in online sessions depending on the then-current COVID19-restrictions. Drawing on the study of Leiserowitz et al. (2020), who conducted a nationally representative survey in the US on food choices and eating habits and their connection to climate change, we developed an interview guideline that addressed the following dimensions of individual eating behavior and food-related social practices, with keeping an eye on environmental aspects and morality issues: What are your beliefs and values about food and nutrition? What factors influence an individual's food habits? How did the eating behaviors of people change and which factors make people change their eating behavior? As well, we were interested in the attitudes toward meat consumption and the thoughts with regard to food choices and the environment. We purposely did not specifically ask interviewees about their definition of sustainability or sustainability-related issues in food choices in order to avoid those interviewees simply replicating frames and understandings of sustainability that they heard of, e.g., in the media or in the educational system. Instead, our interviews aimed at focusing on how the interviewees narrate their individual food choices and eating habits, also with a specific focus on environmental aspects, and how much they would address sustainability-related issues and morality issues by themselves.

The recordings of the interviews were literally transcribed (Mayring and Fenzl, 2019) and analyzed using qualitative content analysis (Mayring, 2014; Mayring and Fenzl, 2019) to explore sustainability as a principle of moralization or demoralization. Based on the data at hand, the content analytical technique of inductive category formation is appropriate to answer the questions of analysis on (1) beliefs and values about food and nutrition, (2) factors influencing individuals' food habits and their change, (3) attitudes toward meat consumption, (4) the role of environmental aspects in food choices as well as (5) the role of morality in the context of eating behavior and meat consumption. In the procedure of inductive category formation, we developed categories inductively based on the textual material along with a selection criterion, which we determined on theoretical grounds. In accordance with the required content analytical

rules for inductive category formation, we also specified a level of abstraction, on which we phrased the categories (Mayring, 2014; Mayring and Fenzl, 2019). Furthermore, we defined the coding unit, which is the smallest component of the material that can be coded (sensitivity), as a clear meaning component (seme) in the text. As a context unit, which serves as the background for the coding decision, we specified the respective interview. By definition, the recording unit is linked to the entire textual material, in this case, all interviews, for inductive category formation (Mayring, 2014). After we specified all these content analytical rules, we performed the text analysis in the online tool [www.QCAmap.org](http://www.QCAmap.org) (Mayring and Fenzl, 2014; Fenzl and Mayring, 2017), where we counted multiple coding categories within a document. Thus, we received a category system with the inductively developed categories and their corresponding frequencies for each of the above-mentioned questions of analysis as a result. Importantly, the frequencies of each category do not reflect some kind of ranking of what was important to each interviewee. Instead, they should be understood as an indicator of the weighting across all cases.

## FINDINGS

Participants in this study provided rich data on eating habits, influences, and reasons for changes in food choices. Furthermore, information on the role of morality in the context of eating behavior and meat consumption, in particular, could be analyzed; thus, we were able to identify moralization and demoralization processes, mainly harmonization strategies, related to the concept presented in the theoretical part of the paper. The following sections report the category systems, including exemplifications of the formulated inductive categories based on the statements of the interviewees, as the key findings on the different topics addressed in the interviews.

### Beliefs About and Influences on Individual Food Choices

When looking at the portrayal of their associations with food (see Table 1) and the main influences on their individual habits (see Table 2), participants described (1) social factors, (2) emotional associations, and (3) health-related issues as reoccurring topics. The participants attributed social factors as the greatest influence on their individual food habits (25%), and as one of the main functions/ roles of food (25%). Food consumption was closely linked to being part of the family connection (40%, 10 out of 25 interviewees) and stated that the specific choice is primarily influenced by family (76%, 18 out of 25 interviewees) and societal/cultural views (44%, 11 out of 25 interviewees). For example, participants stated that whole family gatherings were organized around food and shaped their personal eating routines.

*“Everything comes from childhood. In my family we eat fish, meat, actually, we eat all products. We just try to not eat sweets and flour products. I grew up with certain habits about balanced nutrition and now it’s complicated to change it. Culture and family, I think play such a big role in your food choice” (INFLUENCE\_ IV13: cultural and societal views; family impacts food choices)*

**TABLE 1 |** Beliefs and values about food found in 25 guideline-based interviews (inductive category system; categories with single occurrence are not mentioned in the category system).

Beliefs and values about food		
Category name	Rel. frequency	Abs. frequency
<b>Social function</b>		
Food is part of the family connection	10	40%
Food can be celebration	2	8%
<b>Existential/health function</b>		
Food is necessary for survival	9	36%
Food as facilitator for good health	4	16%
Quality of food is essential	3	12%
Food is a chore	3	12%
Balance in consumption of food	2	8%
<b>Emotional function</b>		
Positive emotional connection toward food	3	12%
Food is enjoyable	3	12%
Food/Eating is appreciated and loved	2	8%
<b>Other</b>		
Food is nothing special	2	8%

*“My parents used to cook meals when I was young and we gathered together and had like dinner on Sundays maybe, or and on Saturdays as well. So, it was like a joint time spent together with each other.” (BELIEFS\_IV7: food as part of family connection)*

*“[...] in family gatherings obviously, food played the major role. It wasn’t like we were getting together to do some activity; it was mostly just chit chat and eat” (BELIEFS\_IV1: food as part of family connection)*

Participants described the role emotional associations had on their food choices (36%, nine out of 25 interviewees) and also the emotional aspects they connected with food, either being positively connected (12%, three out of 25 interviewees) or describing it as an enjoyable event (12%, three out of 25 interviewees). One student explained,

*“[...] it’s like a delight, when I can eat something tasty, I feel better, my mood is going upwards.” (BELIEFS\_IV7: food is enjoyable)*

Health was directly connected with beliefs about food and played a major role when looking at influences on food choice values. Specific beliefs include food being necessary for survival (36%, nine out of 25 interviewees) or being a facilitator for good health (16%, four out of 25 interviewees), while health and nutritional aspects of food (72%, 18 out of 25 interviewees), as well as the source or quality of food (36%, nine out of 25 interviewees), influence individual food habits. An interviewee described often adapting his diet due to nutritional values, even when not liking the taste of the specific food items.

*“I just can’t over-look the vitamins and nutrition that I do need in my body. And that’s the important thing. [...] I could sometimes eat something, I don’t really like or enjoy, but because of its value,*

**TABLE 2 |** Influences on individual food habits found in 25 guideline-based interviews (inductive category system; categories with single occurrence are not mentioned in the category system).

Influences on food habits		
Category name	Rel. frequency	Abs. frequency
<b>(Social) System</b>		
Family impacts food choices	19	76%
Cultural/societal views have impacts	11	44%
Important others impact personal choices	9	36%
Traditional occasions	6	24%
Advice from competent people	2	8%
<b>Experience and knowledge</b>		
Health and nutrients of food	18	72%
Source/quality of food	9	36%
Experiences from different countries	2	8%
Previous experience	2	8%
<b>Media</b>		
Internet/(Social) media has an impact	14	56%
TV shows impact choices	6	24%
<b>Morals and values</b>		
Body awareness	10	40%
Religious associations	4	16%
<b>Emotion</b>		
Feelings and emotions impact choice	9	36%
Food preferences	7	28%
Food has to be tasty/delicious	4	16%
<b>Ressources and skills</b>		
Financial ability	9	36%
Cost and pricing	6	24%
Cooking own food	5	20%
Time and effort for preparation	4	16%
Availability of food	4	16%
Place of living	4	16%

*I would eat it [...] tuna for example, for the protein mostly.”*  
(INFLUENCE\_IV11: health and nutrition's of food)

## How Do Eating Habits Change?

In the interviews, the majority of participants in our exploratory qualitative pilot study (68%, 17 out of 25 interviewees) mentioned changes in their eating habits over the past years due to a variety of aspects. Changes in eating behavior entailed a transformation toward a healthier diet and more balanced nutrition (56%, 14 out of 25 interviewees), including practices such as reducing junk food and sugar intake or paying more attention to the quality and nutritional value of food, as well as a reduction of the intake of animal source foods (40%, 10 out of 25 interviewees). The latter practice ranges from consuming fewer meat products and dairy products to becoming a vegetarian. For some of the students (24%, six out of 25 interviewees), changing to a healthier diet involved a reduction in the consumption of animal-source foods.

**TABLE 3 |** Factors influencing a change in eating habits found in 25 guideline-based interviews (inductive category system; categories with single occurrence are not mentioned in the category system).

Factors influencing change of eating behavior		
Category name	Rel. frequency	Abs. frequency
<b>Information</b>		
(Social) Media/Internet	14	56%
Television content/Advertisement	6	24%
(Knowledge about) Environmental aspects	5	20%
Research/Educational Sources	5	20%
Introduction to (meat free) alternatives	3	12%
<b>Health</b>		
Body consciousness	8	32%
Nutrition/Health	8	32%
Age	4	16%
<b>External changes</b>		
Influence by personal network	9	36%
Change of living environment	9	36%
Cultural Influence	3	12%
Constitutional changes/ban	3	12%
<b>Internal changes</b>		
Financial resources	6	24%
Ethical problems with meat production	4	16%
Change in taste	2	8%

When considering the central influences that different areas have on changing one's eating behavior, (1) information, (2) health concerns, (3) external changes, and (4) internal changes were mentioned as dominant motives (see **Table 3**). The role of (social) media (56%, 14 out of 25 interviewees), as well as television content and advertisement (24%, six out of 25 interviewees) as sources of information, were listed as the main stimuli for behavioral change. One student described this impact as follows.

*“Yes, I think that media and people following other people [on social media] definitely have a big influence on the change of lifestyles for people”* (CHANGE\_IV25: Internet/(Social) media has impact)

Also, in the area of health, the aspects of body consciousness (32%, eight out of 25 interviewees), thoughts on nutrition (32%, eight out of 25 interviewees), and age (16%, four out of 25 interviewees) had an impact on changing eating habits. Participants indicated that deeper awareness and engagement with the effects different foods could have on their own bodies had an impact on their choices, especially with advancing age and experience.

*“[...] it wasn't that important when I was a kid, but it kept getting more important when I was a teenager. When I started to really understand what food does to your body. And in the last few years it really changed my way of thinking”* (CHANGE\_IV6: body awareness)

External influences shaped eating habits in many ways. A change in the living environment (36%, nine out of 25 interviewees) and the personal network (36%, nine out of 25 interviewees) had an effect on individual eating behaviors.

*“I moved from my hometown to another city for studying. It was turning point of my life and my preferences were changed. [...] My social circle has changed, and I live among people who really cares about their health.” (CHANGE\_IV13: place of living)*

For some participants, external influences also contributed to changing their meat consumption. Friends and family (32%, eight out of 25 interviewees), as well as thoughts on the environmental aspects of meat production (24%, six out of 25 interviewees), were reported as relevant factors. The analysis of beliefs about and influences on eating habits is crucial when examining the relationships between food choices and motivations to change eating behavior. Also, taking into consideration the connection and impact of one's food choices on the environment, particularly in relation to meat consumption. One participant explained

*“There's the mental element, too, as I am deeply aware of the environmental impacts of intensive meat production here in Australia.” (CHANGE MEAT\_IV16: impact of environmental factors)*

## Connection Between Food Choices and the Environment

Some of the interviewees were able to establish a connection between individual food choices and their impact on the environment (see **Table 4**). The main topics are food choices in general and meat consumption in particular. Eight out of the 25 participants (32%) believed that there is a direct connection between meat consumption and climate change, also indicating, that less meat consumption would be better for the environment (20%, five out of 25 interviewees), declaring

*“[...] you can just go on the Internet, and you will get several researches [studies] that are valid and proving that meat consumption is not the best thing for the environment. Our Food choice determines the level of effect on environment and on climate in general not less than transportation.” (FOOD AND ENVIRONMENT\_IV5: Meat consumption related to climate change)*

Still, some participants described not knowing enough about the topic or not knowing anything about the interconnection of food choices and the environment (24%, six out of 25 interviewees). One student reported

*“I don't know how to answer this question because I'm not really in the topic of the link between the climate change and the food. I don't have enough knowledge to discuss this topic.” (FOOD AND ENVIRONMENT\_IV7: No stance/ knowledge on relation)*

Another participant explained

**TABLE 4 |** Connection between food choices and the environment found in 25 guideline-based interviews (inductive category system; categories with single occurrence are not mentioned in the category system).

Food choices and the environment		
Category name	Rel. frequency	Abs. frequency
<b>Meat consumption and environment</b>		
Meat consumption is related to climate change	8	32%
Eating less meat is better for the environment	5	20%
<b>Knowledge</b>		
No stance/knowledge on relation	6	24%
Food choices impact climate change	5	20%
The relation between climate change and food choices is important	4	16%
Choosing regional foods is better for the environment	2	8%
<b>Production</b>		
High water usage in production	4	16%
High land usage to feed animals	2	8%

**TABLE 5 |** Role of morality in food choices found in 25 guideline-based interviews (inductive category system; categories with single occurrence are not mentioned in the category system).

Food choices and morality		
Category name	Rel. frequency	Abs. frequency
<b>Moralization</b>		
Global responsibility for climate	5	20%
Animal welfare	4	16%
Environmental impact	3	12%
Questioning of necessity	2	8%
<b>Demoralization</b>		
Neccessity of meat for health	9	36%
Overmoralization of eating meat	3	12%
Morality as forced choice	2	8%
No guilt	2	8%
No conection between food and climate	2	8%

*“[...]it might have been linked to climate change, but I don't think sustainability has become a consideration in the food choices in Indonesia.” (FOOD AND ENVIRONMENT\_IV21: No stance/ knowledge on relation)*

## Morality of Food Choices

Reoccurring topics in the moralization of food choice decisions were the global responsibility for climate (20%, five out of 25 interviewees) and animal welfare (16%, four out of 25 interviewees) (see **Table 5**). Participants described these responsibilities in the following way:

*“I think that the link between eating meat and the environment is the most present and the most important for me and maybe also the most influencing. When I look at my friends for example and my social surroundings, I can see there is a trend that is to eating rather local and also thinking more about that.” (FOOD AND MORALITY\_IV5: Global responsibility for climate)*

*“I personally think the biggest and best argument against eating meat is the mass production and the animals. I don't think that mass production is justified in any way.” (FOOD AND MORALITY\_IV3: Animal welfare)*

When illustrating the decision to eat meat, health concerns (36%, nine out of 25 interviewees) and disagreeing with the over-moralization of eating meat (12%, three out of 25 interviewees) occurred as explanations:

*“In my opinion, meat is vitally important component of nutrition. Undoubtedly, it should be a part of [the] nutrition of human beings. It's really important to have it.” (FOOD AND MORALITY\_IV14: Necessity of meat for health)*

Another participant said:

*“Food choices and climate change? I mean, if you eat too much vegetables that can be bad for nature too. [...] I think, eating animals, this sounds harsh, but in the end, that's nature and you have to eat protein somehow. Without the meat, that's too little amounts of protein and that wouldn't help you grow. I don't think it would make too much of a difference if I'm a vegetarian or vegan, because those are animals that are raised just to be food. They are raised for that purpose.” (FOOD AND MORALITY\_IV14: Over-moralization of eating meat; Necessity of meat for health)*

Some lines of argumentation alternated between moralization and demoralization within the same answer, using the second argument as part of an explanation for personal habits.

*“I personally think the biggest and best argument against eating meat is the mass production and the animals. I don't think that mass production is justified in any way. Reasons for eating meat in my case is the iron deficiency [...] apart from the fact, that we all like to eat meat” (FOOD AND MORALITY\_IV3: Animal welfare; Necessity of meat for health)*

## DISCUSSION

To sum up, our exploratory qualitative pilot study allows the assumption that there is a multitude of beliefs and influences on individual food choices, ranging from informational cues and social factors to health concerns and sustainability-related issues. In line with previous findings, our results from the participant group studied confirmed that food choices and changes in meat consumption involve a multi-faceted and complex decision-making process, which among others may be heavily influenced by inherent social norms within a person's social network, including family, friends as well as important other peers (Corallo et al., 2019; Zahra et al., 2022). Additionally, the results from our pilot study suggest that food choices and decisions are situational and thus, in some cases, may drastically change over time when

circumstances, e.g., new information or social surroundings, call for an adjustment.

However, aspects of moralization and the topic of sustainability played a rather minor role in the decision-making process of food choices among the studied group of international students aged between 20 and 40 years. Similarly, a systematic review of 76 qualitative, quantitative, or mixed methods studies on consumers' perceptions of food-related sustainability, which were conducted between January 2010 and June 2020, revealed that consumers currently believe that sustainability does not (yet) influence their food choices (van Bussel et al., 2022). Thus, the results of the pilot study make us hypothesize that food in general and meat consumption, in particular, are less “morally overloaded” than expected, and sustainability is not a moral imperative related to specific eating behavior. This assumption, which of course needs further elaboration, is supported by previous research, which argues that despite the increasing availability of information on food trends, ecological costs of food, etc. consumers may avoid taking responsibility for sustainable consumption by using psychological defenses (de Boer et al., 2017; Corallo et al., 2019; Zahra et al., 2022). Moreover, we may assume that morality could be a matter of degree rather than a matter of kind (Skitka et al., 2021), and thus, apparently influences the emotional involvement in food choices and eating as social practice. Based on the data collected from the small sample of international students and the interpretations offered, we hypothesize that sustainability apparently works rather demoralizing than moralizing. This suggestion seems rather surprising when facing the literature on sustainable consumption, which talks about sustainability as “adding” morality to individual decision-making (e.g., *via* labels). What stood out in the empirical data was the recurring justification for personal meat consumption by emphasizing its nutritive value, even after explaining morally reprehensible reasons for meat consumption in general. Thus, we may hypothesize that people, who think that they need to eat meat frequently in order to be and stay healthy and to grow and develop, will not consider going meatless as a feasible solution to ecological problems. This insight from our pilot study calls for additional research, as this “necessity” rationale could serve as the “harmonizing” excuse people cling to in order to avoid dietary change, despite the evidence provided by hundreds of millions of people who thrive on a meatless diet.

The findings of the pilot study at hand allow the assumption that sustainability apparently comes along with less morality and does not work as a moral imperative for the participant group studied. Hence, the research knowledge of this study is particularly interesting, because it allows a deeper understanding of influences and beliefs on individual food habits and its potential for behavior adjustments to changing environmental demands and improving sustainability. Firstly, in our sample of international students, we find that sustainability apparently plays a minor role in food choices. In fact, only some of the participants in our study were able to address the environmental impact of their food choices, which affirms the findings of the systematic review conducted by van Bussel et al. (2022). Furthermore, even if climate change is perceived as a threat,

thinking about the horrors of industrial livestock farming, animal rights, pollution, and waste does not necessarily directly influence people to change from a meat- to a plant-based diet. Secondly, individual food choices and changes from meat consumption to veganism or becoming vegetarian are mainly influenced by being exposed to new ideas and stimulations within the closer network of family and friends, rather than *via* the media, or key events like documentaries on animal cruelty, etc. Family and friends continuously play an important role in eating decisions and—even throughout different life stages—also seem to serve as an important source of information. Furthermore, accessibility as well as general cooking and eating practices (food is celebration vs. food is necessary for survival) influence meat- or plant-based food choices. However, the first insight into different cultural settings and situations, the moral significance of specific eating behavior or food choices apparently varies over time, cultures, and individuals, which leads to and definitely requires further research potential—from many perspectives, including a behavior-oriented, social psychology perspective, a philosophical and also a communication and media perspective to learn where the degree of morality is possibly negotiated.

## IMPLICATIONS, APPLICATIONS, AND LIMITATIONS

Research investigating the influence of sustainability overall, and as a moral imperative in particular, on individual food choices and eating behavior can and should be extended with a specific focus on different sampling strategies, which should among others lead to purposive (heterogenous) samples of vegan and meat-eating participants, with a variety of socio-demographic characteristics. It would be interesting to explore, how these aspects contribute to the development of sustainable eating behavior, which is one of the many challenges for modern society. Moving forward, it will also be critical to utilize carefully designed approaches to confront subjects with different types of morality frames and generate a deeper understanding of their influence to engage in sustainable behavior. Above all, the possibility of finding direct insights into the connections between moral influences can only be mapped *via* a diversion toward attitudes, preferences, and actual behavior.

Most of the sustainability (communication) literature assumes that for sustainable development and a realization of the 17 sustainable development goals (United Nations, 2015) there is the need for change in human values, attitudes, and behaviors in order to achieve a sustainability transition that will meet human needs (Leiserowitz and Fernandez, 2008). Apparently, it is not really, or at least not always, about the kind of attitudes and morality, but much more about their interconnection and probable dissonance in reasoning. Initially, we assumed that sustainability as a moral imperative moralizes and, therefore, stimulates and possibly manifests a certain eating behavior (e.g., a decision and even conviction to not eat meat/fish), by converting, e.g., a plant-based diet from being a preference

to being a value. However, we found in the participant group studied, that this is not (yet) the case. Still, people's interpretations of sustainability are strongly related to traditions and conventions, with related practices not necessarily being labeled as "sustainable" (e.g., buying and eating lots of local and seasonal vegetables); "sustainable" eating habits are a preference or choice and possibly related to new or "trendy" routines (inspired by friends or new flat mates), but only very rarely a moral imperative. Instead of moral recognition or moralization, we rather discovered demoralization of food choice and eating behavior, which supports the insights from Skitka et al. (2021), predominantly in terms of demoralization as emotional de-escalation and harmonization strategy, here mostly expressed as behavioral justification instead of belief adjustment (Weder et al., 2020).

The main challenges about sustainability apparently are, firstly, that sustainability as a "blurry" master frame will never be "authority independent," as Skitka et al. (2021) describe moral imperatives. The main reason for that is that sustainable development is largely institutionalized and part of corporate communication and political strategies (Diehl et al., 2017; Rasche et al., 2017; Weder et al., 2021). Simultaneously, consumers lack key knowledge on some food-related sustainability issues and have difficulties in defining the concept of "sustainability" as well as in estimating the environmental impact of their food choices (Weder et al., 2021; van Bussel et al., 2022). Secondly, sustainability does not really tie in with emotions—or vice versa: sustainability is too abstract and blurry to be happening and influencing on an affectual level. There is a lack of associations and emotive elements where sustainability can be of any moral influence.

While more research is needed to better understand existing and missing social representations of sustainability that influence social practices, our research also reveals that there is a lack of more specific appeals based on sustainability as a social norm and principle. This could then be a promising approach to fostering sustainable food choices and their related eating behavior, as the compliance of most people with social norms has been shown to be conditional upon the compliance of others (Fischbacher et al., 2001; Fehr and Gächter, 2002; Fehr et al., 2002). Hence one challenge is to make norms of desired behavior more salient and tangible, for example, by reducing complexity and providing information on desirable eating behavior from a sustainability perspective, or on how other people take environmentally beneficial food choices in certain situations. Another challenge, which is related to the finding that social norms are a strong influential factor in a person's diet, will be to firstly identify early adopters and influencers within a social group, who are easily influenced in their dieting behavior by other non-social-norm variables such as persuasive moral messages or new health studies. Secondly, with such early adopters and influencers identified, the focus needs to be laid on understanding the collective dynamics with which new ideas, beliefs, and behavior are being spread in social networks and the trajectory they have within this system or population (i.e., Christakis and Fowler, 2007; Watts and Dodds, 2007; Brudermann and Fenzl, 2010).

When discussing the relevance of and influence on food choice, the role of sustainability communication comes into play. Promoting an understanding for the members of the public and establishing the connection between personal behavior and its effect on climate change need to be taken into consideration by regulatory authorities, policymakers, and communicators when designing climate communication. It is important to address consumers' informational needs to enable informed decisions. Furthermore, strategies on how to develop effective communication regarding "motivated reasoning"—only focusing on information that confirms existing beliefs—or misinformation could be encouraged by our study.

The findings of the present study are liable to potential limitations. There was a certain selection bias within our sample as only international students were included, who were interested in participating. Thus, the sample characteristics did not consider specific diets, origin, or gender of the participants, social backgrounds, and professional backgrounds. These are aspects that should be considered in further studies. Even though generalizing from the present sample to other populations regarding the prevalence of various environmental beliefs would be inappropriate, this research was primarily intended to provide initial empirical insights into the implications of beliefs non-experts hold regarding food choices and the influence of sustainability issues such as climate change have on individual decision-making. Nonetheless, the findings are very fruitful for the theoretical conceptualization of moralization and demoralization effects, and very insightful in terms of considering sustainability *not* to be a moral imperative but rather a harmonization strategy; both aspects need to be picked up from a communication perspective as well as behavior and social-psychological perspective.

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## DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by University of Lübeck, Ethics Board. The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

TF, SL, DV, and FW contributed to the conception of the study. FW developed the theoretical framework of the study. SL, DV, and TF designed the methodology of the study. Data curation, analysis, and investigation were performed by SL and TF. Preparation of the original draft was carried out by FW (theoretical background and framework), TF (methodology), SL (findings), and all authors (discussion and implications). All authors contributed to the manuscript revisions, all major contributions to the revisions were provided by TF. All authors read and approved the submitted and re-submitted versions.

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