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From holistically to accidentally sustainable: A study of motivations and identity expression in sustainable living

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Abstract

Purpose

Individual action is important in addressing challenges of sustainability. However, marketing scholars and practitioners need to better understand what motivates sustainable living.

Design/methodology/approach

Semi-structured interviews with 35 individuals self-identifying as sustainable shed light on motivations and identity expression in sustainable living. Four Drive Theory, and Personal and Social Identity Theory (operationalized through the Dynamic Model of Identity Development), provide this study's guiding theoretical framework. Data analysis was informed by the Gioia methodology.

Findings

Individuals differently express their personal and social identities through sustainable living, and are differently motivated to live sustainably. Those expressing personal identity salience through sustainable living draw on a broader set of motivations than those expressing social identity salience. This results in varying levels of commitment to sustainable living, with differences also found in individuals' personal satisfaction derived from their sustainable living efforts. Based on these findings, a novel typology of sustainable individuals is developed.

Research limitations/implications

The study is limited by its focus on one geographic area and relatively small sample size. A key implication is the need to consider both personal and social identity when studying behavior in other marketing contexts.

Practical implications

The research provides important insights for marketing practitioners, policymakers, and others seeking to better categorize sustainable individuals and target marketing messages to encourage sustainable behaviors.

Originality/value

This paper contributes to marketing scholarship by providing new insights on the role of identity and motivations in sustainable living. It introduces a novel typology of sustainable individuals, founded on differences in identity expression and motivational drives, which are also associated with the range of sustainable behaviors people engage with and how individuals make sense of these behaviors.

Keywords*: Sustainable living; Motivation; Identity*

Article classification: *Research paper*

Introduction

Through their daily living practices and consumption choices individuals make a difference to sustainability (UN, 2022). For example, around 40% of the total CO_2 emitted in the UK comes from households, with the largest contributions from heating, transportation, and consumer diets (CCC, 2019). Marketers have an important role to play in helping organizations and governments communicate with people to promote sustainable living (Carrigan *et al*., 2011; Lim, 2017). This may take the form of encouraging cycling or walking to work, going plastic-free at home (Reese and Junge, 2017), or adopting low-carbon diets e.g. consuming more plant-based foods (Poore and Nemecek, 2018; Kim *et al*., 2019). Sustainable living is also concerned with what occurs after consumption and the waste generated (Costa Pinto *et al*., 2019; Lawrence *et al*., 2020). Drawing upon these perspectives, sustainable living is defined in this paper as patterns of action by people which meet basic needs, provide a better quality of life, and minimize the use of natural resources and production of waste and pollutants, without jeopardizing the needs of future generations (Bedford *et al*., 2004).

Marketing scholars urgently need to better understand sustainable living if we are to accelerate its adoption (Ramirez *et al*., 2015; Chen *et al*., 2019). Whilst sustainability has been widely examined in marketing literature (McDonagh and Prothero, 2014; McGouran and Prothero, 2016; Longo *et al*., 2017), there remain limits to our understanding and theorizing. To date, much marketing and sustainable behavior research has focused on uncovering differences between those living sustainably and those not, rather than deeply examining sustainable individuals (Connolly and Prothero, 2008; Perera *et al*., 2018). Such work has also often draw upon limited demographic variables and largely uses quantitative techniques to explore differences in sustainability practices. Scholars call for the adoption of more holistic approaches when researching sustainable behaviors (see Otto *et al*. 2019; Carrington *et al*., 2020), to better capture contradictions in individuals' sustainability related behaviors – i.e. individuals behaving sustainably in one aspect of their lives

(e.g. using public transport) but not another (e.g. not recycling). It is further argued that what matters most is the overall pattern of an individual's sustainable behaviors rather than the adoption of any single action (CCC, 2019). Missing is a deep exploration of how and why people may engage (inconsistently) in sustainable behaviors in different aspects of their lives. Qualitative studies, deeply exploring the roles of identity and motivation in sustainable living (Carrington *et al*., 2014), are currently underrepresented in extant literature. This paper engages in such a deep exploration of sustainable living, by examining the narratives of sustainable individuals through a lens of motivation and identity. It seeks to answer the research question: *How do identity expression and motivational drives manifest in sustainable living?* Qualitative research was undertaken entailing interviews with 35 individuals who self-identified as living sustainably. Personal and Social Identity Theory, operationalized through the Dynamic Model of Identity Development (DMID) (Hillenbrand and Money, 2015), and the Four Drive Theory (4DT) of human motivation (Lawrence and Nohria, 2002), comprise the study's guiding framework.

This research responds to recent calls in the *European Journal of Marketing,* and wider marketing and sustainability journals, for further study of the psychological drivers of sustainable behaviors (Edbring *et al*., 2016; Nuttavuthisit and Thøgersen, 2017). Scholars have also identified a need for more work on identity and sustainable behaviors (Foscht *et al*., 2018; Valor *et al*., 2018; Joshi and Rahman, 2019), and greater use of qualitative methodologies (Paschen *et al*., 2020). Furthermore, and as noted above, marketing literature has often studied sustainable behaviors in isolation (McEachern *et al*., 2010), for example recycling, energy use, or purchase intentions towards sustainable products (see Hutter *et al*., 2015; Costa Pinto *et al*., 2016; Costa Pinto *et al*., 2019). We focus on sustainable living, rather than sustainable consumption or other specific sustainable behaviors, aligning with theorists like Black and Cherrier (2010), who argue that sustainable behaviors should not be studied in isolation, and that research should consider a person's lifestyle holistically.

The key contribution of this paper is the introduction of a novel typology and sub-grouping of sustainable individuals according to identity expression and motivation, that is grounded in empirical analysis. While previous research often placed sustainable individuals into one category (i.e. green consumers) distinct from the less sustainable (Griskevicius *et al*., 2010; Hartmann *et al*., 2018; White *et al*., 2019), our work aligns with the arguments of Lavelle *et al*. (2015) and others, finding that there are meaningful within group differences between sustainable individuals.

Previous marketing and sustainability research has developed typologies relating to specific sustainable behaviors, both those performed by organizations – for example, based on companies' values and approaches to social responsibility (Kärnä *et al*., 2003), or their green marketing strategies (Rivera-Camino, 2007) – and consumers, categorizing consumers in terms of the benefits associated with buying hybrid cars and energy-efficient bulbs (Ramirez *et al*., 2015), the effects of ethical and social responsibility issues on grocery shopping (Memery *et al*., 2005), or the influence of self and collective interests when making prosocial consumption choices (Ross and Kapitan, 2018). Whilst acknowledging the importance of these and other existing sustainability-related typologies (see above discussion, and Lavelle *et al*., 2015, Balderjahn *et al*., 2018), our new typology complements but also differs from them. It is also, to our knowledge, the first typology of wider sustainable living. This new typology has theoretical and practical implications, and speaks to wider sustainability agendas, with living sustainably recognized by the United Nations Sustainable Development Goals (SDGs), particularly SDG 12 – "Ensure sustainable consumption and production patterns" (UNEP, 2022).

This paper is structured as follows. First, literature on identity, motivations, sustainable living, and their intersection, is reviewed. The research methodology is then explained. This is followed by presentation of findings, which are then discussed in relation to extant literature. The paper concludes with further explanation of its academic contributions to marketing and sustainable behavior literature, its implications for practice, and areas for future research.

2. Literature review

2.1 Identity and sustainable living

Identity is defined by Oyserman *et al*. (2003, p. 69) as "the traits and characteristics, social relations, roles, and social group memberships that define who one is". Identity is one way we define who we are as a person, how we express this, and how others regard us in social settings.

It is widely suggested that an individual's identity comprises two different aspects: personal identity and social identity (Oyserman *et al*., 2003; Simon, 2004). Personal identity, drawing upon Hogg and Abrams (1988), is an individual's personal characteristics and traits, interests, behaviors, ideologies, and moral values. Social identity is a person's awareness of belonging to a particular social category or group, comprising a set of individuals with common characteristics such as the same cultural norms, ideologies, or religion. In sum, personal identity relates to the personal characteristics that differentiate individuals, whilst social identity focuses on the characteristics an individual shares with other members of a group.

Relationships between identity and sustainable behaviors have received significant scholarly attention. For example, Shaw and Shiu (2002) demonstrate the usefulness of the self-identity concept (how we see ourselves) as a predictor of intentions to behave sustainably. Studies have furthermore found relationships between social identity and sustainable behaviors (Bartels and Onwezen, 2014; Prati *et al*., 2017), whilst Carmeli *et al*. (2017) recently proposed that the activation of social identity linked to an organization, and particularly the degree of identification with that organization, influences the extent of involvement with sustainable behaviors. Carmeli *et al*.'s (2017) results corroborate previous research, finding a relationship between identification (i.e. with sustainability, with an organization, with a brand) and sustainable behavior adoption (Yin *et al*., 2018).

To date, most identity and sustainable behavior research has focused on social rather than personal identity, and not on both social and personal identity in one study. One exception are the

studies of identity and personal values in 'green buying' by Costa Pinto *et al*. (2016, 2019), which consider the purchase and recycling intentions of consumers. Their 2016 paper uses a quantitative methodology to categorize consumers as having either personal identity or social identity salient in relation to 'green' purchase intentions. The study then presents evidence that purchase intentions for those with personal identity salient are associated with self-transcendence related values, while those classified as having social identity salient had both self-enhancement and self-transcendence related values associated with their purchase intentions. In a related study, their 2019 paper categorizes people as having either individualistic or collective identity goals, and suggests recycling intentions are associated with a desire to cooperate for those with individualistic identity goals, and choosing green products is associated with a desire for status for those with collectivistic identity goals. While these studies represent the first tentative steps in exploring the area, they are important because they suggest that the expression of sustainable behavior and its motivation may be influenced by the salience of social and personal identity among consumers. Nevertheless, these studies stop short of exploring how social and personal identity may be expressed in the same individuals, in relation to different range of behaviors and situations. They do not explore, for example, how the same individual may express personal or social identity in different sustainable behavior settings, or when multiple motivators are at play, as we do in this research. By examining the narratives of sustainable individuals, we are able to explore how personal and social identity aspects may be expressed in the same people in different situations, and may be related to different motivations. This is important because it allow us to explore how personal and social identity salience in different sets of activities may contribute to a 'bigger whole' than the very specific behaviors explored by Costa Pinto and others. One potential example of this is 'activism' in relation to sustainability, which is likely to include a wide range of activities in different situations, such as knowledge creation (to understand the impact of current practices and to identify new practices) and communication (to encourage others to change laws or behaviors). These different activities may be

associated with either personal or social identity, and may be motivated by different drives. In this way, an exploration of personal and social identity salience in broad narratives could allow us to explore how personal and social identity may 'work together' in the sense of motivating different set of activities. This sort of exploration has not been done before in the extant literature, and allows us to understand how personal and social identity may both be present in an individual's sustainable living in relation to different range of behaviors, which may help to explain multifaceted patterns of behavior, such as activism.

Overall, evidence from previous research largely suggests that needs associated with social identity (e.g. to be socially accepted or to gain social status) can drive sustainable behaviors such as sustainable consumption (Bartels and Reinders, 2016). However, there is significant scope for further inquiry into how personal identity influences sustainable behaviors, and how personal and social identity may be expressed in the same individuals at different times and in different circumstances, as we do in this paper.

One recent model at the nexus of marketing and social psychology, which allows social and personal identity to be explored simultaneously, is the Dynamic Model of Identity Development (DMID) (Hillenbrand and Money, 2015). This model suggests that the self consists of four different layers (**core self**, **learned self**, **lived self** and **perceived self**), representing the interactions between individuals' personal and social identities. In DMID, personal identity comprises the **'core'** and **'learned'** selves. The **'core'** self relates to an individual's intrinsic character, values, and capabilities, which are more or less stable. The **'learned'** self is the set of conscious and unconscious rules and roles, which inform what individuals should or should not do. Social identity in DMID, meanwhile, comprises the **'lived'** self, formed by lived behaviors (shaped by experiences and emotions), and the **'perceived'** self, or how others might perceive these behaviors. Hillenbrand and Money (2015) argue that congruence in identity expression, between personal and social identity (and an individual's values, learned rules and roles, her/his lived behaviors, and how those are

perceived by others), leads to positive outcomes and emotions. In contrast, incongruence between personal and social identity can lead to negative outcomes and emotions (i.e. stress, emotional labor) (Harris and Reynolds, 2003).

DMID forms part of the guiding framework for this research. It was selected for three key reasons. Firstly, it extends but is also entirely consistent with and underpinned by seminal personal and social identity theory (e.g. Oyserman *et al*., 2003; Simon, 2004). Secondly, and critical to this study, DMID enables us to examine how personal and social identity may be expressed at different times or in different circumstances by the same individuals. This was important to the operationalization of our research. As discussed previously, much sustainable behavior and wider marketing literature has focused on social rather than personal identity, with even fewer studies exploring both as we do in this study. Thirdly, and related to this, DMID aligns with understandings of identity development and expression as dynamic, which in this study enabled the examination of participants' identities regardless of and across life stages. In the next section, the second part of our guiding framework – 4DT – is introduced, alongside extant work on motivations and sustainable living.

2.2 Motivations and sustainable living

Motivation is defined by Park and Mittal (1985) as an inner drive – or internal stimulus – that reflects goal-directed action. It is an energizing force which induces action (Pinder, 1998) and translates into conscious and unconscious decisions. A substantial literature exists exploring motivations for sustainable behavior. For instance, a large number of studies, mainly quantitative (see van der Werff *et al*., 2013; Hamari *et al.,* 2016), have researched sustainable behavior through the lens of intrinsic and extrinsic motivations (Deci and Ryan, 1985), with findings suggesting that individuals mainly engage in this type of behavior motivated by internal rewards. In another body of largely quantitative work (Wee and Choong, 2019; Chi *et al.,* 2020; Baxter and Pelletier, 2020), Self-Determination Theory (Ryan and Deci, 2000) has been employed to explore individuals' sense of self-autonomy,

competence, and relatedness. These studies highlight the influence of aspects such as gamification, environmental stimulation (e.g. laws), and sanction systems on individuals' sense of self-determination and subsequent adoption of a sustainable behavior.

Despite growing examination of what motivates sustainable behaviors, including that outlined above, much marketing research in this area remains relatively theory light (Young *et al*., 2010; Edbring *et al*., 2016). Existing work has also frequently been oriented towards policy and practice, such as the Department of Environment, Food and Rural Affairs in the UK's (DEFRA, 2010) study of motivations for pro-environmental behavior. There is, therefore, a need for more theoretically informed, but still practically relevant, sustainable behavior research of the kind presented in this paper.

One theory that holds much promise for studying motivations in sustainable behavior is the Four Drive Theory (4DT) (Lawrence and Nohria, 2002). 4DT has been applied across the social sciences to examine motivations in various situations, but has yet to be used to study sustainable living. Rooted in neuroscience and psychology, it has been deployed to examine employee motivation (Nohria *et al*., 2008), technology acceptance (Abraham *et al*., 2013), enterprise social networks (Meske *et al*., 2019), and responsible leadership (Lawrence and Pirson, 2015), amongst other topics.

4DT proposes that human motivation can be described according to a set of four innate motivational drives: the **drive to acquire**, the **drive to bond**, the **drive to defend**, and the **drive to learn**. The **drive to acquire** is the "oldest and most basic human drive" (Lawrence and Nohria, 2002, p. 55) and refers to the obtaining of both tangible and intangible goods (e.g. life experiences, status). The **drive to bond** describes the need to be part of a particular social group and to establish relationships with its members. It relates to the need for belonging studied by Baumeister and Leary (1995), who suggest this drive can be found in all individuals, regardless of origin or culture. The **drive to defend** is the human desire to defend things we hold dear, such as material goods, beliefs,

principles, or values. The **drive to learn** is the human need to satisfy curiosity, to know and understand what is around us. Lawrence and Nohria (2002) suggest that it also includes a drive to educate and inform others, and is therefore sometimes referred to as the drive to comprehend.

In 4DT, the drives may work together or compete for dominance. Lawrence and Nohria (2002) provide compelling arguments for individuals balancing the four drives, highlighting examples of individuals who caused harm to themselves or others when their drives became unbalanced. Whilst 4DT has been criticized by some for being overly complex (McShane and Von Glinow, 2010), it is this complexity that we believe makes it useful in studying sustainable behavior. Recently, researchers have started to overcome such criticism by leveraging 4DT's inherent complexity to provide insights on the study of complex and contested issues, including some that particularly resonate with sustainable behavior concerns, for example responsible leadership (Lawrence and Pirson, 2015), social innovation (Kabadayi *et al.*, 2019), and humanistic management and responsible management education (Pirson, 2020). Sustainability is also complex and should be considered with care (Chatzidakis and Shaw, 2018), it may therefore benefit from the application of 4DT, in the same way that the aforementioned topics have. For instance, looking at the fulfilment (or lack thereof) of each drive and how they work together, could help us better understand how one motivational drive may become dominant, and what that might mean for an individual's sustainable living. We might be able to observe what balance amongst the four drives means for sustainable behavior, and how different drives may be managed simultaneously. We might also explore what the (psychological) consequences of dominance and/or balance might be, and how sustainable individuals might feel as a consequence. We therefore propose that the application of 4DT provides a timely and promising lens for studying a complex and contested issue like sustainable living.

As mentioned before, 4DT is not without its limitations and critics. These include suggestions that the four basic drives could be expanded or sub-categorized, that some of Lawrence

and Nohria's (2002) examples of the drives operating stretch credulity, and that limited guidance is given on how to operationalize the drives i.e. to translate them into practice to encourage particular behaviors. The root of this final criticism is that the application of 4DT in research may still be limited because of its complexity, in particular the need to explore the interplay and balance between the four basic drives (McShane and Von Glinow, 2010). We employ 4DT precisely because it may shed light on the complicated issue of motivation in sustainability. Furthermore, and as identified above, 4DT has now been used to study motivation in other research contexts, suggesting its widespread applicability, and that application directly to a sustainability related context is overdue.

2.3 The intersection of identity and motivations in sustainable living

According to Oyserman *et al*. (2003), "self and identity are predicted to influence what people are motivated to do" (p. 70), as well as how they think, act or make sense of themselves and others. Therefore, when aiming to understand behavior it is important to consider both identity and motivation. This study is positioned at the nexus of literature on identity and motivations in sustainable living. Other work in this area includes that by Cherrier *et al*. (2011), exploring links between resistance/anti-consumption motivated practices and consumers' identity construction, and the previously discussed work on identity in 'green buying' by Costa Pinto *et al.* (2016, 2019). Further research in this area includes that by van der Werff *et al*. (2013), which finds that those with a strong environmental identity will be intrinsically motivated to act sustainably, without being influenced by external incentives. Finally, Adam *et al.* (2021) explore social identity, motivations and sustainable behavior among backpackers, whilst Legere and Kang (2020) study the influence of self-concept on the motivations of 'slow fashion' consumers. In summary, work examining the intersection of identity and motivations in sustainable living, whilst growing, remains limited. Exploring this is important because identity factors may influence motivation, and vice versa.

In marketing and sustainable behavior literature, much extant work uses social identity theories to understand patterns, motivations, and commitment. However, this only tells part of the

identity story. Personal identity, which may result in very different patterns, motivations, and commitment to such behaviors, must also be considered. This imbalance is worrying because it may presume that social identity considerations are at play when they are not, while behaviors associated with personal identity salience could be ignored.

Existing sustainable behavior research on identity and motivations is largely quantitative. As discussed, it has also tended to focus on particular sustainable consumption practices, rather than wider sustainable living. Extant work also often gives unequal weighting to identity and motivational aspects, with identity frequently deployed as a construct in a model. The kind of deep exploration of identity and motivation in sustainable living, and their intersection, that occurs in this paper is currently missing from the literature. To do this, we explore the narratives of sustainable individuals, which illuminate how motivation and identity influence behavior patterns, commitment and sensemaking around sustainable living.

3. Methodology

3.1 Data collection

Data collection entailed qualitative semi-structured interviews with 35 individuals who self-identified as living sustainably (17 identified as female and 18 as male, and were 23 to 68 years old). This self-identification process involved participants answering affirmatively to the qualifying questions: “Do you consider that you follow a sustainable lifestyle? For instance: Do you consume sustainable food and purchase sustainable goods? Do you try to cycle or walk instead of driving a car? Do you seek to reduce your waste, and to recycle and re-use products?”. These qualifying questions were created with reference to the four key sustainable lifestyle areas identified by the Sustainable Lifestyles 2050 European (SPREAD) project, which are: consuming, living, moving, and health and society (see Mont *et al*., 2014).

Self-identification approaches have been widely deployed in marketing and sustainable behavior studies (Young *et al*., 2010; Shaw *et al*., 2016). Interview methods are also often used in

identity, motivation, and sustainable behavior research (see Connolly and Prothero, 2008; McEachern *et al*., 2010; Young *et al*., 2010). They allow researchers to gain rich insights into participants' values, beliefs, morals, emotions and experiences, and enable deeper exploration of the meanings people give to their world. Both methods were thus deemed suitable for this study. The research was conducted in the United Kingdom, in a large town in the South-East of England. Participants were recruited through examining locally occurring sustainability-related activities, and by engaging with two local organizations working to promote sustainability.

An interview guide was developed comprising both conventional open-ended and more structured questions. These questions focused on the themes of identity, motivation, and how they are expressed through and drive sustainable living. They were informed by extant literature and the study's guiding framework (see *Section 3.2* for more discussion of structured questions and **Appendix 1** for a sample of questions from the interview guide and their links to the guiding theoretical framework).

To minimize social desirability bias, understood as a "distortion of responses in a socially desirable direction" (Nederhof, 1985, p. 264), interviewees were repeatedly reminded of their anonymity in the study, and encouraged to feel comfortable and give honest answers (Larson, 2019). The four areas of sustainable lifestyles identified by the SPREAD project (see above and Mont *et al*., 2014) informed one question that included photos (images were selected based on these four areas). Several questions were also asked using an indirect and neutral approach e.g. what do you think motivates a person like you to live sustainably? (Nederhof, 1985). The interviews were recorded and generally lasted between one and two hours with scope for diversions and probing of participants' answers. Finally, the research focused on gathering and exploring the narratives of individuals. As such, it likely reflects each participant's own sensemaking, including aspects they found socially desirable. Nevertheless, we have done our best to understand this sensemaking

(taking the steps above), and sought to not present a biased socially desirable view of sustainable living in our findings.

3.2 Data analysis

Participants' narratives were transcribed and then analyzed using an approach informed by the Gioia methodology (Gioia *et al*., 2013). Such approaches have been used extensively in the study of identity (Laari-Salmela *et al*., 2019) and sustainable behavior (Yang *et al*., 2020). As per the Gioia *et al*., (2013) methodology, the data was coded and organized into concepts, themes, and aggregate dimensions, with this providing the basis for the development of our new typology (see **Figure 1** for a summary of this process, and **Table 1** for an evidence-based illustration). The Gioia methodology (Gioia *et al.*, 2013) was selected because it allowed us to explore aspects of our data in relation to identity and motivation literature and theory. Gioia *et al.* (2013) specifically state that *"we are never completely uninformed about prior work"* and that *"after the initial stages of analysis, we also begin cycling between emergent data, themes, concepts, and dimensions and the relevant literature"* (p. 21). Like Gioia *et al*. (2013), we acknowledge that there are other ways to interpret or explore our data which may provide different insights. We also recognize the potential insights that a more grounded approach might have offered to our research, although ultimately, this was not selected. Nevertheless, and overall, our engagement with 4DT and Personal and Social Identity Theory (operationalized here through DMID) in our analysis was, in our view, consistent with the Gioia *et al*. (2013) methodology. Analysis of the data was supported by NVivo version 10.

More specifically, the typology was developed through a three-stage iterative and collaborative process (see **Figure 1** below):

(1) **Stage 1**: One member of the research team led the initial coding of raw data (transcripts from interviews), based on notions of identity and motivation. Identity expression was explored through analysis of answers to questions related to personal and social identity (including the four layers of the self – core, learned, lived, perceived – deployed in the DMID), as well as the results of the

'Twenty Statements Test', which helps analyzing aspects related to personal identity (linked to the study of the self-concept, Kuhn and McPartland, 1954, see **Appendix 1**), and participants' wider storytelling. For example, when answering the question 'who am I?', some participants made comments relating to the 'core' and 'learned' layers of the self which, which according to DMID, are aspects of an individual's personal identity. Statements like "I am nature", "I strongly support sustainable development", "I am an environmentalist", resulted in 1st order concepts such as 'Nature lover' or 'Caring for the environment'. When asked about sustainable behaviors followed, some participants made comments like "Everyone knows that we are sustainable/into organic food", "I recycle because my partner does", "It is important to me that people see we are sustainable". Some particularly mentioned behaviors occurring outside of home, such as buying in local markets and second hand shops, and volunteering in sustainable organizations. These statements, related to the 'lived' and 'perceived' layers of the self (which, according to DMID, form an individual's social identity), led to 1st order concepts such as 'Perceived sustainable identity' or 'Perceived sustainable behaviors'.

The motivations driving sustainable living were assessed through analysis of answers to motivation and photo elicitation questions (see **Appendix 1** for further detail). For instance, statements such as "Maybe my family [motivated me to start living sustainably] my childhood made me feel this link with the environment, the animals" were coded as 'Familial influence'. When participants made comments like "[What motivates me to live sustainably is] seeing the damage that is done to the environment […] [what motivates me is] caring and valuing my environment", those led to 1st order concepts such as 'Defend the planet'.

(2) **Stage 2**: The second stage first involved the analysis of emergent 2nd order themes, based on identity being expressed through sustainable living. This process entailed systematic review of coded data relating to identity expression for each individual, and led to the emergence of themes related to personal identity salience (based on concepts and statements related to the 'core' and

'learned' layers of the self), and social identity salience (based on concepts and statements related to the 'lived' and 'perceived' layers of the self). Similarly, themes emerged in relation to motivations, being codes refined drawing upon 4DT, with for instance 1st order concepts such as 'Defend the planet' linked to the drive to defend (please refer to *Section 4.2* for more information about findings related to motivations).

Having determined that identity expression and drive fulfilment could provide the basis for an initial grouping of individuals, participants were first separated into two groups, based on their identity expression. This was done by looking back at the concepts and themes developed previously, and by considering each participant independently, and assessing whether their personal and/or social identities were salient when expressing sustainable behaviors. In so doing, a first group was formed by individuals signaling both personal ("I am nature") and social ("Yes, people would see me as sustainable") identity salience when commenting about themselves and their lifestyles. The evidence suggesting personal and social identity was salient for the same individuals (even if relating to different range of behaviors), led the researcher to determine that individuals in this first group had congruence in identity expression. The second group consisted of individuals mostly signaling social identity salience in relation to sustainable living. In this case, participants referred to themselves as being perceived as sustainable individuals by others ("On the whole everybody knows that we are, my partner and I are into organic food ... quite sensitive in recycling and all the things"). But in contrast with the previous group, statements related to aspects of their personal identity being linked to sustainability were largely absent across their narratives. This lack of evidence of sustainability being manifested at the level of the participants' personal identity, led the researcher to determine incongruency in identity expression among members of this group.

A similar approach was followed according to motivations, resulting in an initial grouping of individuals based on drive fulfilment and expression. Through this analysis, variations in the fulfilment and expression of motivational drives through sustainable living were discerned across

individuals. Using an approach akin to constant comparison methods, considering previously developed concepts and themes, and proceeding numerically (i.e. Interviewee 1, Interviewee 4, Interviewee 6, etc.), drive fulfilment and expression was assessed on an individual by individual basis, comparing each new individual to previous ones and emergent groups. These groups solidified as more individuals were assessed.

It was found that a first group of individuals were mainly motivated to live sustainably by the drives to defend, their values and beliefs, the planet ("[Living sustainably] is living in a way which has the least amount of violence on natural resources"); and learn, and educate others ("That motivation of being informed about what is happening around you, to be committed with your environment and what is going on around it"). While a second group of individuals seemed to be motivated to live sustainably mainly by the drives to acquire, a status, a financial security ("I don't want to spend the money so… probably I'm sustainable more because I am tight") and bond, because of influence of partners, because they want to feel part of a community ("I feel more part of a [sustainable] community, that kind of means I am happier living like that"). As with the first stage of the data analysis process, the analysis of emergent themes and the development of these first groups (aggregate dimensions in **Figure 1**) was led by one member of the research team.

(3) **Stage 3**: Based on the initial grouping mentioned above, the typology of sustainable individuals started to be developed. The third stage was first one of validation. The distinctiveness and underlying logics of each group, including in relation to our guiding theoretical framework of Personal and Social Identity Theory (operationalized through DMID) and 4DT, as well as the basis for them in the data and rationale for placing individuals in certain groups, were then discussed amongst the wider research team. By looking again at the groups created in *Stage 2*, and evaluating which individuals were part of each of those groups, it became evident that the development of our typology would begin by differentiating between two main groups: (1) Participants signaling congruency in identity expression in relation to their sustainable living (personal and social identity

salient), and being motivated to follow this lifestyle mainly by the drives to defend and learn; and (2) Participants signaling incongruency in identity expression (with only social identity salient in relation to their sustainable behaviors), motivated to live sustainably mainly by the drives to acquire and bond.

A deeper exploration of individuals in each of these two groups (going back to raw data, concepts and themes previously developed) led to subsequent sub-grouping. Groups were then added and removed, labels ascribed and changed, and individuals moved in and out of groups as necessary. After multiple rounds of this process, our four-group typology of sustainable individuals was agreed between research team members as theoretically robust and an accurate reflection of the data. However, over the course of this assessment and validation process, it also became apparent that in addition to differences between groups in terms of identity expression, and drive fulfilment and expression, differences in terms of commitment and personal satisfaction with their sustainability efforts between individuals in different groups were evident. Thus the researchers begun 'cycling' again between data, codes, themes and the literature, as suggested by Gioia *et al*. (2013). A preliminary further round of coding was thus undertaken on this topic, going back to individual case analysis, with statements such as "We live on our boat in the canal […] neither of us has flown for about 20 years" being coded as 'Higher commitment' and comments like "I think sometimes I don't put so much pressure on myself to try and live like that [sustainably]. If I can't it is not the end of the world" being coded as 'Lower commitment'. As signaled with the examples provided in **Appendix 2**, individuals showing higher commitment, tend to engage in a wider range of sustainable behaviors, which seem to complement one another. For example, decisions made by participants such as leaving "a very well paid job" to go and "work on an organic farm" as it was "getting in the way of changes needed to live sustainably", complement other significant commitments such as those mentioned above (i.e. living in a boat, avoid flying).

Observing the wider range of behaviors higher committed individuals engage with, led to a multifaceted understanding of these behaviors. On the contrary, the research team was able to acknowledge that the narrower set of behaviors lower committed individuals often engaged with (see **Appendix 2** for examples), included the same behaviors repeated at different times. These behaviors were not necessarily complementing each other, and were mainly performed in isolation and influenced by either the social group, or the lack of resources to behave otherwise (i.e. lack of money).

Each individual's personal satisfaction with their own sustainable behavior was also analyzed. When participants made comments such as "[Benefits of living sustainably] are saving money, feeling good about yourself, being proud that you are being considered" being coded as 'More personal satisfaction', and statements like "Pff far from it [I do not consider myself a sustainable person] I've got a car! […] I am really not happy right now with that" being coded as 'Less personal satisfaction'. This process provided the basis for our initial insights related to commitment and personal satisfaction, while also suggesting a need for further study. As explained above, this new round of coding (during *Stage 3*), included going back to analysis at the individual level to explore how higher or lower commitment and more or less personal satisfaction in relation to their sustainable living, while also exploring how that may be related to other aspects of our analysis (e.g. drive and identity expression). This extra round of data analysis served to make the differences between the four groups even more salient, highlighting the importance of the iterative process in qualitative research (Spiggle, 1994).

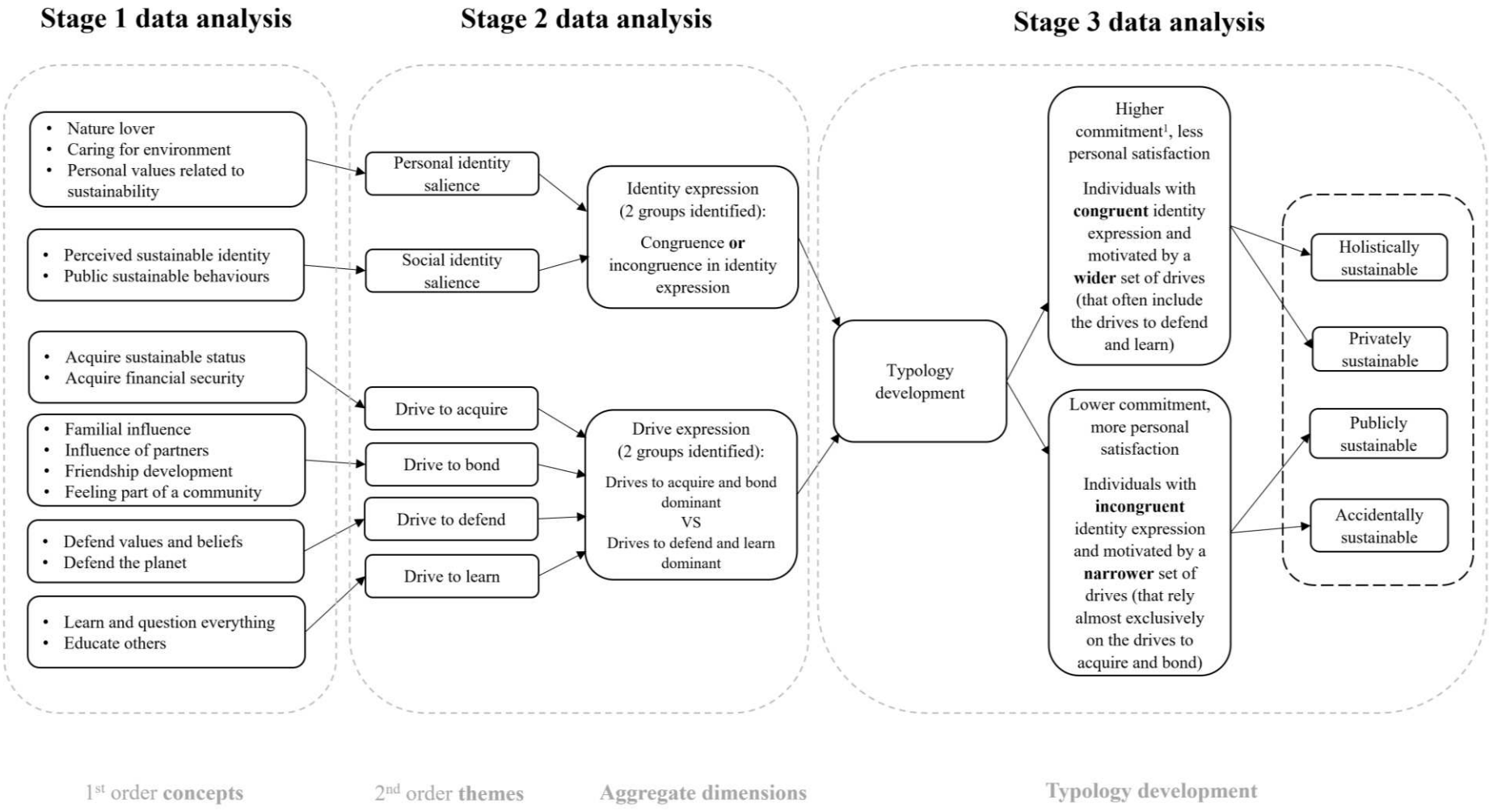


Figure 1: Approach to data analysis and typology development

[1]Please note that in this paper, we explored commitment in relation to the range, longevity, and depth of behaviors individuals engage with, in alignment with previous sustainable behavior work (Thomas *et al.,* 2009; Yu *et al.,* 2019).

4. Findings

4.1 Identity expression and sustainable living

Through analyzing the narratives of individuals who self-identify as living sustainably[1], we found that individuals may express their sustainable selves, and engage in sustainable behaviors, when their personal and/or social identities are salient or 'activated' (Stryker, 1968). The quotations below illustrate these identity expressions through sustainable living. In the first, an individual references sustainability (referring to terms such as environmentalism, permaculture, community, social justice) when describing her personal characteristics, values, and preferences in life – her personal identity/ core and learned selves (Hillenbrand and Money, 2015):

> *"[Answering the question 'who am I?'] "I'm a mother, a grandmother, a woman [laughs] ... should have said that first, an environmentalist, a peace campaigner, a permaculture teacher, a permaculture student [smiles], a vegetarian ... I am a community member and a social justice campaigner, a walker and ... another thing ... a thinker."* (Female, 59A)

In the second, an individual describes her sustainable living in terms of more public and group settings and actions, and how she is perceived by others – social identity/ lived and perceived selves (Hillenbrand and Money, 2015):

> *"On the whole everybody knows that we are, my partner and I are into organic food ... quite sensitive in recycling and all the things." [Interviewer: Do you care that people see you as a sustainable person?] "Oh yeah! Absolutely, yeah it is important, definitely."* (Female, 33)

Congruence or incongruence in identity expression through sustainable living had implications for individuals' commitment to such living (see **Table 1** for more evidence in this regard). Congruence here describes the extent sustainability is expressed consistently across an

[1] Hereafter largely just referred to as sustainable individuals.

individual's personal and social identities. We found that participants with personal identity salience relating to sustainability also signaled sustainability in their social identity (e.g. when referring to specific behaviors). This group was therefore described as having congruent identity expression, and as expressing their identities *congruently*. The expression of personal and social identities might happen in different scenarios/when undertaking different sustainable behaviors, or in relation to various identity roles (e.g. father, friend, member of the community, etc.), in which case either personal or social identities would be salient. However, both identities could also be salient at the same time for a person (e.g. when undertaking sustainability related activism to defend beliefs, and when collaborating with other sustainable individuals to feel part of something bigger). In the context of this study, commitment is understood as the range, longevity and depth of sustainable behaviors engaged with by individuals. As illustrated by the interviewees quoted below, these individuals demonstrated higher commitment to sustainability, for instance reducing plastic consumption (first quotation) and making lifestyle compromises like living on a boat and avoiding flying (second quotation):

> *"I feel I have quite a natural tendency to try to be a bit ... to have a low impact on the environment […] I was just debating with my wife about getting Christmas presents for the kids and.. whether we should buy them what they want, because they are made out of plastic […] one of my kind of core values is trying to be of service to other people."* (Male, 41)

> *"We live on our boat in the canal and ... we don't have a TV, but we listen to radio and catch up with news […] we try to cycle, bus, train, neither of us has flown for about 20 years, so ... you know. Sounds that we are compromised."* (Male, 56B)

Conversely, we found some individuals signaled sustainability in their social identity but not their personal identity. We describe this group as expressing their identity through sustainability *incongruently*. For such individuals, sustainable living manifested in their social identity, especially

them signaling they were doing the same things as others. It also enabled them to engage in behaviors associated with more tangible benefits (e.g. living sustainably to save money). Amongst such individuals, sustainability was not central to how they defined their character and so did not manifest in personal identity expression. This incongruence resulted in more inconsistent behavior patterns (i.e. short-term sustainable behavior and lower commitment to sustainability than more aligned groups), and is consistent with the ideas of Hillenbrand and Money (2015) and Young *et al.* (2010), who suggested that even self-declared sustainable individuals might not be fully motivated to behave sustainably.

This inconsistency is illustrated in the interview quotations below. In the first, a participant indicates that he behaves sustainably because others do (his partner, in particular), and suggests that saving money, rather than deep commitment to sustainability, is key to him following a sustainable lifestyle. In the second, a participant suggests his sustainable lifestyle is largely attributable to a lack of money, due to unemployment. Both examples highlight limited commitment to sustainable living (which it seems they could easily abandon if their situation was different):

> *"I recycle because [name of the partner] recycles to be honest … saving money motivates me, but also ends up making me more sustainable, I mean that is maybe the reason I don't want a car, I don't want to spend the money so… probably I'm sustainable more because I am tight."* (Male, 25)

> *"It is mainly because for long time I have had no money and no work … it has to be said if I get a reasonable amount of money, I'd probably spend it on things like education or maybe doing my house up."* (Male, 56A)

In summary, it was found that individuals may express both personal and social identities through sustainable living. Some individuals may express both identities in relation to sustainability, simultaneously, or in terms of different sustainable behaviors or identity roles. It was also found

that commitment to sustainable living varies, contingent on personal or social identity salience. Individuals with personal identity salience in relation to sustainability tended to express their identities congruently, and they demonstrated consistent and deep commitment to a wide range of sustainable living behaviors. On the other hand, those with only social identity salience in relation sustainability tended not to express their identities congruently, engaging with sustainable living more inconsistently, and more for reasons of tangible benefits and responding to others' behavior.

4.2 The drivers of sustainable living

Our research identifies a role for all four drives (Lawrence and Nohria, 2002) in motivating sustainable living.

Drive to acquire

It was found that the drive to acquire works in two main ways. First, individuals may engage in sustainable living if seeking to acquire the status of "green" or "sustainable" (Hailes, 2007), either for themselves (first quotation) or to be recognized as such in their communities, family, or social group (second quotation):

> *"I think that the average person would see me as a sustainable person because I probably do a little bit more than they do."* (Female, 23)

> *"I did see a friend that I hadn't seen for about 30 years and we were chatting we went for a walk in the park and having conversations and she said 'you've changed' she said 'there is something about you' and I thought 'what?' and she went 'mmm you are green', I was 'really? Well I suppose, more green than you' [laughs].*" (Female, 59B)

In our study, some interviewees asserted strongly their desire to 'be seen' as sustainable people, which for some might be the main motivation to behave sustainably (Griskevicius *et al.*, 2010).

The drive to acquire, secondly, manifested in a desire to achieve financial security or at least stability through sustainable living. This is illustrated in the first quotation below, which discusses circular use and reuse of items to achieve this, instead of throwing things away. In the second and third quotations, anti-establishment action (Black and Cherrier, 2010) in the form of avoiding consumption from large organizations (quotation 2), and anti-materialist and anti-consumption sentiments (quotation 3), are evident. Such sentiment and sensemaking was recurrent across individuals in our sample, who considered that such action and wider frugal living (Evans, 2011) – as particularly espoused in quotation three e.g. *"I don't buy stuff, always think very carefully before I buy something"* –, could provide the basis for 'acquiring' financial security and stability at individual and wider societal levels:

> *"Coming from a family where money was not a lot, I have always been taught to use and reuse and if I don't need something anymore we don't throw it out, we just pass it on to somebody who may need it."* (Female, 50)

> *"I don't work for or I don't consume anything that comes from big organizations, I always try to go to independent places."* (Male, 33)

> *"We've gone too far, in terms of ... making, consuming, having, and we could actually go back to something little less individual focused […] I don't buy stuff, always think very carefully before I buy something, I think very much 'do I need it?' […] it's just not to have more than you need."* (Female, 47)

Drive to bond

The drive to bond was found to work in three main ways. First, and as illustrated by the quotations below, individuals may be motivated to live sustainably by familial influences and bonds, including during upbringing (Grønhøj and Thøgersen, 2017):

"My parents ... they usually taught me to love nature, not to destroy nature, we used to go hiking in the mountains, and they taught me to appreciate what we have ... so I think that a lot comes from the environment where you grow in. I have always lived that way because of my parents." (Female, 50)

"My parents have influenced me, so their behavior motivates me, them telling me what is good and what is bad." (Female, 38)

Across our sample, interviewees discussed how from an early age they were educated and encouraged to live sustainably by parents, as highlighted by comments like those above: *"I have always lived that way because of my parents"* and *"My parents have influenced me"*. The second quotation above further alludes to the idea of maintaining parental approval and bonds, as an ongoing motivation for sustainable living.

Second, interviewees often identified a significant role for partners and bonds with them, which they sought to strengthen through sustainable living, for instance:

"My girlfriend definitely influenced me ... so she is a huge help and also introduced me for example to permaculture, so even more advanced forms of sustainability which I was not aware of before." (Male, 32)

"I think probably I am more like this [engaging in sustainable behavior] because of my partner [...] she used to be continually challenging me and I really liked that, she still does." (Female, 59B)

The quotations above illustrate how this bonding manifests, and the (mutual) role of partners in educating, encouraging, and continually challenging individuals to live more sustainably.

Third, the development of wider friendships and relationships through sustainable living was widely discussed, for instance:

> *"The people I'm going to meet tonight, they are all vegetarians you know, so they are in a way living a sustainable life … I would rather be around people that are eating in that way, rather than people who are eating in a non-sustainable way."* (Male, 46)

Research has highlighted the importance of friendships when behaving sustainably, especially among young people (Caniëls *et al.*, 2021). Participants in our study indicated that their engagement with sustainable living was both reinforced by friends living similarly, and simultaneously driven by a desire to deepen bonds with such friends. As also illustrated by the above quotation, some interviewees spoke of their difficulties developing meaningful relationships with people not following sustainable lifestyles.

Some interviewees further indicated that their sustainable living was driven by, and reflected, a bond they felt with their local community or a social group. Such a bond is described in the quotation below as being part of a community of 'like-minded people':

> *"[I like] being part of a community of people who are living sustainably […] meeting like-minded people and feeling you're part of that community."* (Male, 32)

It was often for this reason that participants were involved with the community organizations that provided the settings for this study.

Drive to defend

The drive to defend was found to work in two main ways. First, and as illustrated by the quotation below, individuals having particular values and beliefs about sustainability that they were motivated to defend, including through how they live:

"I like to be consistent with what I believe in, and every time I am not consistent I feel ... very bad things inside […] sustainability doesn't make sense if you don't have the will to fight against the system, it doesn't make sense, it is a contradiction […] this is the only way." (Female, 28)

Extant literature has identified that certain values may influence individuals to behave sustainably (see Thøgersen and Olander, 2002; Sharma and Jha, 2017). Our work supports and extends these insights, finding that sustainable living entails not only living consistently with certain beliefs and values, but in so doing feeling that you are defending them.

Second, individuals may be motivated to live sustainably to defend the planet and those living on it, as illustrated in the quotations below:

"[Living sustainably means to me] trying to be concerned [with] the effects of what you do, in the environment and in your society, not just in the environment, the natural environment, even in your city, or in your neighborhood." (Female, 33)

"The earth has been giving us signals for 10 or 20 years, the human life will not finish now, but it will finish as we know it […] that is what motivates me, environmental reasons… to try to break the cycle or the tendency we are facing now […] to decrease the carbon footprint, the environmental footprint." (Male, 33)

In the first quotation, the participant expresses their concern for and motivation to mitigate their personal impacts and the impacts of others on the environment and society. In the second, it is suggested that the earth has been signaling to us the damage we are doing, that there is a threat to human life as we know it, and that we (all) need to act to break the cycle of environmental destruction and protect the planet.

Drive to learn

Finally, the drive to learn was found to work in two main ways. First, by individuals being motivated to learn more about sustainable living to enhance their own and others' contributions to sustainability, as illustrated by the quotations below:

> *"To me, a sustainable person is that kind of person who always questions everything, in everything the person does ... if you don't question everything, what kind of impact are you having in your environment?"* (Female, 28)

> *"All comes from the information, as much informed as we are... the information is the main thing here, to look for sustainability and to find out how the actions you carry everyday can be more respectful with the environment and with us who are inside the environment. And that is part of everyday life."* (Female, 31)

In the first quotation, the participant emphasizes their need and the importance of 'questioning everything' for sustainable living. In the second, the participant discusses their drive to be informed, and how though possessing 'information' they enhance their sustainable living.

Secondly, individuals may be motivated to live sustainably to educate others, to inspire and set an example through living sustainably, which are common characteristics of sustainable leadership (Hargreaves and Fink, 2006). We see this very clearly in both quotations below, where participants talk about 'telling people' and 'setting an example':

> *"I hope that by my actions I can talk to people and can tell them that the consumer culture in which we live is not the only way to survive."* (Male, 57)

> *"I hope to set an example and so I'd to be seen that way [as a sustainable person] because of that."* (Female, 60)

Exploring the interplay between drives

Differences between individuals were found in the interplay between the four drives motivating sustainable living. Some individuals fulfilled multiple or even all four drives through sustainable living. For example, some of the most committed of those interviewed indicated how through sustainable living they fulfilled: the drive to defend by defending their values, beliefs, and the planet; the drive to bond through joining sustainable organizations, which were also a vehicle for them to fulfil the drive to learn; and they fulfilled the drive to acquire by gaining status within these organizations, as well as achieving tangible outcomes. The interview quotation below illustrates one individual's fulfilment of multiple drives through sustainable living, in particular the drives to defend (through "fighting" for what he believes in), the drive to bond (through joining sustainable organizations and campaigns), and the drive to learn (through "feeding" his mind):

> *"I thought 'What am I doing?' I have the signs, I have this brain, and what am I doing with it? So then I took a direction change and did a lot of spur-of-the-moment things, like trying to raise loads of money for the local Oxfam shop, got involved in some Greenpeace campaigns and we got a bit angry as well, a lot of anger came out ... but also a lot of realization that if I wanted to I could feed my mind with some truths about the world I was living in, society I'm living in."* (Male, 56B)

In contrast, for some individuals' sustainable living seems largely motivated by the fulfilment of just one or two drives. The interview quotation below illustrates this, where the participant explains that by living sustainably he is able to save money, achieving financial security (drive to acquire), and suggests he is mainly sustainable "by default" and more "by accident than desire":

> *"I think at the moment for some years I have a minimal carbon footprint but … it is not because I'm a novel person … it would be really difficult to mistake me for anything else. [When asked if*

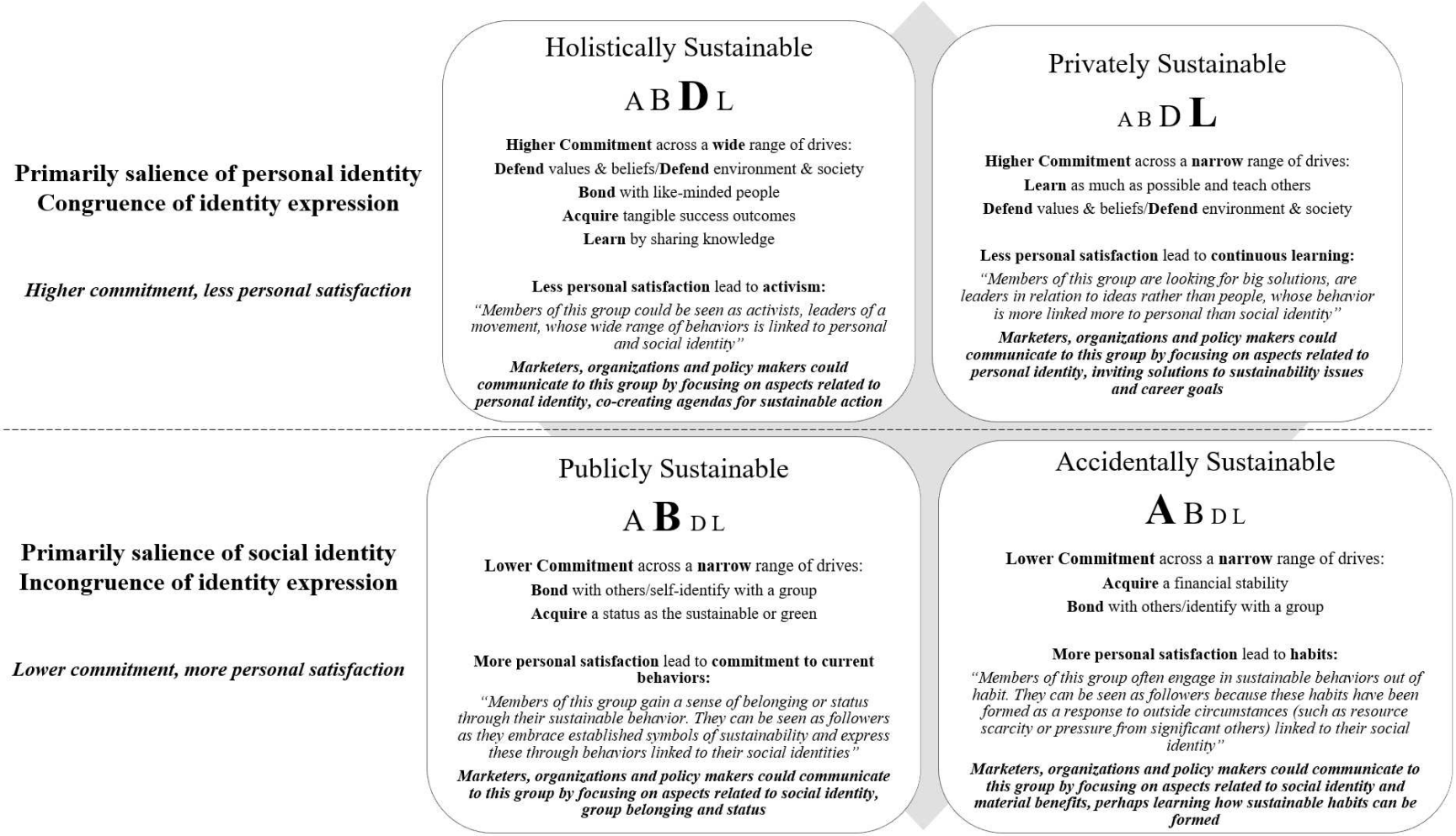
he thinks he is seen as sustainable] As I said it has happened more by accident than desire. If I had a good job with a good salary ... I suspect things would be a bit different, I'm afraid to say ... I'm sustainable mainly by default, not entirely obviously, but I am mainly sustainable by default." (Male, 56A)

This section has shown how sustainable living may be motivated by fulfilment of the four drives. It has also shown how these drives may work in conjunction, that their interaction is significant, and why balance between drives is important in sustainable living. Next, earlier discussions around identity expression are combined with our understanding of how motivations and the four drives operate in sustainable living, to develop our new typology of sustainable individuals.

4.3 Identity and motivations in sustainable living: A new typology of sustainable individuals

Individuals are differently motivated to live sustainably, and variably express their identities through sustainable living. Some individuals express their identities in relation to sustainability congruently and with personal identity salient. Others express their identities relating to sustainability incongruently with social identity salient. Following the stages outlined in the methodology (*Section 3.2* and **Figure 1**), and based on the above analysis of data on identity expression and motivational drives, and grouping of individuals according to these dimensions, a novel typology of sustainable individuals was developed. This will now be introduced. For an extended example of the data structure, from raw data to the development of the typology, please see **Appendix 2**.

Four distinct groups of sustainable individuals are identified: (1) the **holistically sustainable**; (2) the **privately sustainable**; (3) the **publicly sustainable**; and (4) the **accidentally sustainable**. Please see **Figure 2** below for a summary of each of these groups. This new typology offers an alternate way of categorizing sustainable individuals from the perspective of their own identity expression, motivations, and behaviors. Please see **Table 1** for an evidence-based illustration of this new typology.



Note: A = drive to acquire; B = drive to bond; D = drive to defend; L = drive to learn

Figure 2. A new typology of sustainable individuals based on identity expression and motivational drives

[Table 1 about here]

The first group are labeled the **holistically sustainable**. They express their identity in relation to sustainability in largely congruent ways. Sustainability is integral to their personal and social identities, and these individuals' narratives indicated higher commitment to sustainability. Individuals in this group seem to activate all four drives through their sustainable living. They defend their values and beliefs through living sustainably (drive to defend), and value learning and educating others about sustainability (drive to learn). They also often become members of sustainable communities interacting with people to take action as a group (drive to bond), this in turn can achieve tangible outcomes that they deem successful (drive to acquire).

Whilst the holistically sustainable fulfil all four drives, two drives seem most prominent: The drive to defend (the dominant drive affecting this group's behavior), and the drive to bond. Many activists were found in this group, who simultaneously sought to defend the planet through sustainable behaviors. This finding supports those of Schmitt *et al.* (2019), who suggested that those involved in activism have a strong connection with nature, often at the identity level. Individuals in this group also value connecting with others and encouraging them to behave sustainably. Interestingly, individuals in this group often expressed less personal satisfaction, understood in this context as the satisfaction they experience in relation to their own sustainable behavior, and how they make sense of it. Those in this group consider that they could always do more, which can drive them towards greater activism and sustainability commitment, as illustrated below:

> *"I want a proactive life, and I love this [pointing a picture showing a protest], this is somebody using their brain to try and get across a point ... this is using creativity and not being afraid to stand up and make it happen. And I have done all these things, so I have confronted people and been prepared to be arrested."* (Male, 56B)

The second group are labelled the **privately sustainable**. These individuals are knowledgeable about challenges of sustainability like climate change, and seek solutions to them,

but unlike the holistically sustainable do not pursue group acceptance or identification through sustainable living. They often try to advance sustainability in an independent manner. Individuals in this group express their personal identities through sustainable living, with sustainable behaviors often occurring in private settings (they do not tend to join sustainable organizations). Their careers often relate to sustainability (e.g. environmental scientists) which frequently bring opportunities for social identity expression through sustainability (i.e. working with and educating others about sustainability). They are highly committed to sustainability but, not unlike the previous group, often derive less personal satisfaction with their efforts (again thinking they could do more, and learn more). The drive to learn was strongly evident in the narratives of individuals in this group. Fulfilment of this drive was the dominant motivator for their sustainable living. The drive to learn often led them to question the provenance of what they consumed, including where it was produced, by whom, in what conditions, and what the impacts of production are (e.g. carbon footprint). How the drive to learn frames their approach to sustainable living is illustrated by the following interview quotation, in which the participant highlights the importance of information when making decisions, and understanding the impact of your choices:

> *"In everything that you do in your life, you think about what the impact of that is, what the environmental and what the social impact of those activities is, and that's from ... you know that's from you eating, that's from you living in a house, but that's also from you making certain choices and how they affect other people in your neighborhood, in the UK, in your country, but also maybe on the other side of the world. So really thinking about what is the impact of that and ... is that impact ok? Is that a positive or a negative impact? Especially if it's a negative impact, then can it be ... is it being managed? Can you avoid it? How can you minimize it?"* (Female, 25)

Fulfilling the drive to learn is central to sustainable living for the privately sustainable. However, as is evident in the above quotation, the drive to defend is also prominent. This aligns

with Lawrence and Nohria's (2002) observation that the drives to learn and defend frequently work in combination.

The third group are labeled the **publicly sustainable**. Individuals in this group primarily express their social identities through sustainable living, and emphasize their sustainable behaviors in public settings. Individuals in this group are especially motivated to engage in sustainable living by the drive to bond and the drive to acquire. These work in conjunction, with the former more prominent. The publicly sustainable often engage in sustainable living driven by a desire to bond with, and gain acceptance and status amongst sustainability-oriented social groups and organizations (Griskevicius *et al.*, 2010; Koller *et al.*, 2011).

Lower commitment to sustainable living, but greater personal satisfaction, were found amongst the publicly sustainable compared to individuals in the previous groups. Unpacking this, we posit that for this group personal satisfaction derives from the feedback individuals receive in social settings. If someone gains recognition for a behavior (e.g. being sustainable) it is unsurprising that they are positively impacted by it, leading to the feeling that positive outcomes have been achieved (see illustrative example in **Table 1**). Interestingly, commitment to sustainability amongst this group seemed lower than the previous groups, with individuals signaling that they will engage in behaviors perceived to be unsustainable in some circumstances. Individuals in this group are not overly self-critical in the standards they set and whether these are met. This is illustrated in the following interview quotation where an individual downplays the importance of not being able to do something sustainably, as "it is not the end of the world" if she is not able to do it:

> *"If it is cold, I'd get in the car, I'd drive somewhere rather than cycle, even though I know it is better for the environment […] I think sometimes I don't put so much pressure on myself to try and live like that [sustainably]. If I can't, it is not the end of the world."* (Female, 36)

The final group are the **accidentally sustainable.** This group comprises individuals who live sustainably because of circumstances (e.g. they are experiencing financial difficulties). Like the publicly sustainable, they primarily express their social identities through sustainable living but are particularly motivated by the drive to acquire, which manifests in acquiring financial security. Individuals in this group exhibit the lowest commitment to sustainable living, as they signal they are sustainable by accident or "by default". This aligns with the thoughts of Koller *et al.* (2011), who suggested that those less committed are motivated to behave sustainably by the idea of saving money. Individuals in this group also often indicated that they were unsure how their sustainable lifestyles would fare if more resources became available to them (e.g. if they had more money). Sustainability does not seem part of the core personal identity of individuals in this group, but rather something they do temporarily or out of habit. This group also seem less committed, but express more personal satisfaction with their sustainable behaviors (see quotation below and illustrative example in **Table 1**). The key to gaining the commitment of this group is through their circumstances, and demonstrating the tangible benefits of living sustainably (saving money), as well as the influence of significant others, and encouraging habit development:

> *"I think [most people] are less sustainable than me ... but only because erm ... I'm lucky that I don't need to drive, and don't need to buy a lot of things, but I don't think like ... Yeah, probably less sustainable than me but more ... they'd work harder, you know what I mean? like they have to drive, so they do drive, but they would spend a lot of time researching exactly what plastics to put in the recycling, I don't really put this much effort, I just do circumstances, but when you look at the numbers I'm probably more sustainable ... so yes in terms of numbers, but not in terms of effort."* (Male, 25)

Drawing upon the evidence illustrated in **Table 1** and **Appendix 2**, and the findings above, we can summarize as follows. Our findings suggest that the holistically and privately sustainable

often express their personal and social identities congruently through sustainable living. Individuals in both groups exhibit high commitment to sustainability, and engage in behaviors with a focus on long-term sustainability, but express less personal satisfaction with their own sustainable behaviors, feeling they could do more. The difference between them is that the holistically sustainable are more socially and externally focused, and their sustainable living is motivated particularly by the drive to defend, whilst the privately sustainable are more independent in their sustainable living and principally seek to fulfil the drive to learn.

In contrast, the publicly and accidentally sustainable express their personal and social identities in relation to sustainability more incongruently. They engage in sustainable behaviors to express their social identity but do so much less when expressing their personal identity. The sustainable behaviors of individuals in these groups tend to be short-term and indicate lower commitment to sustainability than the holistically and privately sustainable groups, yet they seem to derive more personal satisfaction from their actions. Our results suggest that this lower commitment has the potential to evolve into deeper sustainable living behavior, but alternatively may lead to an eventual abandonment of this lifestyle. The difference between these two groups is that whilst the publicly sustainable seek to satisfy the drive to bond through their sustainable living, for the accidentally sustainable their behavior is mainly motivated by the fulfilment of the drive to acquire.

5. Discussion

5.1 Theoretical implications

This research explores the narratives of sustainable individuals, finding that they may engage in different sustainable behaviors and be variably committed to sustainable living, depending on personal and social identity expression, and motivational drives. This understanding informed the development of our novel typology of sustainable individuals. These findings will now be discussed in light of extant literature.

This paper's findings align with, and extend, marketing scholarship on the influence of personal and social identity salience on individuals' sustainable behaviors. We find that both personal and social identity aspects can impact sustainable living behavior. We find that most individuals have a primary salience of either personal or social identity across a range of sustainable behaviors expressed in their narratives. What is interesting is that this salience can help explain the overall pattern of behaviors people engage in, and why some people may engage in sustainable behaviors differently in different aspects of their lives. Individuals with social identity salience (such as the publicly and accidentally sustainable), for example, often engage in sustainable behaviors when they are influenced or observed by others. Individuals with personal identity salience (such as the holistically and privately sustainable), on the other hand, often engage in a wider range of sustainable behaviors. Importantly, we find that some individuals (particularly the holistically sustainable), express personal identity with regards to most of their sustainable behaviors (e.g. recycling at home), but also express social identity through a number of other sustainable behaviors (e.g. joining sustainable organizations). Furthermore, we find that some patterns of behavior (e.g. activism) may rely on a complementary range of behaviors, some of which may be underpinned by personal identity salience (e.g. researching about sustainability solutions) and some of which may be based on social identity salience (e.g. campaigning and encouraging others to be more sustainable). We thus provide evidence that the same individual may express both personal and social identity in relation to sustainability in different behaviors and different aspects of their lives.

This study's in-depth examination of the role personal identity plays in sustainable living is especially important, as we found that personal identity salience is associated with a broader set of motivators and higher commitment to sustainable living. We explored commitment in relation to the range, longevity, and depth of behaviors individuals engage with, in alignment with previous sustainable behavior work (Thomas *et al.,* 2009; Yu *et al.,* 2019). This research extends the findings of theorists such as Bartels and Hoogendam (2011) and Costa Pinto *et al*. (2016), who suggest that

personal identity salience is associated with higher commitment to sustainable consumption. Overall, it is found that personal and social identity salience influence when and how individuals engage in sustainable behaviors.

This study also sheds light on congruence and incongruence in identity expression in sustainable living. It was found that personal identity salience, and congruent identity expression in relation to sustainability, result in more consistent and committed sustainable living behaviors, with individuals engaging in a wide range of sustainable practices. However, this does not always translate into more personal satisfaction with one's sustainable behaviors. In fact, our findings suggest that less personal satisfaction with one's own sustainable behavior may be a driving force behind long-term commitment to sustainable living. In contrast, social identity salience and incongruent identity expression lead to inconsistent and less-committed patterns of sustainable behavior, with individuals engaging in a narrower set of behaviors which are often short-term. At the same time, this was often found to result in individuals deriving more personal satisfaction from their sustainable behaviors. In these circumstances, this personal satisfaction may even inhibit deeper long-term commitment, as individuals may feel positive in meeting social norms as opposed to evolving those norms towards greater sustainable outcomes.

The above findings challenge the arguments of Tracy and Robins (2004) and Hillenbrand and Money (2015) amongst others, who highlight the positive emotional outcomes associated with congruent identity expression. They similarly contrast with work by authors like Harris and Reynolds (2003), who note that psychological tensions such as emotional labor (Hochschild, 1983) and stress (Higgins, 1989) arise when there is incongruence of identity expression. The results of this study rather suggest that it is congruence of identity expression that requires and generates emotional labor. Perhaps the difference in this research is that prevailing norms in society do not align with the beliefs of the holistically and privately sustainable, and thus they expend effort to protect the environment, influence society, or to live differently from the norm, which in turn creates

emotional labor. This argument finds support in other fields of psychology, where committed groups can experience less positive feelings (Ashby *et al*., 2012; Ford *et al*., 2015).

The novel typology we introduce (comprising the holistically sustainable, privately sustainable, publicly sustainable, and accidentally sustainable), constitutes a key contribution of our work and complements existing typologies looking at patterns of behavior and sensemaking in relation to sustainable practices (see Lavelle *et al*., 2015; Balderjahn *et al*., 2018). It further contributes to theory building in the fields of marketing and sustainable behavior, through fostering a better understanding of individual's sustainable living practices. Importantly, this paper finds that identity salience in combination with motivations can lead to very different patterns of sustainable behavior, and commitment towards sustainable living. This is an important theoretical insight and advances research beyond existing studies examining differences between individuals who may or may not be living sustainably, or which categorize sustainable individuals according to demographic factors (see McDonagh and Prothero, 2014).

The typology presented in this paper does not claim to be definitive. There may be further groups of sustainable individuals who differently express their identities through sustainable living and/or are differently motivated to live sustainably by the four drives. Nevertheless, this research and the typology introduced provide a starting point for developing a better understanding of how motivations and identity manifest in sustainable living. The findings of this research further suggest that both personal and social identity aspects should be considered by marketing and sustainable behavior scholars if they are to better understand individual behaviors, for instance in relation to concerns of environment and society.

5.2 Practical implications

The findings of this research have practical real world implications for those seeking to better understand and change social norms around sustainable behaviors (see Harries *et al*., 2013; Norton *et al*., 2014). Importantly, our findings reveal the influence of personal and social identity salience

on how and why individuals variably engage with sustainable behaviors in different aspects of their lives (Carrington *et al*., 2020). Based on these findings and our novel typology, we suggest that the holistically and privately sustainable (who tend to have personal identity salience in relation to their sustainable behaviors) might usefully be considered as leaders of social or environmental change, because they seek solutions, set standards, and lobby for change. Individuals in these groups were often activists, setting ever more demanding standards as well as working to find solutions to social and environmental problems affecting them, their communities, and the planet (Chatzidakis and Shaw, 2018). Conversely, our research suggests that the publicly and accidentally sustainable (who tend to have social identity salience in relation to their sustainable behaviors) could usefully be considered as followers in relation to sustainability. Overall, this suggests that social identity processes, whilst still important in sustainability, seem more associated with followers than leaders of change. Groups such as the publicly or accidentally sustainable, with social identity salient in relation to sustainability, seem to respond positively to the social rewards of meeting sustainable standards set by others i.e. the holistically and privately sustainable. Although we would caution that while sustainable behaviors achieved through social identity rewards are important, there is a risk such behaviors will stagnate unless new standards are set and continually improved upon.

These findings provide marketers, organizations, and policy makers with useful insights to help them identify and leverage 'leader' and 'follower' groups in relation to sustainable behaviors. They may also find value in working with these groups in different ways (see **Table 2** for more detail). Practitioners might even create platforms where such groups could influence each other towards positive change.

[Table 2 about here]

This study of sustainable living at the individual level, provides insights that could be put into practice when rolling out behavior change programs and when seeking higher commitment to sustainable living amongst society, targeting groups in different ways. For example, by emphasizing

the financial benefits of sustainability to the accidentally sustainable, or emphasizing the social status-related benefits of sustainability to the publicly sustainable. Additionally, the holistically sustainable and privately sustainable could be invited to take on leadership roles. The former might be invited to signal what they want to defend and how they would like to engage others in action. The latter may be usefully invited to contribute ideas and possible solutions to complex problems through processes like crowd ideation.

The results of this study may also provide insights for those attempting to communicate and engage with individuals to encourage sustainable living and sustainable behaviors, when for instance segmenting target audiences for a campaign. An example of this might be an organization promoting behaviors to reduce carbon emissions (i.e. reducing or even ceasing aviation use), or an organization encouraging zero plastic use (i.e. using refill options, buying loose vegetables), both practices which involve higher commitment and public presence. Such organizations might direct their communications towards the holistically sustainable, who are often activists. Conversely, an organization working to encourage sustainable activities that require lower commitment, and which can be done in private (e.g. saving energy at home, recycling) might be able to target and reach the accidentally sustainable, who are sustainable by default but often looking for opportunities to save money (see **Table 2** for further illustrations).

5.3 Limitations and future research

A limitation of this study is that it is based in one country (the UK) and one geographic area. While we believed that the findings provide generalizable insights into how variations in motivations and identity expression lead to differences in commitment to sustainability, this is likely to be to some degree context specific. The research also draws upon a somewhat limited sample.

Future research could employ both qualitative and quantitative methods to explore identity and motivation in sustainable living. Qualitative researchers may wish to take a more grounded approach to explore broader expressions of identity and motivation. Quantitative researchers may,

conversely, find value in testing aspects of the typology and/or identifying sub-groups within the typology. The context limitation previously mentioned also provides significant potential for further research. Influences on sustainable lifestyles might differ between countries and in different cultural settings, so exploring how this works in different regions of the world could be worthwhile. Cultural factors and how they inform the adoption of behaviors could further be included in future studies, especially in relation to identity aspects (Carrington *et al*., 2020). Our framework might therefore be applied and assessed in additional contexts, in emerging or developing economies, and on more specific aspects of pro or even anti-sustainable behavior, and using different groups of individuals. Addressing the sample limitation of our work, future studies might examine additional and more diverse individuals e.g. from further ethnicities and/or class groups, and even bring in individuals not following sustainable lifestyles, to understand how less environmentally damaging behavior may be encouraged amongst this group. From such research there is scope for more groups of sustainable and unsustainable individuals to be identified.

A further direction for future research could be to explore the interplay between an individual's knowledge and understanding of sustainability and how the drive to learn (Lawrence and Nohria, 2002) manifests in relation to sustainability, especially since sustainability is complex and difficult to understand (Chatzidakis and Shaw, 2018). Sustainability's complexity may also mean that it is difficult to leverage the drive to learn for sustainable action, and that the embedded curiosity in people's mind may not be activated, with this a further potential area for future study. Finally, our work could be of value to wider marketing scholars and provide new directions for marketing research, in that it suggests that identity, motivation, and their intersection may be very important factors to consider when seeking to understand and influence human behaviors.

6. Conclusions

This study sheds light on the roles of identity and motivations in sustainable living. It shows how identity and motivational aspects influence the overall patterns of sustainable behavior people

engage in, their levels of commitment to sustainable living, as well as the extent individuals derive personal satisfaction from their sustainable behaviors. Our findings suggest that to fully understand sustainable living, it is critical to consider both personal and social identity factors. Furthermore, our work has broader implications for marketing scholars and those aiming to encourage the adoption of sustainable behaviors, who could draw on our typology as a starting point when designing campaigns or interventions. Finally, our paper teases out the benefits for scholars and wider actors of drawing upon a broader range of psychological theories to understand human behavior (see Foscht *et al*., 2018; Valor *et al*., 2018; Joshi and Rahman, 2019) and provides an approach that could be applied in other marketing contexts.

REFERENCES

Abraham, C., Boudreau, M.C., Junglas, I. and Watson, R. (2013). Enriching our theoretical repertoire: The role of evolutionary psychology in technology acceptance. *European Journal of Information Systems,* **22**(1), pp. 56-75.

Adam, I., Agyeiwaah, E. and Dayour, F. (2021). Understanding the social identity, motivations, and sustainable behaviour among backpackers: a clustering approach. *Journal of Travel & Tourism Marketing*, **38**(2), pp. 139-154.

Ashby, J.S., Noble, C.L. and Gnilka, P.B. (2012). Multidimensional perfectionism, depression, and satisfaction with life: Differences among perfectionists and tests of a stress-mediation model. *Journal of College Counseling,* **15**(2), pp. 130-143.

Balderjahn, I., Peyer, M., Seegebarth, B., Wiedmann, K.P. and Weber, A. (2018). The many faces of sustainability-conscious consumers: A category-independent typology. *Journal of Business Research*, **91**, pp. 83-93.

Bartels, J. and Hoogendam, K. (2011). The role of social identity and attitudes toward sustainability brands in buying behaviors for organic products. *Journal of Brand Management,* **18**(9), pp. 97–708.

Bartels, J. and Onwezen, M.C. (2014). Consumers' willingness to buy products with environmental and ethical claims: The roles of social representations and social identity. *International Journal of Consumer Studies,* **38**(1), pp. 82–89.

Bartels, J. and Reinders, M.J. (2016). Consuming apart, together: The role of multiple identities in sustainable behavior. *International Journal of Consumer Studies,* **40**, pp. 444–452.

Baumeister, R.F. and Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin,* **117**(3), pp. 497–529.

Baxter, D. and Pelletier, L.G. (2020). The roles of motivation and goals on sustainable behaviour in a resource dilemma: A self-determination theory perspective. *Journal of Environmental Psychology*, **69**, 101437.

Bedford, T., Jones, P. and Walker, H. (2004). *Every little bit helps: Overcoming the challenges to researching, promoting and implementing sustainable lifestyles*. London: Centre of Sustainable Development, University of Westminster.

Black, I.R. and Cherrier, H. (2010). Anti-consumption as part of living a sustainable lifestyle: daily practices, contextual motivations and subjective values. *Journal of Consumer Behavior,* **9**(6), pp. 437-453.

Caniëls, M.C., Lambrechts, W., Platje, J.J., Motylska-Kuźma, A. and Fortuński, B. (2021). Impressing my friends: The role of social value in green purchasing attitude for youthful consumers. *Journal of Cleaner Production*, **303**, p.126993.

Carmeli, A., Brammer, S., Gomes, E. and Tarba, S.Y. (2017). An organizational ethic of care and employee involvement in sustainability related behaviors: A social identity perspective. *Journal of Organizational Behavior,* **38**(9), pp. 1380-1395.

Carrigan, M., Moraes, C. and Leek, S. (2011). Fostering responsible communities: A community social marketing approach to sustainable living. *Journal of Business Ethics,* **100**(3), pp. 515-534.

Carrington, M., Chatzidakis, A., Goworek, H. and Shaw, D. (2020). Consumption Ethics: A Review and Analysis of Future Directions for Interdisciplinary Research. *Journal of Business Ethics*, **168**(2), pp. 215-238.

Carrington, M.J., Neville, B.A. and Whitwell, G.J. (2014). Lost in translation: Exploring the ethical consumer intention–behavior gap. *Journal of Business Research*, **67**(1), pp. 2759-2767.

CCC (2019). Net Zero – The UK's contribution to stopping global warming. *Committee on Climate Change* [online]. Available at: https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/ [Accessed Jan. 18, 2020].

Chatzidakis, A. and Shaw, D. (2018). Sustainability: issues of scale, care and consumption. *British Journal of Management*, **29**(2), pp. 299-315.

Chen, Y., Ghosh, M., Liu, Y. and Zhao, L. (2019). Media Coverage of Climate Change and Sustainable Product Consumption: Evidence from the Hybrid Vehicle Market. *Journal of Marketing Research,* **56**(6), pp. 995-1011.

Cherrier, H., Black, I. and Lee, M. (2011). Intentional non-consumption for sustainability: Consumer resistance and/or anti-consumption?. *European Journal of Marketing,* **45**(11/12), pp. 1757-1767.

Chi, M., George, J.F., Huang, R. and Wang, P. (2020). Unraveling sustainable behaviors in the sharing economy: An empirical study of bicycle-sharing in China. *Journal of Cleaner Production*, **260**, pp.1-12.

Connolly, J. and Prothero, A. (2008). Green consumption life-politics, risk and contradictions. *Journal of Consumer Culture,* **8**(1), pp. 117–145.

Costa Pinto, D., Herter, M.M., Rossi, P., Nique, W.M. and Borges, A. (2019). Recycling cooperation and buying status: Effects of pure and competitive altruism on sustainable behaviors. *European Journal of Marketing*, **53**(5), pp. 944-971.

Costa Pinto, D., Nique, W.M., Maurer Herter, M. and Borges, A. (2016). Green consumers and their identities: How identities change the motivation for green consumption. *International Journal of Consumer Studies,* **40**(6), pp. 742–753.

Deci, E.L. and Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.

DEFRA (2010). *Motivations for pro-environmental behavior*. London: Department for Environment, Food and Rural Affairs.

Edbring, E.G., Lehner, M. and Mont, O. (2016). Exploring consumer attitudes to alternative models of consumption: Motivations and barriers. *Journal of Cleaner Production*, **123**, pp. 5–15.

Evans, D. (2011). Thrifty, green or frugal: Reflections on sustainable consumption in a changing economic climate. *Geoforum*, **42**(5), pp. 550-557.

Ford, B.Q., Dmitrieva, J.O., Heller, D., Chentsova-Dutton, Y., Grossmann, I., Tamir, M. and Bokhan, T. (2015). Culture shapes whether the pursuit of happiness predicts higher or lower well-being. *Journal of Experimental Psychology: General,* **144**(6), pp. 1053-1062.

Foscht, T., Lin, Y. and Eisingerich, A. (2018). Blinds up or down? The influence of transparency, future orientation, and CSR on sustainable and responsible behavior. *European Journal of Marketing*, **52**(3/4), pp. 476-498.

Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2013). Seeking qualitative rigor in inductive research notes on the Gioia methodology. *Organizational Research Methods*, **16**(1), pp. 15–31.

Griskevicius, V., Tybur, J.M. and Van den Bergh, B. (2010). Going green to be seen: status, reputation, and conspicuous conservation. *Journal of Personality and Social Psychology*, **98**(3), pp. 392-404.

Grønhøj, A. and Thøgersen, J. (2017). Why young people do things for the environment: The role of parenting for adolescents' motivation to engage in pro-environmental behaviour. *Journal of Environmental Psychology*, **54**, pp. 11-19,

Hailes, J. (2007). *The New Green Consumer Guide*. London, England: Simon and Schuster.

Hamari, J., Sjöklint, M. and Ukkonen, A. (2016). The sharing economy: Why people participate in collaborative consumption. *Journal of the Association for Information Science and Technology*, **67**(9), pp. 2047–2059.

Hargreaves, A. and Fink, D. (2006). *Sustainable leadership*. San Francisco, CA: John Wiley & Sons.

Harries, T., Rettie, R., Studley, M., Burchell, K. and Chambers, S. (2013). Is social norms marketing effective?: A case study in domestic electricity consumption. *European Journal of Marketing*, **47**(9), pp. 1458-1475.

Harris, L.C. and Reynolds, K.L. (2003). The consequences of dysfunctional customer behavior. *Journal of Service Research*, **6**(2), pp. 144-161.

Hartmann, P., Apaolaza, V. and D'Souza, C. (2018). The role of psychological empowerment in climate-protective consumer behaviour: An extension of the value-belief-norm framework. *European Journal of Marketing,* **52**(1/2), pp. 392-417.

Higgins, E.T. (1989). Self-discrepancy theory: What patterns of self-beliefs cause people to suffer? *Advances in Experimental Social Psychology,* **22**, pp. 93–136.

Hillenbrand, C. and Money, K.G. (2015). Unpacking the mechanism by which psychological ownership manifests at the level of the individual: A dynamic model of identity and self. *Journal of Marketing Theory and Practice,* **23**(2), pp. 148–165.

Hochschild, A.R. (1983). *The managed heart: Commercialization of human feeling*. Berkeley, California: University of California Press.

Hogg, M.A. and Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. London, England: Routledge.

Hutter, K., Hoffmann, S. and Mai, R. (2015). Carrotmob: A Win–Win–Win Approach to Creating Benefits for Consumers, Business, and Society at Large. *Business & Society,* **55**(7), pp. 1059–1077.

Joshi, Y. and Rahman, Z. (2019). Consumers' Sustainable Purchase Behaviour: Modeling the Impact of Psychological Factors. *Ecological Economics,* **159**, pp. 235-243.

Kabadayi, S., Alkire, L., Broad, G.M., Livne-Tarandach, R., Wasieleski, D. and Puente, A.M. (2019). Humanistic Management of Social Innovation in Service (SIS): an Interdisciplinary Framework. *Humanist Management Journal*, **4**(2), pp. 159-185.

Kärnä, J., Hansen, E. and Juslin, H. (2003). Social responsibility in environmental marketing planning. *European Journal of Marketing*, **37**(5/6), pp. 848-871.

Kim, M.J., Hall, C.M. and Kim, D.K. (2019). Predicting environmentally friendly eating out behavior by value-attitude-behavior theory: does being vegetarian reduce food waste?. *Journal of Sustainable Tourism*, **28**(6), pp. 797-815.

Klein, S.B. and Nichols, S. (2012). Memory and the sense of personal identity. *Mind*, **121**(483), pp. 677-702.

Koller, M., Floh, A. and Zauner, A. (2011). Further insights into perceived value and consumer loyalty: A "green" perspective. *Psychology & Marketing*, **28**(12), pp.1154-1176.

Kuhn, M.H. and McPartland, T.S. (1954). An empirical investigation of self-attitudes. *American Sociological Review*, **19**(1), pp. 68–76.

Laari-Salmela, S., Mainela, T. and Puhakka, V. (2019). Resolving the start-up identity crisis: Strategizing in a network context. *Industrial Marketing Management*, **80**, pp. 201-213.

Larson, R.B. (2019). Controlling social desirability bias. *International Journal of Market Research*, **61**(5), pp. 534-547.

Lavelle, M.J., Rau, H. and Fahy, F. (2015). Different shades of green? Unpacking habitual and occasional pro-environmental behavior. *Global Environmental Change*, **35***,* pp. 368-378.

Lawrence, K., Cooper, V. and Kissoon, P. (2020). Sustaining voluntary recycling programmes in a country transitioning to an integrated solid waste management system. *Journal of Environmental Management*, **257**, 109966.

Lawrence, P.R., and Nohria, N. (2002). *Driven: how human nature shapes our choices*. San Francisco, California: Jossey-Bass.

Lawrence, P.R. and Pirson, M. (2015). Economistic and humanistic narratives of leadership in the age of globality: Toward a renewed Darwinian theory of leadership. *Journal of Business Ethics*, **128**(2), pp. 383–394.

Legere, A. and Kang, J. (2020). The role of self-concept in shaping sustainable consumption: A model of slow fashion. *Journal of Cleaner Production*, **258**, 120699.

Lim, W.M. (2017). Inside the sustainable consumption theoretical toolbox: Critical concepts for sustainability, consumption, and marketing. *Journal of Business Research*, **78**, pp. 69-80.

Longo, C., Shankar, A. and Nuttall, P. (2017). "It's not easy living a sustainable lifestyle": How greater knowledge leads to dilemmas, tensions and paralysis. *Journal of Business Ethics*, **154**(3), pp. 759-779.

Lundqvist, D., Flykt, A. and Ohman, A. (1998). *The Karolinska Directed Emotional Faces - KDEF*, CD ROM from Department of Clinical Neuroscience, Psychology section, Karolinska Institutet, ISBN 91-630-7164-9.

McDonagh, P. and Prothero, A. (2014). Sustainability marketing research: Past, present and future. *Journal of Marketing Management*, **30**(11–12), pp. 1186–1219.

McEachern, M. G., Warnaby, G., Carrigan, M. and Szmigin, I. (2010). Thinking locally, acting locally? Conscious consumers and farmers' markets. *Journal of Marketing Management*, **26**(5-6), pp. 395-412.

McGouran, C. and Prothero, A. (2016). Enacted voluntary simplicity–Exploring the consequences of requesting consumers to intentionally consume less. *European Journal of Marketing,* **50**(1/2), pp. 189-212.

McShane, S.L. and Von Glinow, M.A. (2010). *Organizational behavior: Emerging knowledge and practice for the real world*. 5th ed. New York: McGraw-Hill/Irwin.

Memery, J., Megicks, P. and Williams, J. (2005). Ethical and social responsibility issues in grocery shopping: a preliminary typology. *Qualitative Market Research*, **8**(4), pp. 399-412.

Meske, C., Junglas, I. and Stieglitz, S. (2019). Explaining the emergence of hedonic motivations in enterprise social networks and their impact on sustainable user engagement. *Journal of Enterprise Information Management,* **32**(3), pp. 436-456

Mont, O., Neuvonen, A. and Lähteenoja, S. (2014). Sustainable lifestyles 2050: Stakeholder visions, emerging practices and future research. *Journal of Cleaner Production*, **63**, pp. 24–32.

Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology*, **15**(3), pp. 263-280.

Nohria, N., Groysberg, B. and Lee, L.E. (2008). Employee motivation. *Harvard Business Review*, **86**(7/8), pp. 78–84.

Norton, T.A., Zacher, H. and Ashkanasy, N.M. (2014). Organisational sustainability policies and employee green behaviour: The mediating role of work climate perceptions. *Journal of Environmental Psychology,* **38**, pp. 49-54.

Nuttavuthisit, K. and Thøgersen, J. (2017). The importance of consumer trust for the emergence of a market for green products: The case of organic food. *Journal of Business Ethics,* **140**(2), pp. 323–337.

Otto, S., Evans, G.W., Moon, M.J. and Kaiser, F.G. (2019). The development of children's environmental attitude and behavior. *Global Environmental Change,* **58**, 101947.

Oyserman, D., Elmore, K. and Smith, G. (2003). Self, self-concept, and identity. In M.R. Leary and J.P. Tangney, eds. *Handbook of Self and Identity.* New York: Guilford Press. pp. 69–104.

Park, C.W. and Mittal, B. (1985). A theory of involvement in consumer behavior: Problems and issues. *Research in Consumer Behavior*, **1**(3), pp. 201–232.

Paschen, J., Wilson, M. and Robson, K. (2020). #BuyNothingDay: investigating consumer restraint using hybrid content analysis of Twitter data. *European Journal of Marketing*, **54**(2), pp. 327-350.

Perera, C., Auger, P. and Klein, J. (2018). Green consumption practices among young environmentalists: A practice theory perspective. *Journal of Business Ethics*, **152**(3), pp. 843-864.

Pinder, C.C., (1998). *Work motivation in organizational behavior*. Upper Saddle River, NJ: Prentice Hall.

Pirson, M. (2020). A Humanistic Narrative for Responsible Management Learning: An Ontological Perspective. *Journal of Business Ethics*, **162**, pp. 775–793.

Poore, J. and Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science,* **360**(6392), pp. 987–992

Prati, G., Albanesi, C. and Pietrantoni, L. (2017). The interplay among environmental attitudes, pro-environmental behavior, social identity, and pro-environmental institutional climate. A longitudinal study. *Environmental Education Research,* **23**(2), pp. 176–191.

Ramirez, E., Jiménez, F. and Gau, R. (2015). Concrete and abstract goals associated with the consumption of environmentally sustainable products. *European Journal of Marketing,* **49**(9/10), pp. 1645-1665.

Reese, G. and Junge, E.A. (2017). Keep on rockin'in a (plastic-) free world: Collective efficacy and pro-environmental intentions as a function of task difficulty. *Sustainability*, **9**(2), 200.

Rivera-Camino, J. (2007). Re-evaluating green marketing strategy: a stakeholder perspective. *European Journal of Marketing*, **41**(11/12), pp. 1328-1358.

Ross, S.M. and Kapitan, S. (2018). Balancing self/collective-interest: equity theory for prosocial consumption. *European Journal of Marketing,* **52**(3/4), pp. 528-549.

Ryan, R.M. and Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, **55**(1), 68.

Schmitt, M.T., Mackay, C.M., Droogendyk, L.M. and Payne, D. (2019). What predicts environmental activism? The roles of identification with nature and politicized environmental identity. *Journal of Environmental Psychology*, **61**, pp. 20-29.

Sharma, R. and Jha, M. (2017). Values influencing sustainable consumption behaviour: Exploring the contextual relationship. *Journal of Business Research*, **76**, pp. 77-88.

Shaw, D., McMaster, R. and Newholm, T. (2016). Care and commitment in ethical consumption: An exploration of the 'attitude–behaviour gap'. *Journal of Business Ethics*, **136**(2), pp. 251-265.

Shaw, D. and Shiu, E. (2002). An assessment of ethical obligation and self-identity in ethical consumer decision-making: A structural equation modelling approach. *International Journal of Consumer Studies,* **26**(4), pp. 286–293.

Simon, B. (2004). *Identity in modern society: A social psychological perspective*. Oxford: Blackwell.

Spiggle, S. (1994). Analysis and interpretation of qualitative data in consumer research. *Journal of Consumer Research*, **21**(3), pp. 491-503.

Stryker, S. (1968). Identity salience and role performance: The relevance of symbolic interaction theory for family research. *Journal of Marriage and the Family*, **30**(4), pp. 558-564.

Thøgersen, J. and Olander, F. (2002). Human values and the emergence of a sustainable consumption pattern: A panel study. *Journal of Economic Psychology*, **23**(5), pp. 605-630.

Thomas, E.F., McGarty, C. and Mavor, K.I. (2009). Aligning identities, emotions, and beliefs to create commitment to sustainable social and political action. *Personality and Social Psychology Review*, **13**(3), pp. 194-218.

Tracy, J.L. and Robins, R.W. (2004). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry,* **15**(2), pp. 103–125.

UN, United Nations (2022). *The Lazy Person's Guide to Saving the World.* [online]. Available at: https://www.un.org/sustainabledevelopment/takeaction/ [Accessed Aug. 10, 2022].

UNEP, United Nations Environment Programme (2022). *Sustainable Lifestyles.* [online]. Available at: https://www.unenvironment.org/explore-topics/resource-efficiency/what-we-do/sustainable-lifestyles [Accessed Aug. 10, 2022].

Valor, C., Antonetti, P. and Carrero, I. (2018). Stressful sustainability: a hermeneutic analysis. *European Journal of Marketing*, **52**(3/4), pp. 550-574.

van der Werff, E., Steg, L. and Keizer, K. (2013). It is a moral issue: the relationship between environmental self-identity, obligation-based intrinsic motivation and pro-environmental behaviour. *Global Environmental Change,* **23**(5), pp. 1258-1265.

Wee, S.C. and Choong, W.W. (2019). Gamification: Predicting the effectiveness of variety game design elements to intrinsically motivate users' energy conservation behaviour. *Journal of Environmental Management*, **233**, pp. 97-106.

White, K., Hardisty, D.J. and Habib, R. (2019). The elusive green consumer. *Harvard Business Review*, **97**(4), pp. 124-133.

Yang, L., Manika, D. and Athanasopoulou, A. (2020). Are they sinners or saints? A multi-level investigation of hypocrisy in organisational and employee pro-environmental behaviours. *Journal of Business Research*, **114**, p. 336-347.

Yin, J., Qian, L. and Singhapakdi, A. (2018). Sharing sustainability: How values and ethics matter in consumers' adoption of public bicycle-sharing scheme. *Journal of Business Ethics,* **149**(2), pp. 313-332.

Young, W., Hwang, K., McDonald, S. and Oates, C.J. (2010). Sustainable consumption: Green consumer behavior when purchasing products. *Sustainable Development*, **18**(1), pp. 20–31.

Yu, T.K., Lin, F.Y., Kao, K.Y. and Yu, T.Y. (2019). Encouraging environmental commitment to sustainability: An empirical study of environmental connectedness theory to undergraduate students. *Sustainability*, **11**(2), pp. 342.

Table 1. An evidence-based illustration of the new typology of sustainable individuals

Group within the typology	Identity expression	Motivational drives	Commitment (related to the range of sustainable behaviors they engage with)	Personal satisfaction (related to how they make sense of the sustainable behaviors they engage with)	Congruence/ incongruence in identity expression
Holistically Sustainable (summary)	Expression of sustainable self both when **personal and social identities** are salient. Those in this group relate to sustainability when describing who they are as individuals and what their values and beliefs are (personal identity). They express themselves in relation to sustainability while being in a group (e.g. as members of sustainable organizations).	Fulfilling all four drives, drives to defend and bond dominant ('defend' main motivation). Driven by the motivation of **acquiring** tangible success outcomes. They are willing to **bond** with like-minded people and **learn** from them by sharing knowledge. They aim to **defend** both their values and beliefs, and the environment and society.	**Higher commitment.** Long-term behavior in terms of sustainable living, willing to continue being sustainable and become more sustainable.	Relatively **less personal satisfaction associated** with their own sustainable behaviors (the feeling that more can always be done, because standards are high and they are extremely motivated to pursue their personal values, linked to sustainability).	**Congruence** in identity expression in relation to sustainability, since both personal and social identities are expressed in relation to sustainability.
Illustrative example **(Interviewee 2, Male, 46 years old)**	"['Who are you?', what 20 words, sentences would you use to describe yourself?] *I think my identity comes through my connection with trees and natural surroundings, and my understanding with the context that I am part of, an organic universe which I am like a small part of humanity, and this humanity is just the tiny part of the organic universe, so that is who I am […] I… am organic, natural, spiritual, social, minute […] I feel I've more of a connection with the natural world than with anything else"* **(salience of personal identity – core and learned selves - in relation to sustainability)** *"I have to communicate with other people, so I can't do it on my own, I have to.. like for example my mum has got a friend who got loads of fruit on their tree right now, and they asked if I wanted it, if I could use it for a project I'm*	*"[For me sustainable living is] living in a way which has the least amount of violence on natural resources […]* **(drive to defend)** *sustainable living is me passing on that information to the younger generations* **(drive to bond, drive to learn)** *because the whole idea of sustainability is you know to not.. .. to use.. to not use, to not be greedy in the use of resources, and economic as well, economic resources, natural resources, human resources* **(drive to defend),** *and erm.. .. and also to share the idea* **(drive to bond)** *[..] I have achieved it (a sustainable lifestyle)* **(drive to acquire)** *not doing what society expects me to do.. erm.. by questioning absolutely everything* **(drive to learn)".**	*"[When reflecting on his sustainable actions]* ***Activism****, the* ***farmer's market*** *and* ***cycling****.. yes, I do all of those things, I write to MPs.. […] Direct action doesn't necessarily come through going on* ***a protest****, direct action could come through sort of like* ***in the middle of the night planting a lot of trees*** *in a place where there is not trees right? so yeah, I would do that you know?* ***I throw loads of seeds around in places*** *[…] All of the other things I do to my best of my ability you know?* ***saving water****,* ***growing my own food,****.. and also like using.. .. like.. sometimes* ***not buying new things*** *I really just like (noise of breaking something), like when my glasses are completely broken and I have been trying to fixing them like.. twenty times with different things and it is like 'this*	"[Do you consider yourself a sustainable person?] *Pff far from it, I've got a car! I've got a car and I used to have erm I mean it is 13 years old […] I am really not happy right now with that* **(less personal satisfaction)** *so, I used to make my own biodiesel you know, so and then we had to move to.. to think that we were making our own bio fuel, we had to move in and we had to sell the components, which meant I was left.. the only reason I got this car was because I would be using bio fuel with it, so we started.. I wanted to sort of do an experiment, to use it, to try out the fuel and also because sometimes in my work I needed to get to places where it was absolutely not public*	From the analysis of the narrative produced by the interviewee quoted on the left, it could be argued that there is congruence on identity expression in relation to sustainability, since both personal and social identities are expressed in relation to sustainability. This, together with individuals being strongly motivated by the **drive to defend** is associated with high commitment to a sustainable lifestyle. At the same time, individuals as the one quoted seem to be not always personally satisfied with their behavior, believing they could always do more (which is represented

	working on, I said 'definitely', I can't just go and take that fruit, I go and talk to them, I meet them, I suddenly create another part of this sort of community, sustainable community […] so having the shared experience of doing that with someone else is even more, it feels like 'oh my God, I'm not the weird guy anymore', I'm like.. there is other people doing this" **(salience of social identity – lived and perceived selves - in relation to sustainability).**		*is not going to work' [laughs] and keep falling from my face, although I do.. maybe I have to buy them [laughs] you know […] There must be a way that I can use the lenses and put them in a new glass, but I have to.. I guess* ***looking at the whole cycle of like****.. ok,* ***economic resources****,* ***human resources****, go into that as well. If I'm going to spend 8 hours of my day, or 40 hours of the next month trying to fix my glasses.. is that sustainable for a human as well? so I have to balance that"* **(wide range of issues are considered and acted upon in the sustainable narrative).**	*transport or things.. so I thought ok, this is the best thing I'm going to do. So that is why I said I'm not.. I was, when I was doing, making my own bio fuel I thought I was sort of sustainable"* **(less personal satisfaction is associated with reflection on alternative and more sustainable behavior in the future).**	through less personal satisfaction towards what they are not doing). The individual and the associated expressions of identity, motivation, commitment and personal satisfaction (described in this illustrative example) are typical of what we label the **Holistically Sustainable group.**
Authors comments on illustrative example	This person expresses salience of both personal and social identities in relation to sustainability.	This person expresses motivation to live sustainably primarily through the drives to defend and bond. There is evidence of the drive to learn being evident through educating others and questioning everything; drive to acquire being evident through a drive to achieve a certain lifestyle.	This person expresses high commitment towards sustainable living by describing a wide range of behaviors he engages in from saving water, growing food and actively refraining from buying products.	Despite describing a wide range of sustainable behaviors in previous columns, this person focusses on less personal satisfaction related to what is missing in his sustainable lifestyle.	

Group within the typology	Identity expression	Motivational drives	Commitment (related to the range of sustainable behaviors they engage with)	Personal satisfaction (related to how they make sense of the sustainable behaviors they engage with)	Congruence/ incongruence in identity expression
Privately Sustainable (summary)	Expression of sustainable self when **personal identity** is salient. Activation **of social identity** in relation to what they believe society expects from them (showing sustainable behavior away from home e.g. attending conferences on sustainability).	Drives to learn and defend dominant ('learn' main motivation). Driven by the motivation to **learn** as much as possible (expert knowledge) and teach others. They also aim to **defend** their values and beliefs, and the environment and society.	**Higher commitment.** Long-term behavior in terms of sustainable living, willing to continue being sustainable and become more sustainable.	Relatively **less personal satisfaction** with their own sustainable behaviors (the feeling that more can always be done, because standards are higher and they are extremely motivated to pursue their personal values, linked to sustainability).	**Congruence** in identity expression in relation to sustainability, since both personal and social identities are expressed in relation to sustainability.
Illustrative example **(Interviewee 30, Male, 46 years old)**	"['Who are you?', what 20 words, sentences would you use to describe yourself?] *I'm a keen gardener and I am a keen allotment holder, I'm a director of a community energy group"* **(salience of social identity – lived self - in relation to sustainability)** "*I.. .. I'm somebody who rides a bicycle, not a cyclist [laughs], I am trombonist […] I'm a keen cook, I'm a person who likes go walking in the countryside, I generally like music and going to gigs, you can put that in two, I like music and I go to gigs [laughs].. I.. I'm somebody who has a strong interest in environmental policy and in social justice […] I am an environmental fundamentalist basically, it's just sort of the environment comes first, without protecting the environment we won't be able to have social justice, we won't be able to have some form of economy"* **(salience of personal identity – core and learned selves - in relation to sustainability)** *"I*	"[What do you think motivates a person like you to live this way?] *I've got a degree in Moral Philosophy but even before I did that actually, probably a sense of justice and ability to see the big picture, I spent a lot of time studying both Western Philosophy and Buddhist Philosophy, those are only sort of confirming things* **(drive to learn)** *but it's.. .. .. .. yes, it is basically not doing, not doing bad things* **(drive to defend)** *I have always had such a strong sense of fairness". "*[Do you like being seen as sustainable?] *I don't think it's a illustrative example of liking being seen that way, I think it's good that people can set an example"* **(drive to learn).**	*"[When reflecting on his sustainable actions]* ***In my professional life I research into air quality****, climate change and energy issues, I'm both a social scientist and a physical scientist […]* ***I spend most of my working life trying to sort out really big problems****, which will have really big impacts on the environment […] what I think is important is to set your life up, so the* ***things that you do on a day to day basis****, and things that you see in your daily life are.. things that minimize impact […] for example, if at home I'm really quite* ***strict vegetarian****.. so that I think it's a sort of fundamental basic, kind of sort of you are what you eat.. ..* ***having any sort of hobbies*** *or pastimes* ***which don't..*** *cost loads of* ***damage to people or the environment****, so playing acoustic instruments, basically choosing to do things like having an allotment".*	"[From 1 to 10, how sustainable would you say you are?] *I would probably say about.. 3"* **(a relatively low assessment, despite wide range of behaviors listed on the left)** "[How do you feel when taking a sustainable decision?] *It's probably a relief from guilt feeling*" **(a focus on a lack of negative feeling rather than personal satisfaction with their own sustainable behaviors)** *"They are.. just things.. they become just things you do [the sustainable things he does]. And it's not a question of feelings or motivations, it is just the way things are done".*	From the analysis of the narrative produced by the interviewee quoted on the left, it could be argued that there is congruence on identity expression in relation to sustainability, since both personal and social identities are expressed in relation to sustainability. This, together with individuals being strongly motivated by the **drive to learn**, is associated with high commitment to a sustainable lifestyle. At the same time, individuals as the one quoted seem to not always be personally satisfied with their own sustainable behaviors, believing they could always do more (which is represented through not acknowledging the level of engagement with the

	grow up into a very strong anarchist subculture, but even then erm.. I mean that just seem to me to fulfil things I already felt, I mean I remember for quite an early age for being remembered by my dad when I was complaining that nothing in life is fair and so I think from some very early age I had some degree of concept of what I thought was fair or not" **(salience of social identity – lived self -, since fairness is defined with reference to social norms).**				behavior, and less positive emotions and feelings in relation to their behavior). Interestingly, the interviewee scores himself a 3 in relation to how sustainable he feels he is, even when he has devoted his life and career to finding a solution to big sustainability problems. The individual and the associated expressions of identity, motivation, commitment and personal satisfaction (described in this illustrative example) are typical of what we label the **Privately Sustainable group.**
Authors comments on illustrative example	This person expresses salience of personal identity in relation to sustainability, with some reference to social identity in relation to sustainability.	This person expresses motivation to live sustainably primarily through the drive to learn (expressed here through a desire to learn themselves and set an example for others) and defend (not doing bad things).	This person expresses high commitment towards sustainable living by describing a wide range of behaviors he engages in from what he eats, having hobbies that do not harm the environment and devoting his working life to sustainability issues.	Despite describing a wide range of sustainable behaviors in previous columns there is less personal satisfaction than may have been expected.	

Group within the typology	Identity expression	Motivational drives	Commitment (related to the range of sustainable behaviors they engage with)	Personal satisfaction (related to how they make sense of the sustainable behaviors they engage with)	Congruence/ incongruence in identity expression
Publicly Sustainable (summary)	Expression of sustainable self when **social identity** is salient. Activation of personal identity in relation to what they believe they should be doing (e.g. becoming more sustainable when behaving publicly).	Drives to bond and acquire dominant ('bond' main motivation). Those in this group are driven by the motivation to **acquire** a status as the sustainable or green. They also aim to **bond** with others and self-identify with a group.	**Lower commitment.** Short-term sustainable living behavior, narrow sets of behavior, many personal exceptions.	Relatively **more personal satisfaction** with their own sustainable behaviors (feeling that they are doing more than the average, because standards are lower and they are expressing sustainability through social identity and, therefore, not pursuing personal values).	**Incongruence in** identity expression in relation to sustainability, since only social identities are expressed in relation to sustainability.
Illustrative example **(Interviewee 18, Female, 36 years old)**	"['Who are you?', what 20 words, sentences would you use to describe yourself?] *Ok, so I'm a woman, in my mid-thirties, professional working.. .. healthy, erm.. erm.. white, English.. .. .. active, contentious, moral.. .. […]I like being outside, I like spending time with friends and family, enjoy food"* "[What do you understand by living sustainably?] *So.. living in a way that doesn't have a huge impact on the environment, but it is also socially better for you and for your community and economically as well I think"* "[Do you think that other people see you as a sustainable person?] *Yes* [And do you like that?] *Yes"* **(salience of social identity – lived and perceived selves - in relation to sustainability).**	"[What motivates a person like you to live sustainably?] *I think that the people around me, so my family motivates me to be like this. And friends to a degree. And the people that I've met,* **(drive to bond)** *so being in the [sustainable organization she supports] I find that whenever I get to a meeting or whenever I get something I find it empowering, because I see people that have similar views to me, and that makes me more motivated to be involved in something like that*" **(drive to bond)** *"Through you know cycling to work for example, you are saving money* **(drive to acquire),** *you are getting exercise and you are also helping the environment and.. erm.. eating healthy, because it is better for you but also for the environment".*	"[Do you think you follow a sustainable lifestyle?] *I try. As I get older I find.. in some ways* ***I am less strict about things****. I don't put so much pressure on myself to try and live like that, because I think sometimes it is.. getting the right balance* [Do you think you are going to become even more sustainable with the pass of the time?] *Probably not.. well things like.. so* ***I will still fly on holiday, because I really enjoy going on holiday*** *and I probably wouldn't sacrifice that, and cycling in the evening if it is cold I'd get in the car,* ***I'd drive somewhere rather than cycle, even though I know it is better for the environment****. But when I am busy and I've got other things..[…] I think sometimes I don't put so much pressure on myself to try and live like that. If I can't it is not the end of the world"* "[Which three pictures best represent what a sustainable	"[On a scale from 1 to 10, how sustainable would you say you are?] *Probably around 7"* "[Think about the last time you decided to do something that could be consider sustainable. What of these emotions (pictures with emotions) were you feeling when taking that decision?] *To get out of my way on the way home from work [to go to an organic shop] and I'm creating a bit of stress on myself on that evening because I'm going to be late at home, and then I've got to quickly get some food and get out. But.. so it is not the easier option,* ***but it is something that I'd feel much better for it when I've done it and I've got my food and I've made that choice. And the shopping experience is always good and chatting to***	From the analysis of the narrative produced by the interviewee quoted on the left, it could be argued that there is incongruence on identity expression in relation to sustainability since social identity (and not personal identity) is expressed in relation to sustainability. This, together with individuals being strongly motivated by the **drive to bond,** is associated with lower commitment to a sustainable lifestyle (than the previous two illustrative examples). At the same time, individuals as the one quoted seem to be personally satisfied with their own sustainable behavior, even if they feel they would not like to do more (which is represented

			lifestyle means to you?] *so this one [food market], this one [cycling] and.. that one [second hand].. is probably me"* (**sustainable actions carried out in public).**	***[name of one of the members of the staff at a sustainable store] and you know [smiles] I really enjoy that***. *So yes, that is always good, it is always worthy in the end".*	through positive emotions and feelings in relation to their behavior). The individual and the associated expressions of identity, motivation, commitment and personal satisfaction (described in this illustrative example) are typical of what we label the **Publicly Sustainable group.**
Authors comments on illustrative example	This person expresses salience of social identity in relation to sustainability. It should be noted that we find no evidence of personal identity salience in relation to sustainability in this illustrative example.	This person expresses motivation to live sustainably primarily through the drive to bond and to a lesser extent the drive to acquire.	This person expresses lower commitment towards sustainable living than the previous two illustrative examples. Describing a wide range of behaviors that they consider unsustainable but that they are prepared to engage with.	Despite describing a wide range of unsustainable behaviors in previous columns, this person provides a relatively good score for their own sustainability, signaling more personal satisfaction about their sustainable lifestyle, in comparison to the previous two illustrative examples. Also, the focus is on personal satisfaction derived from behaving sustainably and the social interaction associated with this, rather than less positive feelings from areas that could be improved. Personal satisfaction is seen as a reward for maintaining these behaviors, rather than extending sustainable behavior.	

Group within the typology	Identity expression	Motivational drives	Commitment (related to the range of sustainable behaviors they engage with)	Personal satisfaction (related to how they make sense of the sustainable behaviors they engage with)	Congruence/ incongruence in identity expression
Accidentally Sustainable (summary)	Expression of sustainable self when **social identity** is salient (e.g. when interacting with those more sustainable in character). Even though they behave sustainably in private, they do it out of necessity and they do not relate that behavior to sustainability.	Drive to **acquire** dominant ('acquire' main motivation). Those in this group are driven by the motivation to **acquire** financial stability. They also aim to **bond** with others.	**Lower commitment.** Short-term sustainable living behavior, narrow sets of behavior, choice of sustainable behavior for circumstantial reasons.	Relatively **more personal satisfaction** with their own sustainable behaviors (feeling that they are doing more than the average, because standards are lower and they are expressing sustainability through social identity, and therefore not pursuing personal values).	**Incongruence in** identity expression in relation to sustainability, since only social identities are expressed in relation to sustainability.
Illustrative example **(Interviewee 3, Male, 25 years old)**	"['Who are you?', what 20 words, sentences would you use to describe yourself?] *I am curious, I am a curious person, I am a writer, I am optimistic.. I am a little bit disorganized [laughs], I am.. erm anything? I am a coffee drinker"* "[Do you think that people who know you consider you a sustainable person?] *I think they wouldn't say that it was a passion of mine, they wouldn't say [his name] is crazy about recycling, is always going on about recycling but if they thought about the fact that I don't own a car, that I don't buy a lot of things they would say that I was sustainable"* **(salience of social identity – perceived self - in relation to sustainability).**	"[What does influence you when deciding to do something in a sustainable way?] *What influences me? well that is a financial motivation* **(drive to acquire),** *it is not really sustainable motivation, I just don't wanna buy a mirror (he and his partner took a mirror from the street). Saving money motivates me sometimes* **(drive to acquire)**, *but ends up making me more sustainable, I mean that is maybe the reason I don't want a car, I don't want to spend the money so.. probably I'm sustainable more because I am tight"* **(drive to acquire).**	"[Considering the three pictures that for you best represent sustainable living, do you follow these practices?] *I do cycle, I.. do take part in the surveys, but I don't protest.. in the surveys, in the.. what are they called? You know how they are called.. the things where lots of people sign […] I recycle because [name of the partner] recycles [laughs] to be honest, I use public transport because I don't have a choice and this is only one I probably do for unselfish reasons [activism], I do that because I think it is just a good thing to do".*	"[Do you consider you follow a sustainable lifestyle?] *Erm.. I mean I follow it* ***more than average****, because I don't.. I don't buy a lot of things so.. like less things are produced because of me and I don't eat a lot of meat which is meant to be less sustainable* [From 1 to 10, how sustainable would you say you are?] *Erm.. 7?" "*[Think about the last time you decided to do something that could be consider sustainable. What of these emotions (pictures with emotions) were you feeling when taking that decision?] *So I thought about when I took my 'big little bag for life' to Lidl, and I am always very happy when I remember because sometimes I forget, but when I remember I am like 'oh yeah, good' [laughs]".*	From the analysis of the narrative produced by the interviewee quoted on the left, it could be argued that there is incongruence on identity expression in relation to sustainability since social identity (and not personal identity) is expressed in relation to sustainability. This, together with this individual being strongly motivated by the **drive to acquire**, is associated with lower commitment to a sustainable lifestyle (than illustrative examples 1 and 2). At the same time, individuals as the one quoted seem to demonstrate personal satisfaction with their own sustainable behaviors (which is represented

Authors comments on illustrative example	This person expresses salience of social identity in relation to sustainability. It should be noted that we find no evidence of personal identity salience in relation to sustainability in this illustrative example.	This person expresses motivation to live sustainably primarily through the drive to acquire.	This person expresses lower commitment towards sustainable living than the first two illustrative examples. In addition, he lists a set of behaviors he considers to be sustainable (e.g. protesting) but that he does not engage with, without any regret or bad feeling. When he lists sustainable behaviors he engages in, he signals this is often because of accidental reasons (e.g. a lack of resources).	Despite describing a more narrow range of behaviors and activities than illustrative examples 1 and 2, as well as accidental motivation for sustainability (e.g. a lack of money) the focus is on personal satisfaction derived from behaving sustainably and the social interaction associated with this, rather than less positive feelings derived from areas that could be improved. Personal satisfaction is seen as a reward for maintaining these behaviors, rather than extending sustainable behavior.	through positive emotions and feelings in relation to their behavior). The individual and the associated expressions of identity, motivation, commitment and personal satisfaction (described in this illustrative example) are typical of what we label the **Accidentally Sustainable group**.

Table 2. Group characteristics, similarities and differences, and implications for engagement

	Holistically Sustainable	Privately Sustainable	Publicly Sustainable	Accidentally Sustainable
Group characteristics	Express sustainable self both when **personal** and **social** identities salient (consider sustainability in every decision). Fulfilment of 4Ds through sustainable living (being **defend** the main motivation).	Express sustainable self when **personal** identity is salient (and on occasions when **social** identity is salient). Main motivation to live sustainably related to the drive to **learn.**	Express sustainable self when **social** identity is salient (and on occasions when personal identity is salient). Main motivation to live sustainably related to the drive to **bond.**	Express sustainable self when **social** identity is salient. Main motivation to live sustainably relates to drive to **acquire.** They live sustainably by default.
Similarities with other groups	<u>Common to Holistically and Privately Sustainable</u> • Both express sustainable self when personal identity is salient, and manifest sustainability at four layers of the self. • Both groups **highly committed** to sustainable living, but **are often less personally satisfied** with their own sustainable behaviors (believe they could do more).		<u>Common to Publicly and Accidentally Sustainable</u> • Both express sustainable self when social identity is salient, and do not manifest sustainability at the level of the 'core' and/or 'learned' self. • **Lower commitment** to sustainable living, but **often more personally satisfied** with their own sustainable behaviors (believe they do more than the average).	
	<u>Common with Publicly Sustainable</u> - Both groups motivated by drive to bond and behave sustainably in public.	<u>Common with Accidentally Sustainable</u> - Behavior often more privately displayed.	<u>Common with Holistically Sustainable</u> - Both groups motivated by drive to bond and behave sustainably in public.	<u>Common with the Privately Sustainable</u> - Behavior often more privately displayed.
Key differences with other groups	Key difference is that the Holistically Sustainable fulfil the 4Ds through living sustainably, and they take sustainability into account in every decision in their lives.	Key difference is they are highly committed to living sustainably, but tend to behave sustainably in more private/individual ways. They devote their lives to sustainability through their careers (often associated with sustainability).	Key difference is that some seem to be developing their sustainable selves. For this reason, they sometimes express sustainability in relation to personal identity (reflecting what they would like to become).	Key difference is that they do not show any intentions of becoming more aware or committed with the cause of sustainability. They are living sustainably mainly because of financial problems or habit.
Implications for marketers, organizations and policy makers – communication, engagement and behavior change	**<u>Message</u>:** Emphasize how taking action can protect the environment and society **<u>Role</u>:** Invite these individuals to be activists, set standards and influence others.	**<u>Message</u>:** Emphasize that issues still need solutions and how positive outcomes can be linked to learning and innovation. **<u>Role</u>:** Invite these individuals to co-create solutions to important sustainability-related issues (e.g. through research).	**<u>Message</u>:** Emphasize the status and recognition associated with sustainable behaviors. **<u>Role</u>:** Enlist key influencers to signal that social norms can shift in terms of sustainability, thereby evolving the aspiration and ensuring that sustainable behaviors do not stagnate.	**<u>Message</u>:** Emphasize social norms and expectations of others as a way of maintaining behaviors. **<u>Role</u>:** Find role models who have developed 'sustainable habits' that could be replicated. Celebrate them.

Appendix 1. Interview guide sample questions and their link to theory

Questions from the interview guide	Link to theory
"Could you please answer the question 'who am I?' twenty times? Please, do not repeat answers"	The 'Twenty Statements Test' (Kuhn and McPartland, 1954) allows the understanding of individuals' sense of self. It also helps examining manifestations of sustainability at the level of the 'core' self. This question was asked at the beginning of the interview, before participants got to talk about sustainability.
"Do you think people see you as you really are? Do you think people see you as a sustainable person? Would you like to be seen in a different way by others? Do you see yourself becoming even more sustainable with the pass of the years? Please explain why" *"How do you think living this way (sustainably) can be achieved? Is there a difference between how sustainable you are at home and when you are out – at work, University, with friends? Please explain why"*	Questions on the left derive from the DMID by Hillenbrand and Money (2015). They help understanding how participants think they are perceived by others while at the same time they allow the understanding of the interaction between individuals' personal and social identities. By getting a better understanding of the sustainable activities participants follow, not only motivational drives and their link to behaviors are explored, but personal and social identity aspects are also studied. Through the analysis of participants' narratives, salience of identity can be observed.
"When did you consciously start living sustainably? Please explain this moment in detail, explaining your feelings about it, where it took place, who were you with and why did you do it. Was someone else involved in the decision process? What was your main motivation to start living sustainably?"	Through the analysis of participants' narratives and by examining their sustainable journey, a better understanding of the intersection between expression of identity and motivational drives in sustainable living could be achieved. The interviewees were asked to explain actions that happened in the past (including what motivated them), as according to Klein and Nichols (2012) memories provide a sense of personal identity.
"What do you think that motivates a person like you to live sustainably? What five benefits do you get by living sustainably? Does living this way negatively affect your daily life in any way? Do you feel you are motivated by more than one reason?"	By examining the real motivations driving participants to live sustainably, together with their sense of sustainable self, motivational drives and the expression of identity of individuals self-identifying as sustainable have been analyzed. Both DMID (and in particular its understanding of personal and social identity through the layers of the self) and 4DT (and in particular its ideas in relation to balance between drives and absence of drives' influence) assisted the analysis.
"Each of these pictures represents a human emotion. Think about a recent instance in which you had to make decision related to sustainability – or sustainable living – (when buying, deciding which transport you will use, etc.). Which pictures best represent how you felt during that instance? Why? Do you always feel this way when taking sustainability into account when making a decision? Or there is a difference between how you feel when buying organic food for example, than when thinking about recycling?"	Through photo elicitation (see photos below), how feelings and emotions relate to specific motivational drives (Lawrence and Nohria, 2002) and sustainable behaviors is explored. Emotions considered included *fear, anger, disgust, happiness, sadness, surprise* and a *neutral* emotion. The Karolinska Directed Emotional Faces were chosen for this question due to their adequacy when doing psychological research, as they were designed to be suitable for the study of perceptions, emotions and attention (Lundqvist *et al*., 1998). Please note those defining themselves as females were shown the female pictures; those defining themselves as males were shown the male pictures. 

"Between the pictures I am showing you, please choose the three pictures which best represent what you understand by sustainable living and explain to me why you have chosen them. Do you follow these three sustainable practices? Why do you do it/do not do it? What does motivate you to do it? Is the same motivation driving you for the three activities? How do you feel when thinking about these practices? Which specific emotions do you experience when engaging in these activities? *"Now please consider the three pictures separately. What is similar between the three pictures? And different?"*	Participants were presented with the pictures shown below and were asked the questions on the left. The aim of asking these questions was to further unpack the motivations driving participants to live sustainably. The 4DT (and in particular aspects related to each of the four drives) and insights from the SPREAD Sustainable Lifestyles 2050 European project (Mont *et al.,* 2014) (identifying *consuming, moving, living* and *health and society* as the areas of sustainable living) guided the design of the questions. 

Appendix 2. Illustration of how the data analysis underpinned the typology development

The four figures below (*Figures a, b, c* and *d*) offer evidence on how data was used in the development of the typology (for an evidence-based illustration of each of the typology groups, please look at **Table 1**). The raw data (quotes from participants) comes from different individuals within each of the four groups.

Please note: Raw data is shown again in *Stage 3* due to 'commitment' and 'personal satisfaction' emerging from the data at a later stage of data analysis. For a full explanation of the approach we took to the data analysis and typology development, please see **Figure 1** and its explanatory text on *Section 3.2*.

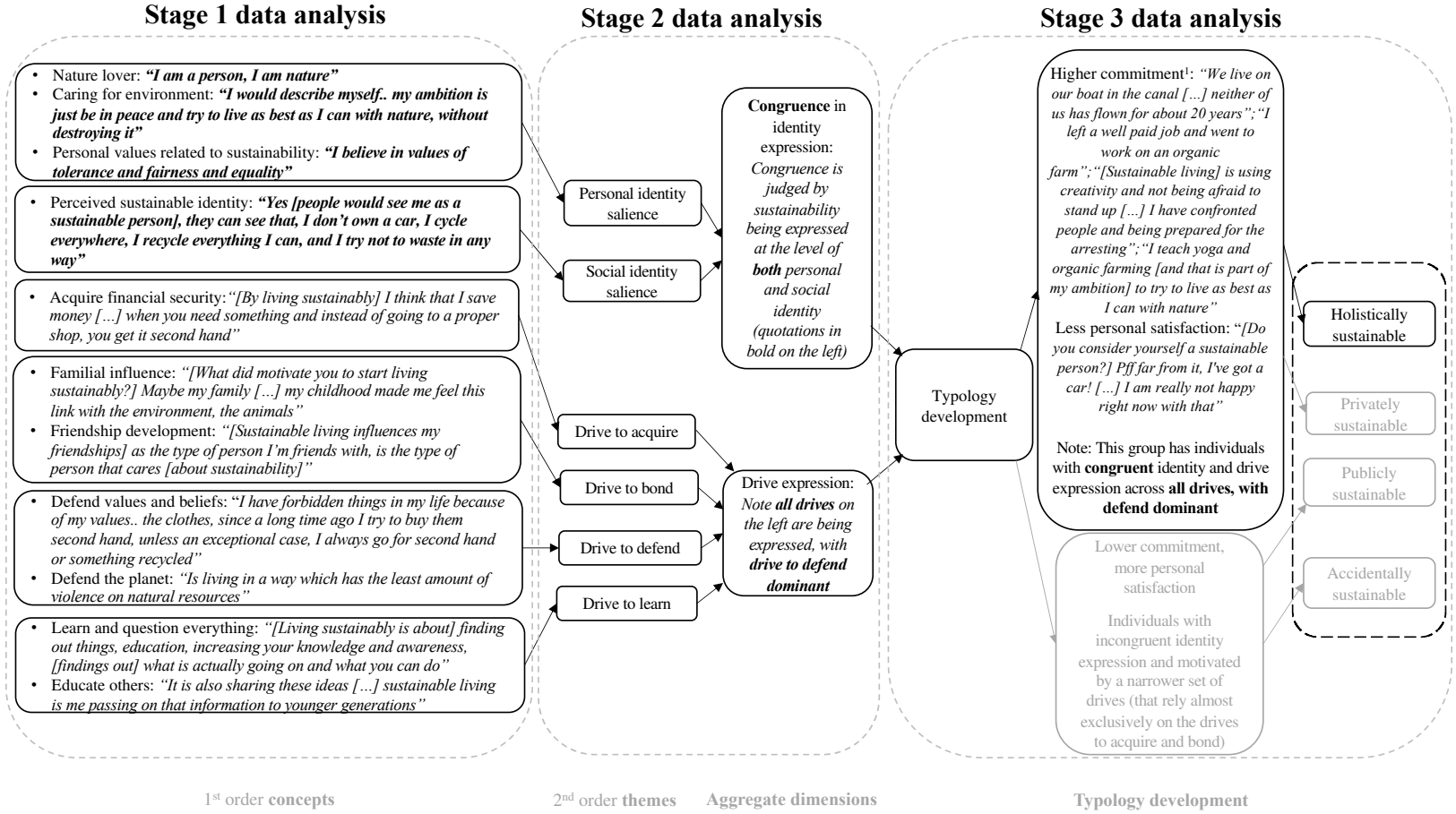


Figure a. The case of the Holistically Sustainable

[1]Note the wide range of multifaceted sustainable behaviors (in private and public settings) and the higher commitment thereof.

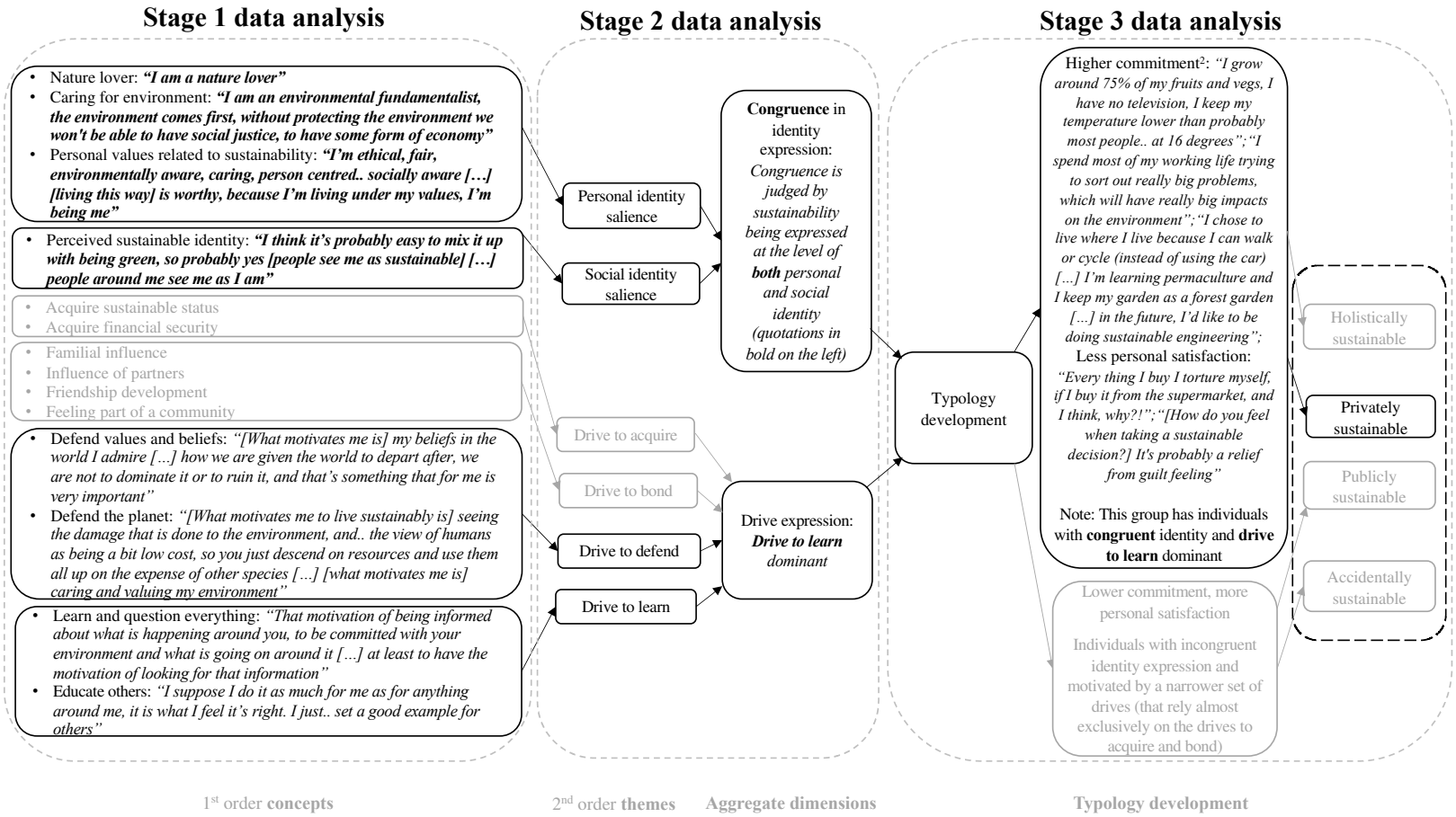


Figure b. The case of the Privately Sustainable

[2]Note the wide range of multifaceted sustainable behaviors (mostly in private settings) and the higher commitment thereof.

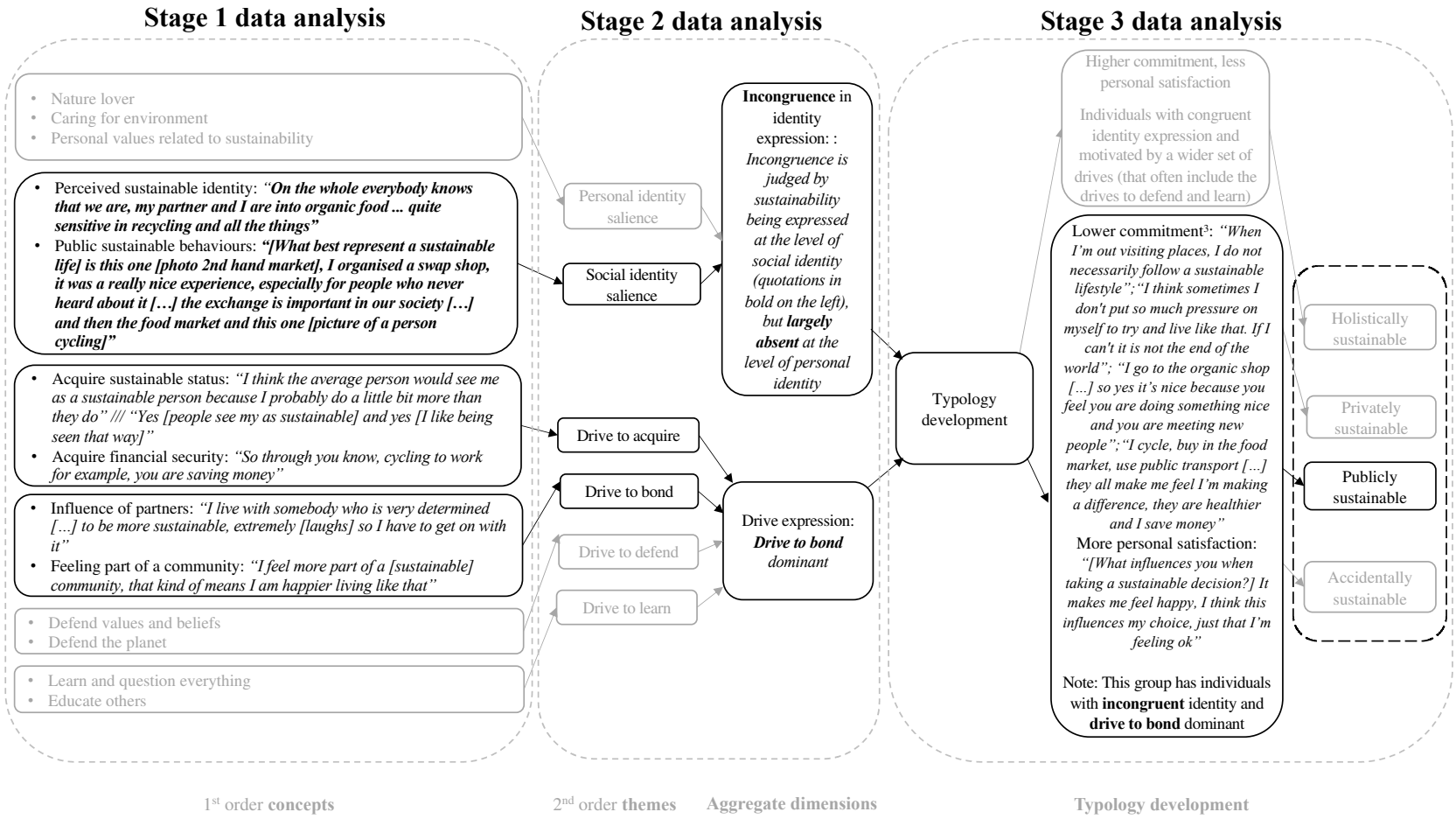


Figure c. The case of the Publicly Sustainable

[3]Note the narrower range of less multifaceted sustainable behaviors (performed in isolation) and the lower commitment thereof.

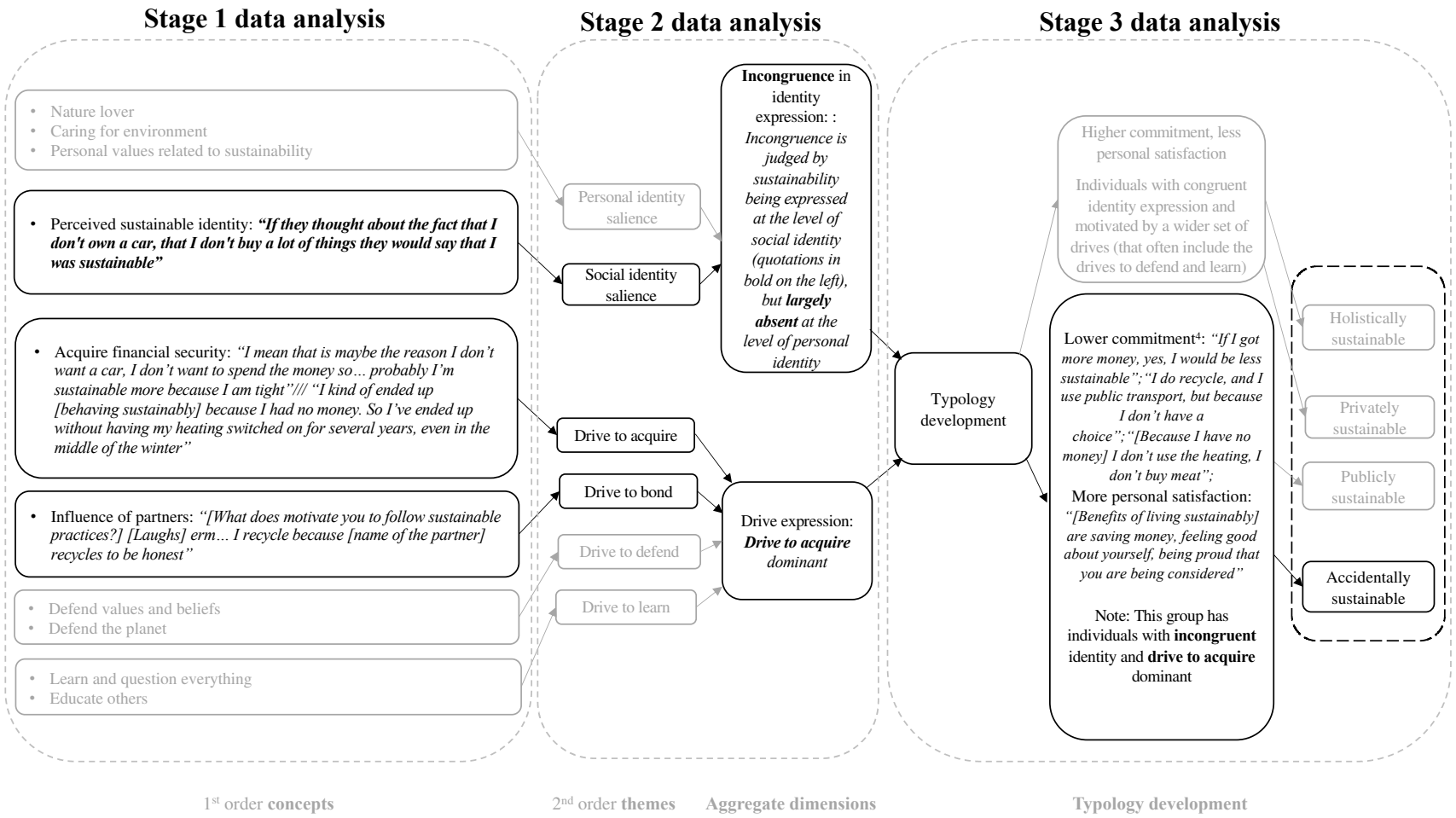


Figure d. The case of the Accidentally Sustainable

[4]Note the narrower range of multifaceted sustainable behaviors (involving low efforts) and the lower commitment thereof.