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The role of sustainability in profiling voluntary simplifiers

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ABSTRACT

Studies focusing on voluntary simplifiers are gaining in popularity, but doubt remains about the relevance to business of this segment and to what extent this lifestyle is attributable to sustainability-rooted choices. Instead of the commonly used self-reported scales, a novel measurement approach is applied using objective data to identify voluntary simplifiers. Based on equivalent household incomes and level of product possession this research provides, using a large-scale, representative sample, empirical evidence that voluntary simplifiers comprise almost one-sixth of the German population. Results indicate that voluntary simplifiers buy more green products, exhibit a greater environmental and economic sustainability consciousness and share more universalistic values compared to four other uncovered segments, namely well-off consumers, over-consumption consumers, less well-off consumers and poor consumers. From a business perspective, moderate voluntary simplifiers do not exit the market. Instead, they constitute an attractive target group for ecological products and alternative consumption options such as sharing.

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1. Introduction

Embedded in a consumerist mainstream society obsessed with highly consumption-oriented lifestyles, there are individuals who deliberately refrain from consumption (Lee and Ahn, 2016). Despite their low consumption, it would be advisable for companies to know these consumers in more detail, because by striving for consumption alternatives they are nevertheless still “making use of market systems” (Shaw and Moraes, 2009, p. 221). Besides individuals who restrict their consumption due to financial scarcity, there are those who consciously consume less than they can afford. The reasons for this are manifold, such as rejecting capitalism and materialism, living sustainably, and striving to lead independent and self-determined lives. There is extensive research regarding the different lifestyles or groups of people who consciously refrain from consumption. This includes anti-consumption in general (Chatzidakis and Lee, 2012), frugal consumption (Lastovicka, Bettencourt, Hughner, and Kuntze, 1999) and voluntary simplicity (Elgin and Mitchell, 1977). In particular, voluntary simplifiers are a specific segment of anti-consumers who generally reduce their overall levels of consumption (Iyer and Muncy, 2009).

Numerous definitions exist regarding who voluntary simplifiers are (Johnston and Burton, 2003). There is a widespread consensus that they reduce material consumption (e.g., Craig-Lees and Hill, 2002;

Etzioni, 1998) although they are financially well-off (Huneke, 2005; Zavestoski, 2002). This might be especially true for moderate simplifiers, who reduce consumption levels, but not working hours and thereby income (Ballantine and Creery, 2010). Compared to people with similar high-income levels, moderate simplifiers spend significantly less money on consumption. Usually, research measures voluntary simplicity by self-reported scales (e.g., Alexander and Ussher, 2012; Hamilton and Mail, 2003; Huneke, 2005). Rudmin and Kilbourne (1996) criticize such subjective measures due to the high risk of a social desirability bias. Therefore, the first research goal of this paper addresses this measurement issue by using a novel approach to identify voluntary simplifiers and take advantage of objective data: individuals' income and level of consumption, measured by a household's possession of selected consumer durables.

The following question is then addressed: Are voluntary simplifiers sustainability-rooted, and to what extent? Sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 8). In order to foster it the UN addresses the necessity of sustainable consumption in its new sustainable development goals (No. 12). More specifically, sustainable consumption covers two main issues: consuming differently – that is, buying environmentally friendly, organic or Fairtrade products – and consuming less (Balderjahn et al., 2013; Jackson and Michaelis, 2003). However, one open question is whether simplifiers are sustainability-rooted, as is often assumed (Shaw and Moraes, 2009). Research indicates that simplifiers are ecologically and socially motivated, and likely behave or consume in ecologically responsible ways (e.g., Craig-Lees and Hill,

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2002; Iwata, 2006; Shaw and Newholm, 2002). Nevertheless, the role of sustainability in living a simpler life remains unclear. To address this knowledge gap, it is necessary to provide empirical evidence by taking a multidimensional perspective on sustainable consumption. Therefore, the second research goal of this study is to establish a multidimensional sustainability profile for the voluntary simplifier, which includes sustainable buying intentions, human values and consciousness for sustainable consumption (CSC) (Balderjahn et al., 2013).

To summarize, the key objective of this work is twofold: First, to uncover a segment of people who voluntarily consume less relative to their income within a large-scale data set in an affluent European nation. Second, to verify whether, and to what extent, this segment of voluntary simplifiers is sustainability-rooted.

Applying the objective measures of household income and the quantity of owned durables to identify voluntary simplifiers, this research uncovers five clearly distinguishable segments in the German population. One (14.4%) of the three segments with above-average household income owns only as much as the two below-average household income segments. According to the first research goal, the results prove the existence of a segment of voluntary simplifiers in the German population. With regard to environmental consciousness, buying intention towards organic products, universalistic values, and impulsive buying findings reveal that this segment of voluntary simplifiers is sustainability-rooted.

In the following, the conceptual framework is proposed and hypotheses developed by presenting relevant theoretical aspects of voluntary simplification and sustainable consumption. In order to achieve the research goals and test the proposed hypotheses, hierarchical cluster analysis is used along with analysis of variance, and the main results of a large-scale consumer data set are represented. Finally, this work presents a discussion of the findings, conclusions, and directions for future research.

2. Conceptual framework and hypothesis development

2.1. Anti-consumption and voluntary simplicity

This research centers on anti-consumption lifestyles that generally lead to fewer acquisitions. Commonly, anti-consumption represents and focuses on reasons against consumption, and possessing or using specific goods (Lee, Roux, Cherrier, and Cova, 2011). Among others, voluntary simplification is one manifestation of the umbrella phenomenon of anti-consumption (e.g., Hoffmann and Lee, 2016). Kozinets, Handelman, and Lee (2010) emphasize that people consciously and deliberately choose anti-consumption, for instance, through their rejection of the consumerist mainstream, and instead achieve voluntary simplicity (Chatzidakis and Lee, 2012; Lee and Ahn, 2016). Most definitions emphasize that voluntary simplifiers value reduced consumption (e.g., Elgin and Mitchell, 1977). According to Alexander and Ussher (2012), the practice of simple living encompasses consuming less, minimizing expenditures, and valuing the possession of fewer goods. Whereas personal possession is an expression or symbol of a highly consumption-oriented lifestyle, indicating the attainment of material affluence and social status, this relationship does not exist for simplifiers (e.g., Craig-Lees and Hill, 2002). Moreover, simplifiers consciously search for a life purpose in terms of a “nonmaterialistic source of satisfaction and meaning” (Etzioni, 1998, p. 620). In general, they limit their expenditures out of free will and not because of financial constraints (Etzioni, 1998). Furthermore, voluntary simplifiers are characterized by a set of core values related to the self, relationships, society, and sustainability (Johnston and Burton, 2003). As voluntary simplifiers are ecologically aware (Huneke, 2005), they differ from the closely related concept of the frugal consumer (Lastovicka et al., 1999), who refrains from consumption for reasons other than ecological ones.

The degree to which voluntary simplifiers adopt a simple lifestyle ranges on a continuum that encompasses different levels

of consumption intensity (for a review of concepts, see McDonald, Oates, Young, and Hwang, 2006). Although moderate simplifiers voluntarily reduce consumption by giving up consumer goods they could readily afford (Etzioni, 1998) (downshifting in consumption), they still retain a consumption-oriented lifestyle. Thus, moderate simplifiers do not exit the market but rather change their consumption level and behavior, and therefore represent “a considerable target market for ethical or green products and services” (McDonald et al., 2006). By contrast, strong simplifiers substantially restructure their lives by, for example, reducing income levels or working hours (downshifting in work) (Nelson, Rademacher, and Paek, 2007). Drawing on sustainability-rooted anti-consumption, the authors of this paper define and focus on moderate voluntary simplifiers who deliberately reduce their consumption levels, indicated through lower levels of owned consumer products relative to their financial opportunities (downshifting in consumption).

2.2. Sustainability and voluntary simplicity

With respect to sustainability, there are different concepts of voluntary simplifiers. One of these concepts is that of ethical simplifiers, whose underlying motivations are environmental protection or social justice (e.g., Shaw and Newholm, 2002). These individuals consider the social and environmental impact of production processes and goods and consequently limit their use of resources, recycle their waste, and avoid impulse purchasing in their daily (consumption) behavior (e.g., Huneke, 2005). Alexander and Ussher (2012) empirically prove that simplifiers use their financial resources to opt for socially and environmentally conscious ways of living and consuming. Additional findings of their study indicate that almost three quarters of simplifiers spend their money almost always/often on organic, local, Fairtrade, and green products, as well as on renewable energy and long-lasting products. Espousing a more activist approach, simplifiers might also resist mass consumerism and engage in political consumption practices (Cherrier, 2009), such as boycotting and buycotting (Nelson et al., 2007; Shaw and Moraes, 2009; Zamwel, Sasson-Levy, and Ben-Porat, 2014). They value self-made products and homegrown food and engage in acts of collaborative consumption such as bartering, informal exchange, and sharing (Alexander and Ussher, 2012; Ballantine and Creery, 2010; Shaw and Newholm, 2002). As Shaw and Moraes (2009) note, voluntary simplifiers engage in a wide range of consumption strategies that involve anti-consumption (reduced, modified, or no consumption) as well as sustainable consumption practices (e.g., buying Fairtrade or organic products). Among other reasons, their conscious consumption behaviors are attributable to environmental, social, and economic concerns and thus fit a multidimensional view of sustainability.

H₁. Voluntary simplifiers prefer a) to buy ecological products, and b) to buy Fairtrade products.

H₂. Voluntary simplifiers support a) boycott activities, and b) buycott activities.

H₃. Voluntary simplifiers refuse impulsive buying.

H₄. Voluntary simplifiers have internalized a strong consciousness for sustainable consumption.

2.3. Human values and voluntary simplicity

Human values are “desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity” (Schwartz, 1994, p. 21). Previous research indicated that human values affect consumers’ behavioral patterns in the field of sustainability (e.g., Thøgersen and Ölander, 2002). Schwartz (1992) distinguishes 10 value types, and three of these – universalism,

benevolence, and self-direction – are linked to sustainability (Grunert and Juhl, 1995). Described as being guided by values surrounding the self, relationships, society, and the earth (Elgin and Mitchell, 1977; Johnston and Burton, 2003), voluntary simplifiers might share Schwartz' universalism (caring for nature and the welfare of all) and benevolence values (caring for the welfare of others close to them). Universalism values are strong predictors of sustainable consumption (e.g., Thøgersen and Ölander, 2002), collaborative consumption (Martin and Upham, 2015), and frugal consumption (Pepper, Jackson, and Uzzell, 2009; Todd and Lawson, 2003). Schultz and Zelezny (1999) found a strong relationship between benevolence/universalism and pro-environmental behavior. Similarly, Axsen and Kurani's (2013) results indicate a positive link between benevolence and a sustainability orientation. Self-direction values are shown to characterize frugal consumers (Pepper et al., 2009; Todd and Lawson, 2003), a result that might also be true for voluntary simplifiers. Thus, this paper concludes:

H₅. Voluntary simplifiers share the values of a) universalism, b) benevolence, and c) self-direction.

3. Methodology

3.1. Sample

The data used in this research consists of 1458 online survey respondents of the German population collected by an international market research institute in 2014. The data is representative of the German population (quota sampling) according to gender, household income, federal state, place of residence, and number of persons in the household, with the exception of a slight under-representation of low education levels and the age class from 14 to 24 years.

To clarify the first research goal – to identify voluntary simplifiers by taking advantage of objective data – a hierarchical cluster analysis (HCA) is performed based on the following two measures: equivalent household income and level of owned consumer durables. In light of the second research goal – to establish a multidimensional sustainability profile for the voluntary simplifier – the authors perform an analysis of variance (ANOVA) including CSC, human values, and sustainable behavioral intentions.

3.2. Measures

The paper aims to identify a segment of voluntary simplifiers based on objective data related to a household's consumption decisions. Economists often define standards of living by (equivalent) household income and consumption expenditure. Because collecting data on expenditures is very expensive and time-consuming (Howe, Hargreaves, Gabrysch, and Huttly, 2009), economists often measure a household's possession of selected consumer durable goods as a proxy for consumption expenditures (e.g., Howe et al., 2009; Zaidi and Burchardt, 2005). Therefore, the authors use a household's consumer durables as an indicator of the household's consumption levels. This allows the drawing of conclusions regarding buying decisions (Montgomery, Gragnolati, Burke, and Paredes, 2000). Applied indicators commonly measure ownership of approximately ten consumer durables (Speizer, 1995; Zaidi and Burchardt, 2005).

The consumer durable index used in this paper includes 11 selected goods: cars, digital cameras, flat TVs, smartphones, notebooks, tablet devices, navigation devices, skis/snowboards, drilling machines, bicycles, and washing machines. To discriminate between the different households' budgets, lifestyles, and buying decisions, the index includes goods that stand for necessities (i.e., a washing machine) as well as price sensitive/sophisticated goods (i.e., a tablet device). Respondents indicate which, and how often, they own the listed durables. The index is calculated by the sum score of the 11 durable goods (no ownership =

1, own one = 2, own two = 3, own more than two = 4; $N = 1458$, mean = 20.22, standard deviation = 3.78, minimum = 12, maximum = 39).

To measure the financial resources of each participant, the monthly household net income is adjusted in accordance with the size (household members) and structure (number of adults and children) of the household (OECD equivalent household income). This results in 10 income categories (0€ up to below 500€ = 1; 500€ up to below 800 € = 2; 800€ up to below 1100€ = 3; ...; above 2900€ = 10). Single items (e.g., "I prefer buying Fairtrade products") measure ecological and Fairtrade buying preferences. The boycott and buycott intentions are measured with five items each on a 7-point Likert-type scale adopted from Klein, Smith, and John (2004) and Neilson (2010) and the items are adjusted to a sustainability context (e.g., "I could imagine participating in a consumer boycott against a company that destroys the environment"). Five impulsive buying and spending items are selected (Edwards, 1993; Ridgway, Kukar-Kinney, and Monroe, 2008) from the concept of compulsive buying (O'Guinn and Faber, 1989), using 7-point Likert-type scales (e.g., "I like to go shopping every day"). To measure multi-faceted concerns for sustainable consumption, the CSC scale (Balderjahn et al., 2013) is applied, which encompasses environmental, social, and economic facets of sustainability. The economic facet comprises three sub measures, namely, consciousness for collaborative consumption, simple consumption, and debt-free consumption. As the last two facets focus mainly on aspects of frugality and reduced consumption, and due to high inter-construct correlations (0.616), it is reasonable to sum up both facets under the term consciousness of temperate consumption. Using the 7-point Likert-type scale, the 46-item CSC scale asks respondents about the extent to which they believe buying sustainably is important. A 7-point Likert-type scale short version of the Portraits Values Questionnaire (Ciecuch and Davidov, 2012) measures consumers' value orientation. Sex, age and education level (0 = lowest; 4 = highest) specify the demographics of the clusters.

4. Results

4.1. Uncovering voluntary simplifiers

To examine whether voluntary simplifiers exist in an affluent country, Ward's method (Euclidian distances) in HCA is used based on the z-standardized measures of equivalent household income and level of owned consumer durables. Based on heterogeneity (distance criteria, dendrogram) and segment interpretability, the authors opt for a five-cluster solution. Computing the adjusted Rand index for ward-linkage versus average-linkage (0.54), complete-linkage (0.45), and k-means (0.55) enables the stability of the five clusters to be checked. The results indicate an average agreement between the five cluster solutions uncovered by the four different cluster methods stated above (Hubert and Arabie, 1985). The Silhouette width (Rousseeuw, 1987) and Dunn index (Dunn, 1974) verify internal validity. Both are examples of the compactness and separation between cluster solutions. By comparing ward-linkage and k-means, the five-cluster solution of ward-linkage results in slightly higher values for Silhouette ($S_{ward} = 0.39$; $S_{k-means} = 0.37$) and Dunn ($D_{ward} = 0.062$; $D_{k-means} = 0.061$), denoting a certain level of internal validity. Hence, these results suggest five reasonable clusters, labeled and described as depicted in Fig. 1.

To provide a better overview, the level of owned consumer durables is divided into three groups: low (<20), middle (20–25), and high (higher than 25). The overall mean equivalent monthly household income level of 6 ($\approx 1700€$) separates high and low income. The clusters on the line of proportionality (see Fig. 1), namely poor consumers, less well-off consumers, and well-off consumers, show a strong positive correlation between income and level of owned consumer durables ($r = 0.54$; $p < 0.01$). In contrast, for voluntary simplifiers and

over-consumption consumers this relationship does not exist. Fig. 1 demonstrates that voluntary simplifiers (over-consumption consumers) share a comparatively low (high) level of owned consumer durables in relation to their equivalent household income.

Next, the five extracted clusters j ($j = 1...5$) are described based on ANOVA results for cluster variables and socio-demographics (Table 1). The post hoc comparison of cluster means ($M_{kj} - M_{ki}$), for all dependent variables k was calculated by Scheffé's test.

Cluster 1: poor consumers. In the smallest (11.2%) and significantly youngest segment (\bar{O} 39 years of age; all $M_1 - M_i \geq |-4.17|$, $i = 2...5$, $p < 0.05$), the typical consumer is predominantly female (59.5%) and has the lowest level of education across all segments. Consumers in this segment are more likely to be single (50.3%) and have the lowest level of full-time occupation (48.1%). Due to the significant lowest average equivalent household income ($\approx 700\text{€}$; all $M_1 - M_i \geq |-1.30|$, $i = 2...5$, $p < 0.01$) and the significant lowest level of owned durables (all $M_1 - M_i \geq |-1.99|$, $i = 2...5$, $p < 0.01$), this segment is labeled poor consumers (see Table 1).

Cluster 2: less well-off consumers. Less well-off consumers (30.7%) are predominantly young (\bar{O} 43.2 years of age), female (53.8%) and below average for education—significantly less educated than clusters 3 ($M_2 - M_3 = -0.46$, $p < 0.01$), 4 ($M_2 - M_4 = -0.26$, $p < 0.05$) and 5 ($M_2 - M_5 = -0.34$, $p < 0.01$). Their average equivalent household income ($\approx 1100\text{€}$) is significantly higher than that of poor consumers ($M_2 - M_1 = 1.30$, $p < 0.01$), but significantly lower than that of the three remaining segments (all $M_2 - M_i \geq |-2.67|$, $i = 3...5$, $p < 0.01$). Less well-off consumers share moderate levels of owned durables, located between those of voluntary simplifiers and well-off consumers (see Table 1).

Cluster 3: well-off consumers. In the largest segment (31.0%), the typical consumer shares the highest average equivalent household income ($\approx 2400\text{€}$) and the second highest level of consumer durables among all segments. Consumers of this oldest segment (\bar{O} 46.4 years of age) are predominantly male (60.9%), more likely to be married couples (45.3%) in full-time positions (head of household: 83.3%, partner: 72.6%), and predominantly live in areas with up to 20,000 inhabitants (45.7%).

Cluster 4: voluntary simplifier. This segment (14.4%) shares the second-highest equivalent household income ($\approx 2100\text{€}$) and the second-lowest level of owned durable goods. Members of this group own significantly fewer consumer durables in relation to the two other above-average income segments of well-off consumers ($M_4 - M_3 = -3.57$, $p < 0.01$) and over-consumption consumers ($M_4 - M_5 = -9.85$, $p < 0.01$). This cluster consists of more female (54.3%), well-educated, and middle-aged consumers (\bar{O} 45.4 years of age) who are more likely to be in full-time work (head of household: 87.3%, partner: 59.0%) and tend to live in areas with $>20,000$ inhabitants (66.6%).

Cluster 5: over-consumption consumers. Members of this segment (12.7%) have a mean age of 44.6 years, are more likely to be male (65.9%), well educated, married (67.0%), and in full-time jobs (head of household: 74.1%, partner: 65.4%). They are financially well off, represented by a high equivalent household income ($\approx 1900\text{€}$) and hold the significantly highest level of household-owned durables (all $M_5 - M_i \geq 6.28$, $i = 1...4$, $p < 0.01$).

Bearing these results in mind, only people with a relatively high income are able to decide freely how much money they spend on consumption. This fact applies to voluntary simplifiers, well-off consumers, and over-consumption consumers, whereas poor consumers must use their income in order to make ends meet. Members of cluster 4 own less consumer durables relative to their high equivalent household incomes. This suggests that the analysis discovered a segment of voluntary simplifiers based on objective data.

4.2. The sustainability profile of voluntary simplifiers

In order to examine how strongly voluntary simplifiers are rooted in sustainability, ANOVA is performed. The results reveal a significantly higher ecological buying preference for voluntary simplifiers in relation to less well-off ($X_4 - X_2 = 0.23$, $p < 0.05$) and poor consumers ($X_4 - X_1 = 0.30$, $p < 0.05$), whereas Fairtrade buying preferences are almost equal among all groups. Thus, findings confirm H_{1a} and reject H_{1b} . Although voluntary simplifiers adhere to quite a high level of boycott and boycott willingness for sustainability reasons, there are no significant differences among the five groups, which leads to a rejection of H_{2a} and H_{2b} . In accordance with H_3 , voluntary simplifiers score lowest on impulsive buying intention, which is significantly lower than that of over-consumption consumers ($X_4 - X_5 = -0.63$, $p < 0.01$).

To investigate the voluntary simplifier's level of sustainability consciousness (H_4), the authors compare the means of the sum scores of the four CSC subscales (environmental, social, temperance and collaborative consciousness) across all segments. Voluntary simplifiers achieve the highest scores on environmental and social consciousness, but only environmental concern is significantly higher than that of less well-off ($M_4 - M_2 = 3.52$, $p < 0.05$) and over-consumption consumers ($M_4 - M_5 = 4.43$, $p < 0.05$). Moreover, voluntary simplifiers scored second highest (behind poor consumers) on the two CSC sub facets of economic sustainability (temperate and collaborative consciousness). Overall, voluntary simplifiers share a high level of consciousness for sustainable consumption, confirming H_4 . Additionally, voluntary simplifiers are significantly more oriented towards universalism compared to over-consumption consumers ($M_4 - M_5 = 0.37$, $p < 0.05$), which confirms H_{5a} . Contrary to the authors' expectations, benevolence and self-direction are almost equal among all five groups; this leads to a rejection of H_{5b} and H_{5c} .

5. Discussion

The analysis uncovered voluntary simplifiers (14.4%) and revealed four further consumer segments of the German population, which allows for the profiling of voluntary simplifiers in contrast to these. Three of the five segments – voluntary simplifier, over-consumption consumers and well-off consumers – have the financial means and freedom to afford much more than the bare necessities. In contrast, the two segments of less well-off consumers and poor consumers (together 41.9%) face restricted consumption choices as a result of scarce financial resources. Although simplifiers are financially well off, as shown by Huneke (2005) and Zavestoski (2002), their consumption behavior entails a material simplicity reflected by a low level of owned durables compared to poor and less well-off consumers.

Regarding the question of the importance of sustainability for the group of voluntary simplifiers, the ANOVA results reveal that, compared to the other four segments, environmental and temperate consciousness are most attributable to voluntary simplifiers. Further findings yield statistically higher means for the preference to buy green compared to

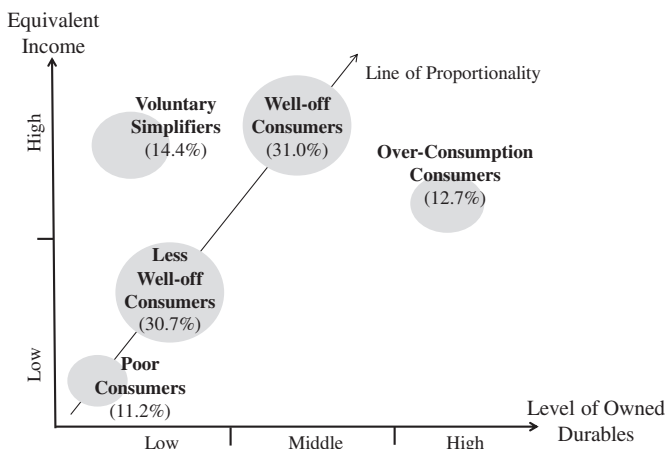


Fig. 1. Five consumer segments based on HCA.

Table 1
ANOVA results of the five equivalent income–/level of owned durables clusters.

	Cluster1: Poor consumers n = 163	Cluster2: Less well-off consumers n = 448	Cluster3: Well-off consumers n = 452	Cluster4: Voluntary simplifiers n = 210	Cluster5: Over-con- sumption consumers n = 185	Total n = 1458	ANOVA F (4, 1253)	Scheffé test
Level of owned durables	15.6	19.3	21.1	17.6	27.4	20.2	1007.7**	All differences**
Equivalent household income	2.7	4.0	8.3	7.3	6.7	6.0	871.7**	All differences**
<i>Sociodemographics</i>								
Sex (% male)	40.5	46.2	60.8	45.7	65.9	50.3	46.5** ^a	
Age (years)	39.0	43.2	46.4	45.4	44.6	44.2	9.8**	2 > 1* 3 > 2* 3,4,5 > 1** 3,5 > 1,2**
Education	2.4	2.5	3.0	2.8	2.9	2.7	18.1**	4 > 2* 4 > 1**
<i>Behavioral intentions</i>								
Buy green	3.2	3.2	3.4	3.5	3.3	3.3	4.1**	4 > 1,2*
Buy fair	3.0	3.0	3.1	3.2	3.1	3.0	2.3 ^{n.s.}	–
Boycott	5.5	5.5	5.7	5.7	5.4	5.6	2.2 ^{n.s.}	–
Buycott	5.2	5.4	5.5	5.6	5.2	5.4	3.2*	–
Impulsive buying	3.0	3.0	3.1	2.9	3.6	3.1	10.1**	5 > 1,2,3,4**
<i>CSC dimensions^b</i>								
Environmental	25.2	24.6	25.7	28.2	23.7	25.4	3.2*	4 > 2,5*
Social	33.6	34.5	35.0	37.0	33.6	34.8	2.2 ^{n.s.}	–
Temperance	36.9	35.1	33.7	35.4	31.8	34.5	7.3**	1 > 3* 1, 2, 4 > 5**
Collaborative	17.7	15.2	13.5	15.6	12.8	14.7	5.2**	1 > 3,5**
<i>Human values</i>								
Universalism	5.5	5.4	5.4	5.6	5.3	5.4	3.4**	4 > 5*
Benevolence	5.5	5.5	5.5	5.6	5.5	5.5	0.4 ^{n.s.}	–
Self-direction	5.3	5.2	5.4	5.3	5.4	5.3	1.3 ^{n.s.}	–

Note: n.s. non-significant.

^a Pearson's chi-squared statistic.

^b Each score is the mean of the sum score on a CSC sub-scale.

* Significant at $p < 0.05$.

** Significant at $p < 0.01$.

poor and less well-off consumers, and lower means for impulsive buying compared to over-consumption consumers. However, this does not account for the social dimension of sustainability (social consciousness, Fairtrade buying intention) and for the willingness to participate in sustainability-oriented consumer boycotts and buycotts. One reason may stem from the fact that in the public discussion about sustainability, ecological issues appear more prominent than social issues. In contrast, the consumer's knowledge about Fairtrade products and their labels is comparatively low. For example, organic/green products are more common in supermarkets than Fairtrade goods. Another possible explanation dates back to the roots of voluntary simplicity: minimization of consumption and nonmaterialistic orientations, which are more related to environmentally friendly and resource-saving issues. Accordingly, social aspects such as Fairtrade are less relevant for simplifiers. Their high economic sustainability consciousness (economic CSC) reinforces a material simplicity, reflected by the measure of owned durable consumer goods used to identify the voluntary simplifier. In contrast, financial constraints might explain the higher level of economic consciousness for poor consumers compared to voluntary simplifiers. The results of this study on boycott intentions are contrary to those found with qualitative research methods (e.g., Shaw and Moraes, 2009; Zamwel et al., 2014). However, this is not surprising from a theoretical viewpoint, since boycott is a distinct form of anti-consumption (Iyer and Muncy, 2009). In fact, simplifiers reject consumption in general whereas consumers participating in boycotts switch to sustainable product substitutes (Seegebarth, Peyer, Balderjahn, and Wiedmann, 2016). However, simplification might contribute more strongly to resource savings than boycott, which yields further evidence for the sustainability roots of voluntary simplifiers' lifestyles.

With regard to the importance of human values, findings show that voluntary simplifiers are less sustainability-oriented than expected. Echoing Craig-Lees and Hill (2002) and Pepper et al. (2009), universalism guides voluntary simplifiers, whereas no significant differences

exist with respect to benevolence among all segments. One possible explanation is an increased interest in cultural, ecological and social movements among people that goes beyond family and close friends, involving the lifestyle of voluntary simplicity (Alexander, 2011). These findings might be further attributable to stronger relations between universalism and sustainability in comparison to benevolence and self-direction (Schultz and Zelezny, 1999). Vermeir and Verbeke (2008) explain the link between benevolence/self-direction and sustainability via social norms or the social pressure of peer groups. Thus, if a simplifier's peers have a low interest in sustainability issues, this might in turn limit the voluntary simplifier's interest in sustainability.

6. Conclusions and future research

This paper makes two key contributions. First, in contrast to commonly used self-reported scales, it presents an attractive alternative measurement by using two objective measures – equivalent household income and level of owned durables – to identify the voluntary simplifier (14.4%). Second, this research adds useful knowledge to the sustainability profile of this segment of voluntary simplifiers. Whereas previous research mainly focused on the environmental aspect to profile simplifiers (e.g., Elgin and Mitchell, 1977; Shaw and Newholm, 2002), this research draws a comprehensive picture of sustainability by using several sustainable consumption intentions, human values, and the multi-faceted CSC model of consumer consciousness for sustainability. In comparison to other segments, results reveal that voluntary simplifiers are more ecologically and economically concerned, which means that they consume less and prefer to buy green products. Although they show a high social consciousness and high preferences for Fairtrade products, voluntary simplifiers' social concern does not differ among all segments.

In Germany, voluntary simplicity represents a remarkable segment (14.4%) and simultaneously an interesting target group for both green

products as well as products that meet the need for lower consumption (e.g., durable products, sharing products). Thus, moderate simplifiers are moving away from the consumerist mainstream towards a more sustainable model of consumption. From a business perspective, moderate voluntary simplifiers are an interesting target group for companies that offer ecologically friendly goods as well as those companies that are able to transmit the philosophy of a simple life through their products and services. This could include offers for renting or leasing properties, or nonmaterial options, such as special consulting services. In particular, those services and sustainability issues can be linked through energy saving advice services for consumers or consulting services focusing on ecological usage of the offered products. With regard to the findings of this study, voluntary simplifiers are guided by economic sustainability issues (temperance). Consulting services should focus on how to save money and ensure financial security through the sustainable products offered. For example, consultants should highlight acquisition costs in contrast to usage cost. Although voluntary simplifiers consume less, they prefer green products that in turn increase profit margins in these markets. For example, companies could identify opportunities in the second-hand or repair markets or facilitate peer-to-peer exchange, as well as gain a foothold in the do-it-yourself shops (e.g., Bekin, Carrigan, and Szmigin, 2005; Chatzidakis, Larsen, and Bishop, 2014).

However, an evaluation of these findings needs to consider the following limitations: first, the analysis focuses on moderate voluntary simplifiers whose level of consumer durables are below their financial potential. This research does not consider consumers who deliberately restrict their income to find a suitable work–life balance (Bekin et al., 2005). Further research should seek to broaden the approach proposed by involving moderate (downshifting in consumption) and strong (downshifting in work) simplifiers (e.g., Nelson et al., 2007). Second, voluntary simplifiers, frugal consumers (Lastovicka et al., 1999), and global impact consumers (Iyer and Muncy, 2009) are closely related constructs that are differentiated only by their motives to resist consumption. This research relies on objective data and therefore does not examine an individual's motives to strive for voluntary simplification. Future research might investigate the motivations behind achieving a simpler lifestyle (e.g., Iyer and Muncy, 2009). Third, the applied measure of owned consumer durables is quantitative and limited to the ownership of 11 selected products. While this measure is well suited as a proxy of consumption expenditures, it does not consider either qualitative product differences (e.g., what kind of product is bought in a given category), consumer preferences to spend their money (e.g., goods/services), or the varying sustainability quality of owned durables. Furthermore, the appropriateness of the consumer durables index may differ between nations, cultures or sub-groups of the population. Further research into the extent of these cultural differences and household decisions is needed (Howe, Hargreaves, and Huttly, 2008). Finally, the identified typologies and findings are context-specific, with a focus on Germany. The size of the voluntary simplifier segment varies in other affluent nations with respect to different consumer cultures and the importance attributed to sustainability issues within the population.

In conclusion, there is a varying picture with regard to the sustainability roots of voluntary simplifiers. On the one hand, this research suggests that they are more likely to undertake sustainable consumption and are conscious within a subset of sustainability consumption dimensions. On the other hand, voluntary simplifiers are not fully rooted in sustainability. Although they reduce material consumption, there is no indication that moderate voluntary simplifiers want to exit the market; they constitute instead an interesting target group for marketers.

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