Volunteers as responsible consumers – An analysis of psychological factors in the interrelation between volunteering and responsible consumption[1]

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ABSTRACT

With the growing prevalence of ecological and social problems in the globalized economic system, consumers increasingly include ecological and social criteria in their purchasing decisions. Previous research has found that people who voluntarily engage in associations are more likely than others to include ethical principles in their purchasing decisions. However, associated factors and thus potential mediators for this relationship have not yet been explored. In this study, we proposed that volunteering is positively related to the availability of information, social norms, and consumer collective efficacy. We further assumed that these factors are related to responsible consumption. In our study (N = 1012), we found positive relations among volunteering, social norms, consumer collective efficacy, and responsible consumption. Limitations, directions for further research, and practical implications for politics as well as associations are discussed.

Keywords

Volunteering – responsible consumption – information availability – social norms – collective efficacy – associations

Driven by a growing salience of ecological and social problems in the globalized economic system, people are becoming more aware that their consumer behavior plays a decisive role in this context (Carrigan & Attalla, 2001) and increasingly include ecological and social criteria in their purchase decisions (Auger, Devinney, Louviere & Burke, 2010). Responsible consumption is not a new phenomenon (Breen, 2004) but markets for organic and fair trade products have grown tremendously since the beginning of this century (Organic-Trade-Association, 2018; Statista, 2018).

With the growing market share, research has also been increasingly concerned with responsible consumption. Of particular interest is the investigation of predictors of this behavior to change consumer behavior towards more sustainable decisions. One line of research has shown that people who volunteer in associations are more likely than others to include ethical principles in their purchasing decisions (Espejo & Vázquez, 2017; Neilson, 2010; Neilson & Paxton, 2010; Stockemer, 2014; Summers, 2016). However, there remains an open question as to which psychological factors play a role in this context. Identifying such factors could help explain why these different forms of behavior, which refer to different contexts (public vs. private) and personal roles (activist vs. consuming), are interconnected. The present investigation aims to shed light on this issue. We propose that certain psychological factors, namely the availability of information, social norms and collective efficacy, are significant consequences of volunteering and antecedents of responsible consumption behavior, whereby we also assume a relationship between volunteering and responsible consumption.

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1 The relationship between volunteering and responsible consumption

Socially responsible consumption has been broadly defined as purchase decisions that take into account social, environmental, political or other concerns besides the price and / or quality of a product (Andorfer & Liebe, 2013; Harrison, Newholm & Shaw, 2005). These purchase decisions include not only choosing products with ethical attributes (buycotting) but also refusing to purchase certain products, product types or brands that are considered unethical (boycotting; Stolle, Hooghe & Micheletti, 2005).

There is empirical evidence showing that responsible consumption behavior can be predicted by voluntary engagement in associations. People who volunteer in associations are more likely than non-volunteers to make purchase decisions based on political or ethical considerations. This relationship has been confirmed for US (Baek, 2010; Scruggs, Hertel, Best & Jeffords, 2011), Canadian (Baumann, Engman & Johnston, 2015), Australian (Brenton, 2013), Spanish (Espejo & Vázquez, 2017), and multi-national samples (Neilson, 2010; Neilson & Paxton, 2010; Stockemer, 2014; Summers, 2016). The associations examined range from religious groups, political parties, and environmental / human rights organizations to sport clubs and business associations, although the strongest effects were found for members of social support or human rights organizations (Espejo & Vázquez, 2017).

In the first studies on this topic, researchers found that participation in various types of associations (e.g., sports clubs; social clubs; trade unions; political parties; organizations for science; organizations for humanitarian aid; organizations for environmental protection or animal rights; religious organizations) increased the likelihood of both buycotting and boycotting (Neilson, 2010; Neilson & Paxton, 2010), although the relationship was found to be stronger for boycotting (Baumann et al., 2015; Neilson, 2010). A more recent study distinguished between two types of associations and found that responsible consumption is more strongly related to membership in human rights organization than to affiliations with political parties or labor unions (Espejo & Vázquez, 2017).

Research using a multilevel-approach has shown that regional differences in generalized trust (Neilson & Paxton, 2010) and differences in democratic experience across countries (Stockemer, 2014) influence responsible consumption beyond individual characteristics.

2 Associated factors in the volunteering-consumption relationship

Although it has repeatedly been shown that volunteering is positively correlated with responsible consumption, it remains an open question why this is the case. Theoretical explanations most often emphasize skills and abilities encouraging responsible consumption that are supposed to be acquired through association membership (Neilson & Paxton, 2010). Hence, these explanations refer to socialization effects.

Neilson (2010) believed that volunteering in associations provides people with a diverse network of social relationships, exposing them to a variety of information and opinions related to purchasing decisions. Similarly, Summers (2016) assumed that information exchanged between members within associations could encourage responsible consumption. Additionally, the author assumed that participation in associations exposes people to visible consumption norms, thus increasing normative pressure for responsible consumption. Finally, it has been assumed that volunteering provides people with skills and abilities (e.g. collective efficacy) that promote responsible consumption as a form of collective action (Espejo & Vázquez, 2017). However, to the best of our knowledge, these factors have never been empirically tested.

2.1 Availability of information

For many consumers, the price and quality of products are the most important purchase criteria (Boulstridge & Carrigan, 2000; Carrigan & Attalla, 2001). In contrast to price or quality, responsible consumption is based on product features that can neither be observed directly in the shop nor experienced by using the product. Therefore, consumers must rely on product labels, advertising claims or other sources of information. In their conceptual model of responsible consumption behavior, Scruggs et al. (2011) defined information about production conditions, besides education and income, as contextual factors facilitating responsible consumption behavior. According to the authors, information-related factors include the following: a) easily available information, b) reliable information, c) factual knowledge, and d) wide availability / access to respective products. In other words, consumers are more likely to consume responsibly when they find easily understandable ways to evaluate the conditions under which different products have been made, for example, via product labelling (Scruggs et al., 2011). Empirical findings confirm this relationship: Individuals who stated that information about products' manufacturing conditions is hard to find or too time-consuming to read were less likely to consider such information during consumption (Scruggs et al., 2011).

In a study on fair-trade buying behavior, the perceived quantity of information about fair trade correlated positively with the self-rated purchase of fair-trade products (de Pelsmacker & Janssens, 2007). Thus, the availability of product information is likely to affect consumer choice.

The amount of available information that an individual can access about social, environmental, or political issues is likely to increase through volunteering in associations. As Neilson and Paxton (2010) stated, participation in associations increases the number of social ties in the personal environment, which facilitates access to information that could be relevant to responsible consumption. Even without active engagement, membership in a political, social, or environmental association is accompanied by enhanced access to issue-related information via member newspapers, newsletters, or the association's intranet. Actively engaged members should receive further information at the meetings of working groups, advisory boards or committees. With these considerations, we propose the following:

H1a: *Volunteering is positively related to the availability of issue-specific information.*

H1b: *The availability of issue-specific information is positively related to responsible consumption.*

2.2 Social norms

Responsible consumption does not take place only in social contexts, for example, when one is surrounded in the supermarket by other consumers, one's own companions, or cashiers. Social influences also occur in the absence of other people, for example, when responsible purchasing decisions are made on the basis of status motives (Griskevicius, Tybur & van den Bergh, 2010) or normative pressure (Salazar, Oerlemans & van Stroe-Biezen, 2013).

According to the focus theory of normative conduct (Cialdini, Kallgren & Reno, 1991), social norms largely guide human behavior. In general, social norms consist of expectations and obligations that prevail in social groups and are shared by the group members (Ajzen, 1991; Schwartz, 1977). According to Schwartz (1977), social norms induce compliance with an expected behavior because people seek to avoid the costs of social sanctions. Cialdini et al. (1991) differentiated descriptive norms (what is done) from injunctive norms (what should be done). Both injunctive and descriptive norms have been found to predict responsible consumption behavior aimed at the protection of natural resources (Barth, Jugert & Fritsche, 2016; Goldstein, Cialdini & Griskevicius, 2008; Vermeir & Verbeke, 2008). Dalton (2008) found that responsible consumption behaviors are positively related to a social norm that reflects engaged citizenship (e.g., being active in voluntary organizations, being active in politics). Thus, it is very likely that being exposed to a social norm promoting socially responsible behavior is a facilitating condition for responsible consumption.

However, why should consumption-related social norms be prevalent in political, social, environmental or other associations? Prosocial or post-materialist values (concerns for the environment, equality, social justice, human rights, sustainable development, etc.) are a major predictor not only of voluntary engagement in those associations (Gustavo, Okun, Knight & de Guzman, 2005; Shantz, Saksida & Alfes, 2014; Verba, Schlozman & Brady, 1995) but also of responsible consumption behaviors (Shaw, Grehan, Shiu, Hassan & Thomson, 2005; Stolle et al., 2005). Therefore, prosocial and post-materialist values should be more prevalent in both contexts. This condition increases the likelihood that other peer volunteers already visibly consume responsibly or approve of such behavior, which in turn should affect the consumption-related social norm of the group. We therefore hypothesize as follows:

H2a: *Volunteering is positively related to consumption-related social norms.*

H2b: *Consumption-related social norms are positively related to responsible consumption.*

2.3 Collective efficacy

The belief that one's own behavior makes an important contribution to the achievement of intended goals is an important prerequisite for many kinds of motivated behavior. With regard to responsible consumption, people are probably unwilling to accept higher product prices if they do not believe that their behavior makes any difference. This belief is particularly important for responsible consumption, as corresponding goals (e.g., fair working conditions for workers, environmental protection) can be achieved only through collective effort. If consumers do not believe that their behavior will have an impact in a collective sense, they will not engage in responsible consumption actions.

We refer to this belief as collective efficacy, which is defined as people's sense that they can solve problems through unified effort; it influences how much effort people put into the pursuit of collective objectives and how much they are willing to endure when collective efforts do not produce quick results (Bandura, 1995). Research has indeed demonstrated that collective efficacy strongly relates to collective political behavior (van Zomeren, Postmes & Spears, 2008) and

responsible consumption behavior (Barth et al., 2016; Doran, Hanss & Larsen, 2015, 2017; Roser-Renouf, Atkinson, Maibach & Leiserowitz, 2016).

While collective efficacy has been shown to be an important predictor of volunteering (Velasquez & LaRose, 2015), we propose that collective efficacy can also *result from* this type of participation. Among the four sources of efficacy shaping postulated in social cognitive theory (Bandura, 1997), mastery experience is the most powerful. The experience that one´s own group (e.g., association) has been successful in achieving a mutually valued objective can increase beliefs in collective efficacy (Goddard & Goddard, 2001). In addition, Gibson (1999) argued that „group-efficacy forms as group members collectively acquire, store, manipulate, and exchange information about each other and about their task, context, process, and prior performance" (p. 138). In a similar vein, Tasa, Taggar, and Seijts (2007) longitudinally showed that collective efficacy is shaped by teamwork experiences (i.e., individual activities contributing to team interactions). Initially, these collective-efficacy experiences are closely tied to the goal of the association's activities. Nevertheless, according to the learning generalization hypothesis (Kohn & Schooler, 1983), association-specific collective efficacy should be successively generalized to other domains, such as responsible consumer behavior. In sum, we propose the following:

> ***H3a:*** *Volunteering is positively related to consumption-related collective efficacy.*
>
> ***H3b:*** *Consumption-related collective efficacy is positively related to responsible consumption.*

3 Method

3.1 Participants and procedure

We collected our data in Germany via an online pool for market research (respondi). A total of 1,200 participants completed our online questionnaire. We applied the recommended steps for detecting careless responses proposed by Meade and Craig (2012) and excluded participants on the basis of the indicators a) response time (< 2 seconds per item), b) response consistency, and c) bogus items. Our final data set consisted of 1,012 participants, of whom 51.0 % were female. The majority (48.6 %) of participants were employed; 34.9 % were retired, unemployed or on parental leave; and 16.5 % were self-employed, students or apprentices. A total of 24.6 % held at least a bachelor's degree; 46.6 % had a secondary school diploma or lower. A total of 57.3 % of the sample had a monthly net income of up to 1,500 Euro minus rent. The mean age was 47.09 years (*SD* = 16.4 years). Finally, 302 participants (29.8 %) voluntarily engaged in typical-political, social or environmental associations (humanitarian aid: 51.6 %; environmental protection: 14.2 %; animal welfare: 25.6 %; political party / labor union: 8.6 %). Participants who voluntarily engaged differed significantly from those who did not engage in terms of gender, $\chi^2(1) = 21.37$, $p < .001$ and academic degree, $\chi^2(7) = 15.22$, $p = .033$ but not in regards to age, $t(1010) = 0.13$, $p = .897$ or income, $t(1010) = -0.12$, $p = .907$.

3.2 Measures

Responsible consumption

We assessed responsible consumption using 5 items developed by Pomering and Dolnicar (2009) and applied a 7-point Likert scale ranging from 1 *(do not agree at all*) to 7 (*completely agree*): e.g., „I avoid buying products from companies that have engaged in immoral action". Internal consistency was measured by using Cronbach´s alpha (α), which was rated as good ($\alpha = .87$).

Volunteering

As noted above, volunteering was conceptualized as voluntary associational activities. To measure volunteering, respondents were asked about the extent to which they „voluntarily engage in non-profit associations" on a scale from 1 (*never*) to 7 (*very often*). Those who indicated that they engaged even to some extent were further presented with a list of six fields in which engagement could take place. These options referred to typical-political (labor union / political party), atypical-political (animal welfare, environmental protection, humanitarian aid) or unrelated (hobby clubs) fields. Based on this information, we dummy-coded a binary variable for volunteering, which included participants who voluntarily engaged in typical or atypical political associations (0 = no; 1 = yes).

Information availability

Following Neumann, Dixon, and Nordvall (2014), perceived availability of information about socially responsible production conditions was measured by asking the participants about the extent to which they „believe that the information about products made under good working conditions is sufficient or insufficient." Answers were measured on a response scale from 1 (*insufficient*) to 7 (*sufficient*).

To measure the following constructs, we applied 7-point Likert scales ranging from 1 (*do not agree at all*) to 7 (*completely agree*).

Social norms

We decided to apply the descriptive norms concept to account for social norms because it best predicted pro-environmental behavior (intention) in the comparative study of White, Smith, Terry, Greenslade, and McKimmie (2009) and because it is well suited to operationalizing consumption-related social influences that might occur when people engage in voluntary associations. Thus, we constructed four items based on White et al. (2009) to measure the social norm of engaging in socially responsible consumption behavior: „Most people who are important to me pay attention to ecological or social criteria of products when shopping"; „Most people who are important to me buy products from socially responsible companies"; „My friends buy products from companies that are made under fair working conditions" (α = .88).

Collective efficacy

The perceived efficacy of consumers' responsible consumption behavior was measured with three items that we developed based on Paul, Modi and Patel (2016): „The purchase of goods produced under fair working conditions can make a real difference in the long run"; „Each consumer's behavior can have an effect on the conditions under which our products are produced"; „It is pointless as a consumer to pay attention to socially responsible working conditions" (recoded) (α = .70).

Control variables

Because previous studies have shown that gender, age, academic degree, and income are important individual characteristics in the participation-consumption relationship (Neilson & Paxton, 2010; Summers, 2016), we assessed these variables in addition to employment status as control variables.

Prosocial values, such as concerns for social justice or human rights, are often the main motivation for voluntarily engaging in associations (e.g., Gustavo et al., 2005); such values are also important predictors of responsible consumption behaviors (e.g., Stolle et al., 2005). To control for mere selection effects due to stable prosociality, we assessed prosocial personality using the 4-item empathic concern subscale of the prosocial personality battery (Penner, Fritzsche, Craiger & Freifeld, 1995), e.g., „When I see someone being taken advantage of, I feel kind of protective towards them" (α = .65), and respondents rated the items on a 5-point Likert scale ranging from 1 (*do not agree at all*) to 5 (*completely agree*).

3.3 Statistical analyses

We tested hypotheses *H1* to *H3* with structural equation modeling (SEM) using the lavaan package (Rosseel, 2012) in the statistics software R (The R Core Team, 2013). In SEM, measurement error can be explicitly modeled so that unbiased estimates of the relations between latent constructs can be derived. Hypothesis testing can thus be considered more credible and reliable. For parameter estimation, we used the maximum likelihood estimator with robust (Huber-White) standard errors (MLR). We included gender, age, academic degree, employment status, income, and empathic concern as control variables in all analyses. Model fit was assessed using the Yuan-Bentler scaled χ^2/df, the comparative fit index (CFI), the root mean square error of approximation (RMSEA) and the standardized root mean residual (SRMR). According to Kline (2005), models with a CFI value close to .95, a χ^2/df ratio < 3, and RMSEA/SRMR < .05 indicate an acceptable fit between the model and the data.

To ensure that the measured constructs were equivalent across the two groups (volunteers vs. non-volunteers), we tested for measurement invariance between the two groups by means of confirmatory factor analyses (CFA). As metric invariance is sufficient to show that the measured constructs can be interpreted the same way across both groups (Pekrun, Vogl, Muis & Sinatra, 2017), we tested for metric invariance by comparing a model with constrained factor loadings (M1) to a configural invariance model (M0) without constraints (Putnick & Bornstein, 2016) using multiple group analysis in lavaan.

4 Results

Means, standard deviations and bivariate correlations for all the measures are presented in Table 1.

The results showed a positive relation between volunteering and responsible consumption (r = .21, p < .001). Empathic concern significantly correlated with gender (r = .22, p < .001), volunteering (r = .16, p < .001), responsible consumption (r = .40, p < .001) and all three psychological factors (information availability, social norms, collective efficacy), although for issue-specific information availability, we unexpectedly found a negative correlation (r = -.13, p < .001).

The results of our measurement invariance tests provided evidence for metric invariance across the two groups. After adding constrained factor loadings (M1) to the configural invariance model without constraints (M0), model fit did not significantly decline, as indicated by the scaled χ^2 difference test (scaled $\chi^2(8)$ = 7.983, p = .435). Additionally, comparison of fit indices of M0 (CFI = .967, RMSEA = .041, AIC = 59,663.93) and M1

Table 1: Descriptive statistics and bivariate correlations of all measures.

		M	*SD*	1	2	3	4	5	6	7	8	9	10	11
1	Responsible consumption	4.85	1.32	–										
2	Volunteering	0.42	0.49	.21***	–									
3	Information availability	2.89	1.31	.00	-.04	–								
4	Social norms	4.31	1.39	.45***	.22***	.10**	–							
5	Collective efficacy	5.16	1.27	.53***	.18***	-.03	.39***	–						
6	Gender[a]	1.51	0.50	.08*	.14***	.02	.06*	.08*	–					
7	Age	47.09	16.38	.01	-.00	-.10**	.12***	.05	-.01	–				
8	Academic degree[b]	3.37	1.85	.79*	.06	-.00	.15***	.07*	-.08*	-.12***	–			
9	Employment status[c]	0.58	0.49	.01	-.01	.04	-.05	.01	-.07*	-.36***	.12***	–		
10	Income[d]	2.51	1.14	.08*	.00	.04	.11***	.06	-.11***	.09**	.21***	-.14***	–	
11	Empathic concern	3.95	0.70	.40***	.16***	-.13***	.30***	.36***	.22***	.10**	.05	.10**	-.00	–

Notes: N = 1,012; M = mean; SD = standard deviation.

a = male, 2 = female.

b = lower secondary school, 2 = secondary school, 3 = vocational baccalaureate, 4 = high school, 5 = bachelor, 6 = master, 7 = Ph.D.

c = employed or self-employed, 0 = unemployed, retired, on parental leave, student, apprentice.

d = less than 500 Euro, 2 = 500 to 1,500 Euro, 3 = 1,501 to 2,500 Euro, 4 = 2,501 to 3,500 Euro, 5 = over 3,500 Euro.

** p < .05, ** p < .01, *** p < .001, two-tailed.*

(CFI = .967, RMSEA = .040, AIC = 59,655.97) showed no change in CFI and reduced RMSEA and AIC.

Our hypothesized test model showed an acceptable overall fit to the observed data (Yuan-Bentler scaled χ^2 = 342.61, *df* = 108, $p < .001$, scaling correction factor = 1.108, χ^2/df = 3.17, CFI = .947, RMSEA = .049, SRMR = .039). The results of our analyses are displayed in table 2. As expected, volunteering was positively related to consumption-related social norms (β = .14, $p < .001$) and collective efficacy expectations (β = .09, $p = .029$) over and above all control variables, including empathic concern. However, no significant relation was found for availability of information (β = -.038, $p = .313$). Social norms (β = .17, $p < .001$) and collective efficacy (β = .46, $p < .001$) but not availability of information (β = .01, $p = .691$) were significantly related to responsible consumption.

We conducted additional analyses to test whether the indirect effects of volunteering on responsible consumption via social norms and collective efficacy were statistically significant. The significance of indirect effects was tested using bootstrapping (5,000 samples) with 95 % bias-corrected confidence intervals (CIs) in R. All coefficients reported are standardized. The indirect effects were significant both for social norms (β = .023; 95 % CI [.003, .043]) and collective efficacy (β = .04; 95 % CI [.001, .079]).

Table 2: Model coefficients for predicting information availability, social norms, collective efficacy, and ethical consumption.

Predictors	Dependent variables											
	Information availability			Social norms			Collective efficacy			Ethical consumption		
	B	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Volunteering	-.100	.099	-.038	.340	.097	.135***	.236	.108	.090*	-	-	-
Information availability	-	-	-	-	-	-	-	-	-	.013	.033	.013
Social norms	-	-	-	-	-	-	-	-	-	.183	.050	.172***
Collective efficacy	-	-	-	-	-	-	-	-	-	.470	.063	.455***
Gender[a]	.140	.100	.054	-.249	.103	-.100*	-.308	.121	-.120*	-.195	.094	-.074*
Age	-.009	.003	-.118**	.005	.003	.063	-.003	.004	-.032	-.006	.003	-.076*
Academic degree[b]	-.012	.027	-.017	.075	.025	.111**	.014	.028	.020	-.013	.024	-.018
Employment status[c]	-.063	.113	-.024	.018	.105	-.007	.114	.121	.044	.076	.090	.028
Income[d]	.085	.045	.074	.088	.042	.080*	.059	.047	.052	.015	.039	.013
Empathic concern	-.156	.130	-.067	1.090	.176	.488***	1.419	.214	.617***	.733	.177	.308***

Notes: N = 1,012; M = mean; SD = standard deviation; B = unstandardized regression coefficient; SE = standard error;
β = standardized regression coefficient.
a = male, 2 = female.
b = lower secondary school, 2 = secondary school, 3 = vocational baccalaureate, 4 = high school, 5 = bachelor, 6 = master, 7 = Ph.D.
c = employed or self-employed, 0 = unemployed, retired, on parental leave, student, apprentice.
d = less than 500 Euro, 2 = 500 to 1,500 Euro, 3 = 1,501 to 2,500 Euro, 4 = 2,501 to 3,500 Euro, 5 = over 3,500 Euro.
** p < .05, ** p < .01, *** p < .001, two-tailed.*

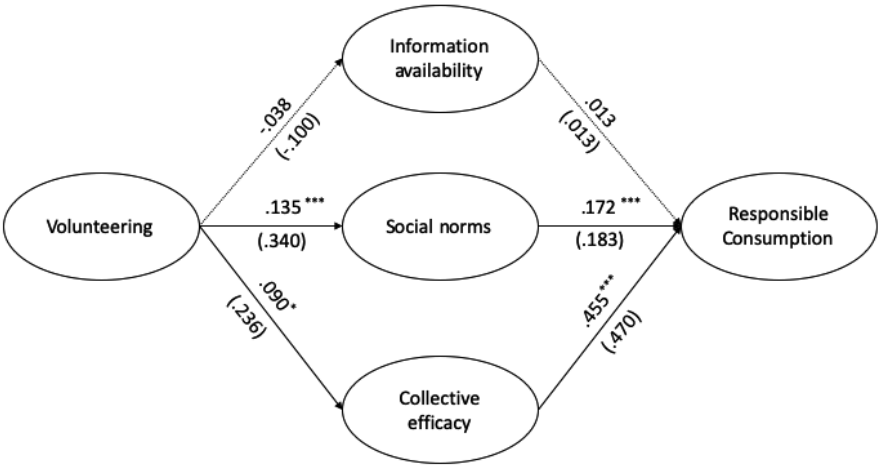

*Figure 1: Structural equation model concerning consequences of volunteering and antecedents of responsible consumption; standardized coefficients are given above the arrows; unstandardized coefficients are given in brackets below the arrows. *p < .05; ** p <.01; *** p <.001.*

5 Discussion

In this article, we investigated the relationship between volunteering and responsible consumption; furthermore we examined information availability, social norms and collective efficacy as potentially underlying mechanisms. It has been repeatedly confirmed that volunteers are more likely to consume ethically than non-volunteers (Espejo & Vázquez, 2017; Neilson, 2010; Neilson & Paxton, 2010; Stockemer, 2014; Summers, 2016) but so far approaches to further explore this relationship have remained on a theoretical basis (Espejo & Vázquez, 2017; Neilson, 2010; Summers, 2016). Our study is the first to provide empirical insights into psychological factors in the context of the relationship between volunteering and ethical consumption. We therefore extend knowledge about the antecedents of ethical consumption and point out the importance of civic engagement. We found significant positive relations between volunteering and responsible consumption. Thus, we found evidence that people who voluntarily engage in associations are also more likely to express their personal values in their consumption behavior. Hypothesized effects were also found for volunteering in relation to social norms (*H2a*) and collective efficacy (*H3a*), but not for availability of information (*H1a*). Social norms (*H2b*) and collective efficacy (*H3b*), but not information availability (*H1b*), were found to be positively related to responsible consumption.

In terms of responsible consumption, the association with collective effectiveness was considerably stronger than with social norms. The study by Paul et al. (2016) on green purchasing showed a similar pattern. For efficacy expectations, effects on green purchasing were found, while the influence of social norms was not significant. The Vermeir and Verbeke (2008) study on sustainable food consumption also found greater effects for efficacy expectations compared to social norms. However, the differences here were not quite as strong as in our study. This may be due to the fact that we have conceptualized social norms as descriptive norms (what most others do) which differ from the injunctive norms concept (what others approve) as collected by Paul et al. (2016) as well as Vermeir and Verbeke (2008).

In terms of volunteering, we found relatively small effects for both social norms and collective effectiveness. It is likely that this has primarily to do with the fact that social norms and collective effectiveness were related to consumption rather than to volunteering. The low effects reflect the fact that two different areas of life are addressed here, so that excessively high effects could not have been expected.

We unexpectedly found no significant effect for availability of information as a predictor of responsible consumption or as an outcome of volunteering. One possible explanation may lie in the fact that we applied a single-item indicator for information availability, which may have led to increased measurement error and thus to low reliability. Additionally, it seems likely that our measure has not covered the content of the available information as much as it has captured satisfaction with the amount of available information. This distinction is also apparent from the negative correlation with empathic concern. A large knowledge base about working conditions in global supply chains may contribute to the impression that, in fact, there is very little information available regarding this issue (as is apparent in the rather low mean value), which may cause a sense of dissatisfaction.

5.1 Limitations and future research directions

The aim of our study was to confirm the relationship between volunteering and responsible consumption and to investigate information availability, social norms, and collective efficacy as potentially underlying mechanisms. Although the indirect effects of social norms and collective efficacy were significant, we could not deduce from this finding that social norms and collective efficacy serve as mediators in the volunteering-consumption relationship. As Maxwell and Cole (2007) pointed out, mediation is a pattern that consists of several causal processes that emerge over time. Therefore, because this was a cross-sectional study, we cannot make any statements about the direction of the relationship or causality. Hence, it is still an open question which of the examined variables are antecedents, mediators or outcomes. Several studies have shown that cross-sectional approaches to mediation produce substantially biased estimates of direct and indirect effects (Maxwell, Cole & Mitchell, 2011; Maxwell & Cole, 2007; O'Laughlin, Martin & Ferrer, 2018). The significant indirect effects we found in this study therefore do not say anything about whether longitudinal mediation effects are to be expected and, if so, how strong these effects would be. Our results first show that social norms (and collective efficacy) explain a significant amount of variance in responsible consumption beyond the fact that people voluntarily engage in associations. In future longitudinal studies, the direction of the relationships between these variables should be examined more closely to detect mediation effects.

Further limitations relate to methodological aspects of our study. First of all, this concerns a potential sample bias, which could have been caused by the self-selection of the test persons. As a result, it may be possible that people who were particularly motivated and engaged participated in the study. People who are less motivated and engaged, on the other hand, may

have refrained from participating in our study. Thus, it is conceivable that the correlations between volunteering and consumption are slightly higher in our sample than in the general population. Nevertheless, since sample bias affected both volunteers and non-volunteers equally, the correlations are unlikely to have been substantially affected.

Secondly, another limitation concerns the low internal consistency of the empathic concern scale, which might have influenced our results. Low internal consistencies of this scale have also been reported in other studies (Furrow, King & White, 2004; Hui, Wu & Pun, 2019). It can therefore be assumed that the low reliability is caused by the heterogeneity of the construct. Future studies should therefore rather draw on Penner et al. (1995) composite measure of other-oriented empathy, which, in addition to empathic concern, also includes the subscales social responsibility, perspective taking, other-oriented moral reasoning and mutual concerns moral reasoning. For this superordinate scale, internal consistency has been satisfactory (e.g., Finkelstein, Penner & Brannick, 2005).

Finally, our single-item measure for information availability most probably resulted in information availability being afflicted with a considerable measurement error in our study, which may be the reason why we could not find any significant effects. Thus, we cannot show any evidence for the true relations information availability has with volunteering and responsible consumption. Nevertheless, previous studies provide insights into what future studies can focus on with regard to information. De Pelsmacker and Janssens (2007) investigated the role of perceived quantity of fair-trade information and found a positive effect on fair trade buying behavior, but they also unexpectedly found a negative correlation to concern about fair trade and a positive correlation to skepticism. In a more recent study, the availability of fair-trade information negatively affected positive consumer attitudes toward fair trade (Pérez & de los Salmones, 2018). So, it seems that the amount of information on a particular consumption-related issue is likely to have the opposite effect to what it should. Consumers are often confused about ethical issues in consumption because there is not enough high-quality information – and there is even false information – about ethical products (Nilsson, von Borgstede & Biel, 2004). With regard to fair trade, researchers believe that too much information about different labels or certification initiatives annoys consumers, leading them to disengage from fair trade consumption (Jaffee, 2010; Jaffee & Howard, 2016). Thus, the quality of available information could be more important for responsible consumption than the amount of information, as supported by the results of de Pelsmacker and Janssens (2007). Future research should therefore pay greater attention to the role of the quality of information and examine which factors constitute high-quality information for responsible consumption.

Further research opportunities also arise for social norms: We examined the role of social norms by focusing on descriptive norms. An interesting line of research has investigated the interrelationships of descriptive and injunctive norms and their joint effects on behavior, finding that descriptive norms are especially effective if they are aligned with injunctive norms towards the respective behavior (Smith et al., 2012). Examining separate and joint effects of descriptive and injunctive social norms on responsible consumption would be a fruitful avenue for further research.

Another interesting research question that follows from our article refers to group-level mechanisms of the volunteering-consumption relationship. We focused on individual-level mechanisms that are hypothesized to arise from voluntary engagement in workgroups. Future studies should also investigate group-level moderators (e.g., group cohesion) or group-related individual-level moderators (e.g., group identification) in this relationship.

5.2 Practical implications

The results of our study indicate that volunteering in associations is related to the way people consume and the criteria they use when purchasing products. By controlling for empathic concern as an important component of prosocial personality, we examined the role of volunteering after adjusting for self-selection effects. The fact that we found significant effects despite controlling for empathic concern strengthens our assumption that socialization effects occur through volunteering, affecting ethical behavior in the individual sphere. Associations can therefore be considered a fertile ground for initiating or further developing more responsible consumption practices. Political interventions aimed at promoting sustainable consumption should consider associations and other places where people come together to volunteer. Information campaigns about environmentally friendly alternatives or social problems in global supply chains, for example, would find suitable recipients there.

The results of our study also provide initial indications as to which processes are important in this context, thus providing insights into how associations can deliberately promote more responsible consumption behaviors: Being involved with people who already consider social criteria when shopping or have a positive attitude towards responsible consumption increases the likelihood of rethinking one's own consumer behavior. Associations could therefore create opportunities or occasions for volunteers to exchange their views on responsible consumption issues. This

can be done either subtly, e.g. via locally available flyers, or more directly, e.g. by organizing group discussions or other meetups on the subject. Moreover, volunteers tend to feel that they make a difference as consumers. Further research is needed to clarify whether this sense of efficacy is actually generated through volunteering; nonetheless, associations should ensure that successes achieved together are communicated and celebrated, which may facilitate a sense of participants' effectiveness outside the associations as consumers. Finally, consumption also takes place within associations (e.g., office supplies or food purchases). By offering exclusively fair trade coffee, for example, associations actively create a responsible consumption norm, which can also influence the private consumer behavior of their members.

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