

Networks of practices in critical consumption

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Abstract

This article proposes some theoretical and methodological advancements in the study of critical consumption within the framework of the theory of practices. It does so by applying an innovative analytic technique based on network analysis: using data from a survey of a representative sample of the Italian population, we analyze the structure of connections between variables at different levels of correlations, and then we focus on some interesting local neighborhoods that suggest elements for interpretative frameworks. The aim of this article is to explore whether it is possible to consider critical consumption as a practice, and if so what are the elements that characterize it as an entity. We also aim to observe whether these elements are connected to other (not necessarily sustainable) practices. Results do not show robust and coherent connections of elements that allow speaking of critical consumption as a practice, but they identify interesting anchor points where ethnographic approaches can be directed. These crossroads, where bundles of elements encounter, suggest the existence of loose knits of activities where competences and meanings of different practices encounter and contaminate.

Keywords

Critical consumption, sociology of practices, network analysis, survey data, quantitative methods

Introduction

The challenge of sustainability has been recently addressed by focusing on the interdependence of production and consumption (Cohen, 2001), where the latter is recognized as one of the most complicated tasks to address. Policy interventions

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are still deeply embedded in a cognitive and individualistic perspective, where consumers more or less consciously and autonomously decide upon their activities by taking into account a combination of self-interest benefits (as stated by rational choice models, see, for example, Begg et al., 2003), egoistic and altruistic values (Ajzen and Fishbein, 1980; Dunlap and van Liere, 1978; Ajzen and Fishbein, 1970), social norms (Ajzen and Fishbein, 1980), and provided incentives and information (Defra, 2008). Many scholars have discarded this model by pointing out the ineffectiveness of policies that intervene by simply informing consumers previously clustered according to their opinions and attitudes. Those scholars have also shifted the object of attention from the cognitive aspects of consumption to the habits and routines in which the practices of consumption take place, therefore embracing the practice theoretical framework (Shove, 2010; Shove et al., 2012; Southerton et al., 2004, 2011; Warde, 2005).

Although the shift in the theoretical perspective and consequently in the research objects have already produced many interesting and valuable results, a direction of research is set to overcome the peculiarity of studies whose focus is on individual practices. In other terms, so far studies have mainly unpacked the elements that constitute a singular "practice" (Reckwitz, 2002: 249): a further step that needs to be taken entails the understanding of how different bundles of practices combine together (Halkier and Jensen, 2011; Shove et al., 2012). This is because "practices are not hermetically sealed off from other adjacent and parallel practices, from which lessons are learned, innovations borrowed, procedures copied" (Warde, 2005: 141). In this perspective, individuals are carriers of a multitude of different social practices (Reckwitz, 2002: 256), which differentiate between themselves (in terms of required performances and engagements), are differently distributed across populations (Southerton et al., 2012; Warde, 2005), and interconnect in patterns of habits and routines which still need to be empirically observed. Furthermore, since different practices could share constitutive elements such as materials, competences, and meanings, changes in one practice can be expected to influence modifications in overlapping practices (Gram-Hanssen, 2011; Shove et al., 2012).

This article aims to investigate whether it is possible to identify some elements that, when related to each other, can be considered constitutive of critical consumption. In other words, it aims to verify whether it is possible to consider critical consumption as a practice characterized by specific and recognizable materials, competences, and meanings. This objective springs out from the results of the qualitative counterpart of the study presented here. The qualitative inquiry aimed to investigate the meanings and experiences that people associate with critical consumption (Leonini and Sassatelli, 2008a), for which a non-representative sample of 127 Italian people was interviewed. Of them, 88 were selected as typifying political consumers (Micheletti, 2003, 2004) with an active engagement in associations that promote critical consumption; 39 were non-activist people with a declared sensibility toward the social content of products, where for social content it is intended the various measures adopted in the production and

commercialization of products for the safeguard of the environment, the protection of human rights, and the like (Leonini and Sassatelli, 2008b: 4). The interviews confirmed the existence of a series of shared collective narratives that associate various ethical and sustainable activities and that can be considered as possible constitutive elements of critical consumption as a practice. This practice, in the words of consumers, assumes various forms and nuances, sometimes being connected to more consciously articulated political values, sometimes referring to a specific attention to the quality of products, sometimes presenting contradictions that need to be reflexively justified during the interviews. But overall, despite the nuances and contradictions, the narratives indicate a collective framework of meanings and engagements with critical consumption (Leonini and Sassatelli, 2008a). While it was relatively expectable to observe a set of reasonably coherent associations within the individual narratives of activists and attentive people, this article aims to verify whether these elements' associations, with their various nuances and contradictions, could also be tracked across a representative sample of the Italian population.

However, the article does not look at how a hypothetical practice of critical consumption emerges, transforms, and eventually collapses: this task would require longitudinal data uncovering general patterns of dynamics of the combinatory texture of elements that constitute it (see, for example, Warde et al., 2007 for the practice of eating; Southerton et al., 2012 for the practice of reading). Similarly, it does not focus on the contextual performances that carriers display when adopting a practice, which would be better addressed with ethnographic observations and qualitative data (Evans, 2012; Hargreaves, 2011; Magaudo, 2011; Watson and Shove, 2008). We instead abstract from the contingent moments in which carriers, by means of performing, reproduce or modify practices, to look at how various materials, competences, and meanings are interlinked, and how they are shared across adjacent practices. In other words, we want to identify the constitutive elements that may distinguish critical consumption as an entity (Gram-Hanssen, 2011; Halkier and Jensen, 2011; Shove et al., 2012) at a specific point in time and in a specific national context, and look at how these elements may be embedded within more general patterns of consumption and therefore shared with other (not necessarily sustainable) practices.

As elements of practices, and the way they connect, are living tissue that do not exist ready-made but are continually re-woven as practices are reproduced (Ingold, 2008), empirical research need to allow for the potential multiplicity and variety of them (Halkier and Jensen, 2011). Practices are subjected by processes of multiplication and diversification, which have the effects of undermining established orthodoxies in specific practices and of reproducing them in modified forms (Southerton et al., 2012: 241). Thus, we do not assume that there will be only one type of meaning, or one competence, associated with critical consumption. Our analytical strategy, as we will explain, allows identifying a multiplicity of elements, all of which can equally concur to constitute a specific practice, and that we assume emerge from the variety of performances that characterize it, even if with our

data we cannot see these performances directly. For the same reason, we expect these elements not to be sealed off in a single practice, but to lie at the intersection of various activities like cultural and entertaining activities, political and voluntary activism, media consumption, patterns of resources provisioning (food, clothing, cultural objects), self- and body care, and the like; to be possibly linked to stated attitudes toward ethical and social responsibility in general, political views, and institutional trust; and to be eventually related to classic socio-demographic and socio-economic indicators.

The data we use to support our analysis are obtained from a survey carried on a representative sample of the Italian population in 2005, using network analysis as a descriptive and exploratory tool that allows mapping and measuring the interconnections between different variables. The survey constitutes the quantitative counterpart of the qualitative study described above (Leonini and Sassatelli, 2008a), although it differs from it as instead of focusing on activists and people with a declared sensibility toward critical consumption, it interviewed a representative sample of the Italian population, where it is reasonable to expect a less pronounced attention to social and environmental issues. While results have been statistically analyzed elsewhere (Bovone and Mora, 2007), here we take a different analytical approach, where we are not so much interested in measuring the distribution and the predictive power of some variables over others, but in observing how a large number of variables correlate to each other, what kind of clusters they create at different levels of correlations, and what kind of variables lie at the interconnections of different clusters, where variables represent materials, competences, meanings, but also activities and spatial locations. The method, applied to survey data, is innovative because instead of trying to fit a single model that summarizes the most common patterns of correlations within the data (as in classic regression analysis), it looks at many possible combinations of variables, from the highly correlated clusters, to the lower levels of relations. While higher levels of correlation indicate that elements are connected across many people's responses, lower levels of correlation suggest bundles of elements that are performed by niches, or that instead of being widely diffused may be at different stages of evolutions, being either emerging or collapsing. By looking at these various patterns simultaneously, we aim to produce a series of interpretative frameworks that show how several elements may be variously organized in coherent entities that define practices, where elements may include certain (groups) of activities and materials (like buying specific products), the places where they are performed, the knowledge required or used to justify the performances, and the meanings that are associated with them. The interpretative frameworks can also show how these practices might be able to connect supposedly environmentally friendly forms of consumption to other less green options. These frameworks are then compared to the results of the qualitative interviews, where we see whether they emerge within the subjective narratives as meaningful associations of the practices' elements.

Following this "Introduction," the section "Sociology of consumption within the theory of practices" revises the literature of the theory of practices applied to

the field of sociology of consumption, from which this study spins off. We mainly ground our study in the recent systematization of the theoretical elements that define practices and their dynamic patterns of evolution (Shove et al., 2012). We discuss the implications of using quantitative data within a practice theoretical framework, where we show that even if survey data are limited in the way in which they represent social realities, ultimately our analysis is different from the dominant deductive models of the ABC framework. The section “Data and method” describes the sample and the survey, and briefly introduces the network analysis techniques we used in exploring the data. In the section “Analysis,” results are reported by first observing how variables interconnect at different levels of correlation, then by clustering them according to their connections, and finally by focusing on some variables that bridge across clusters. The analysis produces a series of elements that suggest interpretative frameworks discussed in the section “Discussion.” In the section “Conclusion,” we summarize our findings, and we discuss possible implications for further research.

Sociology of consumption within the theory of practices

The research on sustainable consumption is often supported by funding institutions with the aim to develop both strategies and policies that prompt stable changes in the patterns and habits of consumption (Jackson, 2006). Most of the public interventions have been shaped by what Shove (2010: 1274) polemically calls the ABC models, where consumers’ choices depend on specific behaviors (B) influenced by coherent and corresponding attitudes (A), although the direct influence might be hampered by contextual barriers (C); therefore, by modifying attitudes, given the required adaptation to the contextual specifications, policies are expecting to see consequent changes in behavioral choices. However, evidence shows that the idea that consumers exercise their sovereign power of choice has proved to be a poor model for understanding contemporary consumption (Warde, 2005), nonetheless because it ultimately gives an overestimated role to the “voluntarism” of the consumer (Heiskanen and Pantzar, 1997: 410) or to the explicit knowledge that he or she has of sustainability and of the environmental consequences of consumption choices (Hargreaves, 2011). Also, by considering the context as an exogenous variable that acts upon the direct correlation between attitudes and behaviors, these models end up listing sets of contextual elements which are endless, arbitrary, and ultimately inefficient (Shove, 2010). In these models, more or less everything can play a role in trying to explain the causes of the well-known phenomenon of the attitude–behavior gap (Blake, 1999; Defra, 2008; LaPiere, 1934), and therefore nothing emerges as particularly significant. Furthermore, ABC models presuppose unidirectional effects of information over attitudes and consequently over behavioral choices, therefore adopting deductive types of explanations which are operationalized through generalized linear models (Nelder and Wedderburn, 1972). In these models, observed data are fitted against a single linear predictor and outliers dropped as model’s disturbers. However, there is no robust indication that the

effects should be unidirectional from attitudes to behaviors or that the variety of daily practices could be easily summarized by a single fitted line. Finally, the conceptualization of consumption in the reductive terms of economic purchases cuts off extremely important areas, namely, the patterns of provisioning, the usage, and the disposal of products which are overshadowed by the focus on expenditures' choices, but are essential in order to understand the variety of styles of consumption embedded in everyday habits and routines, and that play a dramatic role in terms of environmental impact (Warde and Southerton, 2012).

This is why the practice theoretical framework has started to be applied in the study of consumption, where the focus is not on what people think, believe, or value, but on what people do in their everyday life, and the consequences that the outcome of habits and routines (no matter if intentional or unintentional) have for the environment. In this perspective, environmentally friendly behaviors are facilitated or hampered by a complex cultural, material, and technical system which embeds and shapes people's practices (Shove, 2010; Southerton et al., 2004, 2011; Warde, 2005; Warde and Southerton, 2012). Here, the specific context in which practices take place is not considered anymore as an exogenous variable, but as a constitutive complex and multifaceted environment where practices are defined by cultural prescriptions and social expectations, by technical and infrastructural possibilities and barriers, by the influence of people who participate to them, and by the available knowledge on how to perform them. These elements have a specific temporal and historical dimension: cultural prescriptions, social expectations, available knowledge, and technical and infrastructural possibilities change over time, allowing or impeding the emergence of new practices, their diffusion, consolidation, and abandonment (Shove et al., 2012; Southerton et al., 2012). Material objects encode scripts of knowledge and performances that can influence other consolidated routines and be transferred across practices, as it has been observed, for example, in studying the diffusion of the freezer (Shove and Southerton, 2000). It is by looking at the points in which emerging practices anchor themselves to the contextual spaces of other sets of normalized and everyday practices that the practice theoretical framework proves to be extremely useful for designing policies.¹

Scholars have thus engaged in the identification of elements that are required to constitute a practice. Halkier and Jensen argue that in order to say that a type constitutes a practice, it should comprise a sufficient amount of activities, organized by their matching understandings, procedures, and engagements (Halkier and Jensen, 2011: 115). Shove and colleagues define practices as specific connections between materials, as in things and technologies; competences, as knowledge, know how, conventions on how to do things; and meanings, as in ideas and aspirations (Shove et al., 2012: 14). They also explain that "the changing contours of practices-as-entities are shaped by the sum total of what practitioners do, by the variously faithful ways in which performances are enacted over time and by the scale of commitment of the cohorts involved" (Shove et al., 2012: 101). This implies that practices can go through historical phases in which they can be initiated by some user-driven innovations, may subsequently spread around a community of

practitioners, and that by virtue of a variety of performance can consequently differentiate in variants that “attract different kinds of recruits and are in turn animated and sustained in distinctive but not entirely unrelated ways” (Shove et al., 2012: 101). The variety of performances implies that practices differentiate when the patterns of connections between their constitutive elements change, being made, sustained, or broken. It also implies that different performers may associate different meanings to the same practice, may attribute importance to various competences, or may experiment with different materials.

In order to investigate the variety of meaning associated with practices, and the performances that practitioners carry out, the practice theoretical perspective has mainly embraced a qualitative approach to empirical research. This is because individual narratives are the most suitable way to explore the subjective articulation of elements that individuals associate with a specific practice. This is what emerged in the qualitative component of the research presented in this article, which conducted 127 semi-structured interviews on the topic of critical consumption. The qualitative material has been analyzed elsewhere (Leonini and Sassatelli, 2008a): in that occasion, results indicate the existence of a relatively coherent set of frameworks of critical consumption that was shared and recognized by the interviewees. These sets referred to hedonistic principles that included a declared attention to the safety and quality of food and a propensity toward alternative medicine and self-care. They also referred to generic solidarity attitudes which include sensibility toward social and environmental issues. Finally, a reference to sometimes needed, sometimes intentionally pursued practice of frugality was also mentioned. Such complex and nuanced frameworks testify the variety of meanings and engagements associated with critical consumption (Leonini and Sassatelli, 2008b: 17). As a *trait d'union*, the research identified a pragmatic orientation of consumers experimenting with concepts of “right,” “beauty,” and “good” in their search of a coherent way of keeping together the sometimes contradictory and episodic elements of critical consumption (Leonini and Sassatelli, 2008b: 19). However, the interviews presented the limits of being conducted with a sample of people particularly sensible to social and environmental issues related to consumption, where it was more expectable to find such coherent narratives. Within interviews, individuals reflexively construct a discourse that aims at keeping together a multiplicity of meaning, making sense out of possible mismatching, and contradictions. Despite the search for coherence, results also indicate that interviewee sometimes struggle to maintain this coherence across all the aspects of their everyday life, where ethical principles and engagements may clash against cultural prescriptions and social expectations, technical and infrastructural possibilities and barriers, habits, and routines.

In this respect, the quantitative data may help in extending the qualitative results by seeing whether it is possible to scale them up and identify some materials, competences, and meanings that at a specific point in time, in which the survey was conducted, and for the specific national context that the data represent, were connected in a congruent way that allow to speak of a recognizable entity of critical consumption, in a venue similar to the one that emerged from the

qualitative interviews. We also want to see whether there is any variation in the type of elements that indicate a variety of meanings, competences, and materials that may be equally associated together to form the same practice. If so, we also expect these elements not to be perfectly congruent: as it emerged from the qualitative material, elements of the same practice could also be in conflict, representing different ways in which people understand, make sense of, and perform practices. While in a cognitive and individualistic perspective such contradictory elements would be considered as signs of the lack of consistency between attitudes that explain and predict behaviors, in a practice theoretical framework, they can be understood in terms of conscious or unconscious variations within the same practice that allows for dynamics of transformations over time.

Although not common, the use of quantitative data is not entirely new within the practice theoretical framework. Studies based on historical series, for example, have largely used survey diary data on reported behaviors, where people indicate the frequency in which they perform certain practices, like eating (Warde et al., 2007) or reading (Southerton et al., 2012). The advantages in using quantitative data have been illustrated by Browne and colleagues (Browne et al., 2013, 2014; Pullinger et al., 2013), who reflect upon the development of a quantitative approach to the study of practices that allow to scale up and out the diversities in practices performances, overcoming the limits embedded in the narrow and contextual framework of qualitative studies (Pullinger et al., 2013). Having said so, it is essential to indicate the limits embedded in the use of survey data. In our research, we identified three main limits.

The first is that by collecting quantitative information only at one time point, we cannot look at the dynamics of the connections that we find across various elements of practices; therefore, we cannot observe the changing contours of practices-as-entities that we might identify in our data. The same limit though characterizes also the more common qualitative approaches to the study of practices, which, according to Southerton et al. (2012), tend to focus on how specific practices are organized without taking into account the various ways in which practices are reproduced and eventually modified. But while qualitative studies are inherently not designed to extrapolate and generalize broad trends and processes (Southerton et al., 2012: 240), in our data, we can at least temporally size the elements we are observing, in terms of their distribution across a representative sample of the Italian population, which at the time of the data collection did not indicate mainstream tendencies, but neither niche nor peripheral activities. Results indicate that in 2005, over 60% of people purchased organic products, and 45% purchased fair trade products, if not always, at least sometimes; that attention and respect for the environment was considered the first priority for Italian society; that firms were considered ethically correct primarily if they respect the environment; and that over 35% of the sample had boycotted a brand in their life (Bovone and Mora, 2007). Although we do not have access to perfectly comparable historical series, we can find some indications of the growing importance of the phenomenon in Italy and Europe in other researches. For example, despite the fact that the consumption of

organic and fair trade products were limited to only 1.6% of the shopping basket in Italy (Krier, 2005; Youssefi and Willer, 2003), in Europe the overall consumption of these products increased to 20% (fair trade) and 10% (organic) between 1997 and 2005 (Krier, 2005). A more recent report indicates that European organic food sales increased by 9% in 2001, with Italy, France, and the United Kingdom responsible for a third of them (Organic report market, 2013²). These data, despite indicating the growing market of critical consumption, also suggest that it is very likely that in our survey consumers tend to over-report their consumption of organic and other products with an environmental and/or ethical profile, given the fact that on average other studies report a maximum of 30% of Italian population sensible to critical consumption. Therefore, caution should be taken when interpreting results.

The second limit is congenital to any survey as it does not directly observe practices but only measures the distribution of reported attitudes and behaviors. However, our survey questions are designed with the specific intention to focus on simple activities (for example, where some products are commonly bought, or whether some activities have ever been performed), without following the classic attitude approach in which people are asked about their willingness to act according to previously stated positive attitudes (see, for example, Defra, 2008). Analyzing what people say they do gives more reliable indications of consumption activities than does attitude data (Gronow and Southerton, 2009; Southerton et al., 2012), and a representative survey also has the advantage of generalizing the distribution of such reported consumption activities within a population (Southerton et al., 2012). It is in a way better suited to account for the “sum of the total of what practitioners do” (Shove et al., 2012: 101) than surveys designed to collect data on attitudes and willingness to behave. It is also better suited than ethnographic studies that, although necessary for accounting for what people exactly do, cannot then generalize these patterns and size the volume of behaviors’ distribution.³

The third limit consists in the fact that by using survey data the elements that can come to constitute critical consumption as a practice were necessarily pre-defined by the researchers. This means that they may not be either necessary or sufficient to identify a coherent practice of critical consumption, as it might be understood and performed by practitioners (Halkier and Jensen, 2011). This limit is partially due to the fact that the survey being the first empirical attempt to map the diffusion of some forms of critical activities in Italy, we could not rely on the previous established results on which to construct the survey’s items. We can, however, to a certain extent, rely on the qualitative results, although as previously said, interviews are likely to be biased toward more coherent and reflexively justified elements of practices given the declared sensibility of the interviewees. More substantially though, even if elements that can contribute to the constitution of critical consumption were pre-defined, our analytical strategy does not force them into pre-compartmentalized categories or reduce their variability into linear combinations of aggregate trends (as, for example, in factor analysis), but allows to see how they all variously combine. By defining a practice as a “relatively

consistent, relatively enduring integration of elements,” which is nevertheless “necessarily provisional” (Shove et al., 2012: 82), we can expect to identify a variety of elements that may all contribute and compete to constitute critical consumption, which are likely to be subjected to change over time. In other words, it could be the case, for example, that consuming organic food, as an element indicating the acquisition and usage of a material, is connected with elements indicating various competences, like different conventions in cooking or in providing for products, but also with various meanings like preferring organic because it is believed to be more genuine or conversely more environmentally friendly, or both. In time, some of these competences and meanings may overshadow others and become conventional and widespread, while others may be abandoned. Once we identify some interesting sets of connections, we can return to the individual narratives to see whether there is consistency between quantitative and qualitative results.

Although, as stated before, we cannot observe the dynamics of modifications of practices, by looking at the various levels of correlations between elements, we can at least observe if critical consumption, as an entity-practice, not only comes to be constituted by some foundational elements, but also if these elements are anchored to other elements that may indicate variances of the same practice, or links to other practices. The main advantage of using network analysis to observe these various levels of correlation is that we can observe the whole range of relations between elements, from the highly connected ones, which indicate widespread associations, to the very low correlations, which may indicate some niche phenomena or combinations of elements that are either emerging or dissolving. We cannot obviously prove these final observations with our data, but we can indicate some fruitful departing points where it would be interesting to direct some further ad hoc qualitative research that investigates these loose connections and the meaning they have for practitioners. This will be especially valuable in the cases that were not initially reported in the qualitative interviews and that may indicate some alternative engagements with elements of critical consumption from a more mainstream, and less politically orientated, population. By looking at the distribution of elements and their various levels of correlations, the method allows exploring the structural trends that indicate whether a practice involves a small number of heavily committed enthusiasts or conversely a large number of casual and occasional members (Southerton et al., 2012: 241).

The study thus preliminarily identified some elements that could potentially be good candidates to constitute critical consumption as a practice and constructed survey questions that aimed to measure their distribution across a representative sample of the Italian population.⁴ These elements were conceptualized as types of products, modes of usage, kinds of activities, cognitive and affective dimensions, conventions, formal and informal norms (Schatzki, 1996) and particular meanings that carry a critical aspect toward mainstream forms of consumption, consumerism, and mass production. In particular, we identified some products, activities, and meanings that present recognizable ethical or environmental characteristics (buying fair trade and organic products, boycotting firms and brands, supporting

firms' social responsibilities, adopting ethical banking, choosing products with a declared ethical or environmental dimension like natural fabrics or sustainable holidays), of which we first want to see whether they are correlated with each other, and then we want to observe their position against a wider basket of conspicuous (Veblen, 1899) and inconspicuous (Shove and Warde, 2002) consumption. This wider basket includes consumption of food, fashion items, holidays, classic cultural consumption, self-care and body products, but also a large set of various activities related to sport, entertaining, voluntarism, associations, charity, and a constellation of meanings as in values, attitudes, political beliefs, specific knowledge of social and environmental issues. Together with these forms of consumption, activities, and attitudes, we also collected data on classic socio-demographic and socio-economic indicators, which, as Southerton et al. (2012: 241) remind us, can indicate patterns of social differentiation in which practices are considered socially inclusive or, conversely, specialized. The combination of critical consumption with more routinely habitual and mainstream forms of consumption may indicate patterns in practices that can emerge both from engagement and conscious reflection, but also from naturalizing new elements into habitual routines (Gram-Hanssen, 2011). It could be the case of incorporating organic products into habitual recipes or second-hand clothes with more fashionable items.

Therefore, the scopes of this article can be summarized in two main empirical goals:

1. To observe whether critical consumption, in terms of what people say they do for provisioning and usage of goods and services, can be conceptualized as a practice in itself. Our hypothesis is that if this is the case, then we should observe highly correlated elements (practical tasks; cultural prescriptions; social expectations; available knowledge; and potential, technical, and infrastructural barriers) that constitute critical consumption as a practice. However, we do not expect all the elements to be congruent, as some of them may represent conflicting variations in the concrete performances of practices, which at an aggregate level emerge as differently distributed and variously correlated with other elements.
2. To observe whether such elements are connected to other bundles of elements that might themselves indicate other practices, like political participation, self-care, clothing, and the like, in order to explore possible overlapping with the scripts of knowledge and performances of critical consumption.

Data and method

In order to address these empirical goals, we propose an innovative way to look at the relationships within elements and between practices, which makes use of network analysis techniques to analyze the correlation between variables. As we have previously discussed, survey data are limited in the way they can represent reality,

as they classify subjective variations and nuances of the same concept in pre-defined categories general enough to be generalizable across cases, but also abstract enough to lose the detailed aspects of reality. Having said so, data collected for a representative sample of a population do have the advantages of observing how certain phenomena, in our cases certain elements of practices, are variously distributed across a population,⁵ but also of measuring simultaneously a large number of variables that are less likely to be captured with qualitative methods. We do not however propose to abandon one method in favor of the other: methods are tools for exploring the social reality, and if aptly used, quantitative data can “pose and answer different but complementary research questions from those concerned to deliver rich description of the cultural meanings and performances” (Southerton et al., 2012: 240).

More substantially though, survey data are normally analyzed using statistical methods, where data are reduced to general categories and fitted in univocal models where, especially in regression analysis, some elements are supposed to be dependent upon others according to some pre-existing theories. Such models imply the reduction of variability across cases to a single line that represent the most common trends in the data and that discount the richness of possible alternative combinations and the peculiarity of outliers. While we believe that, when carefully constructed, survey data can still provide rich and valuable information about social practices, we find that standard quantitative analysis, deductively driven by pre-defined theories, lacks the flexibility of a research design that allows the observation of various possible combinations. Our analytical strategy differs from deductive methods as it is not grounded on standard inferential statistics, but uses a combination of correlation analysis mixed with network analysis, a mathematical perspective which, although often combined with statistical analysis, constitutes an independent research approach.⁶

Network analysis techniques are normally used to analyze the social relationships between individuals or individuals' aggregate (groups, organizations, nations, and the like). In this sense, a network is the formal representation of agents (nodes) who are in some sort of relationship (ties) with each other, where relationships can be broadly defined to include a vast variety of social connections, from friendship to transmission of diseases (Borgatti et al., 2009). The “social” version of network analysis has been applied in many fields (economics, sociology, psychology, anthropology, epidemiology, biology, etiology, just to mention a few) where the observed nodes can be people, organizations, animals, and the like, and the corresponding ties represent the presence, absence, direction, and strength of social relationships (Degenne and Forse, 1999). However, network techniques have not been restricted only to the analysis of social interconnections. Nodes and ties can virtually represent anything that is in some sort of connection, and therefore network analysis has been applied, for example, in the study of semantic network, transport networks, patterns of scientific citations, and the like.

In this second acceptance, some versions of network analysis have been applied to the secondary analysis of data related to cultural consumption, for example, in

the re-analysis of the omnivorous thesis (Goldberg, 2011) or in the identification of cultural niches (Mark, 1998, 2003). Another field of similar application consists in the marketing studies of brand positioning, where block modeling techniques⁷ are used to map associative networks of brands in consumers' minds and brand-switching behaviors (Henderson et al., 1998; Iacobucci et al., 1996). Finally, network visualizations have been applied to the analysis of proximity data in a manner similar to the study presented here (De Jordy et al., 2007). The rationale lying behind this second type of studies is to represent the association between the nodes, where nodes are not agents but inanimate elements. It is in this second version that we apply network techniques to the analysis of our data, as the aim is to observe the network of correlations between variables describing the set of practices we are interested in.

The empirical dataset we use for our analysis refers to a statistically representative sample of the Italian population in 2005, and it is constituted by 1500 questionnaires collected from people aged between 25 and 74 years, living in different size cities and towns across the country. The questionnaire (96 questions) includes nine subsections: socio-demographic and socio-economic information; acquisition, use, and disposal of a variety of products (food, clothing, media); knowledge, buying, and use of organic and fair trade products; practices and purchases related to self-care, unconventional medicine, body care; tourism and cultural consumption; social, political, and voluntary participation; knowledge, judgment, and experience of corporate social responsibility (CSR), and boycotting. It is the first general survey conducted in Italy aimed to measure the role played by critical and political consumerism. The variables obtained from the 96 questions were originally of different scales and have been recoded as dummies (0/1). The final dataset therefore consists of 1500 cases in rows by 363 variables in columns.

We then compute the correlation values across variables (columns), obtaining a variable-by-variable matrix with the values of correlation in cells ranging from -1 to $+1$.⁸ This matrix has been submitted to the software UCINET (Borgatti et al., 2002) for the structural analysis of network properties and to the software NetDraw (Borgatti, 2002) for the network visualization. By observing the overall network's structure of variables' correlation, we are essentially block modeling⁹ our data, where the characteristic of a single variable is defined by its position in relation to all the other variables (Lorrain and White, 1971): variables with similar values therefore form components,¹⁰ although they might not be directly correlated with each other. We used a range of methods to understand the structural properties of the network. Here, we focus on positive correlation for a matter of simplicity, although similar analysis can be done for negative correlations as well. By lowering down the level of correlation, we can observe how components of highly correlated variables (≥ 0.5) merge together in larger components: at a low level of correlation (≥ 0.1), we apply faction analysis to the main component¹¹ to partition the network into highly connected subgroups. Faction analysis is a method implemented in UCINET that measures the extent to which a predetermined number of subgroups¹² form separate clique like structures.¹³ The routine uses a tabu search

minimization procedure to optimize this measure to find the best fit (De Amorim et al., 1992; Glover, 1989, 1990). Once variables have been assigned to a specific faction, we use the E-I index (Krackhardt and Stern, 1988) to identify variables which better connect distinctive (although possibly overlapping) factions. The E-I index is a measure of homophily that describes how much each node is connected to similar or different nodes, where similarity here is intended as belonging to the same faction. In other words, it is a ratio of the number of ties linking different nodes over the number of ties linking similar nodes. E-I values range from -1 (all the nodes belong to the same faction of the node under observation) to $+1$ (all the nodes belong to different factions from the node under observation). Having categorized variables according to the homophily of the variables they are related to, we observed the local neighborhood of the ones which are better positioned to mediate between different factions and search for emerging interpretative themes.

Analysis

The overall data analysis is organized in three sections. The first one looks at different levels of correlation: it observes bundles of elements that tend to be performed together, or in the same places, or are accompanied by specific attitudes and demographics (high level of correlation). It then looks at how these bundles merge together by lowering the level of correlation. The second section analyzes the factions of variables which relate at a low level of correlation and identifies the (groups of) variables better located to connect them. The third section selects some connecting variables and discuss on possible interpretations that emerge by looking at their local neighborhood.

High and medium levels of correlations

At a high level of correlation (≥ 0.5 , see Figure 1¹⁴), we identified 19 components of various sizes. Within them, we observe several dyads indicating products which tend to be bought together in specific retailing points: wine and oil, clothes and bags, cakes and coffee bought in organic shops and detached from a larger component of organic products purchased in mainstream shops and supermarkets. Two other larger components include products bought either in shops (wine, jam oil, sauce, coffee) or in discounts shops (oil, coffee, sauce, yoghurt, jam, wine, cakes, and meat). Remaining components indicate the high correlation of online purchases (tickets, holidays, events) and of boycotting practices. We also observe a fairly large and maximally centralized¹⁵ component revolving around fair trade purchases, which includes awareness of fair trade products, the tendency to buy them in several retailing points (shops, supermarket, street market) and for ethical reasons (moral duty, fair working conditions, reducing inequalities).

By looking at the size of the nodes, which indicate the percentage of people answering a specific question, we can see that some elements are more diffused across the Italian population than others. Clothes and bags are more commonly

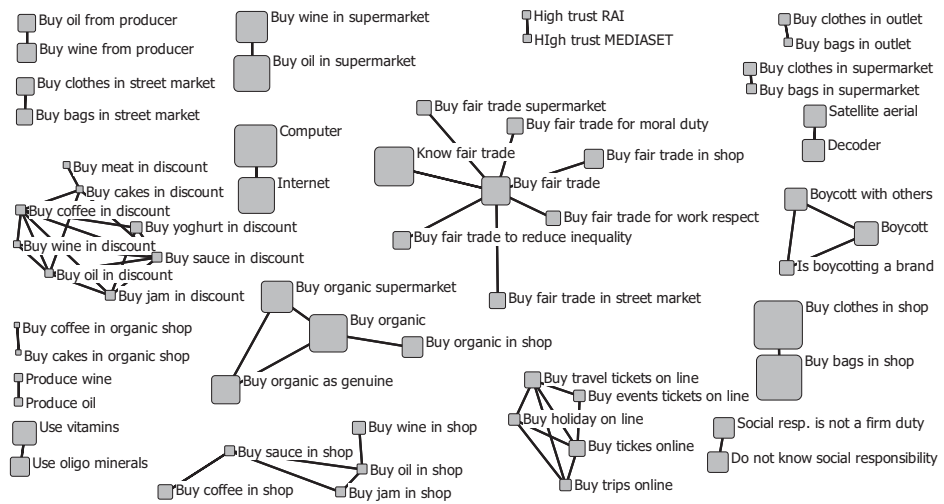


Figure 1. Correlation ≥ 0.5 .

bought in shops rather than in supermarkets, outlets, or street markets; wine and oil are mostly bought in supermarkets, followed by purchases from producers and self-production. This last element is not highly diffused and thus represents a niche activity, very likely to be constrained by the need of specific infrastructures that allow the home production of these products. While the component indicating purchases in discount shops is highly connected, it is not a fairly common activity; conversely, buying organic is much more diffused, even more than buying fair trade.

By lowering down the correlation at a medium level (≥ 0.3 , see Figures 2–4 for small, large, and the main component¹⁶), we observe how the practices of buying products from a single retailer become more consistent, in terms of increasing the size of components and their density.¹⁷ The tendency to buy general products in the same place, it being a shop, supermarket, discount shop; or obtaining them from friends; or self-producing them indicates sets of elements which suggest habits of provisioning driven not much by the choice of products, but by the convenience of the location. As before, shopping in supermarkets is more common than in other retailers. The interesting aspect of using network analysis techniques is that not only the active ties can be used to explore the data: missing links are indicative as well, for example, the absence of any reference to the importance of price. This indicates that the choice of retailer is not clearly and consciously associated with variations in costs.

The purchase of organic products in specialized shops is a niche activity (as indicated by the low number of people performing it) separated from the main component (Figure 4) of more diffused organic purchases, which also includes fair trade purchases, boycotting practices, and ethical banking. This component seems to indicate a coherent engagement with ethical behaviors. Knowledge of fair trade is highly associated with fair trade purchases in shops and street markets, possibly

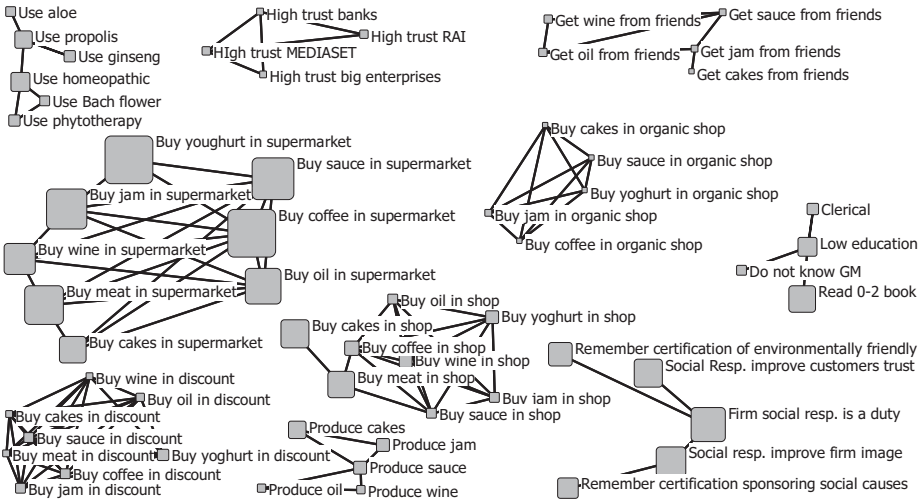


Figure 2. Correlation ≥ 0.3 : small components (size ≥ 4 and ≤ 8).

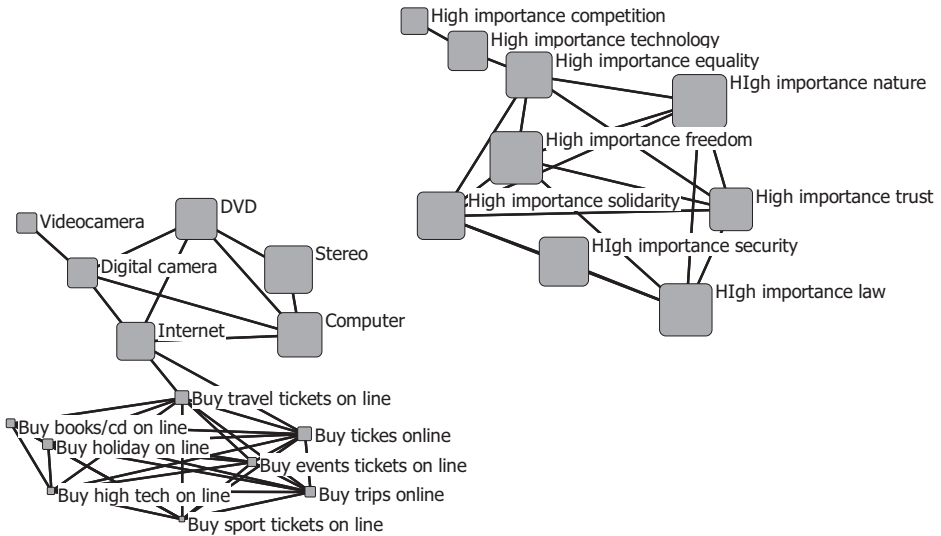


Figure 3. Correlation ≥ 0.3 : large components (size ≥ 5 and < 25).

indicating a conscious effort in searching for these products, while purchases for fair trade in supermarkets is less diffused (as in number of people doing it) and more peripheral in the component (with less associations with other variables). Meanings associated with fair trade mainly refer to social and equality issues, whose variables are more central in the component and were indicated by a larger number of people, while buying fair trade for taste, protest, and for

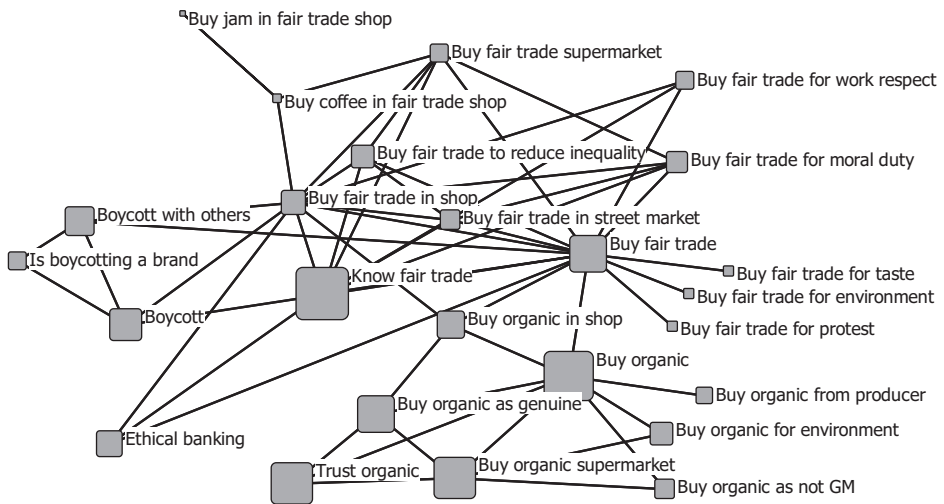


Figure 4. Correlation ≥ 0.3 : main component (size 25).

environmental reasons are highly peripheral in the component and only represent the opinion of a small percentage of the sample. The whole cluster related to fair trade though lies in between organic products, ethical banking, and boycotting activities. In particular, organic and fair trade products are both bought in shops, again indicating some possible lock-in processes. But while fair trade purchases are associated with meanings related to social and ethical issues, organic products are associated with genuineness and environmental reasons: organic products are trustful, they can be bought locally directly from producers, and they are preferred to genetically modified (GM) products.

The component of online shopping, which represents a series of highly correlated niche activities (Figure 3), is now related via internet to a whole series of more diffused high-tech objects, while a new component indicating the use of alternative medicines (propolis, aloe, ginseng, Bach flowers, homeopathy, phytotherapy) is detached from the highly correlated dyad of vitamins and oligominerals (Figure 2), possibly indicating a distinction between mainstream and more specialized products. We now also see a component of variables related to the opinion that social responsibility is a firm's duty, associated with the belief (meaning) that it improves customers' trust and firm's image: social responsibility's activities are better remembered when linked to social or environmental causes (Figure 2). Another component is constituted by variables indicating high importance of a series of values (equality, freedom, nature, trust, solidarity, law, see Figure 3).

Low level of correlation: faction analysis

At a low level of correlation (≥ 0.1), 95% of the variables (346) belong to the main component. The analysis of factions gives the best fit with three groups, which are

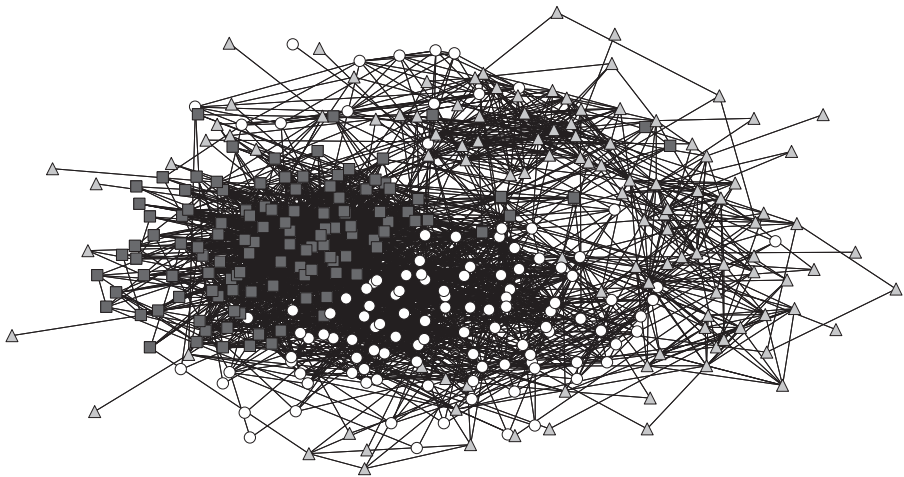


Figure 5. Correlation ≥ 0.1 : factions.

represented by different shapes and colors in Figure 5. By looking at the type of variables included in each faction, we observe a predominance of green, ethical, and critical practices in the first (dark gray squares), hedonistic practices in the second (white circles), and variables indicating low-income lifestyles in the third (light gray triangles).¹⁸ The list of all the variables included in each faction is reported in Appendix 1.

Respectively, the three factions (hedonistic, low income, and ethic) include 114, 114, and 118 variables, with 17 other variables not included in any of them as they are not part of the main component. The density of each respective faction is comparatively higher for the ethic cluster than for the hedonistic and the low income, where variables are quite sparse.¹⁹ We also find few ethic and hedonistic variables positioned across the respective factions (e.g. eating in ethnic restaurants) and likewise some ethic and low-income variables (e.g. doing voluntary work during holidays), while variables in the hedonistic and low-income factions are more likely to be oppositely polarized, although, for example, variables like getting books from friends lie across all the three factions.

The hedonistic faction includes variables related to personal care and pleasure, fashion, and new trends. Products are bought in shops and disposed when out of fashion, holidays are selected for notoriety and trends, expenditures concentrate on fitness and spa treatments, and entertainment is represented by mainstream recreational activities. In terms of socio-demographic and socio-economic indicators, variables included indicate a population of males, medium/high educational background, young/young adults, medium/high income, and self-employed. The low-income faction is characterized by the attention to price as a criterion for purchases. Products are bought in supermarkets and street markets, during sales and only when needed, possibly

indicating economic barriers especially with the lack of references to critical attitudes toward consumerism. The lack of critical attitudes is also confirmed by the high trust in traditional institutions and the tendency to watching mainstream TV programs and not to read any book. From a socio-demographic and socio-economic perspective, variables included are of people aged over 65, with low-income, low educational background, unemployed, and with a tendency to center/right political attitude. The ethical faction revolves around the core of variables related to knowledge and purchases of fair trade, ethical and organic products, together with a disposition toward boycotting practices shared within an individual's personal network, the use of alternative medicine, sustainable activities like recycling, and the self-production of sauce, cakes, oil, wine, and yoghurt. From a socio-demographic and socio-economic perspective, the ethical faction is characterized by high cultural capital and by a predominance of left/radical left females. Here, it is interesting to notice that the various critical components we identified at higher levels of correlations (social responsibility, specialized alternative medicine, and the main component of fair trade, organic products, boycotting, and ethical banking) all aggregate together in the ethical faction. This indicates loose and niche overlaps of elements that belong to separate bundles and that can constitute channels of transmissions for materials, competences, and meanings that characterize different practices.

E-I, egonetworks, and emerging themes

Once identified the sets of elements which are correlated in more or less cohesive clusters, we now want to shift the attention to the kind of variables that are best positioned for bridging across those clusters. Here, we focus the level of analysis to specific variables, selected according to the fact that they lie at the crossroad of a relatively large neighborhood composed of variables that belong to different factions. The scope of the analysis is to identify interesting elements which are shared between different bundles, suggesting new interpretative themes that would have not emerged with traditional statistical analysis and that have not emerged from the qualitative materials. In order to identify and select some meaningful variables and to observe their local neighborhood (or egonetworks), we calculate the E-I index based upon the distinction between the three factions. Out of the egonetworks composed by variables belonging to different factions, we selected the ones with a reasonable size ($>12^{20}$) and whose neighborhood suggests interesting emerging themes. E-I values are reported in Appendix 1.

The local structures centered on these bridging variables²¹ show the existence of links between apparently very diverse sets of elements. Those connections show sets of competences and activities that represent possible interlocking between distinguished bundles of elements, whose cognitive and practical elements, in terms of scripts of knowledge and performances, may be transferred across and shared between them.

Among others, we identify two sets of elements that illustrate the meaningful overlapping of diverse and distinguishable elements:

1. The set of online consumption variables connected to critical consumption;
2. The set of relational consumption variables connected to the self-production/ consumption.

Of those, we only discuss three local structures that better represent the emerging themes and that are used to illustrate the potentials and limits of this kind of analysis.

Online consumption and critical consumption. As an example of a bridging variable that connects the ethical and the hedonistic faction, we selected the network centered on the variable “buying clothes in outlets” (positively answered by 12% of the sample, see Figure 6). It includes variables related to the knowledge and purchase of fair trade products, but there are only few variables indicating other elements of critical consumption. Self-care practices are included, represented by variables indicating the consumption of homeopathic medicines, oligominerals and propolis, and the use of sauna. All the variables related to online purchases are included, while along with the bridging variable there are other indicators of clothing choices, like buying bags in outlets, buying second-hand clothes, and not wearing clothes if not liked anymore. Given the fact we do not embrace an interpretative approach that overestimate individual choices and motivations, what is interesting here is the observation of networks of elements where fair trade consumption, online consumption, self-care, and vintage are compatible.



Figure 6. Local neighborhood of the variable “Buying clothes in outlets.”

Relational consumption and self-production/consumption.. The second set of elements emerges from the bridging variables that connect relational consumption with self-production practices. With “relational consumption,” we simply refer to the variables indicating consumption of products provided by friends or producers, while in self-production we include cooking practices as well as owning kitchen appliances like food processor, bread maker, and yoghurt maker (although we acknowledge that owning those supplies does not necessarily mean using them). Overall, all the networks centered on the self-production variables (making cakes, yoghurt, sauces, wine, and oil) are highly connected to provision of food from friends and producers. Out of them, the network centered on the variable “owning a food processor” (56% of the sample, see Figure 7), which belongs to the hedonistic faction and bridge across the ethic one, also includes nodes related to fair trade with references to ethical motivations. The same network also includes nodes indicating the possession of white goods, the dedication to do-it-yourself (DIY) hobbies (like collage), and the participation to fundraising for health care, food provision,²² and scientific research. It finally includes variables indicating self-care like going to beauty specialists, going for massages, and buying cosmetics in shops.

An interesting variable that connects the ethic faction with the low-income faction is the one of “buying clothes in street markets” (24%, see Figure 8), which bridges between variables of self-production, friends and producers supply, purchases of fair trade, boycotting activities, and low-income variables, indicating saving practices, like buying products in discount stores and street markets, choosing low-cost holidays, using price as a criterion for purchases, buying clothes on sales, and spending an hypothetical voucher for groceries.

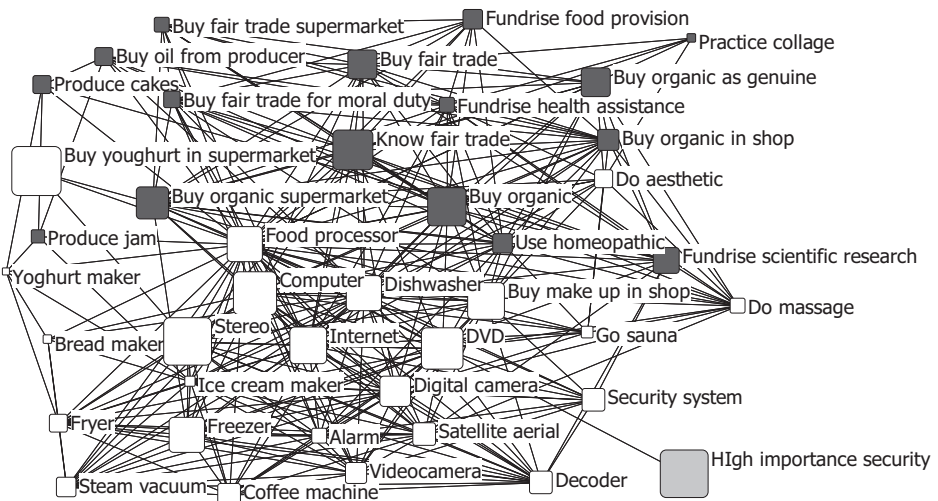


Figure 7. Local neighborhood of the variable “Owning a food processor.”

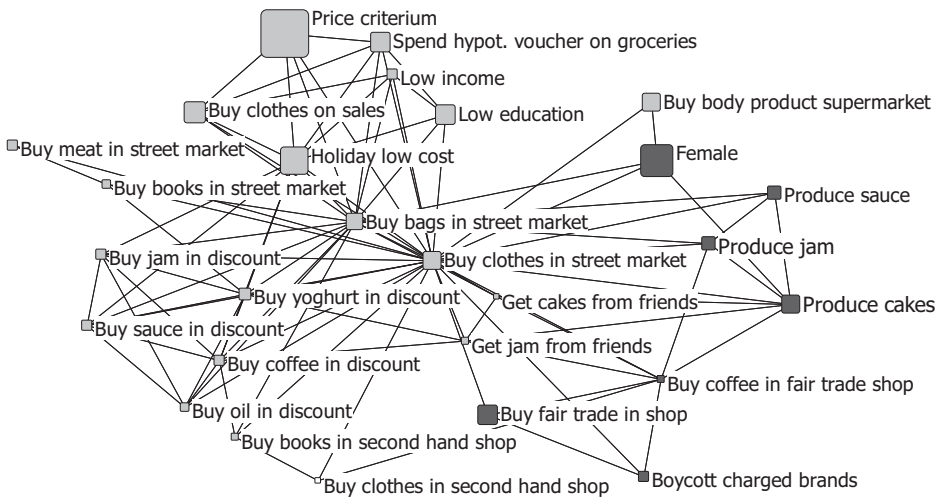


Figure 8. Local neighborhood of the variable “Buying clothes in street market.”

Discussion

The multi-layered analysis of intersecting variables offers interesting food for thought. We started this article by asking whether consumption, and in particular critical consumption, presents the necessary features to be considered a practice. We formulated the hypothesis that if that is the case, constitutive elements that might define critical consumption as a practice should be highly connected. To a certain extent, we did find this connection in the variables that centralize around fair trade purchases, which include the following (Halkier and Jensen, 2011): activities (buying these products from specific retailers), understandings (relating these products to social and ethical meanings), and engagements (by attributing values to reducing inequalities and respecting work). The same variables can also be read according to Shove et al.’s (2012) classification, where fair trade products represent materials competently acquired in a variety of retailing points and for a series of congruent meanings. However, the specific configuration of the fair trade component at a high level of correlation, where the variables are not all connected with each other suggest that these various elements do not actually constitute a practice. They rather represent a series of elements representing alternatives of the same activities, like buying the same type of product in different places and for different (although not conflicting or contradicting) reasons. Conversely, if we look at the smaller component of organic purchases, the triad of variables “buying organic, in supermarket and because it is genuine” where all the elements are connected with each other is more apt to indicate a congruent practice. The alternative of purchases of organic in shops is present, but not associated with the other relevant activities and understandings. In comparing these quantitative results to the

qualitative data, we notice that narratives of activists and sensible consumers present a set of meanings associated with these specific products that generally refer to the recurrent themes of ethics and responsibility, of consumers' well-being, of solidarity with local producers, and of sobriety (Rebughini, 2008a). When scaled up to a larger population, the unvaried general associations of those meaning of critical consumption differentiate across specific products, with fair trade more clearly associated with social and ethical issues, while organic to genuineness and environmental respect.

By lowering down the level of correlation, it is interesting to notice how these two bundles of elements of fair trade and organic merge together, and together with variables related to boycotting practices and ethical banking. Again, by looking at the connections between these elements, we notice that the activities, understanding, and engagements related to fair trade are now all clustered together, indicating a more coherent practice which, given the lower level of correlation, is not as robust as the one of organic discussed before. Also, concurrent meanings now emerge, as in purchasing fair trade for taste, protests, or reasons related to the environment. But they are not embedded with the other elements and are not diffused within the sample as much, indicating some possible alternative engagements to the same practice. Various retailer points are all considered valid alternatives (shops, street markets, and supermarkets), although as we have discussed in the analysis the latter are less common and more peripheral than the others. Ethical banking and boycotting are only related to purchases of fair trade in shops, signaling a bundle of elements not perfectly integrated with the rest of the component, therefore not robustly associated with the other elements of the practice. Similarly, the practice related to organic consumption is only linked to fair trade via purchases in shops: the anchor point of those elements around the preference for shops as retailers cannot be explained with our data, but indicates a very interesting association. Here, the available qualitative material does not suggest any possible interpretation and calls for further qualitative research aiming at investigating the cognitive and affective dimensions of these specific bundles.

Another interesting element of the high and medium level of correlation is the indication of some infrastructural lock-in processes, by which people tend to do the whole shopping in a single retailer. This is consistent with the theory of practices, insomuch that regardless of people's attitudes and opinions, the habit of shopping is embedded in convenient routines and might be difficult to be modified. The lack of connection with any variable that indicate the reasons for selecting specific retailers, although present in the original survey, suggest that although other explanations could be possible (preference for some types of shops, low cost or better quality of products), they are not associated with the activities of purchasing, reinforcing the interpretation that purchases are not driven by conscious and rational attitudes, but are more likely to be embedded in spatial and temporal patterns of routines.

The analysis of very low level of correlations shows some interesting loose connections that, as we discussed at the beginning of the article, may indicate niche

activities, or emerging and collapsing elements of practices in evolution. The three factions show some forms of consistencies across a large number of elements (ethical, hedonistic, and low-income tendencies), but they are not per se more interesting than any classic clustering of variables. Also, they accurately reproduce the main axis along which meanings associated with critical consumption have emerged from qualitative materials: the axis of solidarity and critical attitudes, and the axis of sobriety and well-being (Rebughini, 2008b). What is of analytical value here is the focus on the bridging variables and their local neighborhoods: in the examples that we discussed, we pinpointed the co-occurrence of activities, engagements, meanings, and competences that seem to belong to different bundles of elements. Self-care, DIY, online activities, and critical consumption do not show the emergence of complexes of practices (Shove et al., 2012), but the existence of some elements that can potentially bridge across separated bundles. In the case of purchases of clothes in outlets, which link online consumption with fair trade, the common element is represented by the association between purchases that eliminate market intermediaries: in the case of outlets and online purchases, this is done by eliminating smaller retailers, therefore reducing the final price for consumers; in the case of fair trade, it is the direct import from small producers that cut out the intermediation of the international distribution, reducing the costs of distribution for local producers. In this general tendency toward consumption activities that reduce the role of economic intermediaries, it is possible to read a weak and implicit emergence of a bundle that, although relating to different materials (online products, fair trade, clothing), involves similar competences and understandings in the managing of purchases. Such competences and understanding seem to favor a direct relationship between producers and consumers, with interesting implications for consumption sustainability. This loose connection, for example, did not directly emerge from the narrative accounts, where activists did not make the connection between online, fair trade, and outlets. Despite the declared intention to buy locally and reduce intermediaries and transports, the bundle that keeps together these activities does not seem to represent a conscious engagement and a recognizable set of meanings, but an element of connections across different practices.

The local networks centered around the variables “owing a food processor” and “buying clothes in street markets” are a good example of the strength and limits of the interpretations that can be derived from the analysis proposed in this article. In both cases, the connections could indicate the emergence of bundles of elements that suggest interesting patterns of consumption, but with the lack of narratives produced by practitioners, it is not possible to derive a single interpretative theme. The first local network (Figure 7) shows a meaningful orientation toward food self-production, which is linked to a general interest for the quality of products and their origin. These weak links can be seen as compatible with the interpretation advanced by previous research that reads in the interest in local and genuine production a sign of engagement with environmental issues and of embeddedness in local territories (Winter, 2003). However, in some cases, the search for quality has been also interpreted as the “continuation and growth of demand for such luxury

and positional goods” (Winter, 2003: 25). The emergence of such bundles in an Italian context is particularly interesting if we keep into account the widespread diffusion over the national territory of small local productions that constitute at the same time an important touristic circuit, the expression of communitarian identities, and craft production driven by family business (Grasseni, 2004). In this context, elements may indicate not insomuch the reproduction of a high-class habitus and the orientation toward sustainability, but what Holloway and Kneafsey (2000) indicate as the

valorization of the “local” [which] may be less about the radical affirmation of an ethic of community or care, and more to do with the production of less positive parochialism and nationalism, a conservative celebration of the local as the supposed repository of specific meanings and values. (p. 294)

Similarly, the preference for second-hand shops, street markets, and handmade products has been elsewhere read not insomuch as an effort in reducing costs, but as an attempt to reproduce the habitus of the high class toward the incorporation of values, activities, and experiences with specific attention to sustainability, diversity, and cosmopolitanism (Carfagna et al., 2014). However, in the second local network centered on the variable “buying clothes in street markets,” this variable and the one that indicates purchases of clothes in second-hand shops are the only two activities that link two otherwise unrelated areas. The first includes the variables related to critical forms of consumption, like self-production, fair trade, and boycotting, while the second includes a whole set of elements indicating saving activities (buying low-cost products from cheap retailers). Here, the link does not seem to suggest the reference to inclusive practices that aim at the reproduction of patterns of social differentiation (Southerton et al., 2012): the presence of the socio-economic variable indicating low income indicates more likely an activity of saving emerging out of economic constrains. In this view, even the reference to boycotting activities can be read as an element that assumes different meanings when related to saving practices, as a critical standing against the oppressive power of brands. Without any traceable reference of these variously combined meanings in the available qualitative material that could illustrate the narratives subjectively used to describe these bundles, the type of analysis proposed in this article can only indicate interesting departure points for further research. However, it offers an innovative way to look at quantitative data and explore possible connections between activities, competences, and meanings that may be emerging from the overlap of adjacent practices and may represent channels through which “lessons are learned, innovations borrowed, procedures copied” (Warde, 2005: 141).

Conclusion

In this article, we have proposed some possible theoretical and methodological progresses in the study of sustainable consumption within the practice

theoretical framework. Our two main research questions aimed at exploring whether it is possible to consider critical consumption a practice, and if so what are the elements that constitute it; and whether these elements can link critical consumption to other practices less connected to critical and sustainable issues, by virtue of sharing some kinds of activities, materials, competences, or meanings that indicate points of overlaps. We adopted an innovative technique for the analysis of survey data, which borrows concepts and measures from structural network analysis. Such analytical strategy is an excellent method for exploring data without trying to reduce them to deductive, casual, and linear general models which are typical of quantitative analysis: if applied to longitudinal data, it could also be useful to identify patterns of changes in the emergence, spread, and decline of practices across cultures, which is identified as a critical and important task for the theory of practices (Shove et al., 2012; Southerton et al., 2012).

Overall, results did not show robust indications of critical consumption as a coherent and established practice, especially if we also keep in mind the possibility of our respondents to over-report their activities related to critical consumption: at a high level of correlation, only very few elements of fair trade and organic purchases show connections, and these are not enough articulated to be considered as sufficient bundles of activities, competences, and meaning that are needed to define a practice in terms of entity. By lowering down the level of correlation, we allow for the boundaries of these close knits to relax, and we thus observe a higher cohesion in elements indicating critical consumption. Interestingly, we also observe how concurrent meanings attach to critical activities, possibly suggesting some forms of variations in the practices as performances, and the presence of multiple narratives that confirm the results of the qualitative counterpart of this study. At a very low level of correlation, we are then able to observe how various elements connect. Here, we do not find indications of complexes, as in new practices which emerge for reciprocal dependencies “whether in terms of sequence, synchronization, proximity or necessary co-existence” of elements that belong to various practices, but that “cannot be reduced to the individual practices of which they are composed” (Shove et al., 2012: 84–87). Our analysis shows instead loose connections of contaminations between various elements, which suggest some interesting anchor points where qualitative research can be directed. This last observation calls for some cautions in the use of our analytical approach. As we have seen, the simple analysis of variables’ correlations does not allow producing robust interpretations of the various possible subjective understanding of these anchor points, unless they were found in the previous qualitative interviews. As such, further ad hoc qualitative research is needed to explore the concrete performances that produce and reproduce the links we can only observe at an aggregate level. But at the same time, our analytical approach seems to reveal interesting points of overlap and contaminations between different bundles of elements, which should be monitored and more deeply investigated.

Notes

1. Examples of such policies constructed within the perspective of practices can be found in the review of Southerton et al. (2011).
2. Organic report market (2013). Bristol: Soil Association.
3. As Halkier and Jensen (2011) indicate, qualitative data are used for analytical generalization, where “sample results are made more general by becoming valid for categories related to social scientific concepts due to the theoretical relevance of the sample” (p. 113).
4. The results of the qualitative counterpart of this study could not be used to design the questionnaire at the time of the data collection: the two components were conducted in parallel and were designed to explore different aspects of critical consumption. The qualitative component focused on socially and politically engaged consumers, while the quantitative one surveyed a representative sample of the population. The triangulation of results was thus only possible at the end of the study, taking into account the different objectives that guide the two parts of the research and that does not allow to consider this study a mixed model strictly speaking, where the two methods are mixed at all levels of the research process (Bryman, 2008; Tashakkori and Teddlie, 1998).
5. The sample for the research has been extracted from the electoral lists of 67 borough (out of 103) and constitutes a random sample stratified for geographical area, gender, and age. Interviews are proportional to the number of residents for each geographical area and present a 95% confidence level. They were conducted face to face between June and September 2005: in order to reach 1500 interviews, 3000 people were contacted, with 50% of the respondents belonging to the first extraction, and the other 50% added via a second random and stratified extraction. For more information about the methodological aspects of the data collection, see the methodological Appendix 1 in Bovone and Mora (2007).
6. Network analysis presents a long, solid tradition of critiques against the dominance of inferential statistics, categorical analysis, and deductive methods. Some of the early discussions can be found in Mitchell (1969), White et al. (1976), and Wellman (1993). For a review of the terms of the debate, see Bellotti (2014).
7. Block modeling is a network method based on structural position of nodes, which are classified according to the similarity of their position within a network, where the position is defined by the set of ties connecting the nodes. In other words, two nodes are structurally equivalent when they are connected to the same type of nodes, and every node's property is defined by the relationships with others (Lorrain and White, 1971: 63).
8. We analyze the strength of correlations for all the possible pairs of variables with significance $p < .05$.
9. See Note 7.
10. A component is defined as the maximal set of nodes in which every node can reach every other by some path (no matter how long).
11. The main component is the largest connected subgraph in a network. We calculate factions only for the main component to reach the best fit. A total of 346 variables belong to the main component.
12. The number of subgroups is determined by the researcher according to either theoretical assumptions or by looking at the best fit obtained by varying the number of them. A detailed description of the main differences between faction analysis and standard cluster analysis is available from the corresponding author.

13. A clique is a maximally complete subgraph (Luce and Perry, 1949).
14. Nodes are sized according to the percentage of people who positively answered that variable.
15. A maximally centralized graph consists of nodes connected to a central one but not to each other. It resembles the shape of a star.
16. Small components (Figure 2) are of size ≥ 4 and ≤ 8 . Large components (Figure 3) are of size ≥ 5 and < 25 . The main component (Figure 4) counts 25 nodes. Components of size < 4 are left outside of the analysis as of minor relevance. The full set of components is available from the corresponding author.
17. The density of a network, or of a subpart of it, is a measure of cohesion calculated by dividing the total number of ties by the total number of possible ties. It ranges between 0 (no connections) and 1 (all connections activated).
18. The selection of terms used to conceptually define the factions is the result of the qualitative interpretation of the variables included. Similar to multiple correspondence analysis, once the relevant structural dimensions are identified, the researchers interpret their meaning in a qualitative way by simply observing the type of variables. This does not exclude the possibility of different interpretations.
19. The density is 20% for the ethic faction, 14% for the hedonistic, and 7% for the low income. Densities of ties across factions are very low, with 4% of possible ties connecting hedonistic and ethic, 1% connecting low income and ethic, and nearly 0% connecting hedonistic and low income. The whole set of results is available from the corresponding author. For a definition of density, see Note 17.
20. Variables were qualitatively chosen according to the interesting aspects of their local neighborhood; therefore, the threshold is only arbitrarily indicative.
21. We use the definition of bridging variables in this context in a metaphorical way, without referring to the structural property of cutting points: cutting points are nodes connected by bridging ties, whose deletion disconnect a network. Here, our bridging variables refer to properties of the nodes, which simply lie on the crossroad of different factions, but whose deletion would not necessarily disconnect the network.
22. Fundraising for food provision is an institutional activity organized in Italy by the association "Banco Alimentare," a private and voluntary association in charge of collecting leftover food from producers, large retailers, chain restaurants, but also donated by private citizens. It then redistributes collected food to social services and associations that provide support to low-income and deprived people.

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Appendix I

Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
35–50	Hedonistic	1	5	6	-0.67	518	35%
51–65	Low income	0	1	1	-1.00	420	28%
Agree with no global	Ethic	1	39	40	-0.95	238	16%
Air conditioner	Hedonistic	0	25	25	-1.00	616	41%
Alarm	Hedonistic	3	25	28	-0.79	296	20%
Attend free-time course	Ethic	4	14	18	-0.56	51	3%
Belong art group	Ethic	3	27	30	-0.80	132	9%
Belong political party/ trade unions	Ethic	2	14	16	-0.75	144	10%
Belong sport group	Hedonistic	4	16	20	-0.60	132	9%
Belong to human right group	Ethic	5	37	42	-0.76	99	7%
Belong to sport supporters	Hedonistic	1	7	8	-0.75	57	4%
Belong voluntary groups	Ethic	2	9	11	-0.64	192	13%
To bet or to participate to betting games (like Bingo)	Low income	0	2	2	-1.00	117	8%
Belong other groups	Ethic	0	8	8	-1.00	92	6%
Blue collar	Ethic	4	11	15	-0.47	632	42%
Boycott	Ethic	13	69	82	-0.68	550	37%
Boycott alone	Low income	1	1	2	0.00	49	3%
Boycott charged brands	Ethic	1	20	21	-0.90	150	10%
Boycott with others	Ethic	13	69	82	-0.68	501	33%
Brand criterium	Hedonistic	1	2	3	-0.33	237	16%
Bread maker	Hedonistic	0	7	7	-1.00	88	6%
Burn CD	Hedonistic	3	4	7	-0.14	288	19%
Buy bags in outlet	Hedonistic	7	10	17	-0.18	100	7%
Buy bags in shop	Hedonistic	3	25	28	-0.79	1170	78%
Buy bags in street market	Low income	3	18	21	-0.71	336	22%
Buy bags in supermarket	Hedonistic	2	5	7	-0.43	156	10%
Buy body product fair trade	Low income	1	0	1	1.00	8	1%
Buy body product herbal shop	Ethic	4	37	41	-0.80	255	17%
Buy body product perfumery	Hedonistic	1	22	23	-0.91	458	31%
Buy body product supermarket	Low income	3	2	5	0.20	342	23%

(continued)

Continued

Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Buy books in second-hand shop	Low income	4	6	10	-0.20	57	4%
Buy books in shop	Hedonistic	13	19	32	-0.19	1209	81%
Buy books in street market	Low income	2	5	7	-0.43	85	6%
Buy books in supermarket	Hedonistic	1	6	7	-0.71	237	16%
Buy books/CD online	Hedonistic	15	27	42	-0.29	187	12%
Buy brands SR	Ethic	2	9	11	-0.64	1025	68%
Buy cakes from producer	Low income	0	1	1	-1.00	40	3%
Buy cakes in discount	Low income	0	11	11	-1.00	65	4%
Buy cakes in organic shop	Ethic	4	12	16	-0.50	18	1%
Buy cakes in shop	Hedonistic	0	15	15	-1.00	696	46%
Buy cakes in supermarket	Hedonistic	2	11	13	-0.69	616	41%
Buy clothes in outlet	Hedonistic	11	13	24	-0.08	177	12%
Buy clothes in second-hand shop	Hedonistic	8	5	13	0.23	26	2%
Buy clothes in shop	Hedonistic	2	22	24	-0.83	1235	82%
Buy clothes in street market	Low income	8	18	26	-0.38	354	24%
Buy clothes in supermarket	Hedonistic	3	5	8	-0.25	234	16%
Buy clothes new season	Low income	2	2	4	0.00	60	4%
Buy clothes on sales	Low income	0	7	7	-1.00	472	31%
Buy clothes when needed	Low income	1	1	2	0.00	698	47%
Buy clothes which like	Hedonistic	3	10	13	-0.54	267	18%
Buy coffee in discount	Low income	0	12	12	-1.00	133	9%
Buy coffee in fair trade shop	Ethic	13	52	65	-0.60	81	5%
Buy coffee in organic shop	Ethic	4	18	22	-0.64	28	2%
Buy coffee in shop	Hedonistic	4	10	14	-0.43	263	18%
Buy coffee in supermarket	Hedonistic	0	10	10	-1.00	1229	82%
Buy events tickets online	Hedonistic	15	39	54	-0.44	173	12%
Buy fair trade	Ethic	19	80	99	-0.62	671	45%
Buy fair trade for environment	Ethic	0	5	5	-1.00	102	7%
Buy fair trade for health	Ethic	0	6	6	-1.00	46	3%
Buy fair trade for moral duty	Ethic	10	48	58	-0.66	323	22%

(continued)

Continued

Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Buy fair trade for protest	Ethic	3	14	17	-0.65	102	7%
Buy fair trade for taste	Ethic	1	8	9	-0.78	125	8%
Buy fair trade for work respect	Ethic	4	47	51	-0.84	271	18%
Buy fair trade in shop	Ethic	15	80	95	-0.68	409	27%
Buy fair trade in street market	Ethic	12	50	62	-0.61	313	21%
Buy fair trade other place	Ethic	0	4	4	-1.00	13	1%
Buy fair trade supermarket	Ethic	10	54	64	-0.69	275	18%
Buy fair trade to reduce inequality	Ethic	4	42	46	-0.83	354	24%
Buy grocery online	Hedonistic	0	11	11	-1.00	41	3%
Buy high-tech online	Hedonistic	5	27	32	-0.69	143	10%
Buy holiday online	Hedonistic	16	41	57	-0.44	208	14%
Buy jam in discount	Low income	0	10	10	-1.00	139	9%
Buy jam in fair trade shop	Ethic	5	18	23	-0.57	15	1%
Buy jam in organic shop	Ethic	6	19	25	-0.52	46	3%
Buy jam in shop	Hedonistic	0	10	10	-1.00	161	11%
Buy jam in supermarket	Hedonistic	0	11	11	-1.00	1039	69%
Buy make up in organic shop	Ethic	1	5	6	-0.67	21	1%
Buy make up in shop	Hedonistic	14	34	48	-0.42	891	59%
Buy make up in supermarket	Hedonistic	3	11	14	-0.57	514	34%
Buy meat from producer	Ethic	0	6	6	-1.00	41	3%
Buy meat in discount	Low income	0	8	8	-1.00	51	3%
Buy meat in shop	Hedonistic	2	13	15	-0.73	619	41%
Buy meat in street market	Low income	0	2	2	-1.00	134	9%
Buy meat in supermarket	Hedonistic	0	9	9	-1.00	988	66%
Buy oil from producer	Ethic	5	18	23	-0.57	377	25%
Buy oil in discount	Low income	0	9	9	-1.00	89	6%
Buy oil in shop	Hedonistic	1	9	10	-0.80	140	9%
Buy oil in supermarket	Hedonistic	0	8	8	-1.00	893	60%
Buy organic	Ethic	21	54	75	-0.44	937	62%
Buy organic as genuine	Ethic	9	33	42	-0.57	673	45%
Buy organic as not GM	Ethic	1	29	30	-0.93	293	20%
Buy organic as tastier	Ethic	1	12	13	-0.85	169	11%
Buy organic for environment	Ethic	5	39	44	-0.77	377	25%

(continued)

Continued

Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Buy organic for food alarms	Low income	3	1	4	0.50	99	7%
Buy organic for other reason	Low income	2	0	2	1.00	82	5%
Buy organic from producer	Ethic	6	38	44	-0.73	235	16%
Buy organic in shop	Ethic	22	62	84	-0.48	471	31%
Buy organic in street market	Ethic	1	22	23	-0.91	164	11%
Buy organic supermarket	Ethic	21	44	65	-0.35	766	51%
Buy products linked to social causes for good advert	No faction					31	2%
Buy products linked to social causes for the social cause	Ethic	2	23	25	-0.84	403	27%
Buy products linked to social causes for trust in brand	No faction					81	5%
Buy products linked to social causes for trust in receiving association	Ethic	1	3	4	-0.50	115	8%
Buy products linked to social causes for trust in testimonials	Low income	1	0	1	1.00	18	1%
Buy sauce from producer	Ethic	0	3	3	-1.00	33	2%
Buy sauce in discount	Low income	0	11	11	-1.00	134	9%
Buy sauce in organic shop	Ethic	0	14	14	-1.00	20	1%
Buy sauce in shop	Hedonistic	0	9	9	-1.00	148	10%
Buy sauce in supermarket	Hedonistic	0	10	10	-1.00	1067	71%
Buy sport tickets online	Hedonistic	5	31	36	-0.72	97	6%
Buy tickets online	Hedonistic	29	40	69	-0.16	321	21%
Buy travel tickets online	Hedonistic	29	40	69	-0.16	321	21%
Buy trips online	Hedonistic	16	41	57	-0.44	208	14%
Buy wine from producer	Ethic	2	13	15	-0.73	393	26%
Buy wine in discount	Low income	0	9	9	-1.00	71	5%
Buy wine in shop	Hedonistic	0	13	13	-1.00	229	15%
Buy wine in supermarket	Hedonistic	0	8	8	-1.00	767	51%
Buy yoghurt in discount	Low income	0	12	12	-1.00	195	13%
Buy yoghurt in organic shop	Ethic	1	11	12	-0.83	23	2%
Buy yoghurt in shop	Hedonistic	0	11	11	-1.00	225	15%

(continued)

Continued

Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Buy yoghurt in supermarket	Hedonistic	1	14	15	-0.87	1236	82%
Buy CD	Hedonistic	7	9	16	-0.13	837	56%
Charged brands follow market law	Low income	1	3	4	-0.50	245	16%
Charges against brand are invented	Low income	0	1	1	-1.00	28	2%
Choose brand clothes	Hedonistic	1	9	10	-0.80	74	5%
Choose elegant clothes	Hedonistic	0	4	4	-1.00	369	25%
Choose fashion clothes	Hedonistic	0	8	8	-1.00	146	10%
Choose natural fabric clothes	Ethic	0	9	9	-1.00	138	9%
Choose practical clothes	Low income	0	5	5	-1.00	1037	69%
Choose quality clothes	No faction					604	40%
Choose style clothes	Hedonistic	5	16	21	-0.52	539	36%
Clerical	Low income	1	14	15	-0.87	197	13%
Coffee machine	Hedonistic	0	15	15	-1.00	499	33%
Computer	Hedonistic	26	44	70	-0.26	1081	72%
Decoder	Hedonistic	2	30	32	-0.88	498	33%
Digital camera	Hedonistic	4	40	44	-0.82	718	48%
Dishwasher	Hedonistic	15	40	55	-0.45	853	57%
Do aesthetic	Hedonistic	15	18	33	-0.09	363	24%
Do ethnic dance	Hedonistic	4	8	12	-0.33	34	2%
Do massage	Hedonistic	24	25	49	-0.02	304	20%
Do not buy charged brands	Ethic	0	16	16	-1.00	308	21%
Do not know GM	Low income	0	19	19	-1.00	168	11%
Do not know social responsibility	Low income	1	11	12	-0.83	429	29%
Do not own CD	Low income	0	11	11	-1.00	235	16%
Do not wear clothes for lack of occasion	No faction					101	7%
Do not wear clothes if not liked anymore	Hedonistic	11	20	31	-0.29	588	39%
Do not wear clothes if worn out	Low income	1	5	6	-0.67	864	58%
Do not wear clothes out of fashion	Hedonistic	2	9	11	-0.64	263	18%
Do not wear clothes too small	Low income	1	2	3	-0.33	593	40%
Do other body activity	Low income	3	0	3	1.00	40	3%

(continued)

Continued

Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Do sport	Hedonistic	11	30	41	-0.46	280	19%
Download CD	Hedonistic	0	23	23	-1.00	118	8%
Drink tap water	Low income	2	1	3	0.33	1075	72%
DVD	Hedonistic	5	42	47	-0.79	1015	68%
Entrepreneur	Hedonistic	5	16	21	-0.52	255	17%
Ethical banking	Ethic	10	46	56	-0.64	432	29%
Fair trade criteria	Ethic	2	17	19	-0.79	50	3%
Female	Ethic	15	16	31	-0.03	782	52%
Firm correct if engage with social problems	Low income	0	1	1	-1.00	219	15%
Firm correct if good ratio price quality	No faction					750	50%
Firm correct if no environment damage	Low income	0	1	1	-1.00	1112	74%
Firm correct if pays taxes	No faction					728	49%
Firm correct if profitable	Hedonistic	0	2	2	-1.00	205	14%
Firm correct if respect employees	Low income	2	1	3	0.33	440	29%
Firm correct if suppliers do not cause environmental damage	Low income	0	1	1	-1.00	163	11%
Firm correct if suppliers respect employees	No faction					144	10%
Firm social resp. is a duty	Ethic	7	38	45	-0.69	845	56%
Firm social resp. is valuable	Hedonistic	4	6	10	-0.20	226	15%
Food processor	Hedonistic	17	23	40	-0.15	835	56%
Freezer	Hedonistic	3	17	20	-0.70	864	58%
Fryer	Hedonistic	0	18	18	-1.00	371	25%
Fundraising TV	Hedonistic	8	7	15	0.07	860	57%
Fundraising blood donors	No faction					102	7%
Fundraising food provision	Ethic	3	26	29	-0.79	407	27%
Fundraise health assistance	Ethic	11	31	42	-0.48	295	20%
Fundraising medicine provision	Low income	3	1	4	0.50	71	5%
Fundraising other groups	Ethic	0	5	5	-1.00	69	5%
Fundraising scientific research	Ethic	15	25	40	-0.25	599	40%
Fundraising tsunami caritas	Low income	1	3	4	-0.50	94	6%

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Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Fundraising tsunami Church	Low income	3	5	8	-0.25	195	13%
Fundraising tsunami civil defense	Hedonistic	0	1	1	-1.00	37	2%
Fundraising tsunami international organization	Ethic	3	12	15	-0.60	119	8%
Fundraising tsunami media	Low income	2	3	5	-0.20	80	5%
Fundraising tsunami NGO	Ethic	4	38	42	-0.81	114	8%
Fundraising tsunami SMS	Hedonistic	2	9	11	-0.64	1002	67%
Get books from friends	Low income	7	3	10	0.40	31	2%
Get cakes from friends	Low income	2	6	8	-0.50	37	2%
Get jam from friends	Low income	5	7	12	-0.17	55	4%
Get oil from friends	Low income	1	4	5	-0.60	104	7%
Get sauce from friends	Low income	0	4	4	-1.00	44	3%
Get wine from friends	Low income	1	4	5	-0.60	90	6%
Give unwanted clothes to Church	Ethic	0	15	15	-1.00	970	65%
Give unwanted clothes to friends	Low income	1	1	2	0.00	477	32%
Give unwanted clothes to poor	No faction					489	33%
Give unwanted clothes to second-hand shop	Low income	1	2	3	-0.33	36	2%
GM dangerous	Ethic	0	8	8	-1.00	304	20%
GM not dangerous	No faction					53	4%
Go cinema	Hedonistic	14	24	38	-0.26	241	16%
Go club	Hedonistic	1	17	18	-0.89	91	6%
Go concerts	Ethic	9	12	21	-0.14	143	10%
Go dentist	Hedonistic	4	11	15	-0.47	958	64%
Go ethnic restaurant	Hedonistic	10	9	19	0.05	57	4%
Go fast food	Hedonistic	1	5	6	-0.67	42	3%
Go gym	Hedonistic	2	38	40	-0.90	416	28%
Go museum	Ethic	6	23	29	-0.59	154	10%
Go pizzeria	Hedonistic	2	32	34	-0.88	369	25%
Go pub	Hedonistic	6	26	32	-0.63	126	8%
Go sauna	Hedonistic	8	32	40	-0.60	178	12%
Go theater	Ethic	3	10	13	-0.54	86	6%
Go yoga	Ethic	4	10	14	-0.43	55	4%
High education	Hedonistic	31	37	68	-0.09	485	32%

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Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
High importance competition	Low income	0	12	12	-1.00	645	43%
High importance equality	Low income	2	11	13	-0.69	1108	74%
High importance freedom	Low income	0	9	9	-1.00	1299	87%
High importance law	Low income	0	11	11	-1.00	1291	86%
High importance nature	Low income	4	12	16	-0.50	1335	89%
High importance security	Low income	2	14	16	-0.75	1217	81%
High importance solidarity	Low income	2	12	14	-0.71	1181	79%
High importance technology	Low income	4	9	13	-0.38	974	65%
High importance trust	Low income	0	13	13	-1.00	1051	70%
High income	Hedonistic	1	1	2	0.00	268	18%
High trust banks	Low income	0	11	11	-1.00	54	4%
High trust bench	Low income	3	13	16	-0.63	226	15%
High trust big enterprises	Low income	0	16	16	-1.00	76	5%
High trust church	Low income	0	24	24	-1.00	462	31%
High trust Europe	Low income	3	13	16	-0.63	202	13%
High trust family	Low income	3	12	15	-0.60	1221	81%
High trust mediaset	Low income	3	20	23	-0.74	92	6%
High trust NGO	Low income	4	17	21	-0.62	696	46%
High trust parliament	Low income	1	13	14	-0.86	68	5%
High trust police	Low income	1	26	27	-0.93	547	36%
High trust printed media	Low income	0	14	14	-1.00	97	6%
High trust public administration	Low income	2	14	16	-0.75	71	5%
High trust RAI	Low income	0	18	18	-1.00	103	7%
High trust school	Low income	0	16	16	-1.00	181	12%
High trust trade unions	Low income	2	12	14	-0.71	81	5%
High trust UN	Low income	0	19	19	-1.00	289	19%
Holiday entertainment	Hedonistic	3	13	16	-0.63	278	19%
Holiday exotic	Hedonistic	0	6	6	-1.00	171	11%
Holiday familiar	Low income	0	4	4	-1.00	482	32%
Holiday famous locations	Hedonistic	2	10	12	-0.67	64	4%
Holiday low cost	Low income	2	24	26	-0.85	650	43%
Holiday no mass tourism	Ethic	1	20	21	-0.90	658	44%
Holiday novelty	Hedonistic	2	17	19	-0.79	967	64%
Holiday respect local population	Ethic	0	13	13	-1.00	250	17%
Holiday traveling	Ethic	2	4	6	-0.33	264	18%

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Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Holiday voluntary	Low income	5	4	9	0.11	74	5%
Ice cream maker	Hedonistic	2	19	21	-0.81	160	11%
Indifferent to charges against brand	Low income	1	7	8	-0.75	105	7%
Internet	Hedonistic	27	44	71	-0.24	893	60%
Is boycotting a brand	Ethic	2	54	56	-0.93	276	18%
Keep unwanted clothes	No faction					297	20%
Know fair trade	Ethic	27	67	94	-0.43	987	66%
Less than 34	Hedonistic	6	35	41	-0.71	355	24%
Low education	Low income	1	20	21	-0.90	417	28%
Low income	Low income	1	11	12	-0.83	135	9%
Low middle income	Low income	0	3	3	-1.00	380	25%
Male	Hedonistic	6	12	18	-0.33	718	48%
Meet friends shopping mall	Hedonistic	1	11	12	-0.83	140	9%
Middle education	Hedonistic	1	1	2	0.00	591	39%
Middle high income	No faction					414	28%
Don't buy organic as it is only fashion	No faction					141	9%
Don't buy organic for difficult to find	No faction					109	7%
Don't buy organic for other reasons	Low income	0	2	2	-1.00	176	12%
Don't buy organic for price	Low income	0	9	9	-1.00	360	24%
No clear idea GM	Low income	0	1	1	-1.00	355	24%
Not enough information on GM	Ethic	14	21	35	-0.20	615	41%
Organic criterium	Ethic	2	21	23	-0.83	72	5%
Origin criterium	Low income	1	0	1	1.00	215	14%
Over 65	Low income	0	11	11	-1.00	207	14%
Participate boycott	Low income	1	2	3	-0.33	676	45%
Participate demonstration	Low income	0	2	2	-1.00	519	35%
Participate unauthorized occupation	Ethic	3	14	17	-0.65	185	12%
Participate unauthorized strike	Ethic	9	17	26	-0.31	225	15%
Political view center	Low income	1	2	3	-0.33	209	14%
Political view left	Ethic	2	24	26	-0.85	805	54%
Political view right	Low Income	1	8	9	-0.78	695	46%

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Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Practice collage	Ethic	3	10	13	-0.54	119	8%
Practice dance	Hedonistic	3	7	10	-0.40	55	4%
Practice music	Ethic	5	10	15	-0.33	110	7%
Practice painting	Ethic	2	5	7	-0.43	97	6%
Practice photography	Hedonistic	8	11	19	-0.16	179	12%
Practice singing	Ethic	1	5	6	-0.67	52	3%
Price criteria	Low income	0	9	9	-1.00	1190	79%
Produce cakes	Ethic	6	14	20	-0.40	359	24%
Produce jam	Ethic	7	14	21	-0.33	245	16%
Produce oil	Ethic	0	4	4	-1.00	102	7%
Produce sauce	Ethic	3	7	10	-0.40	260	17%
Produce wine	Ethic	0	4	4	-1.00	93	6%
Produce yoghurt	Ethic	1	3	4	-0.50	26	2%
Quality criteria	No faction					1270	85%
Read 0-2 books	Low income	2	17	19	-0.79	651	43%
Read 3-5 books	Hedonistic	0	1	1	-1.00	383	26%
Read 6+ books	Ethic	15	50	65	-0.54	466	31%
Recycle waste	Ethic	1	23	24	-0.92	1102	73%
Religious	Low income	1	10	11	-0.82	423	28%
Remember certification of environmentally friendly	Ethic	10	49	59	-0.66	526	35%
Remember certification of firm ethical code	Ethic	14	45	59	-0.53	200	13%
Remember certification of respecting workers rights	Ethic	3	31	34	-0.82	156	10%
Remember certification sponsoring social causes	Ethic	13	36	49	-0.47	449	30%
Remember other certification	No faction					10	1%
Reuse paper sheet	Ethic	2	5	7	-0.43	1338	89%
Ride bicycle to go to work	Ethic	3	22	25	-0.76	408	27%
Satellite aerial	Hedonistic	1	35	36	-0.94	479	32%
Security system	Hedonistic	1	13	14	-0.86	489	33%
Self-employed	Low income	1	1	2	0.00	164	11%
Should not buy charged brands	Hedonistic	0	2	2	-1.00	654	44%
Sign petition	Low income	0	7	7	-1.00	443	30%

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Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Social resp. improve community relationship	Ethic	0	7	7	-1.00	237	16%
Social resp. improve customers trust	Ethic	6	12	18	-0.33	685	46%
Social resp. improve employees trust	Low income	1	1	2	0.00	142	9%
Social resp. improve firm image	Ethic	16	19	35	-0.09	713	48%
Social resp. is not a firm duty	Low income	1	11	12	-0.83	429	29%
Social resp. solve social problems	Ethic	0	3	3	-1.00	256	17%
Spend hypot. voucher on spa	Ethic	0	5	5	-1.00	363	24%
Spend hypot. voucher on aesthetic	Hedonistic	3	3	6	0.00	69	5%
Spend hypot. voucher on bike	Low income	2	0	2	1.00	115	8%
Spend hypot. voucher on books	Ethic	5	29	34	-0.71	332	22%
Spend hypot. voucher on camera	Hedonistic	0	4	4	-1.00	179	12%
Spend hypot. voucher on coat	Low income	1	2	3	-0.33	116	8%
Spend hypot. voucher on groceries	Low income	0	10	10	-1.00	427	28%
Spend hypot. voucher on gym	Low income	1	0	1	1.00	162	11%
Spend hypot. voucher on holiday	Hedonistic	4	8	12	-0.33	927	62%
Spend hypot. voucher on jewelry/furniture	No faction					358	24%
Spend hypot. voucher on phone	Hedonistic	0	2	2	-1.00	92	6%
Spend hypot. voucher on stadium/theater	Hedonistic	1	3	4	-0.50	251	17%
Spend hypot. voucher on wine	Hedonistic	0	3	3	-1.00	118	8%
Steam vacuum	Hedonistic	0	17	17	-1.00	426	28%
Stereo	Hedonistic	4	36	40	-0.80	1180	79%
Street charity	Ethic	0	4	4	-1.00	209	14%

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Variable	Faction	External ties	Internal ties	Total ties	E-I	Absolute value	% of respondents
Sustainable tourism	Ethic	1	5	6	-0.67	35	2%
Throw away unwanted clothes	Low income	1	5	6	-0.67	349	23%
Trust organic	Ethic	10	33	43	-0.53	758	51%
Unemployed	Low income	3	2	5	0.20	252	17%
Use acupuncture	Ethic	3	14	17	-0.65	100	7%
Use aloe	Ethic	6	17	23	-0.48	172	11%
Use anthroposophy	Ethic	0	6	6	-1.00	15	1%
Use Ayurveda	Ethic	3	14	17	-0.65	44	3%
Use Bach flower	Ethic	4	29	33	-0.76	147	10%
Use ecowashing products	Ethic	4	30	34	-0.76	929	62%
Use ginseng	Ethic	7	13	20	-0.30	200	13%
Use homeopathy	Ethic	14	48	62	-0.55	393	26%
Use oligominerals	Hedonistic	11	17	28	-0.21	393	26%
Use osteopathy	Ethic	1	22	23	-0.91	114	8%
Use other unconventional medicine	Ethic	1	8	9	-0.78	17	1%
Use other natural products	Ethic	1	8	9	-0.78	66	4%
Use phytotherapy	Ethic	6	51	57	-0.79	192	13%
Use pranotherapy	Ethic	2	13	15	-0.73	60	4%
Use propolis	Ethic	10	38	48	-0.58	347	23%
Use shiatsu	Ethic	5	32	37	-0.73	125	8%
Use vitamins	Hedonistic	6	6	12	0.00	528	35%
Very high income	Hedonistic	1	17	18	-0.89	160	11%
Video entry phone	Hedonistic	0	16	16	-1.00	200	13%
Video camera	Hedonistic	0	31	31	-1.00	453	30%
Watch movies TV	Low income	1	4	5	-0.60	355	24%
Watch political debate TV	Low income	0	3	3	-1.00	161	11%
Watch prize game TV	Low income	1	10	11	-0.82	179	12%
Watch reality TV	Low income	1	7	8	-0.75	48	3%
Watch scientific program TV	Low income	0	2	2	-1.00	136	9%
Watch soap TV	Low income	1	13	14	-0.86	181	12%
Watch sport	Hedonistic	0	19	19	-1.00	131	9%
Watch TG2	Low income	2	3	5	-0.20	1239	83%
Yoghurt maker	Hedonistic	3	4	7	-0.14	79	5%

GM: genetically modified; NGO: non-governmental organization; SMS: short message service; SR: Social Responsibility; RAI: *Radio audizioni Italiane*; UN: United Nations; TG2: *Telegiornale 2*.