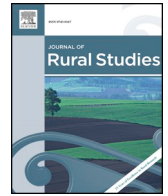




ELSEVIER

Contents lists available at ScienceDirect

Journal of Rural Studies

journal homepage: [www.elsevier.com/locate/jrurstud](http://www.elsevier.com/locate/jrurstud)

# Preference for local food as a matter of helping behaviour: Insights from Norway

Kåre Skallerud\*, Anders H. Wien

School of Business and Economics at UiT, The Arctic University of Norway, Norway

## ARTICLE INFO

### Keywords:

Local food  
Helping behaviour  
Local patriotism  
Consumer preferences  
Norway  
Consumers

## ABSTRACT

Consumption of local food is a fast-growing trend supported by local food advocates and governments. This trend has also captured the interest of researchers. The present study draws from the foundational principles of the theoretical perspective of helping behaviour with a view to enhancing the understanding of why people buy local food. This article tests a conceptual framework with proposed relationships between helping behaviour constructs and local food-buying behaviour within a Norwegian context. Local food consumers in Troms County are surveyed, and the results indicate that empathic concern and social concern influence their attitude towards, and preference for, local food. Local patriotism influences the preference for local food even if such consumers evaluate it as being of lower quality and less desirable than other food products. This study is among the first to examine local food-buying behaviour through the lens of prosocial helping behaviour theory. The recommendations for local food producers and local food advocates regarding appealing to consumers' prosocial helping behaviour propose communication strategies emphasizing the difficulties that local food producers face, portraying local food producers as people deserving of help against national competition and imports, and depicting them as being as loyal to the local community as the local food consumers are.

## 1. Introduction

Local food is an important part of the local culture and is held in high regard by local communities. The origin of the food and the transparency of the food chain also interest consumers because of their growing awareness of environmental and health-related concerns (Delaney and McCarthy, 2011; Rainbolt et al., 2012). The consumption of local food is one of the fastest-growing trends, especially in developed countries (Aprile et al., 2016; Bianchi and Mortimer, 2015; Penney and Prior, 2014). Governments also show an interest in assisting and promoting local food (Vignali et al., 2008), suggesting that the local food trend will continue to expand in the future.

Consequently, there is growing recognition among researchers that local food consumption has become a phenomenon that needs to be better understood (Farmer and Betz, 2016; Tregear, 2011). The literature on local food systems has expanded rapidly in recent years, particularly in the fields of rural sociology and rural geography. However, this is a multifaceted phenomenon, and much of the research has focused on local food systems as a part of rural development strategies (e.g. Cleveland et al., 2014; Mundler and Laughrea, 2016; O'Neill, 2014; Smithers et al., 2008), food security (e.g. Alkon, 2008; Allen, 2010; Hinrichs, 2003), and distribution (e.g. Feagan et al., 2004;

Onyango et al., 2007), primarily viewed from a producer or third-party perspective (e.g. government, market organizers, local food advocates) (Brunori and Rossi, 2000; Morris and Buller, 2003).

According to Tregear (2007, 2011), the prevailing perspectives in local food research underemphasize the influence that consumers exert on local food systems. Our study aims to contribute to a better understanding of local food consumption from the consumer perspective. Who buys and uses local foods and for what reasons? Such knowledge would assist local food producers, policymakers, local food advocates, and other professionals seeking to develop local food systems further (Farmer and Betz, 2016).

Within the marketing literature, this issue is explored by focusing on the perceptions, attitudes, and behaviour of buyers of local food (e.g. Bianchi and Mortimer, 2015; Cranfield et al., 2012; Denver and Jensen, 2014; Feldmann and Hamm, 2015). This research shows that intrinsic factors or the practical 'self-gratifying' benefits of local food (e.g. taste, freshness, appearance, availability, and healthiness) are important drivers influencing purchase decisions (Jekanowski et al., 2000; Knight, 2013; Memery et al., 2015; Trobe, 2001; Weatherell et al., 2003). Within economic sociology, the concept of marketness/instrumentalism captures this range of buying motives (Block, 1990; Hinrichs, 2000).

The marketing literature has also identified additional motives for

\* Corresponding author.

E-mail address: [Kare.Skallerud@uit.no](mailto:Kare.Skallerud@uit.no) (K. Skallerud).

buying local food related to supporting the local community (e.g. Megicks et al., 2012; Memery et al., 2015; Weatherell et al., 2003). Within economic sociology, the concept of embeddedness captures this broader range of buying motives (Hinrichs, 2000; Oñederra, 2003). Embeddedness is a key concept characterizing non-economic values (e.g. social connection, social familiarity, civic engagement, and reciprocity) that affect consumers' local food-purchasing processes (Hinrichs, 2000, 2003; Renting et al., 2003).

Why is it important for local food consumers to support local businesses and the local community? Support based on shared values and reciprocity implies some kind of helping behaviour from the consumer's perspective (Granzin and Painter, 2000; Olsen et al., 1993; Piliavin and Chang, 1990; Preston and DeWaal, 2002). However, despite its seeming importance as a driver of local food consumption, no study to date has provided a coherent theory of how helping behaviour contributes to the preference for local food. Thus, the purpose of the present study is to develop and test a conceptual model of drivers of consumers' local food preference based on factors related to helping behaviour. Our research addresses the call for further research into the factors that affect local food-buying behaviour from a consumer perspective (Bogomolova et al., 2016; Megicks et al., 2012; Memery et al., 2015; Tregear, 2007, 2011).

## 2. Theory

Studying local food consumers requires a contextualized approach to, and understanding of, local food production activities. The term 'local food' has been used to describe local food systems or short supply chains where the food is produced near the consumers (Roininen et al., 2006). The North American perspective on local food is based on principles of social justice and environmental sustainability (e.g. Fonte, 2008; Goodman, 2004; Holloway et al., 2007). The European perspective focuses mainly on integrating small rural farms and peripheral agricultural economies into national-level economic development. However, the 'locality' aspect of local food has been interpreted in several ways (Morris and Buller, 2003; Ricketts Hein et al., 2006; Venn et al., 2006). One of the most notable distinguishing features is the distance from the place of production to the final market. A 100-mile radius from the point of consumption (e.g. Onozaka et al., 2010; Smith and McKinnon, 2007) appears to be a common denominator to distinguish 'local' from 'non-local'. A related measure is whether the products originate in the same administrative area as the consumer. For example, Onozaka et al., 2010 define 'local' as located within a county, whereas Darby et al. (2008) and Selfa and Qazi (2005) use state boundaries. While place-based definitions are frequently used, other criteria are also applied – for example, product type (i.e. where local food is thought to be fresh produce), production technique (expected to be traditional), farm size (allegedly small and family owned), and recipes (specific to the area).

Two general perspectives within the literature of economic sociology are useful for understanding why consumers may choose to buy local food: (1) embeddedness and (2) marketness/instrumentalism. Embeddedness is a key concept in the theoretical construction of alternative food and agriculture networks (AFANs) within economic sociology (Hinrichs, 2000; Maye and Kirwan, 2010). The literature on embeddedness has dealt with the social components of economic activity. Markets are socially structured institutions, with certain cultural meanings and norms, and sustained by friendship, trust, or goodwill (Swedberg, 1991; Lie, 1997). According to Granovetter (1985, 1992), the level of social embeddedness of economic activity is substantial in modern capitalist economies, and not only in pre-capitalist or transitional economies. 'The discipline of the market' may mediate but does not isolate embeddedness from the 'market' (Hinrichs, 2000). In the local food context, embeddedness characterizes non-economic values that affect consumers' local food-purchasing processes. For example, Hinrichs (2000) focused on the embeddedness of social connection,

social familiarity, civic engagement, and reciprocity as expressed in economic interactions. Tregear and Ness (2005) focused on the protection of farming, food origin, personal contact with farming, and moral and health issues, along with connectedness to the local community (Bianchi, 2016). The study of these norms increases our understanding of the purchasing process and provides a detailed account of the food chain's true values and costs (Hinrichs, 2003; Renting et al., 2003; Sonnino, 2007).

Other researchers argue similarly that consumers buy local food for social reasons, including belonging, community, tradition, and loyalty (e.g. Brown, 2002; Baber and Frongillo, 2003). Some researchers argue that such non-economic criteria distinguish local food channels from conventional food marketing channels (Griffin and Frongillo, 2003; Szmigin et al., 2003). Social embeddedness in research on local food markets (e.g. Kirwan, 2006; Lee, 2000) is also linked to 'economy of care'. The main features that describe the exchange are trust, social interaction, and accountability (Oñederra-Aramendi et al., 2018). The social embeddedness dimension is studied from many different perspectives in the local food literature, but most studies indicate that social embeddedness constitutes a strong motivating force related to local food-buying behaviour.

The literature on local food-buying behaviour shows that consumers buying local food are strongly motivated by a range of motives rooted in the concept of embeddedness – i.e. the social components of economic activity (Hinrichs, 2000). In addition, consumer buying behaviour in terms of their purchasing of local food is driven by intrinsic product quality attributes (e.g. freshness, taste, and naturalness) (Feldmann and Hamm, 2015; Lim and Hu, 2016; Meas et al., 2015). This group of motives can be viewed as being rooted in marketness and instrumentalism (Block, 1990; Hinrichs, 2000). According to Block (1990, p. 51), 'high marketness means that there is nothing to interfere with the dominance of price considerations, but as one moves down the continuum to lower levels of marketness, non-price considerations take on greater importance'. The literature review in this article also indicates that instrumental behaviours do not impede social ties and relations in general, and particularly in a local food context.

As regards the relative importance of embeddedness compared to the instrumentalism/marketness dimension, the literature provides mixed findings. Memery et al. (2015) showed that local support (i.e. the role that local food plays within the local economy) was a more important motive for purchasing local food than the intrinsic product quality (i.e. freshness, taste, and naturalness). On the other hand, Weatherell et al. (2003) found that 'civic' issues of food choice (e.g. locally and organically produced, environmentally and animal welfare friendly) were less important than practical factors such as taste, freshness, healthiness, appearance, and availability.

In this article, we suggest that the concepts of instrumentalism and collective motivations of local food consumers (i.e. the local community supports motives frequently discussed in the previous literature) are useful for analysing the behaviour of local food consumers. To develop this idea, we have turned to the more general helping behaviour literature in the search for a comprehensive theoretical foundation for our study. People with high levels of dispositional altruism are more likely to engage in helping behaviour (Sprecher et al., 2007). Helping behaviour is characterized by a predisposition for empathic concern (Batson et al., 1987), deep-seated personal values (Piliavin and Chang, 1990), and an internal locus of control (Eisenberg and Fabes, 1991). These personality traits reliably predict helping behaviour across a variety of settings and points in time (Eisenberg and Fabes, 1991; Penner et al., 1995). Indeed, we argue that prosocial helping behaviour captures at least part of the tension between embeddedness, on the one hand, and marketness and instrumentalism, on the other, that brings to light both consumer preferences for local food and what drives their preferences. We apply notions of helping behaviour to examine how prosocial and 'self-gratifying' motivations (e.g. freshness, taste, and naturalness) are intertwined in the consumer's preferences for local food. Previous

research on helping behaviour (e.g. Olsen et al., 1993) has used various operationalizations of helping, ranging from provenances of deservingness of help to actual physical assistance. Given that this study attempts to explain what predisposes consumers to help local food producers, preference for local food is the appropriate construct here. Food scientists use preferences as the core evaluative construct and as an important basis for predicting food choice and behaviour (MacFie and Thomson, 1994). The term ‘preferences’ often refers to the selection of one item over others (Kardes, 1999).

Below we present a helping behaviour model that portrays a set of proposed drivers of preference for local food. We integrate into the model various contributions from the literature involving helping behaviour, which is also referred to as prosocial behaviour or altruism. The main purpose of the model is to examine how various socio-psychological consumer traits influence helping behaviour in the local food context. Consumer traits seldom affect behaviour directly but do so through more behaviour-specific attitudes (Fishbein and Ajzen, 1975). Thus, we include attitude towards eating local food as an intermediate factor in the model (Feldmann and Hamm, 2015). The original helping behaviour model characterizes a helping situation as involving a person or an organization deserving of help and a potential helper who may provide assistance if sufficiently motivated. Local food producers face significant barriers to making a living from farming, as they are threatened by national food producers and food imports (Goodman, 2004; Goodman and DuPuis, 2002; Hinrichs, 2003). Thus, they could be described as a group deserving of help. The potential helpers are the local food consumers, who can choose to help the local food producers by buying their products. Below, each of the constructs of the model will be discussed in turn. The proposed relationships will then be stated formally as hypotheses for empirical testing.

### 2.1. Attitudes towards eating local food

Fishbein and Ajzen (1975) define an *attitude* as ‘a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object’ (p. 6). An attitude provides the basis for forming an intention to behave in a certain way. Thus, attitudes towards eating local food are learned predispositions with respect to local food or certain aspects of local food-buying behaviour (Campbell, 2013; Feldmann and Hamm, 2015). In the context of helping behaviour, research has shown that attitudes have a positive relationship with intentions to help, as people are more willing to help those whom they like (Carnevale et al., 1982). Thus, we hypothesize:

**H1.** Positive attitudes towards eating local food result in a greater preference for local food.

### 2.2. Empathic concern

Empathic concern is the ability to distinguish and understand the emotional states of others by experiencing the emotions of another person within oneself (Penner et al., 1995; Preston and DeWaal, 2002). Psychologists often associate empathic concern with one’s tendency to engage in real-life helping behaviours (Bierhoff et al., 1991). Previous research has also indicated that empathic concern increases when a helper perceives a recipient of helping behaviour motivated by empathy to be similar to him or her (Piliavin et al., 1981; Tangney et al., 2007). When group identity exists, people are more likely to be empathic towards those within the group. In the local food context, empathic concern in a helping situation can be presented as consumers’ awareness of, and ability to understand, the situation of the threatened local food producers and the way in which the consumers react cognitively and emotionally to the situation. On the basis of the arguments above, we hypothesize the following:

**H2.** Empathic concern results in a positive attitude towards eating local

food.

### 2.3. Perceived similarity

We propose that local food consumers identify with the subset of local food producer associations that constitutes the producers’ identity. This identity is likely to comprise traits that reflect the local food producers’ core values, as embodied in its operating principles and demographic characteristics such as size, market position, and geographic location (Battacharya and Sen, 2003). This proposition implies that, if a local food producer has an emotionally appealing point, local food consumers will engage in deep relationship building with the producer (e.g. using the producer as a social identifier). Translated to the helping behaviour framework, this appealing point is the helper’s perception of similarity (i.e. sameness or closeness) and having certain characteristics or attributes in common with the object of empathy. In the local food context, it reflects a perceived likeness to the threatened local food producer. Previous studies (e.g. Granzin and Painter, 2000; Olsen et al., 1993) have shown that similarity plays a part in the helping process because people favour their own kind over others in almost every similarity–difference dimension. Here, perceived similarity represents identification with a relatively narrowly defined group of local food producers. Therefore, local food consumers should feel more similar to local food producers. We posit the following:

**H3.** Greater perceived similarity results in a positive attitude towards eating local food.

### 2.4. Social concern

Social concern is an assessment that implies cognitive interest in caring for other members of one’s local grouping or society. Social concern characterizes the desire to help when other members of the society experience trouble. Various studies have shown that social concern for others in a broader sense often explains moral choices in helping situations (e.g. Clary et al., 1998; Granzin and Painter, 2000; Olsen et al., 1993; Snyder and Omoto, 2007). In the local food context, social concern is the feeling those members of the society who benefit most (i.e. the consumers) should help to reward those who benefit least (i.e. the local food producers). On the basis of this argument, we hypothesize the following:

**H4.** Greater social concern results in a positive attitude towards eating local food.

### 2.5. Local patriotism

Patriotism is an assessment used to define the relevant in-group. It is an attachment to, and a sense of pride in, one’s own country or homeland, a desire to live there, a willingness to make sacrifices for it, and admiration for, and allegiance to, its people (Granzin and Olsen, 1998). It is willingness to protect one’s in-group/homeland against out-groups. We distinguish patriotism from ethnocentrism and related constructs connoting uncritical recognition of one’s own homeland as being superior to other nations (Bianchi and Mortimer, 2015; Sharma et al., 1995; Watson and Wright, 2000). Patriots love their own homeland, culture, and traditions, but they do not reject other nations’ culture and traditions, considering them equally legitimate to their own (Forbes, 1985; Granzin and Painter, 2000).

In our study, we adopt a narrow patriotism construct that expresses love for one’s own local community. The relevant in-group in this case consists of a group of people who are local to a particular region within a country. Local patriotism is therefore an attachment to the local community and allegiance to the people in the local community (Han, 1988). One’s world view is influenced by one’s local community

affiliation rather than one's nationality. The local context should therefore have a significant influence on consumers (Siemieniako et al., 2011). Related to helping behaviour, local patriotism is community-wide altruism defining the field within which a local patriot will assist others (Hardin, 1993). In the context of the discussion about local food favourability, local patriotism can therefore be understood as a belief that buying local food will help protect the local economy and contribute to its development.

Consumers with a strong tendency to be patriotic are generally more positive in their evaluations of domestic products than are non-patriotic consumers (Granzin and Olsen, 1998). However, the strongest effect of consumers' patriotic tendencies is on their willingness to buy domestic rather than non-domestic products (Moon, 2003). As such, even patriotic consumers who evaluate domestic products as inferior may still be willing to buy domestically (Shimp and Sharma, 1987; Watson and Wright, 2000). Translating these results into our context implies that local consumers are willing to buy local food even if they evaluate it as being of lower quality than other food products. Based on the arguments above, we therefore hypothesize the following:

**H5.** Greater local patriotism results in a positive attitude towards eating local food, and

**H6.** Greater local patriotism results in a greater preference for local food.

Fig. 1 depicts the conceptual model, in which the flow of influences (H1 to H6) runs from helping behaviour to preference for local food.

### 3. Materials and methods

#### 3.1. Contextualization of local food of Troms County, Norway

The geographical context for this study is Troms County. Troms County is the second northernmost county in Norway and is located around 300 km north of the Arctic Circle. The county has low population density (6.3 inhabitants per square kilometre, with about 164,000 inhabitants). The biggest city and the capital of Troms is Tromsø (75,000 inhabitants). Troms is made up of islands; over half of the population lives on islands. On the mainland, fjords stretch far into the forest and mountains. Thus, much of the economy is linked to the sea.

Using Tregear (2007) typology, the local food system in Troms County is best described as a 'close typicity' system. This name refers to food featuring special characteristics that are linked via names and identifiers to the region that produces it.

Local consumers within a close typicity system have high levels of familiarity and knowledge about local products and are therefore able to distinguish local products from non-local alternatives (Skallerud, 2015). Local food is found at 'farmers markets' and at local food festivals. However, the largest portion of local food is found in special sections on supermarket shelves where the competition with national brands is fierce. The local food in Troms County originates to a large extent in the sea. In addition to fresh seafood of all kinds, traditional ways of curing seafood (e.g. drying, salting, combinations of these, and semi-drying) characterise many of the local seafood products. Lamb production is important in rural Norway in general utilizing rough

grazing. Lambs from the region are famous among locals for their lean and tender meat due to pasturing on the steep slopes in the mountains. Norwegian and indigenous Sami cultures both go back many centuries in Troms, and each has set its respective mark on the county through at least the past 2,000 years, also influencing local food traditions. Product from reindeer is also perceived as local food.

However, despite long traditions with local food in Troms, as well as high knowledge among local consumers about these food products, there are challenges that put the survival of local food producers under pressure. For instance, local producers of processed fish currently face strong competition from large national fish processing companies and imports. After World War II, the fish processing industry in northern Norway was built up with massive government support. This modernization of the industry in the post-war period established a 'social contract' between the government and the fillet processing industry where the industry accepted responsibility for employment and settlement in the coastal communities (Finstad et al., 2012). After strong expansion in the 1960s, the number of processing plants in the coastal communities dropped from 100 in the early 1970s to 10 in 2012 (Meld. St. 22 (2012–2013)). Termination of government subsidies, undermining of the trawlers' obligations to land fish to a specific processing plant, globalization of production and trade of seafood, and high production costs are often attributed to this decline (Finstad et al., 2012).

Another area in which local food producers struggle is within the aquaculture industry. During the last three decades, aquaculture has become an important sea-based industry. The expansive coastline with deep fjords and clean water provides good conditions for supporting fish farming, predominantly Atlantic salmon sold fresh in the global marketplace. Troms County ranks as third in both volume and value related to aquaculture production in Norway (Robertsen and Nyruud, 2018). However, the Norwegian aquaculture industry has been consolidated over the last decade from an industry constituted of small, local farmers in coastal communities to one constituted by vertically integrated multinational companies (MNCs). The ten largest companies have increased their share of aquaculture production in Norway from 48% in 2006 to 69% in 2015 (Marine Harvest, 2018). The same picture is prevalent in Troms County, where about 42% of the fish farming sites are owned by MNCs and the rest of the sites are owned by a few large Norwegian-owned companies (Robertsen and Nyruud, 2018).

Finally, the survival of local food producers of agricultural products is also under strong pressure because of competition from big national agricultural co-operatives. There are rich farming traditions in the county due to the warm ocean currents, which keep the weather surprisingly mild given its location. However, the number of farms has declined over decades, and Troms County is at the forefront of this development. The number of farms declined by 28% from 2006 to 2015 (Eldby, 2016). Most of the remaining farms have entered into co-operation with national agricultural co-operatives (i.e., 'Tine', the dairy co-operative, and 'Gilde', the meat production co-operative), and only a few small independent local food producers remain.

In summary, local food producers in several food categories are struggling under competition from a few big national food producers. In light of this struggle, the Norwegian government has adopted a strategy for further developing the local food industry (Meld. St. 31 (2014–2015)). A part of the strategy was to initiate Matmerk.no, a foundation for diversity, quality and added value in the Norwegian food production. Matmerk. no promotes local food in general through quality insurance schemes, education and training of local food producers and administering the labelling scheme for Protected Designation of Origin (PDO), Protected Geographical Indication (PGI), and Traditional Specialty Guaranteed (TSG). In the end, however, the local food producers are dependent on the consumers helping them by choosing their products over those of the national competitors. Figs. 2 and 3.

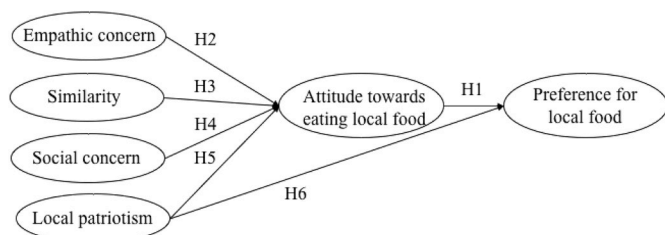


Fig. 1. The conceptual model.

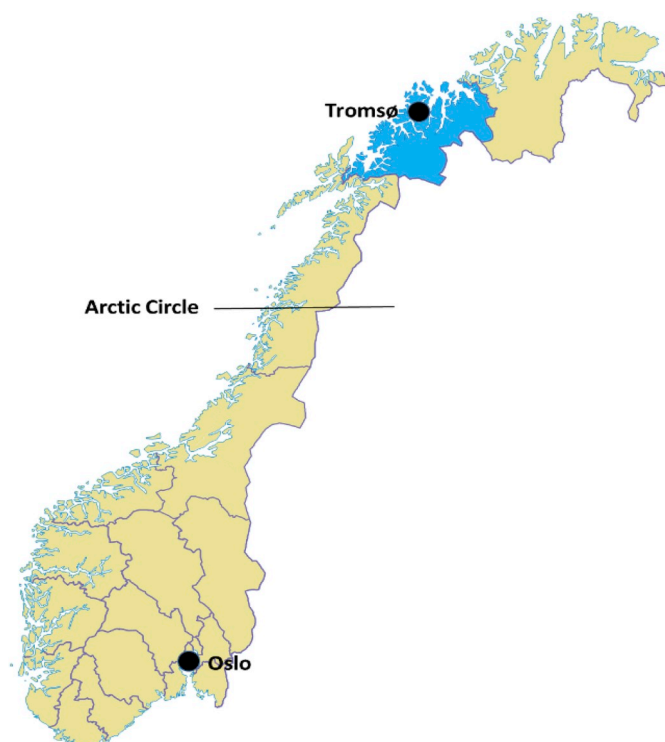


Fig. 2. Map of Norway and Troms county in the high north.



Fig. 3. Top left: *Boknafisk* (semidried cod fillets, dried in early spring around 0° Celsius). Top right: Lambs grazing on the steep slopes in the mountains. Down left: Section of local seafood in a supermarket. Down right: Mink whale meat at a manual counter in a local supermarket.

### 3.2. Data collection and sample

A web-based questionnaire conducted via Survey Monkey was used to survey consumers' attitudes and behaviour towards local food. The sampling procedure used two-stage non-probability snowball sampling (e.g. Goodman, 1961). In the first stage, around 800 respondents were approached via Facebook. A Facebook profile titled 'Local food from Troms' was created with an introductory text explaining local food as food produced near the consumer (i.e. Troms County). Pictures of local food dishes and local food brands (e.g. Mydland [meat], Aron mat [meat], Gourmet Lyngen [lamb from Lyngen], Reinøy sjømat [seafood]) were also provided. The 800 Facebook friends of one of the authors of this study were then invited to visit the Facebook profile and

respond to the survey.

In the second stage, the respondents were asked to forward the link to the questionnaire to other individuals with whom they frequently associate. Snowball sampling via Facebook is no substitute for probability-based techniques, but the popularity of Facebook supports the decision to use it as a sampling tool (Fricker, 2008). This kind of sampling has strengths (e.g., lower survey costs, fast, instantaneous data transmission, reduce socially-desirable responding) and limitations (e.g., sample bias, lower response rate) similar to other forms of web-based research (Brickman-Bhutta, 2011). Indeed, recent research suggests that data collected over Facebook are likely to be as reliable and valid as data collected through other data sources (Rife et al., 2016).

All respondents had bought local food within the last six months. The effective size of the sample was 213, after removing 16 respondents who indicated that they did not live in Troms County. The respondents were aged between 17 and 75 years, 48% being between 45 and 59 years, and 68% were female. Within the sample, 60% had a high school education, while 40% had a university-level qualification. The median household size was three persons (slightly above median household size in Norway), and the median household income was 800,000 NOK (approx. 102,000 USD), slightly below the median household income in Norway. The respondents resided mainly in urban and suburban areas (70%), as defined by Statistics Norway's nomenclature. The demographic characteristics of the sample were similar to those of other web-based surveys (Kwak and Radler, 2002), with female and better-educated respondents overrepresented in comparison with the general population of Troms County.

### 3.3. Measures

In developing measures to represent the helping behaviour constructs (i.e., empathic concern, perceived similarity, social concern, local patriotism), attitude towards eating, and preference for local food, we synthesised scales from the literature with those obtained in our fieldwork. The initial measures were refined and pretested to enhance the content validity. All the questions were framed with local food as the object of the association. To operationalize the multi-item constructs in the study, reflective scales with seven-point response formats were used to measure the helping behaviour constructs and the attitude construct and nine-point response format were used to measure preference for local food. This scale was adapted from Josiassen et al. (2011) and Klein et al. (1998) and included items such as 'Whenever possible I prefer to buy local food' and 'If two food items are equal in quality and taste, I prefer the local food item even if it costs 10% more'. The scale for attitude towards eating local food was adapted from Olsen (2003) and Shepherd and Raats (1996) and was measured by four statements of attitude evaluation and local food preferences: 'It is wise to eat local food', 'I feel very satisfied when I eat local food', 'Local food gives me a pleasant feeling', and 'Local food tastes good'. These items cover general positive feeling statements that are often used to assess attitudes towards food objects and/or food behaviour (Shepherd and Raats, 1996).

The local patriotism scale was adapted from Grazin and Olsen (1995) and Shimp and Sharma (1987). Since the study of local food took place at the local level, measuring patriotism at a higher level of abstraction, such as patriotism towards the nation, was not appropriate (Goldsmith and Flynn, 1992). The measures used should be designed for the same level of specificity. The items were therefore adapted through expert reviews and pre-tests. This process was considered necessary since measures related specifically to local patriotism had not been developed in the previous literature. The scale included items such as 'A real local patriot should also buy local food', 'We should buy from others only those food products that we cannot obtain locally', 'We should buy food from local producers instead of letting others get rich off us', and 'It is always best to purchase local food products'. These measures reflect that patriotism stems in part from the injunctive norms

of a person's in-group (Suhay et al., 2016). The injunctive norm represents the perceived degree of social approval/disapproval of conduct and behaviour (Cialdini and Goldstein, 2004).

The helping behaviour scales were adapted from Grazin and Olsen (1995), Granzin and Olsen (1998), Granzin and Painter (2000), and Olsen et al. (1993). Empathy included items such as 'It makes me feel bad to see the difficulties local producers are facing because of national producers' and 'I feel really bad about local producers losing in the competition with national producers/imports'. Similarity included items such as 'Local food producers are no different from you and me' and 'I as a person am no different from the persons producing local food'. Social concern included items such as 'I feel it is my duty to buy local food', 'I should make an effort to help local producers in the competition with national producers and imports', 'Buying local food is one way to pay back our local community for what we have here', and 'If I can help local food producers in some way, I feel I should try'.

### 3.4. Analytical procedure

The data analysis employed the two-step approach recommended by Anderson and Gerbing (1988). We first conducted a confirmatory factor analysis using AMOS 24. This analysis was used to test how well the measures of the constructs represent our understanding of the nature of the constructs – i.e. the validity and reliability of the constructs. The measurement model that we estimated proposed that each measure should reflect the appropriate constructs underpinning our conceptual model. The second stage of the analysis used structural equation modelling to test the proposed model concerning the drivers of preference for local food by maximum likelihood estimation in AMOS 24. A well-fitting model has a non-significant  $\chi^2$ . However, in a large sample such as the one in this study, the  $\chi^2$  can be significant even if the model fits the data. The  $\chi^2/df$  ratio lower than 2 indicate a good fit (Tabachnick and Fidell, 2001). The analysis included four other indices: the root mean square error of approximation (RMSEA), incremental fit index (IFI), non-normed fit index (NNFI), and comparative fit index (CFI). Acceptable model fits are indicated by IFI, NNFI, and CFI values exceeding 0.90, and RMSEA values below 0.08 represent a moderate fit, while values lower than 0.05 indicate a good fit (Browne and Cudeck, 1992).

## 4. Results

### 4.1. Reliability and validity of the measures

A confirmatory factor analysis (CFA) based on 18 variables was conducted. The initial measurement model showed an acceptable fit ( $\chi^2 = 252.89$  with  $df = 137$  [ $\chi^2/df = 1.84$ ],  $RMSEA = 0.063$ ,  $IFI = 0.96$ ,  $NNFI = 0.95$  and  $CFI = 0.96$ ). However, the modification indices and standardized residuals indicated that a more parsimonious model could be achieved (Anderson and Gerbing, 1988). Altogether, three items with multiple loadings and correlated measurement errors (both within and across constructs) were therefore deleted. Two items were deleted from the social concern scale ('If I can help local food producers in some way, I feel I should try' and 'I should make an effort to help local producers in the competition with national producers and imports'), and one item was removed from local patriotism (i.e. 'Buying local food is always best'). The fit of the re-specified model improved to  $\chi^2 = 132.05$  with  $df = 89$  ( $\chi^2/df = 1.48$ ),  $RMSEA = 0.048$ ,  $IFI = 0.98$ ,  $NNFI = 0.99$  and  $CFI = 0.98$ . Two different measures of internal consistency or reliability were computed. First, all composite reliabilities were 0.75 or higher, which indicated a degree of internal consistency among the measures that was far above the recommended level of 0.60 (Bagozzi and Yi, 1988). Second, the average variance extracted ranged from 0.50 to 0.80. Bagozzi and Yi (1988) suggested a target level > 0.50.

The convergent validity of the helping behaviour, attitude, and

**Table 1**  
Discriminant validity of the constructs.

	M	SD	CR	AVE	1	2	3	4	5	6
EMP	5.50	1.08	.82	.70	.84					
SIM	5.16	1.02	.89	.79	.30	.89				
SC	4.80	1.04	.91	.77	.46	.26	.88			
LOCPAT	4.26	1.15	.75	.50	.54	.15	.64	.71		
ATT	5.68	1.18	.93	.76	.59	.28	.44	.39	.87	
PREF	6.56	1.80	.89	.80	.42	.23	.48	.52	.51	.90

EMP: empathy; SIM: similarity; SC: social concern; LOCPAT: local patriotism; ATT: attitude towards eating local food; PREF: preference for local food.

preference scales could not be ascertained in the typical sense of using different methods to test the construct, because we only used one method. However, given that all items loaded highly on the factors to which they were assigned, the high loadings was itself a test of the convergent validity of the scale (Dabholkar et al., 1996).

The discriminant validity of the scales was assessed using a procedure recommended by Bagozzi et al. (1991). Within each subset of measures, pairs of constructs were examined in a series of two-factor confirmatory models. A chi-square difference test was conducted. The results suggested that, for all the pairs of constructs, the two-factor solution was better ( $p < .001$ ) than the single-factor solution. The discriminant validity of the constructs was also tested using the approach suggested by Fornell and Larcker (1981).

The diagonals in Table 1 show the square root of the average variance extracted (AVE) from each construct. The other entries represent the means, standard deviations, and square of each correlation among the constructs. We can see that no non-diagonal entries exceed the diagonals of the specific construct. In summary, the measures of the proposed constructs achieve satisfactory reliability (i.e. are not flawed by random errors) and convergent and discriminant validity (i.e. are not flawed by systematic errors indicating that we are measuring separate constructs with no significant overlap).

### 4.2. Descriptive analysis

The mean score for preference for local food is 6.56 ( $SD = 1.80$ ) (on a 1–9 scale), which shows that the respondents have medium-to-high preference for local food. We also see that this construct has the largest standard deviation among the constructs. The average rate for attitude towards eating local food is 5.68 ( $SD = 1.18$ ) (on a 1–7 scale), which shows a rather positive attitude. Furthermore, the respondents are rather empathic towards local food producers (mean = 5.50,  $SD = 1.08$  on a 1–7 scale). The average rate of similarity is 5.16 ( $SD = 1.02$ ), which indicates that the respondents' feeling of commonality to the local food producers is quite high. Regarding social concern, the average is 4.80 ( $SD = 1.04$ ), indicating a positive feeling that the local consumers should help the local food producers. The average score for local patriotism is 4.26 ( $SD = 1.15$ ), which is the lowest score for all the constructs, nevertheless suggesting that the locals have a marginally positive tendency towards patriotism concerning their local community. The standard deviation is the second largest among the constructs, indicating considerable variance among the respondents.

### 4.3. Structural analysis and model testing

An SEM methodology was employed to test the hypotheses. Table 2 shows the proposed latent variable model. Apart from the  $\chi^2$  statistics (137.76;  $df = 92$ ,  $p = .00$ ) ( $\chi^2/df = 1.49$ ), our structural model suggests a reasonably good fit ( $RMSEA = 0.048$  and  $CFI = 0.98$ ). We can conclude that our theoretical model fits the data well. The standardized estimates for the various model paths and the associated p-values are provided in Table 2.

Hypothesis 1 predicts a positive relationship between attitudes

**Table 2**  
Structural parameter estimates.

	Estimate	p-value	H. results
H1: ATT→ PREF	.33	.000	<b>Supported</b>
H2: EMP→ ATT	.44	.000	<b>Supported</b>
H3: SIM→ ATT	.09	.166	Not supported
H4: SC→ ATT	.22	.020	<b>Supported</b>
H5: LOCPAT → ATT	.04	.741	Not supported
H6: LOCPAT→ PREF	.37	.000	<b>Supported</b>

$\chi^2 = 136.68$  (df = 92,  $p = .00$ ), RMSEA = 0.048, IFI = 0.98, NNFI = 0.97, CFI = 0.98.

EMP: empathy; SIM: similarity; SC: social concern; LOCPAT: local patriotism; ATT: attitude towards eating local food; PREF: preference for local food.

towards eating local food and preference for local food and is supported by the data ( $\beta = .33$ ,  $p = .000$ ). Hypothesis 2 predicts a positive relation between empathy and attitudes towards eating local food and is also supported by the data ( $\gamma = 0.44$ ,  $p = .000$ ). Hypothesis 3 predicts a positive relationship between perceived similarity and attitudes towards eating local food. This hypothesis is not supported ( $\gamma = .09$ ,  $p = .166$ ). Hypothesis 4 states that social concern is positively related to attitudes towards eating local food. The hypothesis is supported by the data ( $\gamma = 0.21$ ,  $p = .020$ ). Hypothesis 5 is, however, not supported by the data ( $\gamma = 0.04$ ,  $p = .741$ ). The hypothesis postulates that local patriotism is positively related to attitudes towards eating local food. The last and sixth hypothesis states that there is a positive relationship between local patriotism and preference for local food. Hypothesis 6 is supported by the data ( $\gamma = 0.37$ ,  $p = .000$ ). The model explains 39.6% of the variance in attitude towards eating local food and 36.8% in preference for local food. The predictive power of the model is therefore considered satisfactory.

Alternative models in which the helping behaviour constructs directly influenced the preference for local food (i.e. not mediated by the attitude towards eating local food) were performed in order to test the uniqueness and robustness of the proposed model. The alternative models showed poor fit and modification indices (Jöreskog and Sörbom, 1996). This provides support for the proposed theoretical model of preference for local food and its helping behaviour antecedents.

## 5. Discussion and conclusions

### 5.1. Discussion

This study developed and tested a conceptual model that assesses the relative importance of four socio-psychological traits as drivers of preferences for local food: empathic concern, local patriotism, social concern for local food producers, and similarity with these producers. Our results reveal that all the traits except similarity are important predictors of local food preferences, although the strength of their impact on the outcomes varies.

Empathic concern was found to have a strong significant positive influence on attitudes towards eating local food, supporting H2. As stated by Lazarus (1991), 'empathic reactions to others' distress often elicit feelings of concern for the distressed other' (p. 288); such empathic concern often 'prompts helping behaviour aimed at helping the distressed other' (Tangney et al., 2007, pp. 18–19). Consistent with the extant research (e.g., Lazarus, 1991), our study shows that empathic concern is an important prosocial capability in the local food context as well.

Local patriotism also has a positive significant direct influence on preference for local food (H6), and it is not mediated by attitudes towards eating local food, rejecting H5. Similar to other research (Shimp and Sharma, 1987; Watson and Wright, 2000), the support of H6 implies that consumers prefer local food even if they evaluate it as being of

lesser quality than other food products. Studies of local food marketing literature have found consumer ethnocentrism to exert a positive impact on attitudes towards local food (Bianchi and Mortimer, 2015). Our study has a narrower scope, conceptualizing local patriotism and its effect on behavioural intentions. However, patriotism and locality may not always be clearly linked. A consumer can be patriotic and support national produce rather than defining his patriotism down to being local. The consumer may also prioritize this as being more attainable. Nevertheless, in a Norwegian context the consumer's choice of the most frequently consumed food categories (i.e. dairy products and meat products) is mainly between a few national brands owned by the Norwegian agricultural co-operative on the one side and local brands/products on the other. This is due to heavy import tariffs protecting the domestic agriculture industry. Local patriotism might therefore be viewed as being similar to place identity in the literature on environmental psychology (Bonaiuto and Bonnes, 2000; Proshansky et al., 1983) who has established a positive relationship between local identity and people's wish to support stakeholders in their community through comprehensive relationships and mutual exchanges (Broadbridge and Calderwood, 2002; Home, 2002). Thus, our finding contributes to the literature by suggesting that local patriotism reflects consumers' preferences for local goods better than ethnocentrism and the patriotism construct as conceived as being nationally oriented, which are related to choices between domestic and foreign products. Local patriotism also has a direct effect on consumer preferences, and it is not mediated by attitudes towards eating local food.

The extant literature has shown that social concern for others in a broader sense often justifies moral choices in helping situations (e.g. Granzin and Painter, 2000; Olsen et al., 1993). This is also the case in the local food context, in which we found a significant positive relationship between social concern and attitudes towards eating local food, thereby supporting H4. Social psychology (e.g. Clary and Snyder, 1991; Clary et al., 1998; Snyder and Omoto, 2007) argues that community concern (i.e. the wish to support and assist a specific community of people in need) and affirming values (i.e. a sense of duty to help arising from personal guiding values) are motivational orientations that can promote social action. Social concern can be viewed as being similar to the community concern orientation (i.e., a wish to support local food producers) and, to some degree, the affirming values orientation (i.e., support as a moral choice). Our finding that social concern motivates local food-buying behaviour is therefore strongly supported in the social psychology literature, but this literature could also provide new theoretical frameworks and concepts explaining the buying behaviour of local food consumers in more depth.

We proposed that consumers' self-perceptions of similarity or commonality to the local food producers would have a positive influence on attitudes towards eating local food (H3). This was not corroborated by our study. The relationship between perceived similarity and attitude was insignificant. Products are, by nature, less prone to consumer-company interactions than services (Gardner, 1985). Affection-based evaluations are probably more likely to occur for services than for products (Battacharya and Sen, 2003). In other words, an explanation for the lack of association between perceived similarity and attitudes towards eating local food could be related to the nature of products and therefore the smaller volume of interactions between consumers and local producers, at least in the context investigated in this study where local food is most frequently purchased in local supermarkets.

Attitudes towards eating local food have a significant positive influence on preference for local food (H1). This supports previous studies applying attitude theories to explain behavioural purchase intentions in the local food context (e.g. Bianchi, 2016; Bianchi and Mortimer, 2015; Campbell, 2013; Zepeda and Li, 2006) and other food contexts (e.g. Verbeke and López, 2005).

### 5.2. Theoretical implications

Together with previous local food research (e.g. Bianchi, 2016; Cranfield et al., 2012; Hinrichs, 2000; Memery et al., 2015; Tregear, 2011; Tregear and Ness, 2005), our findings suggest the possibility of incorporating the welfare of the local community as a reference that can influence local food-buying behaviour. This possibility has both theoretical and practical implications. On the theoretical side, we align ourselves with Granzin and Painter (2000), Olsen et al. (1993), and many social psychologists on one issue: to understand what motivates buying behaviour, we must look beyond the *homo economicus* model of marketness and instrumentalism (Hinrichs, 2000). That is, despite acknowledging that self-interest plays a principal role in the list of triggers of buying behaviour, the empirical evidence suggests that the list should be extended by including motivational orientations and forces that can explain prosocial action beyond marketness and instrumentalism.

In this vein, lengthening the list of potential motivations of local food buying by adopting the framework of helping behaviour in the local food context has considerably expanded the scope of the analysis. First, based on the literature on helping behaviour, a comprehensive theoretical framework was developed for the study. Previous studies to a large extent have been exploratory in nature. Second, the hypotheses were framed at the theoretical level rather than at the observational level used in previous studies. Third, the correspondence between the theoretical and the observational level is shown by measures with adequate evidence of validity and reliability, contributing to a more comprehensive understanding of the buying behaviour of consumers. Fourth, this is among the first studies to apply a structural equation modelling (SEM) approach to the subject. Social scientific theories (e.g. about local food consumption) involve complex patterns of relationships between a multitude of constructs, conditions, or groups. SEM allows us to both model and test complex patterns of relationships, including a multitude of hypotheses simultaneously as a whole. The use of other methods would frequently require several separate analyses. Last, but not least, at a more general level, the study provides scholarly attention to the explanation of selected helping behaviour concepts that are potentially useful building blocks for explaining the contribution that consumers make to local food systems.

### 5.3. Implications for policy and recommendations

On the practical side, our results will assist local food producers, policy-makers, local food advocates, and other professionals with marketing and communication strategies (Hinrichs and Allen, 2008). First, the positive association with empathy indicates that the communication strategy should have a strong emotional content and emphasize the difficulties that local food producers face. Social psychology provides solid evidence for the important part played by emotional arousal in generating a helping response. Local food consumers should be encouraged to share vicariously the perceived difficulties of the local food producers caused by national food producers and food imports.

### Appendix: Descriptive statistics

	Mean (SD)	Std. reg. weights	Squared multiple corr.
<b>Attitudes towards eating local food:</b>			
It is wise to eat local food.	5.8 (1.4)	.84	.71
I feel very satisfied when I eat local food.	5.8 (1.3)	.95	.91
Local food gives me a pleasant feeling.	5.4 (1.4)	.87	.77
Local food tastes good.	5.7 (1.4)	.82	.66
<b>Local patriotism:</b>			
A real local patriot should also buy local food.	5.0 (1.4)	.77	.59
We should buy from others only those food products that we cannot obtain locally.	3.7 (1.7)	.66	.40
We should buy food from local producers instead of letting others get rich off us.	4.6 (1.6)	.63	.43
<b>Empathic concern:</b>			

Second, the positive relationship with local patriotism indicates that greater identification with threatened local food producers increases consumers' inclination to help them. To capitalize on this support, communication should portray local food producers as patriotic allies who are just as loyal to the local community as are the local food consumers. Local food producers should be shown as working to keep the local community serving as a viable force in different areas of national competition.

Third, the positive effect of social concern suggests that it can be used as a foundation for advising consumers to buy local food. A communication strategy could be to appeal to the personal value of contributing to the local community that has rewarded them and therefore deserves to be rewarded in return. Local food producers might be portrayed as experiencing hard times and suffering from national competition and imports. The value of social concern is embryonic in many consumers. Therefore, it must be aroused to motivate positive support for local food producers.

The implications above are mainly developed for the Norwegian local food context. The retail chains are promoting local food producers and local food advocates such as Matmerk.no is promoting local food through communications campaigns. However, we acknowledge that in many other local food contexts, local food producers, and their advocates might lack financial resources to fully implement marketing and communication strategies based on the recommendations above.

### 5.4. Limitations

The present study offers some new ideas and concepts to the research on antecedents of local food preferences and buying behaviour. However, the study is based on a moderate-sized non-probability sample of local food consumers in a specific region of Norway. Future studies should include more representative samples of local food consumers, for example age, gender, and income. As such, generalizations, if any, should be made primarily to Norwegian local food consumers. Local food shopping is an increasingly common behaviour among grocery consumers (Aprile et al., 2016; Bianchi and Mortimer, 2015; Penney and Prior, 2014), and it can therefore be speculated that similar results would be found in other countries, especially those countries that are similar to the Norwegian local food context. Comparative studies of consumers' local food-shopping behaviour should be carried out.

Considerable work remains to be done in the development of a broadly applicable model of helping behaviour that can be used in different local food contexts. For instance, other helping behaviour constructs such as the costs and benefits of both helping and not helping, the concept of equity (i.e. perceived balance of contributions made and rewards received), and responsibility (i.e. acceptance/rejection of an obligation to alleviate a distressful situation) should be investigated in future research. In addition, instead of adopting and adapting existing measurement scales from other domains, exploratory research should be carried out to develop and validate scales for the characteristics and idiosyncrasies of the local food context.



It makes me feel bad to see the difficulties local producers are facing because of national producers.	5.8 (1.2)	.84	.70
I feel really bad about local producers losing in the competition with national producers.	5.2 (1.5)	.83	.70
<b>Similarity:</b>			
Local food producers are no different from you and me.	5.3 (1.3)	.90	.80
I as a person am no different from the persons producing local food.	5.2 (1.3)	.88	.77
<b>Social concern:</b>			
I feel it is my duty to buy local food.	4.4 (1.5)	.76	.58
I should make an effort to help local producers in the competition with national producers and imports.	5.0 (1.3)	.94	.88
Buying local food is one way to pay back our local community for what we have here.	5.1 (1.3)	.92	.85
<b>Preference for local food:</b>			
Whenever possible I prefer to buy local food.	6.4 (2.0)	.88	.78
If two food items are equal in quality and taste, I prefer the local food item even if it costs 10% more.	6.5 (2.1)	.91	.83

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jrurstud.2019.02.020>.

## References

- Alkon, A.H., 2008. From value to values: sustainable consumption at farmers markets. *Agric. Hum. Val.* 25 (4), 487–498.
- Allen, P., 2010. Realizing justice in local food systems. *Camb. J. Reg. Econ. Soc.* 3, 298–308.
- Anderson, J.C., Gerbing, D.W., 1988. Structural equation modelling in practice—a review and recommended two-step approach. *Psychol. Bull.* 103 (3), 411–423.
- Aprile, M.C., Caputo, V., Nayga Jr., R.M., 2016. Consumers' preferences and attitudes toward local food products. *J. Food Prod. Market.* 22 (1), 19–42.
- Baber, L., Frongillo, E., 2003. Family and seller interactions in farmers' markets in upstate New York. *Am. J. Altern. Agric.* 18 (2), 87–94.
- Bagozzi, R., Yi, Y., 1988. On the evaluation of structural equation models. *J. Acad. Market. Sci.* 16 (Spring), 74–94.
- Bagozzi, Yi, Y., Phillips, L.W., 1991. Assessing construct validity in organizational research. *Adm. Sci. Q.* 36, 421–458.
- Batson, C.D., Fultz, X., Schoenrade, P.A., 1987. Distress and empathy: two qualitatively distinct vicarious emotions with different motivational consequences. *J. Pers.* 55, 19–39.
- Bhattacharya, C.B., Sen, S., 2003. Consumer-company identification: a framework for understanding consumers' relationships with companies. *J. Market.* 67 (2), 76–88.
- Bianchi, C., 2016. Exploring urban consumers' attitudes and intentions to purchase local food in Chile. *J. Food Prod. Market.* 23 (5), 553–569.
- Bianchi, C., Mortimer, G., 2015. Drivers of local food consumption: a comparative study. *Br. Food J.* 117 (9), 2282–2299.
- Bierhoff, H.W., Klein, R., Kramp, P., 1991. Evidence for the altruistic personality from data on accident research. *J. Pers.* 59, 263–280.
- Block, F., 1990. *Postindustrial Possibilities: A Critique of Economic Discourse*. University of California Press, Berkeley, CA.
- Bogomolova, S., Loch, A., Lockshin, L., Buckley, J., 2016. Consumer factors associated with purchasing local versus global value chain foods. *Renew. Agric. Food Syst.* 33 (1), 33–46.
- Bonaiuto, M., Bonnes, M., 2000. Social-psychological approaches in environment-behavior studies: identity theories and the discursive approach. In: Wapner, S., Demick, J., Yamamoto, T., Minami, H. (Eds.), *Theoretical Perspectives in Environment-Behavior Research*. Kluwer Academic, New York 2000.
- Brickman-Bhutta, C., 2011. Not by the book: Facebook as sampling frame. <http://www.thearda.com/workingpapers/facebook.asp>.
- Broadbridge, A., Calderwood, E., 2002. Rural grocery shoppers: do their attitudes reflect their actions? *Int. J. Retail Distrib. Manag.* 30 (8), 394–406.
- Brown, A., 2002. Farmers' market research 1940-2000: an inventory and review. *Am. J. Altern. Agric.* 17 (4), 167–176.
- Browne, M.W., Cudeck, R., 1992. Alternative ways of assessing model fit. In: Bollen, K.A., Long, J.S. (Eds.), *Testing Structural Equation Models*. Sage, Newbury Park, CA 1992.
- Brunori, G., Rossi, A., 2000. Synergy and coherence through collective action: some insights from wine routes in Tuscany. *Sociol. Rural.* 40 (4), 409–423.
- Campbell, J.M., 2013. Muy local: differentiating Hispanic and Caucasian shoppers of locally produced foods in US grocery. *J. Retailing Consum. Serv.* 20 (3), 325–333.
- Carnevale, P.J., Pruitt, D.G., Carrington, P.I., 1982. Effects of future dependence, liking, and repeated requests for help on helping behavior. *Soc. Psychol. Q.* 9–14.
- Cialdini, R.B., Goldstein, N.J., 2004. Social influence: compliance and conformity. *Annu. Rev. Psychol.* 55, 591–621.
- Clary, G., Snyder, M., 1991. A functional analysis of altruism and prosocial behaviour: the case of volunteerism. *Rev. Pers. Soc. Psychol.* 12, 119–148.
- Clary, E.G., Snyder, M., Ridge, R.D., Copeland, J., Stukas, A.A., Haugen, J., Miene, P., 1998. Understanding and assessing the motivations of volunteers: a functional approach. *J. Pers. Soc. Psychol.* 74 (6), 1516–1530.
- Cleveland, D.A., Müller, N.M., Tranovich, A.C., Mazaroli, D.N., Hinson, K., 2014. Local food hubs for alternative food systems: a case study from Santa Barbara County, California. *J. Rural Stud.* 35, 26–36.
- Cranfield, J., Henson, S., Blandon, J., 2012. The effect of attitudinal and socio-demographic factors on the likelihood of buying locally produced food. *Agribusiness* 28 (2), 205–221.
- Dabholkar, P.A., Thorpe, D.I., Rentz, J.O., 1996. A measure of service quality for retail stores: scale development and validation. *J. Acad. Market. Sci.* 24 (1), 3–17.
- Darby, K., Batte, M.T., Ernst, S., Roe, B., 2008. Decomposing local: a conjoint analysis of locally produced foods. *American Agricultural Economics* 90, 476–486.
- Delaney, M., McCarthy, M., 2011. Food choice and health across the life course: a qualitative study examining food choice in older Irish adults. *J. Food Prod. Market.* 17 (2–3), 114–140.
- Denver, S., Jensen, J.D., 2014. Consumer preferences for organically and locally produced apples. *Food Qual. Prefer.* 31, 129–134.
- Eisenberg, N., Fabes, R.A., 1991. Prosocial behaviour and empathy: a multidimensional, developmental perspective. In: Clark, P. (Ed.), *Review of Personality and Social Psychology*, vol. 12. Sage, Newbury Park, CA, pp. 34–61 1991.
- Eldby, H., 2016. *The Development of Farming in Troms County (In Norwegian)*. Agri-Analyse Report 4/2016. <https://www.agrianalyse.no/getfile.php/13671-1513245629/Dokumenter/Dokumenter%202016/Rapport%204%20-%202016%20Utviklingen%20i%20jordbruket%20i%20Troms-korr.pdf>.
- Farmer, J.R., Betz, M.E., 2016. Rebuilding local foods in Appalachia: variables affecting distribution methods of West Virginia farms. *J. Rural Stud.* 45 34–32.
- Feagan, R., Morris, D., Krug, K., 2004. Niagara region farmers' markets: local food systems and sustainability considerations. *Local Environ.* 9 (3), 235–254.
- Feldmann, C., Hamm, U., 2015. Consumers' perceptions and preferences for local food: a review. *Food Qual. Prefer.* 40 (Part A), 152–164.
- Finstad, B.-P., Henriksen, E., Holm, P., 2012. From crisis to crisis- expectations and perfidy in Norwegian fisheries (in Norwegian). *Økonomisk fiskeriforskning* 22 (1), 33–54. <http://okonomiskfiskeriforskning.no/wp-content/uploads/sites/4/2014/05/Finstad-Henriksen-Holm-ny.pdf>.
- Fishbein, M., Ajzen, I., 1975. *Belief, Attitude, Intention, and Behavior: an Introduction to Theory and Research*. Addison-Wesley, Reading, MA.
- Fonte, M., 2008. Knowledge, food and place. A way of producing, a way of knowing. *Sociol. Rural.* 48 (3), 200–222.
- Forbes, H.D., 1985. *Nationalism, Ethnocentrism, and Personality: Social Science and Critical Theory*. University of Chicago Press, Chicago, IL.
- Fornell, C., Larcker, D.F., 1981. Evaluating structural equation models with unobservable variables and measurement error. *J. Market. Res.* 18, 39–50.
- Fricker, R.D., 2008. Sampling methods for web and e-mail surveys. In: Fielding, N., Lee, R.M., Blank, G. (Eds.), *The Sage Handbook of Online Research Methods*. Sage Publications Ltd, London, pp. 195–216 2008.
- Gardner, M., 1985. Does attitude toward the ad affect brand attitude under a brand evaluation set? *J. Market. Res.* 22 (May), 192–198.
- Goldsmith, R., Flynn, L.R., 1992. Identifying innovators in consumer product markets. *Eur. J. Market.* 26 (12), 42–55.
- Goodman, L.A., 1961. Snowball sampling. *Ann. Math. Stat.* 32, 148–170.
- Goodman, D., 2004. Rural Europe redux? Reflections on alternative agro-food networks and paradigm change. *Sociol. Rural.* 44 (1), 3–16.
- Goodman, D., DuPuis, M., 2002. Knowing food and growing food: beyond the production-consumption debate in the sociology of agriculture. *Sociol. Rural.* 42 (1), 5–22.
- Granovetter, M., 1985. Economic action and social structure: the problem of embeddedness. *Am. J. Sociol.* 91, 481–510.
- Granovetter, M., 1992. The nature of economic relations. In: Ortiz, S., Less, S. (Eds.), *Understanding Economic Process*. University Press of America, Lanham, MD, pp. 21–37 1992.
- Granzin, K.L., Olsen, J.E., 1998. Americans' choice of domestic over foreign products: a matter of helping behavior? *J. Bus. Res.* 43, 39–54.
- Granzin, K.L., Painter, J.J., 2000. Non-demographic versus demographic determinants of “buy domestic” activities in two nations. *J. Global Market.* 13 (4), 73–92.
- Grazin, K.L., Olsen, J.E., 1995. Support for Buy American campaigns: an empirical investigation based on a prosocial framework. *J. Int. Consum. Market.* 8 (1), 43–70.
- Griffin, M., Frongillo, E., 2003. Experiences and perspectives of farmers from Upstate New York farmers' markets. *Agric. Hum. Val.* 20 (2), 189–203.
- Han, C.M., 1988. The role of consumer patriotism in the choice of domestic versus foreign products. *J. Advert. Res.* 28 (June/July), 25–32.
- Hardin, R., 1993. Altruism and mutual advantage. *Soc. Serv. Rev.* 67 (3), 358–373.
- Hinrichs, C.C., 2000. Embeddedness and local food systems: notes on two types of direct agricultural market. *J. Rural Stud.* 16 (3), 295–303.

- Hinrichs, C.C., 2003. The practice and politics of food system localisation. *J. Rural Stud.* 19, 33–45.
- Hinrichs, C.C., Allen, P., 2008. Selective patronage and social justice: local food consumer campaigns in historical context. *J. Agric. Environ. Ethics* 21, 329–352.
- Holloway, L., Kneafsey, M., Venn, L., Cox, R., Dowler, E., Tuomainen, H., 2007. Possible food economies: a methodological framework for exploring food production–consumption relationships. *Sociol. Rural.* 47 (1), 1–19.
- Home, N., 2002. Rural consumers' patronage behaviour in Finland. *Int. Rev. Retail Distrib. Consum. Res.* 12 (2), 149–164.
- Jeknowski, M.D., Williams, D.R., Schiek, W.A., 2000. Consumers' willingness to purchase locally produced agricultural products: an analysis of an Indiana survey. *Agric. Resour. Econ. Rev.* 29 (1), 43–53.
- Jöreskog, K.G., Sörbom, D., 1996. LISREL 8 User's Reference Guide. Scientific Software International, Chicago, IL.
- Josiassen, A., Assaf, A.G., Karpen, I.O., 2011. Consumer ethnocentrism and willingness to buy: analyzing the role of three demographic consumer characteristics. *Int. Mark. Rev.* 28 (6), 627–646.
- Kardes, F.R., 1999. *Consumer Behaviour: Managerial Decision Making*. Addison-Wesley, Reading, MA.
- Kirwan, J., 2006. The interpersonal world of direct marketing: examining conventions of quality at UK farmers' markets. *J. Rural Stud.* 22, 301–312.
- Klein, J.G., Ettenson, R., Morris, M.D., 1998. The animosity model of foreign product purchase: an empirical test in the People's Republic of China. *J. Market.* 62 (1), 89–100.
- Knight, A.J., 2013. Evaluating local food programs: the case of Select Nova Scotia. *Eval. Program Plann.* 36 (1), 29–39.
- Kwak, N., Radler, B.A., 2002. Comparison between mail and web surveys: response pattern, respondent profile, and data quality. *J. Off. Stat.* 18, 257–274.
- Lazarus, R.S., 1991. *Emotion and Adaptation*. Oxford University Press, New York.
- Lee, R., 2000. Shelter from the storm? Geographies of regard in the world of horticultural consumption and production. *Geoforum* 31 (2), 137–157.
- Lie, J., 1997. Sociology of markets. *Annu. Rev. Sociol.* 23 (1), 341–360.
- Lim, K.H., Hu, W., 2016. How local is local? A reflection on Canadian local food labeling policy from consumer preference. *Can. J. Agric. Econ.* 64 (1), 71–88.
- MacFie, H.J.H., Thomson, D.M.H., 1994. *Measurement of Food Preferences*. Blackie Academic & Professional, Glasgow, Scotland.
- Marine Harvest, 2018. *Salmon industry handbook 2018*. <http://marineharvest.com/globalassets/investors/handbook/2018-salmon-industry-handbook.pdf>.
- Maye, D., Kirwan, J., 2010. *Alternative Food Networks*. <https://doi.org/10.1177/205684601051> Sociopedia.isa.
- Meas, T., Hu, W., Batte, M.T., Woods, T.A., Ernst, S., 2015. Substitutes or complements? Consumer preferences for local and organic food attributes. *Am. J. Agric. Econ.* 97 (4), 1044–1071.
- Megicks, P., Memery, J., Angell, R.J., 2012. Understanding local food shopping: Unpacking the ethical dimension. *J. Market. Manag.* 28 (3–4), 264–289.
- Meld St 22, 2012–2013. *Verdens Fremste Sjømatnasjon*. White Paper on the Management of the Seafood Industry. Ministry of Fisheries.
- Meld St 31, 2014–2015. *Garden som ressurs –marknaden som mål. Vekst og gründerskap innan landbruksbaserte næringer*. White paper on growth and entrepreneurship in agriculture. Ministry of Agriculture and Food.
- Memery, J., Angell, R., Megicks, P., Lindgreen, A., 2015. Unpicking motives to purchase locally-produced food: analysis of direct and moderation effects. *Eur. J. Market.* 49 (7/8), 1207–1233.
- Moon, Y.M., 2003. Don't blame the computer: when self-disclosure moderates the self-serving bias. *J. Consum. Psychol.* 13 (1/2), 125–137.
- Morris, C., Buller, H., 2003. The local food sector: a preliminary assessment of its form and impact in Gloucestershire. *Br. Food J.* 105 (8), 559–566.
- Mundler, P., Laughrea, S., 2016. The contributions of short food supply chains to territorial development: a study of three Quebec territories. *J. Rural Stud.* 45, 218–229.
- Olsen, S.O., 2003. Understanding the relationship between age and seafood consumption: the mediating role of attitude, health involvement and convenience. *Food Qual. Prefer.* 14, 199–209.
- Olsen, J.E., Grazin, K.L., Biswas, A., 1993. Influencing Consumers' selection of domestic versus imported products: implications for marketing based on a model of helping behavior. *J. Acad. Market. Sci.* 21 (4), 307–321.
- Oñederra, M., 2003. Embeddedness, the new food economy and defensive localism. *J. Rural Stud.* 19 (1), 23–32.
- Oñederra-Aramendi, A., Begiristain-Zubillaga, M., Malagón-Zaldua, E., 2018. Who is feeding embeddedness in farmers' markets? A cluster study of farmers' markets in Gipuzkoa. *J. Rural Stud.* 61, 22–33.
- Onozaka, Y., Nurse, G.N., og McFadden, D.T., 2010. Local food consumer: how motivations and perceptions translate to buying behaviour. *Choices Mag. Food, Farm & Resour. Issues* 25 (1) (online).
- Onyango, B.M., Hallman, W.K., Bellows, A.C., 2007. Purchasing organic food in US food systems. *Br. Food J.* 109 (5), 399–411.
- O'Neill, K.J., 2014. Situating the 'alternative' within the 'conventional' – local food experiences from the East Riding of Yorkshire, UK. *J. Rural Stud.* 35, 112–122.
- Penner, L.A., Fritzsche, B.A., Craiger, J.P., Freifeld, T.S., 1995. Measuring the prosocial personality. In: In: Butcher, J.N., Spielberger, C.D., Vol (Eds.), *Advances in Personality Assessment*, vol. 12 Erlbaum, Hillsdale, NJ.
- Penney, U., Prior, C., 2014. Exploring the urban consumer's perception of local food. *Int. J. Retail Distrib. Manag.* 42, 580–594.
- Piliavin, J.A., Cham, H.W., 1990. Altruism; A review of theory and research. *Annu. Rev. Sociol.* 16, 27–45.
- Piliavin, J.A., Dovidio, J.F., Gaertner, S.L., Clark, R.D., 1981. *Emergency Intervention*. Academic Press, New York.
- Preston, S.D., DeWaal, F.B.M., 2002. Empathy: its ultimate and proximate bases. *Behav. Brain Sci.* 25, 1–72.
- Proshansky, H.M., Fabian, A.K., Kaminoff, R., 1983. Place identity: physical world socialisation of the self. *J. Environ. Psychol.* 3, 57–83.
- Rainbolt, G.N., Onozaka, Y., McFadden, D.T., 2012. Consumer motivations and buying behavior: the case of the local food system movement. *J. Food Prod. Market.* 18 (5), 385–396.
- Renting, H., Marsden, T.K., Banks, J., 2003. Understanding alternative food networks: exploring the role of short food supply chains in rural development. *Environ. Plan.* 35 (3), 393–411.
- Ricketts Hein, J., Ilbery, B., Kneafsey, M., 2006. Distribution of local food activity in England and Wales: an index of food relocalization. *Reg. Stud.* 40, 289–301.
- Rife, S.C., Cate, K.L., Kosinski, M., Stillwell, D., 2016. Participant recruitment and data collection through Facebook: the role of personality factors. *Int. J. Soc. Res. Methodol.* 19 (1), 69–83.
- Robertsen, R., Nyruud, T., 2018. *Ripple Effects of Norwegian Aquaculture in Troms County*. (in Norwegian), Nofima-report 1/2018. [http://nfr.no/sites/default/files/2018-ringvirkninger\\_av\\_havbruksnaeringen\\_i\\_troms\\_0.pdf](http://nfr.no/sites/default/files/2018-ringvirkninger_av_havbruksnaeringen_i_troms_0.pdf).
- Roininen, K., Arvola, A., Lähteenmäki, L., 2006. Exploring consumers' perceptions of local food with two different qualitative techniques: laddering and word association. *Food Qual. Prefer.* 17, 20–30.
- Selfa, T., Qazi, J., 2005. Place, taste, face-to-face? Understanding producer-consumer networks in "local" food systems in Washington State. *Agric. Hum. Val.* 22, 451–464.
- Sharma, S., Shimp, T.A., Shin, J., 1995. Consumer ethnocentrism: a test of antecedents and moderators. *J. Acad. Market. Sci.* 23 (1), 26–37.
- Shepherd, R., Raats, M.M., 1996. Attitude and beliefs in food habits. In: Meiselman, H.L., MacFie, H.J.H. (Eds.), *Food Choice, Acceptance and Consumption*. Blackie Academic & Professional, London 1996.
- Shimp, T.A., Sharma, S., 1987. Consumer ethnocentrism: construction and validation of the CETSCALE. *J. Market. Res.* 24 (August), 280–289.
- Siemieniako, D., Kubacki, D., Glińska, E., Krot, K., 2011. National and regional ethnocentrism: a case study of beer consumers in Poland. *Br. Food J.* 113 (3), 404–418.
- Skallerud, W., 2015. *Kjøp Av Lokalmat – Effekten Av Hjelpetilbøyelighet Og Lokalpatriotisme*. Mastergradsoppgave I Strategisk Ledelse Og Økonomi. UiT – Norges arktiske universitet.
- Smith, A., McKinnon, J.B., 2007. *The 100-mile Diet*. Random House Canada, Toronto.
- Smithers, J., Lamarche, J., Joseph, A.E., 2008. Unpacking the terms of engagement with local food at the farmers' market: insights from ontario. *J. Rural Stud.* 24, 337–350.
- Snyder, M., Omoto, A.M., 2007. Social action. In: Kruglanski, A.W., Higgins, E.T. (Eds.), *Social Psychology: A Handbook of Basic Principles*, second ed. Guilford Press, New York 2007.
- Sonnino, R., 2007. *The power of place: embeddedness and local food systems in Italy and the UK*. *Anthropol. Food* 454–468. [Online] S2. <http://journals.openedition.org/aof/454>.
- Sprecher, S., Fehr, B., Zimmerman, C., 2007. Expectation for mood enhancement as a result of helping: the effects of gender and compassionate love. *Sex. Roles* 56, 543–549.
- Suhay, E., Calfano, B., Dawe, R., 2016. Social norms, dual identities, and national attachment: how the perceived patriotism of group members influences Muslim Americans. *Politics, Groups, and Identities* 4 (1), 63–83.
- Swedberg, R., 1991. Major traditions of economic sociology. *Annu. Rev. Sociol.* 17 (1), 251–276.
- Szmigin, I., Maddock, S., Carrigan, M., 2003. Conceptualising community consumption: farmers' markets and the older consumer. *Br. Food J.* 105 (8), 542–550.
- Tabachnick, B., Fidell, L., 2001. *Using Multivariate Statistics*. Harper & Row, New York.
- Tangney, J.P., Stuewig, J., Mashek, D.J., 2007. Moral emotions and moral behavior. *Annu. Rev. Psychol.* 58, 345–372.
- Tregear, A., 2007. *Proximity and typicity: a typology of local food identities in the marketplace*. *Anthropol. Food* 438–445. [Online] S2. <http://journals.openedition.org/aof/438>.
- Tregear, A., 2011. Progressing knowledge in alternative and local food networks: critical reflections and a research agenda. *J. Rural Stud.* 27 (4), 419–430.
- Tregear, A., Ness, M., 2005. Discriminant analysis of consumer interest in buying locally produced foods. *J. Market. Manag.* 21, 19–35.
- Trobe, H.L., 2001. Farmers' markets: consuming local rural produce. *Intern. J. Consumer Studies* 25 (3), 181–192.
- Venn, L., Kneafsey, M., Holloway, L., Cox, R., Dowler, E., Tuomainen, H., 2006. *Researching European 'alternative' food networks: some methodological considerations*. Area 38 (3), 248–258.
- Verbeke, W., López, G.P., 2005. Ethnic food attitudes and behaviour among Belgians and Hispanics living in Belgium. *Br. Food J.* 107 (11), 823–840.
- Vignali, G., Devigili, L., Rascic, C., 2008. Factors that affect the purchase behaviour of organic food amongst UK consumers. *Int. J. Manag. Cases (IJMC)* 10 (3), 366–381.
- Watson, J.J., Wright, K., 2000. Consumer ethnocentrism and attitude toward domestic and foreign products. *Eur. J. Market.* 34 (9/10), 1149–1168.
- Weatherell, C., Tregear, A., Allinson, J., 2003. In search of the concerned consumer: UK public perceptions of food, farming and buying local. *J. Rural Stud.* 19, 233–244.
- Zepeda, L., Li, J., 2006. Who buys local foods? *J. Food Distrib. Res. Policy* 37 (3), 1–11.