

Article

Confusion and Misunderstanding—Interpretations and Definitions of Local Food

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Abstract: Developing a more resilient food system based on sustainable food production and consumption is of major concern in creating food security. One issue in this complex field concerns the scale of the food system. Trends and tendencies show that the interest for *local* food has increased the last decade in Sweden, as well as in other parts of the world. Although the concept “local food” is commonly used, research shows that there is no single definition of it, instead definitions and meanings vary widely. This has led to a need by consumers of clearer information when buying “local food”. Several main actors in the Swedish food sector have joined forces to meet this issue. This paper contributes to knowledge on definitions, interpretations, and practice on local food by presenting views and opinions among different actors in the food chain in a Swedish context, but also in the light of an international pilot study. Main findings concern how the meaning of “local food” related to *production, processing, raw material, and distance* differs among stakeholders in the food chain. A majority stated that the basic meaning of “local food” concerns both the production and consumption within a certain geographical area.

Keywords: local food; sustainable food; definitions local food; interpretations local food

1. Starting Points

The global food system of today has been developed mainly through technological development, relatively cheap fossil fuels, and global trade opportunities and agreements [1–3]. Several scholars state that the global food system is in crisis due to increasing environmental externalities and its consequences on agricultural production [4–6]. Environmental impacts concern land, soil, water, deforestation, and biodiversity loss, and the food system is the leading cause of these negative effects [7–11]. As a result, sustainable food production and consumption can be considered as a major issue in fostering food security. One can ask, what is then meant by sustainable in this context? There are reactions among consumers, food activists and researchers on the effects of an industrialized and intensive global food market. One issue relates to scale, pros -and cons with different scales—e.g., *global* food systems and *local* food systems. Trends and tendencies show, that the consumer interest and demand for local food have increased in the last decade in Sweden, as well as in other parts of the world. Yet, in many Western countries, resiliency and self-sufficiency in food are topics that have been more common on the political agenda in recent years [12–14]. An eventual disruption to the global food system could greatly impact any country, especially net food importing countries like Sweden. Alternative ways of production and consumption are necessary to develop a more resilient and sustainable food system [15]. A sustainable food system is described by Fresco (2009) [16] as being

resource and energy efficient, productive, reducing vulnerability, responsive to changes, and limited in Green House Gas (GHG) emissions. Almås et al. (2012) [12] state that a resilient food system can be understood as a socio-ecological-political system that possesses a given adaptive capacity to alleviate perturbations.

Localisation is a concept related to resilience, which can be described as a process of adaptation. The aim is to increase the capacity of the municipalities and other local actors to build resilience. In practice, the idea is that production and consumption of goods and services is brought relatively closer geographically [13,14,17–20]. Several scholars state that local food systems represent a food system where social-ecological relations are embedded, which is not the case with the global industrial food system [21–25]. This makes the local food system relevant in a resiliency perspective, where socio-ecological systems in practice mean a potential for adaptive capacity among local actors to build a resilient food system.

Research on local food shows a diversity of arguments and perspectives, some more positive others rather critical. However, consumers seem to be interested in local food and for different reasons. How a person defines local food is very individual. Scholars have identified a variety of meanings of local food utilized by consumers, see Table 1. Some of these findings include: energy or transport efficiency [26–34], food security [35–38], supporting the local economy [18,39–41]; animal welfare [42]; preservation of open landscapes, culture, and rural development [18,43,44], fosters relationships between the producer and consumer [45–53] and the opinion that local food is fresher and healthier than conventional food [54–57]. Alongside the plurality of consumer opinions about local food [58] meanings of local food also differ among entities in the food systems, and may relate to their objectives within the food system. For example, Hunt (2015) [59] indicates that government, non-governmental organizations, and business trade associations in the United States and United Kingdom utilized local food to promote different narratives of food system change: *marketism* for corporate and economic goals (e.g., consumption), *instrumentalism* for achieving public goals (e.g., public health, environment), *transformation* for community outcomes (e.g., inclusion, equality, identity), and *individualism* for promoting self-oriented goals (e.g., social status, personal health). Yet, among the diversity of meanings, a common link is that they seek to differentiate food by place, a factor often obscured in commodity food distribution. However, within these differences, there is a risk that consumers feel being “cheated” when their expectations of local food do not match up with the meanings of local food promoted to them, as identified in a consumer survey by the Swedish Food Agency (2009).

In what may be a precursor stage to developing definitions of local food suitable for regulation, several academic studies, governmental agencies, and non-governmental organizations have linked local food with quantifiable measures such as distances products travel, energy usage, carbon emissions, or a combination of these factors. However, with defining and regulating meanings of local food comes an adverse selection risk that entities defining locality may not utilize the meanings valuable to consumers.

Common motives and arguments among consumers of today for buying local food are not necessarily based on facts, but rather on individual meanings of local food. Some motives and arguments could be rather controversial and debated from a research point of view, such as: less carbon footprint; less emissions from transportation; better food quality; better animal welfare; and, being healthier. Other motives are less contentious, for instance: easier to track infections and diseases of food; natural fresh products; greater opportunity for direct contact between producer and consumer; preserve open landscapes; favoring the closeby located countryside, for instance local producers; and, the provision of employment opportunities (see Table 1). In addition, other aspects are commonly associated with local food such as: small-scale production, organic production, craftsmanship, and the idea that local food promotes local food traditions. Many or all of these aspects could be associated with local food, but it is not necessarily the case that all actors associate all aspects with local food. Indeed, while these aspects could be pertained to local food, it may not necessarily be the case, since local food also may origin from e.g., large food industries with conventional non organic production.

Table 1. Selected common arguments for local food and local food systems. Some arguments controversial, others less according to research.

Controversial Arguments	Less Controversial Arguments
Better for the environment/climate Morgan, 2010; Brenton et al., 2009; Edwards-Jones, 2009; Saunders et al., 2006; Pretty et al., 2005	Favors the close located country side: the producers, generate job opportunities, contribute to open landscapes Roininen et al., 2006; Roseland and Soots, 2007; Martinez, 2010
Minor emissions from transportation Bosona, et al., 2011; Coley et al., 2009; Wallgren, 2006, 2009; Pretty et al., 2005; Jones, 2002; Pirog et al., 2001	Greater opportunity for direct contact between producers and consumers Dodds et al., 2014; Megicks et al., 2012; Sonnino, 2010; Feagan 2009; Hunt 2007; DeLind, 2006; Marsden et al., 2000; Hinrichs, 2000; Feenstra, 1997
Better animal ethics Hinrich, 2003	Natural fresh products Lea, 2005
Healthier Bagdonis et al., 2009; Lea, 2005; Vogt and Kaiser, 2008; Conner and Levine, 2007	Easier to trace diseases Halweil, 2002
	Increase the opportunity to develop local systems between urban and rural areas Granvik, 2013, 2012; Berg et al., 2013; Berg and Granvik, 2009; Roseland & Soots, 2007; Feenstra, 1997
	Contribute to food security Kirwain and Maye, 2013; Nord et al., 2009; McCallum et al., 2004; Halweil, 2002

Although the concept “local food” is commonly used, research shows that there is no single definition of it, instead the meanings vary widely [60–62]. One common accepted definition is the one used by many British farmers’ markets, which states “food produced, processed, traded, and sold within a defined geographic radius, often 30 miles” [63]. Kneafsey et al. (2013) [64] define local food as “commodities that are produced and processed within a defined geographic area in which the distribution chain will be short between producer and consumer”. Feenstra (2002) [65] indicates that local food is a “collaborative effort to build more locally based, self-reliant food economies, in which sustainable food production, processing, distribution, and consumption are integrated to enhance the economic, environmental and social health of a particular place”. This paper contributes to knowledge on definitions, interpretations and practices of local food by presenting views and opinions among different actors in the food chain in a Swedish context, but also in the light of an international pilot study.

2. The Swedish Context

Research in Sweden shows that the interest in locally produced food has increased among several actors in the food chain during the last decade [66–68]. An internet-based survey on consumption habits of 43,808 persons, conducted by the Swedish consumer-owned cooperation Coop [68] shows that among consumers that buy locally produced food, the most common motives are that they want to contribute to a better climate and shorter transport and distribution networks, and also to support local producers. Previous surveys under direction of Food Sweden and the Swedish Board of Agriculture [69] shows that many of the actors in the food supply chain, including producers, dealers, wholesalers, and restaurant owners, have different perceptions and definitions of concepts such as local and regional food. While these definitions can vary greatly from one actor to the other, some actors have not even defined what they mean.

With this as background, it is easy to understand that consumers do not always know what they are offered. Missing definitions are also evident by the Swedish Market Court’s verdict 23 March 2010, where the company Lantmännen Doggy AB was convicted, among other things, for having used the

concept “locally produced” in a misleading way. The Swedish Market Court decided Lantmännen Doggy AB’s meaning “is not in accordance with how an average consumer perceives the concept ‘locally produced’, when the product is merely produced in a place in Western Götaland, Sweden, but sold all over the country”. The Swedish Market Court concluded that the term “locally produced” was used in an unreliable and misleading way. Swedish authorities thus pushed on the honesty principle, that customers should get the correct information and not be misled by commercial interests.

As a consequence of the situation described above, The Swedish Farmers Federation (LRF), The Swedish Food Federation (Li), The Swedish Retail and The Swedish Hotel and Restaurant Association (SHR), together with the Swedish Consumers Association joined forces to meet consumer needs for clearer information on concepts such as *local food*, *locally produced food*, *food produced closeby* (in Swedish: *närproducerad mat*), and *regional food*. To support this effort, a study was initiated by Livsmedels Sverige and the Swedish University of Agricultural Sciences to identify critical issues in the field. The main question for the study was *what concepts related to “local food” are used among different actors in the food chain and how are these concepts interpreted and defined?* The methods and results are presented and discussed in this paper.

3. Conducting the Research

The research was a two-part study, both parts were conducted by researchers and the project leader at the Swedish University of Agricultural Sciences. The main focus was a study in a Swedish context. Parallel to that an international pilot study was also fulfilled in co-operation with colleagues at Newcastle University, UK, and Uppsala University, Sweden. A reference group for the research project was established with representatives from the food business, consumer organizations, authorities, and researchers. The group has been active and had a close dialogue with the project leader and the researchers during the whole project duration.

The aim of the national survey in Sweden was to collect data on the meaning of locally produced food from different actors in the food chain. A questionnaire was sent in total to 350 different potential respondents which all worked with issues related to local food within the following categories: farmers, companies, wholesalers and grocery stores, restaurants, non-governmental organizations, business organizations, government agencies, and researchers. The motive of the selection of those categories of respondents was mainly that they represent different roles in the food chain. The aim was not to compare groups, rather to analyze the data on an aggregate level. In total, 97 respondents participated in the Swedish survey, from different stakeholder categories: 11 farmers, 16 companies, wholesalers, 11 grocery stores, 20 restaurants, 12 non-governmental organizations, 5 business organizations, 12 government agencies, and 10 researchers.

The procedure for the international pilot study elicited responses from several respondent types in each surveyed country. The questionnaire was sent to 450 potential respondents in ten industrialized countries. In total, 61 responded, from: Austria (2), Denmark (1), Finland (1), Great Britain (23), Hungary (1), Italy (3), Norway (1), Spain (1), The Netherlands (6), and USA (22). The countries were strategically selected [70] based on previous research and knowledge on local food [51,66,67] and current trends identified in other previous research projects [14,71–73]. The main differences among the Swedish study and the international pilot study concerned the efforts to get the data needed. Indeed, it was very difficult to obtain replies in this international context. After persistent attempts and reminders via mail, it was decided to collaborate with a few researchers abroad. In total 61 respondents participated, divided between the different stakeholder categories as following: 4 farmers, 7 companies, one wholesaler and grocery store, 0 restaurants, 17 non-governmental organizations, 6 business organizations, 3 government agencies, and 23 researchers.

The questionnaire was sent via individual e-mails to each respondent. It consisted primarily of questions with structured alternatives where the respondents ticked different statements that were consistent to their own opinion. There were also open follow-up questions, where the respondents could express information in own words. The questions in the survey focused on: if the actors

experienced any problem in that the concepts *local food* and *locally produced food* may mean different things to different persons/organizations/authorities; what concepts the actors used related to local food, and how they defined these concepts; and if they had defined what “local” means from a geographical point of view (i.e., in miles/km, within the county, municipality, etc.). The same questions were asked in both of the studies, though the Swedish study was formulated in Swedish, and the international study in English (see Appendix 1 for the English version).

4. Findings from the Surveys

4.1. National Survey Sweden

A slight majority of the respondents stated *yes* (53%) that they thought it problematic that local food may mean different things to different actors. Several of these respondents commented that concepts, such as local food are practically useless when everyone has their own interpretation, and that enterprises take advantage of this in their marketing. Several respondents emphasized that they have found it to be considerably better to state the origin with name of the farm, region, etc. marked on products. Some of those who replied *no* (47%), indicated: it was not a problem that the concepts are interpreted differently by different persons/organizations, that it is good not to get restricted by definitions, and that all efforts to bring forward local food is positive. Some of the larger food companies who replied *no* meant that they have a good idea of what the consumers mean with local food and that they provide customers with what they want. Below are some representative quotations regarding this topic:

Yes, consumers attach different values in the concepts ... Branding of origin (country, region or farm) is of more value than concepts like locally produced. (farmer)

Yes, complete chaos how you perceive it. (company)

Yes, a concept that is sometimes misused by advertisers. (business organization)

No, it can be an advantage to not stick to strict definitions of local food. (company)

No, we have clearly communicated the term “locally produced” and what we mean by that ... We find that our image is consistent with the consumers’, at least in our products. (company)

A majority of respondents, 81%, meant that the basic meaning of *local food* and *locally produced food* concerns both the production and selling/consumption within a certain geographical area. Results show a wide range of different definitions regarding distance, from 2 km to 500 km by the different actors. A minority 12% stated that they did not agree with that definition, and the rest of the respondents 7% did not give any response at all.

The concepts that were most often used by the Swedish respondents were *food produced closeby* (32%) (in Swedish: närproducerad mat), and *locally produced food* (31%). Therefore, the term *local food* was not particularly common (10%), see Table 2. A majority defined *local food*, *locally produced food*, and *food produced closeby* in very similar ways, that primary production, processing, and sales occur within the same locality.

The concepts *closeby grown food* (in Swedish: närodlat mat) and *regional food* differed from the other concepts in the way that more respondents defined these as primary production and processing being local, but sales were not purely local. This understanding of *regional food* coincides with meanings used in the European Union (EU) for Protected Designated Origin (PDO) certification [64]. However, there is no comparable EU designation for food produced, processed, and consumed within the same locality.

Half of the respondents stated that they have their own elaborated definition that they use when communicating their local food to consumers. The other half did not have a definition. It was also common for 29% of the respondents who had their own definition, to use the name of the farm, or/and the name of the village or region in their marketing.

Table 2. Results on the question: What term/s do you use in your company/organization?

Used Concept	Percentage of Respondents
Closeby produced food (in Swedish: Närproducerad mat)	32%
Locally produced food	31%
Closeby grown food (in Swedish: Närodlad mat)	16%
Regional food	11%
Local food	10%

Regardless of the term used by the respondents; *locally produced food*, *locally grown food*, *local food*, etc., a majority defined the concept being used as: “Primary production, processing and sales take place locally”. Few defined local food as: “The raw materials are not local, but processing and sales are done locally”. Some representative examples below:

Östgötamat, products produced primarily of raw materials within the county. The final production should be in the county or in adjacent to the county. (farmer)

I like the concept used in farm shops, which speaks more about farm production and production than locally produced, that is more convincing. What is then locally produced food, how many miles is the limit for when something stops being local? (nongovernmental organisation)

We are owned by Norrländska farmers. All of our products sold under the brand Norrmejerier are based on milk raw materials from farms in Norrland, and are processed on dairies here in Norrland, and are also sold only in Norrland. That is locally produced for us. (business organisation)

Furthermore, the results indicate several meanings of the word *production* depending on the type of actor. For a farmer, it is obvious to interpret that it is the production of the raw material, which is in focus. Respondents representing food industry, either it is on small-scale or large-scale, mean at first hand the processing stage when using the concept food production/production. A locally produced commodity has either been produced close to the customer, primarily with local or Swedish raw materials, but also imported raw materials can be the case. Respondents working in restaurants and commercial kitchens associated food preparation as production. As a restaurant owner puts it: “. . . the food is prepared here in our kitchen, so it is of course locally produced”.

4.2. The Swedish Findings in the Light of the International Pilot Study

Out of the 61 international respondents, 64% considered it being a problem that concepts such as local food means different things to different actors. On the other hand 36% meant that it is good to not keep to one definition. Below are some examples of quotations:

Yes, as a national organization we see many players in the retail and environment [sectors] defining the term “local” with very loose parameters, though we celebrate the right of markets to define the term local for their communities. It is through their strong leadership, I think, that will keep more disingenuous practices in check. (business organization, USA)

Yes, there are both internal and external problems. Internal, the term local food is a little “loaded” these days. It is not defined. Everyone brings their own ideas, biases, and prejudices to it. Some mean domestic, some mean within ten miles. Using it externally it is important to explain what you mean. I use local and regional food systems. I don’t believe the localness of food miles or a distance but rather a relationship between people. (nongovernmental organization, USA)

No, it is a mistake for one institution to ‘own’ what local food means. Not the same as Bio/Organic where there are clear rules and systems that are signaled by the phrase. (researcher, UK)

No, customers know that all food that is sold through the Markets and local retail outlets has been made by a producer who lives in the local area. (farmer, UK)

A majority, 70% agreed with the statement that local food means production and consumption within a specific limited geographical area, while 20% did not, and 10% stated that they do not know. A third, 34% stated that they define the concept local in a geographical sense; number of km, municipality, region etc. But, 41% of the respondents stated that they do not do that, and 25% did not respond at all. Most frequent in use were the concepts *local food* 31% and *locally grown food* 27%, see Table 3 below. Furthermore, the study showed a great range regarding what geographical distance is considered as local. The replies stated everything from closest relevant producer to 640 km as follows:

We use the '08 Farm Bill definition of local which means the product is transported less than 640 km (400 miles) from origin to consumer or it is produced and sold in the same. (farmers organisation, USA)

A Cooperative organization like Oregional has a 50 km circle approach. Others have a local in the sense of knowing the producer. (researcher, The Netherlands)

Dependent on location 50–150 km. (consultant, UK)

If it is produced within 150–300 km it is local by our standards. (organisation, USA)

It is the closest relevant producer who meets our standards. (farmer, UK)

Table 3. Result presented from the question: What term/s do you use in your company/organization.

Used Concept	Percentage of Respondents
Locally produced food	20%
Locally grown food(which in this study is synonymous with the concept Closeby grown food (in Swedish: Närodlad mat), relevant to understand when comparing results from the both studies	27%
Regional food	22%
Local food	31%

A bit less than one third (18) of the in total 61 respondents stated that they do have their own definition of concepts similar to local food. Out of those 18, more than half (10) stated that they use the concept *local food* in the first place, some examples below:

Local food is relational, we view local food as relational. We know who produced it where and how. (researcher, UK)

Food produced and consumed in the same local area. (government agency, USA)

Food that is grown near (region) your place in a small and sustainable way and being consumed near where it has been produced. (researcher, Austria)

Others used and defined the following concepts:

Locally produced: Processing and sales are local. Primary production not necessary. (farmers organization, The Netherlands)

Locally produced: Food grown, harvested, processed and sold to the end consumers within a defined geographic radius, often by small, independently owned farmers or food entrepreneurs. (farmers organization, USA)

Regional Food: Produced in the region, with regional distinctiveness based in localities. May have potential for export outside region, plus value-added via e.g., Tourism, regional image. (government agency, UK)

Sustainable local food economy: A food system based on organic or other sustainable models of agricultural practice, where its lifecycle—i.e., the growing, production and any processing of the food, its trading and its consumption—is wholly or largely contained and controlled within the area of its origin, thereby delivering health, economic, environmental and social benefits within that area. (nongovernmental organization, UK)

Community-based food: Food produced by businesses that are based in community, pursue social and environmental goals as well as economic ones, and which produce foods for household markets in their community of interest, and either do, or could, negotiate directly with household consumers. (company, USA)

5. Analysis and Discussion

Both of the studies show that what is considered “local” distance, varies among stakeholders. This can be related to the term “flexible localism” [74], which means that definitions of “local” will change, depending on conditions and ability to deliver within limited distances. The concepts most used among the respondents were *locally produced food*, *closeby produced* (in Swedish *närproducerad*) and *locally grown food*, and also *local food* in the international pilot study. Interestingly, the results indicate several meanings of the word “production” for different actors. For a farmer it is obvious to interpret that it is the production of the raw material which is referred to in the statement, and one affirms with certainty that the customer at first hand sees to where the raw material is produced when they buy local food. If one instead represents the food industry, either it is on small-scale or large-scale, it is at first hand the processing stage, which is thought of when the concept food production/production is used. For them, locally produced commodity is a commodity, which has been produced in an establishment close to the customer, primarily with local or Swedish raw materials, but also imported raw materials can be relevant. For those who work in restaurants and commercial kitchens, production is associated with the production of food in the kitchen where it is prepared. As a restaurant owner puts it: “. . . the food is prepared here in our kitchen, so it is of course locally produced”. The flexible understanding of local food varies by the relative position of the actor in the supply chain, and their role in the food production process.

As many as 80% of the respondents in Sweden and 70% in the international pilot study agreed with the statement that the basic meaning of local food is that the food is produced and sold/consumed locally. While the meaning of production is flexible based upon one’s location in the supply chain, meanings of production generally focused on the last stage prior to the consumer.

Regardless of how single terms like “local” or “produced” were used, when terms were combined as *locally produced food*, *locally grown food*, *local food*, etc., a majority of 75% in total for both studies defined the concept used as: “Primary production, processing and sales take place locally”. Related to this, a survey by the Swedish daily news *Svenskadagbladet* (2010) asked “Is it ok to call food *local food*, even if the raw material comes from abroad”? Of the in total 2202 persons who participated in the survey, 95% replied “No, the raw material should be local”. In general, the result from the two surveys was surprising in some respects. We had expected a higher proportion of respondents, a clear majority, to answer that local food is interpreted in different ways, see Table 4. Many commented on their response and some of them who answered *yes*—it is a problem with different interpretations—stated that concepts like local food are almost useless because everyone has their own interpretation. Several emphasized that it is much better to specify the origin using the name of the farm, region, etc. Some of those who answered *no* to the question—that it is not a problem that the terms are interpreted differently by different persons/organizations—emphasized that it is good not to lock in definitions and that all efforts to highlight local food are good. A couple of the food companies who answered *no*

meant that they have solved the problem, since they have a good idea of what consumers mean with local food, and that they give the customers what they want. “Local” products exist within a complex retail environment, yet a common element across responses was that “local” products were positioned in contrast to commodity products, even amongst business organizations.

Table 4. Main results from both studies.

Topic	Results from the Swedish Study	Results from the International Study
Problematic that concepts such as local food means different things to different actors	53% agree	64% agree
The basic meaning of <i>local food</i> concerns both the production and selling/consumption within a certain geographical area	81% agree	70% agree
Most often used terms	<i>Locally produced food</i> and <i>Closeby produced food</i> (in Swedish: <i>Närproducerad mat</i>)	<i>Local food</i> and <i>Locally grown food</i>
Have an own elaborated definition of local food when communicating	50% yes	20% yes

In this study it is shown in the Swedish context, that individuals, businesses, and organizations do indeed actively define “local food”, which is in contrast to earlier findings of the 2010 Swedish Board of Agriculture Report [69]. The results presented in this paper suggest that companies and organizations in most recent years have increased their activities in this area, and that consumers’ own understanding of *local food* and *locally produced* are in constant dialogue with these meanings. With this we mean that consumers do not develop their idea of local food in isolation, but instead that consumers’ sensemaking of local food is influenced by local food definitions by companies and organisations. The international pilot study indicates that also in other industrialized countries consumers’ sensemaking is influenced by definitions by companies and organizations [75–78] may in fact represent far-reaching trends.

In public discussions regarding local food, it has been expressed that the customers’ interpretation should be leading, and national Swedish authorities push on the honesty principle. Further, Swedish local and regional authorities emphasize the importance of the locally produced food for regional business, survival of the district, and job opportunities, as shown with the concept of *närproducerad mat*. When placed in the international context, it is clear that meanings of locality and production often differ among individual consumers, and amongst different actors in the food supply chain. This indicates that there is a widespread challenge to define, regulate or measure impacts concerning foods which are considered “locally produced”. At the same time, consumers should get the correct information and not be misled. It is evident from this study that many actors have put a great deal of work to develop and use a concept and a definition related to local food. The results show an increasing trend among several local food actors to be clearer in their communications with customers.

6. Conclusions

First, research shows different perspectives and a wide repertoire of arguments regarding local food, some positive others rather critical. However, current trends show that there is an interest among consumers for local food, and that the reasons for buying local food differ. How local food as a concept is defined differs between individuals. Researchers have found a variety of meanings utilized by consumers, of which some are controversial from a research point of view e.g.: more environmental friendly, more energy efficient, produces less carbon footprint; less emissions from transportation; better food quality; better animal welfare; and, being healthier. In addition, other aspects are commonly associated with local food such as: small-scale production, organic production, craftsmanship, and the idea that local food promotes local food traditions. Many or all of these aspects could be associated with local food for an individual or food system entity, but it is not necessarily the case that all actors

associate all motives with local food. Indeed, while these aspects could be pertained to local food, it is not necessarily the case, since local food also may originate from e.g., large food industries with conventional non-organic production.

Second, a majority of the respondents in both studies agreed with the statement that the basic meaning of local food is that the food is produced and sold/consumed locally. While the meaning of production is flexible based upon one's location in the supply chain, meanings of production generally focused on the last stage prior to the consumer. Regardless of how terms like "local" or "produced" were used, when terms were combined as *locally produced food*, *locally grown food*, *local food*, etc., a majority in both studies thought of primary production, processing, and sales take place locally.

Third, we had expected a higher proportion of respondents to state that it is problematic that different interpretations are made using different concepts of local food. The suggestion of having a business agreement or a declaration among actors in the entire food supply chain regarding a common definition on local food—to prevent misunderstandings and confusions among consumers and other stakeholders in the food chain—has both pros and cons. A significant pro is to have a clear message to the customer and not promote confusion. But, the fact that different actors in the food supply chain have different views on the concepts *local*, *production*, and *raw material*, will simply not make it an easy task to fulfil. Also, different individuals and entities stress different motives for buying local food, as indicated by Hunt (2015) [59]. It seems that the most significant emphases of "local food" is either that the raw material is local, or the final refinement and preparing should be done locally. The final conclusion from this study is that a business declaration on a common definition of local food is not needed as long as the individual actors are transparent with their definition. The Swedish study shows an increasing trend among different stakeholders to actually clarify what they mean when they use the label of local food.

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