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Editorial

Economics of culture and food in evolving agri-food systems and rural areas

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Abstract. The role of culture in connection with the development of food and bioeconomy issues has gained growing importance in recent years. In this editorial we provide background information on the three key topics addressed by the papers published in this special issue: cultural ecosystem services, cultural issues in the organisation of food chains, culture and food characteristics. In a way, the common denominator of these papers is the link between culture, food and territory, taken from different angles. More research and methodological advances are needed for a better consideration of culture in economic research accounting for the current needs of more systemic and holistic vision of the topic.

Keywords. Culture, agricultural economics, food economics, cultural ecosystem services, food chains, food characteristics.

JEL Codes. O13, Q13, Q18, Q57.

1. Introduction

This special issue of Bio-based and Applied Economics (BAE) features a selection of four papers previously presented at the 174th Seminar of the European Association of Agricultural Economists (EAAE) titled "Economics of culture and food in evolving agri-food systems and rural areas" (Matera, 10-12 October 2019)[1]. The seminar aimed at promoting academic debate about food and rural cultures and their implications for agricultural and food economics, with either an individual, chain or system perspective.

The role of culture in connection with the development of food and bioeconomy issues has recently gained growing attention. This has been emphasised by recent EU stra-

[1] Papers accepted for the Seminar were invited to submit to the journal or this special issue. The submitted papers followed regular double blind peer review according to BAE procedures.

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tegic documents, such as the New Green Deal (European Commission, 2019) and the Farm to Fork Strategy (European Commission, 2020), that give a paramount importance to education, awareness and changes in consumers' behaviour.

Culture is also a driver of a range of topics increasingly investigated by scholars working in the field of agricultural and food economics. Examples include consumer's behaviour facing cultural features of products (Guo *et al.*, 2019), touristic-driven development of rural areas (both remote areas and areas closely connected to cities) (Promsivapallop and Kannaovakun, 2020), change in food choices and working habits (Woodhall-Melnik and Matheson, 2017), innovation and technology acceptance (Kemper *et al.*, 2018; Yang and Hobbs, 2020), different forms of governance between supply and demand through food networks, chain organisation and trust (Evans and Mylan 2019; Sonnino, 2019), as well as the interplay between private action and public policy.

Economists often address the role of culture in a rather narrow way, where culture is considered as a driver of economic behaviour, related with individual products or locations, either on the supply or demand side of markets. Noticeably, the vast majority of these contributions consider culture as a static concept, i.e. *culture* is exogenous and immutable. It is assumed that it can be fully represented in a disciplinary or a 'traditional' fashion and coded into a well-defined set of behavioural rules determining the interaction and coordination among agents in rural communities, e.g. driving consumer choices and acceptance of innovation.

More recently, from both demand and supply side, attention is driven towards the need for a systemic view in which not only demand and supply are connected through coordination means beyond market, but cultural aspects are embedded in coordination solutions, e.g. through concepts such as alternative food networks and knowledge and innovation systems.

However, many of the issues implied by such needs remain largely unaddressed. For example, the role of culture in the organisation of food supply chains (Dowty and Wallace, 2010) and the way the culture is shared among actors in agri-food networks (Hubeau *et al.*, 2019; Reina-Usuga *et al.*, 2020) have hardly been investigated.

Some of these aspects are further challenged by new technologies. New communication technologies for example, are bringing not only new ways of communication, but also new discourses, evolving mindsets and new forms of social interaction. Another example is the bioeconomy, a sector that is bringing new avenues towards interpreting value creation and the interface with ethics. Although these phenomena are often studied separately by different branches of agricultural and food economists, cultural issues are often interconnected. Indeed, culture affects not only the relations between society and rural areas, farming, food and environment, but indirectly also the vitality and competitiveness of the agriculture, food and bio-economy systems.

The objective of this paper is to provide background information on the three key topics addressed by the papers published in this special issue: cultural ecosystem services, cultural issues in the organisation of food chains, culture and food characteristics. In addition, it tries to derive some lessons learned about current research on the topic and the need for further research.

The three topics are addressed respectively in section 2, 3 and 4, while section 5 provides some discussion and concluding remarks.

2. Cultural ecosystem services

While the primary goal of the agricultural sector is to produce provisioning services such as grain, livestock, fuel, forage, and other products, it is widely recognised that, along the production of commodities, farming also provides a large number of cultural, recreational, regulating, habitat, and supporting services (Swinton *et al.*, 2007; van Zanten *et al.*, 2014; Zhang *et al.*, 2007). Numerous studies underline the importance of intangible goods and services associated with agriculture, and amongst them, an increasing attention is devoted to the so-called cultural ecosystem services (CES). CES have been defined as *"the non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation and aesthetic experiences"* (MEA, 2005, p. 40). When looking at the farming sector and more broadly to rural areas, CES include important services that do not sustain agricultural production, but deliver benefits derived from the aesthetic function of landscapes, open-space, cultural heritage of rural lifestyles, recreational activities and rural tourism (Swinton *et al.*, 2007).

The analysis and assessment of CES associated with farming are a growing field of research also for agricultural economists, and major contributions have been made to understand both the monetary costs and benefits of CES delivery (van Berkel and Verburg, 2014). While most studies are strongly focused on economic and monetary valuation exercises, an interesting field of research is emerging, based on alternative evaluation approaches, drawing on a wide range of social science tools and methods. Indeed, in order to address the role of CES in a more comprehensive way, an increasing number of studies focuses on perceptions, values, attitudes, and beliefs of experts and citizens towards CES (Balàzsi *et al.*, 2021; Garcìa-Llorente *et al.*, 2012; Martín-López *et al.*, 2012; van Zanten *et al.*, 2014). Such studies address socio-cultural preferences towards ecosystem services in order, on one side, to generate more meaningful insights regarding the appreciation of CES by society and, on the other side, to better identify trade-offs between CES, biodiversity, commodity production and other ecosystem services at landscape level (Nelson *et al.*, 2009; Plieninger *et al.*, 2013).

Two articles of this the special issue contribute to this literature by providing additional evidence on the perception of aesthetic value of ecosystems and rural landscapes by EU citizens.

O'Donoghue *et al.* (2020, this issue) explore individual preferences for rural landscape attributes, based on the viewing of photographs of the Irish countryside. The authors aim at contributing to the literature on landscape preference valuation by investigating whether individuals' characteristics interact with landscape attributes, but also by exploring how these interactions may affect public preferences for landscapes. From a methodological perspective, this approach aims, on the one side, at facilitating the creation of a formalised model of landscape preferences based on the component attributes and, on the other side, at bridging the gap between the literature on Geographic Information Systems (GIS) and landscape analysis. Results show positive associations with natural attributes such as cliffs, mountainous landscapes, landscapes with water and native trees, and negative associations with events such as flooding, unmanaged landscapes, industrial turf cutting and mechanised features. More interestingly, a significant heterogeneity of preferences was observed across the urban-rural residency divide: while farmers and people living in rural areas

have the highest preference for agricultural landscape attributes, urban dwellers seem rather indifferent towards natural and farming landscapes.

The relations between citizens' characteristics and landscape appreciation are also explored by Targetti *et al.* (2020, this issue), who assess the perception of ecosystem services associated with rural landscape by local residents in a rural area located in Northern Italy (Po Delta lowlands, Province of Ferrara). This article shows that while the urban population has a rather generic and positive understanding of ecosystem services produced by landscape elements, rural population also tends to acknowledge the presence of disservices associated with specific socioeconomic sectors. In addition, urban dwellers attribute a higher value to the recreational function and cultural meanings attached to specific landscape elements, while people living in rural areas seem having a more complex and comprehensive understanding of landscape elements. In other words, living close to specific elements have a significant impact not only on the services perception, but also on the capacity to discern among benefits for residents, agriculture and tourism. This study shows the complex relation between landscape elements, awareness and perception of individual characteristics and - similarly to the paper by O'Donoghue *et al.* (2020, this issue) - it also provides interesting evidence that could be used to better design landscape valorisation policies.

In sum, these two articles not only confirm the important role of recreation, tourism and aesthetic values of agricultural landscapes, but also add interesting insights on how socio-economic drivers determine CES awareness and perceptions.

Finally, both contributions have interesting methodological and policy implications. From a methodological perspective, this kind of research sheds light on the need for using innovative methods to better understand the relationships between CES and final users, with a special attention to people imagination, expectation, experiences and preferences. From a policy perspective, the possibility to identify citizens' preferences on ecosystem services (and disservices) associated with farming, and on specific landscape attributes could be also a relevant approach to better target policy intervention. For example, the recognition of the high aesthetic value of specific elements of agricultural landscapes such as stone walls and hedgerows could be an important justification to incentivise farmers to maintain these public goods through targeted agri-environmental schemes or through other landscape conservation policies.

3. Culture in the organisation of food chains

Agri-food systems have become increasingly complex due to the processes of globalisation of the supply chain, the industrialisation of food production, and the economic concentration in the processing and retail sectors (Borsellino *et al.*, 2020). These systems are dealing with various sustainability challenges such as climate change, ecosystem degradation, biodiversity loss, and resource scarcity that require collective solutions and actions, as well as system innovations (Borsellino *et al.*, 2020; Hubeau *et al.*, 2019). In this context, a wide variety of new food networks have emerged to improve the sustainability of the global food regimes and foster innovation and change (Hubeau *et al.*, 2017, 2019; Maier *et al.*, 2020; Melkonyan *et al.*, 2020; Reina-Usuga *et al.*, 2020; Roep and Wiskerke, 2012).

Alternative food networks (AFNs) differ from these dominant food regimes "*by building new producers-consumer alliances and creating experimental spaces* (...)" where "*food is*

reconnected to the social, cultural, and environmental particularities of the context or the "local" in which it is produced" (Roep and Wiskerke, 2012). However, AFNs often either fail to reach their goals or cease to exist due to the organisational and collaborative difficulties between the members of the network. A solid societal embedding is therefore essential for the AFNs to develop and take paths of sustainable development. Here culture plays an important role. It is no longer just an element affecting consumer behaviour but rather something affecting the entire organisational process of food supply chains.

Culture can be conceptualised as inherently relational, meaning that the elements that characterise it, such as narratives, values and norms, and everyday practices, only contribute to a collective culture when they are shared among actors (Crossley, 2015; Hubeau *et al.*, 2019). According to Hubeau *et al.* (2019), it is possible to distinguish five levels of culture. Two of them, the culture related with (i) the landscape (dominant societal cultures) and (ii) the "conventional" agri-food regime (represented by policy measures and public actions) are not directly related with the organisation capacity of food supply chain. The latter depends on the culture related with (iii) agri-food networks (interactions and relations of the network members); (iv) the network member-organisations (culture of each organisations); and (v) the individuals within the member-organisations (culture of individual people). When members of a food network share the same culture, it is easier to agree on ideas and actions, simplifying the organisational process of food supply chain and the collaboration among the members, in order to achieve their common objectives and acknowledging their differences, such as expertise and viewpoints.

In this special issue, Kurtsal *et al.* (2020, this issue) seek to understand the governance mechanisms used in short food supply chains (SFSCs) driven by civil society, studying seven SFSC initiatives in the city of Izmir (Turkey). The research contributes to the literature on collaborative governance in local food systems by analysing the processes and mechanisms through which local food network actors get collectively organised and govern these systems. In this direction, qualitative semi-structured in-depth interviews were conducted to examine the governance mechanisms, challenges, and collaboration processes and outcomes of SFSCs, by collecting information from the actors (coordinators, producers and consumers) involved in the initiatives. The study shows that the local food system impacts positively on well-being and livelihoods of the rural community. However, differences of governance structures, institutional frameworks, as well as differing levels of shared goals and understanding among different initiatives studied are reported, which also lead to numerous governance challenges. Probably, some of these challenges may occur due to the lack of sharing of the same culture among the actors of the local agri-food systems. For example, the results show that the initiatives in which actors feel part of a "community", naturally have a higher level of shared understanding and collaboration among participants, in comparison to the initiatives where this sense of belonging is not present. This confirms the importance to conduct in-depth analyses on the cultural sphere in the organisational process of food supply chains.

Finally, two additional aspects deserve attention: (i) the need of a support mechanism or "decent policy framework" for SFSCs actors, and (ii) the need for collaboration, exchange of knowledge and experience and social learning among actors, public authorities and citizens. These can represent drivers, with culture, to foster innovation and the promotion of the local food networks.

4. Culture and food characteristics

Studies on consumers' preferences and behaviour have been one of the most fertile areas of agriculture and food economics in recent decades. While the link between consumer's behaviour and cultural issues is rather straightforward, in most of the literature this is treated indirectly through a variety of attributes. In addition, much of the literature in this field focuses on a specific product or a specific issue among potential attribute groups. For these reasons, it is difficult to grasp the overall outcomes of this branch of research and even have a full overview of the topic. However, it needs also to be highlighted that this area of the literature accounts some of the hottest issues directly linking culture and food attributes. One example is preferences for different innovation characteristics of the product, such as genetic engineering. Another is in the domain of religious or explicit cultural characteristics of a product.

Among the many potential attributes of interest for the connection between culture and consumer behaviour, one of special interest concerns the region-of-origin (RoO). The existing literature on the consumers' attitude towards RoO provides numerous and varying evidence on the role of this attribute as compared to other product characteristics (Henchion and Mcintyre, 2000; Stefani *et al.*, 2006). On the one hand, regional imagery is a relevant component of buying behaviour (Chamorro *et al.*, 2015; van der Lans, 2001) and can affect willingness to pay and hence agricultural income. On the other hand, different characteristics for the RoO can strongly affect actual impact on purchasing patterns (van Ittersum *et al.*, 2007; Verbeke *et al.*, 2012).

Santeramo *et al.* (2020, this issue) address this topic through a meta-analysis of the relative importance of RoO. In particular, the article aims at characterising the heterogeneity in the relative importance of RoO. After systematically reviewing the literature on RoO, the paper builds an ad hoc indicator to measure the relative importance of RoO as compared to other attributes of agri-food products. Then the authors use a meta-analytical approach to explain how the relative importance of RoO varies according to factors related with publication process, methodological issues and characteristics of articles. These topics yield interesting and complementary information that deserve separate considerations.

First, the findings reveal that the publication process and the methodological choices have limited influence on the relative importance of RoO. This is important as it contributes to validate the strength of the following considerations and somehow corroborates the robustness of the approaches used by authors.

In contrast, the authors find a strong effect of characteristics of articles, which include also the choice related with the topics studied. Notably, the relative importance of RoO is highly dependent on the products under investigation and on the characteristics of the RoO addressed.

Overall, the results also highlight that RoO is an effective differentiation instrument in the agri-food markets only if supported by geographical indication labels, such as Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and American Viticultural Area (AVA). However, managerial implications go beyond this simple statement. In particular, it is critical for policymakers to develop communication strategies focused on consumers, in order to convey attractive information about RoO by stimulating their interest in the origin of foods and building favourable perceptions about qual-

ity and distinctiveness of products. This entails enhancing communication strategies by targeting different messages to different target markets and consumers' groups, as well as developing new concepts of label in terms of contents and communication channels.

5. Final remarks

Culture somehow affects all aspects of agriculture and food economics. The agricultural literature connected with culture is extremely wide. However, it remains very difficult to grasp the main messages, as each paper is very often connected with extremely narrow topics, specific products, specific geographical areas and/or specific aspects of culture. In addition, culture touches aspects of agricultural and food economics that are traditionally addressed by different specialisations of scholars, e.g. consumer studies, innovation economics.

The current trend is towards the quest for more systemic approaches to agriculture, food and bioeconomy, as embedded in concepts such as value chains and food systems, planet boundaries and ecosystems services, and driven by global and systemic problems, such as climate change, globalisation of markets and population growth. In this direction, also the interplay with culture can be expected to become more relevant in the future and explicitly addressed by research.

In this special issue, we have collected four papers that deal with different aspects of such a relationship. In a way, their common denominator is the link between culture, food and territory, taken from different angles. This highlights a very important aspect of culture as related with food and probably of the future of food systems, which is their growing embedding in social systems that are geographically organised in connection with ecosystems.

Although this special issue certainly does not provide an exhaustive discussion on the role of culture in the agri-food systems, it provides some reflection points, not only related with the topics covered by the papers, but more generally on the relationship between culture and agri-food systems.

The papers of this special issue, through different methodological approaches, provide an indication of the variety of topics connected with culture (and increasingly studied by agricultural economists), covering issues relating to rural areas, organisation and innovation of supply chains, and food consumption.

Culture influences the production of public goods and above all the perception that citizens have of rural landscape; it influences supply chain relations and governance of agri-food systems; characterises the products, their quality and above all the consumers' perception of food products.

For these reasons, public policies must take into consideration aspects linked with culture, including values and visions not only of the direct beneficiaries (e.g., farmers or actors in the supply chain), but also more generally of society.

However, given the complexity of the topic, more studies and innovative approaches are needed to better support policy makers and decision-makers in general.

The special issue tries to contribute to this process, representing a starting point to promote further and improving studies related with culture and its role in the agri-food systems, highlighting the importance of a multidisciplinary approach and a higher degree of cross-fertilisation also among branches of agriculture and food economics.

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