

Three Perspectives on Motivation and Multi-Criteria Assessment of Organic Food Systems

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Abstract: The complexity of values related to organic food systems is normally difficult to ascertain, understand and act upon for both producers and consumers, as well as for other agents. In this paper we have suggested MCA as a method that may help in coping with this complexity. Furthermore, we have pointed to the importance of addressing the challenge of motivation when designing such an MCA tool. In doing so, we have applied three very different concepts of motivation – an economic, a psycho-social and a relational concept. While they represent fundamentally different perspectives, by incorporating all three within a multi-perspective approach, we have been able to explore 'a broader array of relevant aspects of motivation when designing a MCA tool to be used by consumers when dealing with organic food issues. From an economic perspective, motivation is closely related to the buying situation and consumers' need to choose between products. This stresses the importance of gaining a quick overview and of support in assessing the options. From a psycho-social perspective, the key point is to design the tool in a way that makes it possible for the consumer to include his or her experiences and specific lifeworld strategies in the assessment process. This highlights the importance of an MCA tool which enables users to influence and change criteria and values in decision-making and reflexive processes. Finally, from a relational perspective, motivation is a matter of social interaction and the tool should therefore be designed so as to allow dialogue between the agents involved in the value chain of the organic food system. Applying the three perspectives on motivation to the issue has proven the value of a multi-perspective approach and provided input qualifying the development of a prototype MCA tool for agents participating in the organic food system.

Keywords: Multi-Criteria Assessment (MCA), Organic food, Motivation

INTRODUCTION

Organic food systems are based on a complex of value criteria that are often not explicitly considered when consumers, retailers, producers, journalists and other agents think, communicate and make decisions concerning organic food. Eco-labels are widely applied as a means to boil the many aspects down to clearly identifiable symbols offering agents a quick and simple way of coping with the complexity. However, this strong reduction in complexity opens for misconceptions and distrust: moreover, even when eco-labels are ascribed with trust, this trust can be threatened by changes in the mood and focus within the public sphere engendered by scandals and opposing messages. Many value criteria are involved in such systems and a structured method to guide reflections, communication and decision making is needed. It is therefore worth considering whether decision-making tools, designed especially to handle complex issues, might be applied to support agents considering issues of organic food.

Multi-criteria Assessment (MCA) refers to a range of methods developed to support decision-making on such highly complex issues. For example, Multi-Criteria Analysis is a method used by economists which designates attempts to weigh up and assess complex issues in decision-making processes (Janssen 2001, Rauschmayer 2001). A variation on this method is Social Multi-Criteria Evaluation, which makes a point of taking various agents' conflicting interests into account (Munda 2004). These methods have been developed partly as an alternative to monetary valuation methods such as cost-benefit analysis, partly influenced by new ICT opportunities to handle complex issues. In essence, MCA is a tool which supports judgement by listing different options and making explicit, how each of these options contribute to various criteria. MCA techniques usually provide a relative weighting system, although there are differences in how they combine the data. However, unlike cost-benefit analysis, such techniques do not attempt to generate a final judgement by applying the same value unit to the measurement of each criterion and then summarising the result.

Although MCA in principle seems a good idea, it also gives rise to critical questions regarding the weighting between different kinds of knowledge, about the construction of indicators for each of the criteria, about the complicity of MCA tools, and about how to make them available and operational as supportive tools for reflection, communication and decision-making in practice (Noe & Alrøe, 2011). This article focusses on the latter. MCA is normally thought of as a decision supporting tool for professionals in industry, policy and planning. But can an MCA tool be designed for use by consumers, producers and other agents when making choices regarding organic food?

This question lies at the core of 'MultiTrust' – an interdisciplinary research and development project. Furthermore, a key concern in dealing with this question was the issue of motivation. During our collaboration we realised that disparate theories of motivation were in play. Each theory provides a certain perspective and reveals certain aspects of the role of motivation in relation to MCA, but the question cannot be adequately answered from any single theory. Nor is it possible to unify the theories and their ontologies to create some kind of joint conceptualisation. However, by utilizing a multi-perspective approach that uses different perspectives in parallel (see also Thorsøe et al. 2013), we are able to achieve a broader understanding that can qualify the development of a MCA tool for the complexity of organic food systems.

In this article we apply three perspectives on the issue of motivation in relation to MCA of organic food, an economic, a psycho-social and a relational. In doing so, we expose a number of issues of importance when dealing with the challenge of motivating people to use MCA in relation to organic food issues. Moreover, we show how the perspective on motivation in relation to the design of an organic food MCA tool becomes expanded from the economic focus on product preferences to also include a sensibility towards users' psycho-social experiences and the relations and negotiations between agents.

It obviously makes a difference whether the users of the organic food MCA tool are policy agents, producers, retailers, journalists or consumers. As such we aim for such a tool to be adaptable to each type of agent. However, in this paper we have chosen to focus on consumers, partly because, the idea of supplementing eco-labels with an organic food MCA tool is primarily targeted at the consumers; and partly because the challenge of motivating for using MCA is probably greater when the users are lay people and therefore problematic issues will become more clear compared with focusing on professional agents.

Below we briefly introduce the concept of motivation followed by three sections presenting the economic, psycho-social and relational perspectives on motivation, as well as their implications for the issue of designing an organic food MCA tool. In doing this, we refer to the same concrete imagined example with a consumer who is offered MCA-support in a supermarket. Next we discuss issues and challenges across the three perspectives and the paper concludes by showing potential contributions by using the three different perspectives in combination to qualify the design of an organic food MCA tool.

PART 1: THE CONCEPT OF MOTIVATION AND THREE DIFFERENT APPROACHES

Particularly within psychology the literature is replete with concepts of motivation. The following definitions are found in a literature review (Kleinginna & Kleinginna 1981): There are definitions referring to internal mechanisms (physiological and phenomenological definitions), functional processes (energising, directing and vector definitions), definitions restricting the scope of motivation (temporal restriction and definitions distinguishing motivation from other psychological processes) and comprehensive definitions (broad/balanced definitions, all inclusive definitions suggesting that motivation is the cause of all behaviour). According to the authors, the challenge is to restrict the use of the term to measurable functions and to avoid confusing the term with other overlapping concepts, such as emotion and learning (Kleinginna & Kleinginna 1981: 272). Although the authors recognise motivation as a source of change, they exclude definitions emphasising social context as the site of motive construction. However, for the purpose of this article, which covers various aspects of the ‘social’, we find that there is a need to link the concept to the theoretical domain of the human and social sciences.

Another key issue in relation to motivation and change has to do with the relationship between cause and effect. This opens for two fundamentally different approaches to motivation: as subjective spring of action such as Aristotle’s concept of ‘appetite’, triggering an action the outcome of which is satisfaction; or as the outcome of competent functioning (White 1959). According to White, living creatures do not explore their environments because they are in a state of deficit, but rather begin their explorative behaviour when their basic needs have already been satisfied. This reverses the assumption that knowledge leads to motivation which again leads to action. Instead, interaction with a complex environment leads to a growing sense of mastery, which then leads to motivation. Depending on whether motivation is understood as a trigger of action, or as the result of competent functioning, it constitutes either the cause or the effect in a process of change.

Such a ‘chrono-logic’ (that motivation is the cause or effect of action) has, for example, been challenged by C Wright Mills, who shifts the focus from motivation understood as subjective springs of action, to motives, understood as socially constructed reasons attributed to ourselves and others. The study object therefore becomes vocabularies of motive, i.e. the various reasons people provide for their actions in different situations (Wright Mills 1940). In other words a person’s behaviour (and possible behavioural change) is a function of said person and his/her environment (Stern 2000: 415).

In the following, we will present three different ways of understanding motivation and how they make sense in relation to engagement in complex multi-criteria assessment of organic food products: an economic perspective, a psycho-social perspective and finally a relational perspective.

Motivation and the economic man

The focus of this section is on the motivations behind consumer behaviour in markets for organic food. In economic theory, consumers' needs and wants are seen as the motivation for their market behaviour. It is a basic assumption that consumers' needs and wants are reflected in a set of preferences ordered in such a way that consumers will make rational choices between alternative bundles of consumer goods. This is known as the *homo oeconomicus* consumer, or *the economic man* conceptualization of human behaviour. Rationality in this context means that consumers will choose a combination of consumer goods which will maximize their utility (satisfaction of preferences) given the constraint represented by the available budget (Mas-Colell, 1995). This consumer behaviour model was extended by Lancaster (1966) who argued that consumers' demand is defined over the characteristics of a good (e.g. nutritional characteristics, taste, colour, etc.) rather than the good as such. A good can also have public good characteristics, such as the perceived benefits to the environment of the absence of chemical pesticides in organic farming or perceived enhanced animal welfare. Public goods are characterised by one person's use not affecting another person's use of the good (non-rivalry) and the impossibility of excluding any individual from using the good (non-excludability). Differences between organic and conventional food products are often presented as differences in specific characteristics. Therefore, the Lancasterian approach is often used in economic analyses of the demand for organic food products. It is a standard assumption that consumers know their own preferences, which, in turn, implies that they are able to identify the product combination that yields the highest possible utility from the available alternatives. Hence, if a consumer chooses an organic product, the motivation for such a choice is seen as rooted in the basic desire to maximize utility.

Another basic assumption concerning the economic man is that he is inherently self-interested and only concerned with maximizing his own utility. This implies that rational consumers will not feel incentives to pay individually for public goods such as reducing pollution since no one can exclude them from enjoying the good whether they choose to pay or not. This is the so-called *free-rider problem* (Simon 1957). A straightforward consequence of the free-rider problems is that public good characteristics of organic products such as e.g. environmental benefits or enhanced animal welfare would not affect consumers' demand and willingness to pay for organic products. Hence, in the traditional economic man conceptualization of human behaviour such public good characteristics are not expected to motivate consumers to buy more of the product, even though they have preferences for the public good characteristic. Instead, neo-classic economic theory suggests that a socially desirable provision of non-marketed and public goods should be ensured through political decisions and public intervention.

The economic view and MCA of organic food

The utility maximization assumption can be used to explain why MCA is a relevant tool for consumers to use when deciding what to buy. Consumers are assumed to spend the time and effort required to identify the combination of goods that will maximize their utility. In line with the Lancasterian approach mentioned above this implies that for each good the consumer engages in an assessment of all for him relevant aspects which characterise the good. In other words, the consumers are assumed to engage in a multi-criteria assessment.

However, a great deal of recent empirical research in marketing science and behavioural economics demonstrates that this assumption is violated more often than not. The more complex a good is the greater is the risk that consumers do not engage in full MCA when considering whether to buy the good (see e.g. DeShazo and Fermo 2004; Payne 1976). Consumers generally have a constraint on the time and effort they allot to reaching a purchase decision. While some consumers might spend a

long time in the supermarket reflecting on what to put in the shopping basket, others rush along the aisles barely considering what they put in the basket. Both types of consumers might be motivated by utility maximization, they just have different preferences and thereby different trade-offs between time spent in the supermarket and time spent on other activities such as socializing with friends, playing with their kids, working an extra hour, etc. The utility gained from these alternative activities may contribute more to the overall utility experienced by an individual than what is lost by making “mistakes” in terms of non-optimal choices in the supermarket, and as such utility may still be maximized. A possible strategy for a consumer who prefers not to spend much time in the supermarket is simply to choose the cheapest combination of each bundle of goods. The consequence is that this consumer will rarely put an organic product in the basket as organic products are typically more expensive than conventional products.

Of course the two types of consumers outlined here represent extremes. Most consumers will be somewhere in between with a great deal of heterogeneity among individuals. Considering the many aspects of organic food products, it is likely that a proportion of consumers will simply find it overwhelming and extremely difficult to make a full MCA for organic products. There is a growing literature within behavioural economics which finds that consumers may resort to a range of different coping strategies when faced with choices that are cognitively demanding (see e.g. Swait & Adamowicz 2001, Hensher 2010). One common simplifying strategy is to ignore complex aspects of a choice situation while another is to use some heuristics-based rule-of-thumb, e.g. always choosing the cheap alternative regardless of its other characteristics. Both of these strategies would seem to reduce the likelihood of consumers engaging in full MCA when faced with a choice between conventional and organic food products in the supermarket.

The traditional economics discipline offers no clear predictions as to how one might encourage more consumers to engage in MCA when considering organic food products. However, it is clear from empirical findings in behavioural economics that reduction of complexity is a key issue for consumers e.g. in the supermarket – an important challenge if the aim is to get consumers to engage in full MCA of organic products. Therefore, from an economic perspective, using an MCA tool must be as simple and convenient as possible.

Motivation as psychosocial dynamics

Psychology should not be regarded as one uniform discipline but rather as a discipline with several, in many respects opposing, theoretical approaches. Among these, it is possible to find several more or less explicit theories on motivation (Kleinginna & Kleinginna 1981; Reber 1985; Ryan & Deci 2000; Schnack 2002). In the following we do not conceive of motivation as a singular cause behind specific behaviours but as a combination of drivers behind our actions. These dynamics are not purely psychological, but tensions between, on the one hand, the psychological structures generated through the individual’s life story and, on the other hand the present socio-cultural context (Illeris 1978). They are generated and embedded in the complex, and often conflictual, psychology of the individual as well as in the complex social interaction around social and material practices. So, although this approach emphasise the relation between individual and context as crucial for understanding motivation, it still operates with a subject as a carrier of orientations, values, experiences and coping strategies that are dynamic parts of the motivational structure in the sense that they, in some situations, merge into one motive and, in other situations, create inner tensions (dissonances) driving the person either to act in order to overcome the dissonance or to repress some of the impulses in order to maintain existing beliefs or practices (Festinger 1957). In this sense, motivations are not the same as biological-bodily needs. Such needs are, on the one hand,

parts of the motivational dynamic but, on the other hand, always elaborated and transformed by the social practices and experiences of the individual through the personal history of life. Obvious examples of this are our biological needs for food and sex, which are always elaborated through social experiences in the individual's life but, on the other hand, can never be fully understood by looking at the present relationship between the individual and his or her socio-cultural context (Illeris 1978). It is important to note that with such an approach to motivation as a combination of drivers behind action, it becomes obvious that impeding, and thus demotivating, factors should be included in the exploration of motivational structures.

The psychosocial view and MCA of organic food

As described above this approach considers consumers as carriers of already generated orientations, values, experiences and coping strategies that will be impeded and/or activated by what they meet in the social context, for example by entering a supermarket. To motivate the consumer to spend time reflecting on the values of organic food products, and to use such MCA to decide what to buy, is basically seen as a matter of recognising and responding to these psychosocial dynamics – either by appealing to desires or by trying to dissolve mental barriers. Based on a review of research literature covering the fields of cognitive psychology, psychodynamic psychology, micro-sociology and educational studies (Læssøe et al. 2011) we can illustrate, how this approach might offer insight into what motivates and demotivates consumers to apply MCA to organic food.

When we, as consumers, are going to buy food in the supermarket, it is part of our everyday life with its gradually generated time-structures, orientations, desires, ambivalences and self-management practices. Short factual information is not necessarily the best way to catch the consumer's awareness and motivate him or her to reflect on what to buy. For those who are already engaged green consumers such a scientific factual approach might be appealing (Læssøe et al., 1995: 98). But for others it might be better to relate to the dynamics of their everyday life and offer something that gently challenges and inspires them to assess and act differently (Berlyne, 1960). So MCA in the supermarket should not be a tool telling 'the right answers' but should, in a constructive manner, scaffold the consumer's reflection on organic food choices as part of his or her complex everyday life situation and the related dilemmas and questions.

The challenge is that organic food touch upon unpleasant and abstract risks, complex issues and values that may be perceived as ideological controversial. In general, the abstract invisible and complex character of environmental risks impedes motivation for action. To cope with this, the MCA support should not address risk only as a matter of the objective, scientifically documented risks. Consumers' motivation can be enhanced by also addressing the typical ways we as human beings perceive, assess and cope with risks – e.g. who are responsible? Who are affected? Is it possible to control and escape? Is it deadly or not (Slovic 2000; Breck 2001)? The social aspects of risks – e.g. trust and credibility - are likewise way important for consumers when they assess a risk (Breck 2001).

Another obstacle in motivating the consumer to spend time on an MCA is the very thing that MCA is intended to address, namely the complexity of the issue. To reduce this demotivating factor, a reduction of the complexity by means of a quick visual overview seems essential. The facility should furthermore rouse the consumer's curiosity and inspire them to gradually learn and include more aspects in their assessments prior to making their decision.

From a cognitive point of view we know that information is always filtered and interpreted through already established mental models. The influence of these basic beliefs, orientations and heuristics (coping strategies) on how the message is interpreted is stronger than the message's influence on existing beliefs and orientations (Spanheimer 1977; Dunwoody 2007; Moser and Dilling 2007; Hulme 2009: 142ff). As such, consumers in a supermarket encounter organic food products with their own pre-established attitudes towards ecology and organic food, whether these are dominated by an economic rationality or a more ideological stance. From a psycho-social learning perspective, the best way to 'un-freeze' conflicting attitudes and motivate new and deeper assessments is to apply a sensitive and open methodology; that is to abstain from trying to convince consumers about 'the right things to do', but rather to ask questions and raise dilemmas, as well as to challenge and inspire in ways that neither affirm existing dominant norms nor attack the identity and practice of consumers to a degree where they defend themselves by refusing any further reflection (the level in between these poles is often described as 'the practicable difference').

Finally, a very important recommendation from a psycho-social point of view is to acknowledge that it is not only the organic food systems, but also the consumers' psychology and everyday lives that are complex. Attempts to motivate consumers to make use of MCA of organic food products will probably fail if they do not allow consumers to relate the MCA to their own concrete lifeworld. Here it is crucial to understand that our lifeworlds are not just a fixed set of routines but include an ongoing negotiation of ambivalences. It has often been described as a paradox that consumers do not act according to their environmental consciousness. However, ambivalences are normal and it should rather be regarded as a psycho-pathological extreme if people act completely inflexibly and with no regard for the social context (Leggewie & Weltzer 2009: 74f). So, making an MCA tool attractive to consumers involves making it interactive; allowing them to incorporate questions and concerns originating from their own concrete lifeworld, with all its ambivalences and different ways of coping with them (self-practices), into the MCA.

A relational approach to motivation

The following section is an analysis of motivation from a relational perspective based on semiotics (Peirce 1992, Nöth 2011) and relational metaphysics (Pirsig 1999, Oliver 1981). Motivation can be seen as a certain way of looking at values, focusing on values as the cause of action. That is, motivation is about how value relations lead to actions. However, in a relational perspective, values are relational – values neither belong to the subject, nor the object (Pirsig 1999, see also Thorsøe et al. 2013 in this Special Feature). Value relations are primary entities that constitute secondary entities such as objects and subjects. Since motivation is a certain way of talking about value relations as causes of action, the relational perspective also provides a relational view of motivation, which deviates from the more common approaches to motivation. Motivation is often placed in the object, speaking of someone being motivated by somebody or something and of motivating and demotivating events. Or, contrary to this, motivation is considered to belong to the subject, speaking for instance of agents and their motivation to act. Compared to these approaches, relational approaches to motivation focus on the social interactions and, in doing so, on how motivating relations are created and how they are influenced by communication, dialogue, negotiation, knowledge, structural conditions, etc.

The relational view of motivation and MCA: Choice and change in organic food systems

The relational character of motivation is for instance quite prominent in community supported agriculture such as the French AMAP projects (Noe & Alrøe 2011). What motivates consumers to buy, and producers to produce, in these cases has to do with the close relations the 'consumers'

(who are actually more than consumers here) and food production, and between producers and the processing, sale and consumption of their produce.

If we look at how MCA might influence motivation in the case of consumers' choice of whether or not to purchase organic food in the supermarket, it is clear that Multi-Criteria Assessments should not be undertaken with the sole purpose of increasing expert knowledge about the organic product to be used for e.g. more informative labelling (placing motivation in the product), or solely to influence the attitudes of consumers by trying to show that organic is better (placing motivation in the consumer). The role of such assessments must be to influence the relations that make consumers organic consumers and the system an organic food system. Therefore, MCA is first and foremost a communicational tool, and the relational perspective places certain demands with regard to how Multi-Criteria Assessments should be constructed and performed.

Taking a closer look at the supermarket example, at least three distinct kinds of buying relations can be identified which have led to a differentiation between different sections within supermarkets and between specialised stores and shops. The three types of buying relations can be characterised by their focus, respectively, on price (discount products), aesthetics (taste, delicacies), and ethics (certified labels such as fair trade, organic, etc.). In some cases the three types of relations are mixed, but here we look only at the distinct cases for the sake of clarity. If we want to use MCA to influence consumer choices, the relational perspective points out that we need to take this differentiation of consumer buying relations into account. MCA is directly relevant to ethical buying relations, which are based on the communication of additional, ethically-based considerations that have been employed in the production process. Due to the complexity of more comprehensive, multi-criteria assessments, this is by no means unproblematic, and trust plays a major role as a way of reducing the complexity of a relation. On the other hand, MCA is only indirectly relevant to the price-oriented relations, through the possible effect on the basic food regulations and standards, because additional considerations are only visible as higher price in this type of buying relation. Similarly, MCA is only indirectly relevant to the aesthetic buying relations where information and images that affect the aesthetical experience resulting from MCA can only be a source of irritation, because the aesthetical buying relations are guided by taste and not by rational considerations.

PART 2: DISCUSSION

Considering the three views presented above, both converging and diverging interpretations can be identified. They relate to the basic purpose of MCA, to the scope of the idea of using MCA, to the strategic focus, and to the observation of key challenges as well as potentials.

Purpose

The whole idea of involving consumers in MCA differs between the three approaches. So there is divergence regarding what the purpose is: Motivation to do what? The economic answer to this is that MCA appeals to the consumers' utility maximising motive and, if an MCA tool can make it easier for consumers to make utility maximising decisions, their motivation might be strong enough to prefer to use it, compared to preferences for other activities. In the psycho-social perspective, the motivation for, and purpose of, using an MCA tool on organic food systems is instead a matter of making it possible for the consumer to expose and reflect on his or her own historically-generated psychological dynamics, as well as dynamics related to his or her everyday life. In this approach, MCA becomes a tool for reflexive learning, where the ecological and societal criteria are negotiated with issues from the personal lifeworld. Meanwhile, in the relational view, motivation is created in

communication, and MCA therefore becomes a tool to facilitate communication among agents on organic food systems. Furthermore, it is stressed in this approach that the purpose is to develop ethics as social constructs.

In spite of these diverging objectives, it is also possible to identify a potential for the economic and psycho-social approaches to complement one another. While neo-classical economic theory assumes that consumers choose between products in accordance with their preferences, the psycho-social approach expands on these drivers by looking at the whole complex of inner and everyday-life tensions. A central meeting point between these two approaches is the focus on coping strategies: both highlight such strategies in relation to motivation and design of MCA tools for consumers.

Scope

The three motivational approaches operate with different scopes for analysing motivation in relation to organic food systems. The economic view has, in one sense, a broader scope than the others as it looks at consumer preferences and assessments of different products in general. On the other hand, it is narrow in the sense that it explains motivation as a momentary individual phenomenon, while the psycho-social view includes both a historical and social lifeworld perspective, and the relational view further broadens the scope by focusing on communication and relations between different societal agents.

Strategic focus

The three approaches ascribe different weight to MCA as a decision-making and as a communicative tool. For this reason, when considering consumer motivation for using MCA, they are not, in fact, talking about the same tool. From an economic perspective, the strategic focus is on the MCA tool as a means to support the consumer in making utility maximising choices between products. This understanding is not absent in the psycho-social and relational views, but they have a much stronger focus on communicative perspectives. An MCA tool, within these approaches, becomes a tool for interactivity. In the psycho-social approach, this interactivity should enable the consumer to bring his or her own experiences, mental frames and everyday life self-regulatory strategies into dialogue with general organic food criteria in order to reflect and clarify his or her decisions. In the relational approach, the emphasis on the interactive qualities of the MCA tool stresses the possibility to support communication and reflective dialogue between consumers and other agents.

Key challenges

While the economic and the psychosocial views both identify individual coping strategies as a key challenge for motivating consumers to apply MCA on organic food systems, the concern of the relational view is how to motivate through relations in partnerships and chains. In other parts of our interdisciplinary work, trust and credibility have been addressed as key factors influencing whether consumers might apply MCA on organic food systems or not (Klitgaard & Rittenhofer in this volume). We might describe this as a related social relation coping strategy, which also can be included as a key challenge.

Potentials

The economic and psycho-social views both recommend a reduction of complexity as a way to design an MCA tool that will be able to motivate consumers to apply it. However, the psycho-social view is somewhat hesitating in this regard as this might counteract the intention of facilitating

consumers' learning towards coping with organic food system choices at higher levels of complexity. In this perspective, the key to unlocking the potential might be to motivate consumers to apply MCA by offering them a simple overview as a gateway to further exploration of the different aspects of complex issues. The potential, seen from the relational point of view, is to transform MCA to a tool for communication and ethical reflections among consumers and other agents related to the organic food systems.

Perspectives for MCA tool development

The three approaches have served as theoretical inputs informing the development of a prototype of such an MCA tool on organic food. In combination with inputs from a workshop with potential users, this has resulted in a set of design criteria stressing the importance of a tool, which is:

- easy to use in decision making situations (cf. the economic perspective);
- useful for gaining a quick overview (cf. the economic and psycho-social perspectives);
- helpful with regards to getting in touch with other agents in the value chain (cf. the relational perspective), and with illustrating differing motives.
- supportive of the user's own efforts to relate to, analyse and optimise his or her own practices as part of the value chain (cf. primarily the psycho-social perspective, but also the other two perspectives)

Following these criteria, the tool will be developed to allow the different users in the chain to choose and weight the criteria that they employ in their practices. Using visualizations, the entire value chain and the assessments of other stakeholders will be made transparent. It is, of course, a vital question whether the MCA tool can be made sufficiently simple and attractive so that it becomes useful and makes sense to consumers in a supermarket situation, such as that discussed in this paper. This is a matter for empirical trial and evaluation. However, not least because of the theoretical input on motivation, the MCA tool seems to be quite different from ordinary MCA decision-making tools.

CONCLUSION

The complexity of values related to organic food systems is normally difficult to ascertain, understand and act upon for both producers and consumers, as well as for other agents. In this paper we have suggested MCA as a method that may help in coping with this complexity. Furthermore, we have pointed to the importance of addressing the challenge of motivation when designing such an MCA tool. In doing so, we have applied three very different concepts of motivation – an economic, a psycho-social and a relational concept. While they represent fundamentally different perspectives, by incorporating all three within a multi-perspective approach, we have been able to explore a broader array of relevant aspects of motivation when designing a MCA tool to be used by consumers when dealing with organic food issues. From an economic perspective, motivation is closely related to the buying situation and consumers' need to choose between products. This stresses the importance of gaining a quick overview and of support in assessing the options. From a psycho-social perspective, the key point is to design the tool in a way that makes it possible for the consumer to include his or her experiences and specific lifeworld strategies in the assessment process. This highlights the importance of an MCA tool which enables users to influence and change criteria and values in decision-making and reflexive processes. Finally, from a relational perspective, motivation is a matter of social interaction and the tool should therefore be designed so as to allow dialogue between the agents involved in the value chain of the organic food system. Applying the three perspectives on motivation to the issue has proven the value of a multi-

perspective approach and provided input qualifying the development of a prototype MCA tool for agents participating in the organic food system.

LITERATURE CITED

Alrøe, H. F. and Noe, E. (2011): A cross-disciplinary approach to multicriteria assessment and communication of the effects of organic food systems. *Proceedings of the Third Scientific Conference of ISOFAR, Vol. 2, p. 313-316*. Bonn: ISOFAR.

Berlyne, D. E. (1960): *Conflict, Arousal, and Curiosity*. New York: McGraw-Hill.

Breck, T. (2001). *Dialog om det usikre* [Dialogue about the uncertain]. Akademisk Forlag, Copenhagen

De Shazo, J.R. and G. Fermo, 2002, "Designing Choice Sets for Stated Preference Methods: The Effects of Complexity on Choice Consistency," *Journal of Environmental Economics and Management*, 44: 123-143.

Dunwoody, S. (2007). The challenge of trying to make a difference using media messages. In S. C. Moser and L. Dilling (eds.) *Creating a Climate for Change*. Cambridge University Press, Cambridge.

Festinger, L. (1957): *A Theory of Cognitive Dissonance*, Stanford University Press.

Hensher, D. A. 2010. Attribute processing, heuristics and preference construction in choice analysis, in Hess, S. and A. Daly (eds.) *State-of Art and State-of Practice in Choice Modelling*, Emerald Press, U.K., 35-70.

Hulme, M. (2009). *Why we disagree about climate change*. Cambridge University Press, Cambridge.

Illeris, K. (1978). *Motivation i skolen* [Motivation in the school]. Munksgaard, Copenhagen.

Janssen, R. (2001). On the Use of Multi-Criteria Analysis in Environmental Impact Assessment in The Netherlands. *Journal of Multi-Criteria Decision Analysis* 10: 101-109.

Kleinginna, P. and A. Kleinginna (1981). A Categorized List of Motivation Definitions, with a Suggestion for a Consensual Definition. *Motivation and Emotion* 5(3): 263-291.

Lancaster, K. J. (1966): A New Approach to Consumer Theory, *Journal of Political Economy* 74 (2): 132-157.

Leggewie, C. and H. Welzer (2009). *Das ende der Welt, wie wir sie kannten*. Frankfurt am Main, S. Fischer.

Læssøe, J., F. Hansen, M. S. Jørgensen. (1995). *Grønne Familier - Miljøvenlige levemåder - og mulighederne for at støtte udviklingen af dem*. Danmarks Tekniske Universitet.

Læssøe, J.; S. Breiting, A. K. Ljungdahl and K. E. Nielsen. (2011). *Håndtering af kompleks information*. Multi-Trust report 2.3. <http://orgprints.org/19936/2/19936.pdf>

Mas-Colell, A. (1995). *Microeconomic Theory*. Oxford University Press.

Moser, S. C. and L. Dilling (eds.) (2007). *Creating a Climate for Change*. Cambridge, Cambridge University Press.

Munda, G. (2004). Social multi-criteria evaluation: Methodological foundations and operational consequences. *European Journal of Operational Research* 158: 662–677.

Munroe, A. and N. Hanley. (2006). Information, uncertainty and contingent valuation. In Bateman, IJ & Arrow, KJ, editors. *Valuing environmental preferences*. Oxford University press.

Noe, E. and H. F. Alrøe. (2011). Quality, Coherence and Cooperation: A Framework for Studying the Mediation of Qualities in Food Networks and Collective Marketing Strategies. *International Journal of the Sociology of Agriculture and Food* 18(1): 12–27.

Nöth, W. (2011). From Representation to Thirdness and Representamen to Medium: Evolution of Peircean Key Terms and Topics. *Transactions of the Charles S. Peirce Society* 47(4): 445-481.

Oliver, H. H. (1981). *A relational metaphysic*. Martinus Nijhoff Publishers, The Hague.

Payne, J.W. (1976) Task Complexity and Contingent Processing in Decision Making: An Information Search and Protocol Analysis. *Organizational Behavior and Human Performance*, 16: 366-387.

Peirce, Charles S. (1992). *The essential Peirce - Selected philosophical writings, Vol. 1*. In N. Houser and C. Kloesel, editors. Bloomington: Indiana University Press.

Pirsig, Robert M. (1999) Objects, subjects, data and values. Pages 79–98 in D. Aerts, J. Broekaert and E. Mathijs, editors. *Einstein Meets Magritte – An Interdisciplinary Reflection: The White Book of 'Einstein Meets Magritte'*. Kluwer Academic Publishers, Dordrecht.

Rauschmayer, F. (2001). Reflections on Ethics and MCA in Environmental Decisions. *Journal of Multi-Criteria Decision Analysis* 10: 65-74.

Reber, A. S. (1985): *Dictionary of Psychology*. Penguin Books, London

Ryan, R.M. & Edward L. Deci (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology* 25: 54-67.

Schnack, K. (2002)(Ed.): *Psykologisk opslagsbog*. Christian Ejlers' Forlag, Copenhagen.

Simon, Herbert (1957). *Models of man - social and rational; mathematical essays on rational human behavior in society setting*. Wiley.

Slovic, P. (2000). *The perception of risk*. Routledge.

Spanheimer, L. (1977). *Kunsten at gøre sig forstået. Om kommunikationens psykologiske barrierer*. Hans Reitzels Forlag, Copenhagen.

Swait, J. and Adamowicz, W. (2001). The Influence of Task Complexity on Consumer Choice: A Latent Class Model of Decision Strategy Switching, *Journal of Consumer Research* 28 (1): 135-148.

Thorsøe, M., H. F. Alrøe and E. Noe. 2013. Observing the observers. Uncovering the role of values in the assessment of organic food networks. *Ecology and Society* submitted to this special feature on Multicriteria assessment of organic food system sustainability.

White, R. (1959). Motivation Reconsidered. The Concept of Competence. *Psychological Review* 66(5): 297-333.

Wright Mills, C. (1940). Situated Actions and Vocabularies of Motive. *American Sociological Review* 5(6): 904-913.