



Methodological and Ideological Options

Product as process – Commodities in mechanic and organic ontology

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ARTICLE INFO

Article history:

Received 30 June 2014

Received in revised form 28 December 2014

Accepted 31 December 2014

Available online xxxx

Keywords:

Product as process

Mechanic ontology

Organic ontology

Fair trade

Ecological economics

1. Introduction

Referring to Ormerod, who claims that mainstream economics offers a misleading view of how the world actually operates (Ormerod, 1994), we argue that the ontological presuppositions in economics need to be critically reconsidered and discussed. The problem, according to Boulding, is that “economics has rested to long in an essentially Newtonian paradigm of mechanical equilibrium and mechanical dynamics” (Boulding, 1981, p. 17). Rees argues even more forcefully, claiming that: “Modern economic society operates from an outdated mechanistic perception of the natural dynamics of the Earth” (Fabel and St. John, 2007, p.104). From these distinguished contributors in ecological economics we can conclude that our current environmental and societal problems are, in part at least, due to distorted ontological assumptions about reality. The absence of metaphysical questions has “dodged fundamental conflicts among economy, nature, and culture” (Ims and Jakobsen, 2010, p.17).

This paper explores and interprets the product concept in two different ontologies, mechanistic and organic. In our opinion a shift in ontology for understanding commodities has crucial implications for economic theory and practice. In mainstream economics the product is understood in accordance with mechanistic ontology as a more or less fixed, atomized commodity, what is exhibited in the shelves in

the shops or is represented in marketing communication. In the organic ontology of ecological economics the product cannot be separated from the dynamic network of relations among economy, ecology and society involved in the whole process of the product: from the extraction of natural resources to the processing of waste.

One of the main differences between mainstream economics and ecological economics is that in mainstream economics the product is nothing more than the bundle of different properties at a certain moment in space and time. Products are characterized objectively as the static set of characteristics offered by the seller to the buyer. Whereas mainstream economics is criticized for being abstract, i.e. disconnected from real world conditions, the mechanistic interpretation of the product is disconnected from the ecological and social world. Values associated with the product are imposed from the outside. In the organic interpretation, the product is a dynamic phenomenon, integrated in social and ecological networks and its values thus emerge inherently.

In order to clarify the ontological distinction between mainstream economics and ecological economics we refer to Hume's philosophy of empiricism, which dominates mainstream economics and Whitehead's philosophy of organism, characterizing ecological economics. In the following paragraphs we discuss to what extent social and environmental values are imposed from the outside into mainstream economics and are inherent in ecological economics.

In the next paragraph we will elaborate on how the differences between the ontology behind mainstream economics and the ontology behind ecological economics, influence the interpretation of commodities. To elucidate the two ontologies we firstly focus on Hume's empiricism and secondly on Whitehead's philosophy of organism.

2. The Ontology of Mainstream Economics

“Mainstream economics is sustained by nineteenth century neo-classical theories and principles based on a mechanic worldview” (Max-Neef, 2014, p. 152). To describe the mechanic ontology of mainstream economy we choose Hume's philosophy of empiricism as he decisively influenced the writings of Adam Smith regarding both moral philosophy and economic theory. Hume claimed that all valid contents of the mind (impressions and ideas) come from sense perceptions (Jones, 1970). His main point was that ideas are ultimately copied from sense impressions. Perceptions can be distinguished as simple impressions; complex images are composed of simple impressions. Hume also suggested drawing a strict demarcation line between the

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impression of sensation (for example color, taste, and smell) and the impression of reflection (for example passions, moral sentiments, and other feelings).

Inspired by Hume's empiricist philosophy, mainstream economics concludes that the product is nothing but a complex idea (the product brand) composed of a variety of simple perceptions (the tangible and intangible components of the product). The central focus is on the mental construct of complex sensory perceptions based on impressions and ideas arising from the commodity exhibited in shop shelves.

Hume made a distinction between ideas produced by memory and ideas produced by imagination. Memory gives us ideas based on direct experience. For example, we can memorize what a certain car looks like or recall the taste of a certain piece of pizza. According to Hume, these ideas are more or less accurate copies of our previous sense impressions. The imagination, by contrast, combines separate impressions into new and complex ideas.

In accordance with Hume's empiricist philosophy, Bagozzi (1986) differentiates between the tangible and the intangible aspects of the product. The tangible aspect of the product consists of quantitative properties (for example the shape and weight of the product) and qualitative properties (for example the color and taste of the product). The intangible aspect of the product refers to symbolic properties such as style, brand name, logo, and esthetics. The brand image contains all these characteristics. The brand is the image of the product, as the consumers and other stakeholders perceive it.

One of the main tasks of marketing communication is to couple the memory of many different sense impressions into complex ideas in the mind of the consumer. In marketing communication Hume's principles of association; resemblance, contiguity, and cause and effect are used to affect the consumers to associate positive attitudes with the product brand. Hume's empiricist interpretation of the world, made up of disjointed perceptions of objects with no unity, corresponds with the definition of commodities in mainstream economics.

3. The Ontology of Ecological Economics

We choose Whitehead's philosophy of organism to illustrate the ontology of ecological economics because he is often referred to as a source of inspiration in ecological economics. Distinguished scholars such as Georgescu-Roegen (1971) and Daly and Cobb (1994) refer to Whitehead's philosophy in their analysis and descriptions of the principles of ecological economics. They argue that many of the environmental and societal problems connected to mainstream economics are due to the underlying mechanistic ontology. These problems can only be solved by economics based on an organic ontology. To study the distinction between these two ontologies in more depth we apply Whitehead's philosophical analysis.

According to the "philosophy of organism" (Whitehead, 1966, 1978), everything consists of combinations of actual entities. Nature is a theater for the interrelations of activities. "All things change, the activities and their interrelations" (Whitehead, 1977, p.15). Actual entities are small momentary drops of experience or feelings. Actual entities are contrasted with eternal objects, which are pure potentials for actualization. Whitehead named the process of connecting actual entities and eternal objects "prehension". Prehensions describe how complex organisms come into being as a combination of past experiences (actual entities) and potentials (eternal objects). According to Emmet, prehensions are "a general word for the grasping, or taking hold of one thing by another, and so connoting an active coming together" (Emmet, 2012, p. 41). Prehensions can be either positive or negative. Positive prehensions concern the process of integration: the actual entities connect into complex and interdependent nexus or societies. Negative prehensions mean blocking out those elements of the past and possibilities of the future that will not be incorporated into the present.

The new aggregated entities confront the whole past actual world, and bring the world into new entities. Because of this interconnectedness in

time (and space) everything that has happened in the past has some impact on the present. What happens in the present has impact on the events of the future. This is the principle of relativity: everything is related to everything else. According to Whitehead, creativity comes into existence through the interplay between the physical world (actual entities) and the ideas (eternal entities). "Reality is constituted by entities which are brief pulses of creative activity, (...) constantly developing in reaction to what has been and to what might be" (Hosinski, 1993, p. 23).

From this ontological position, it is reasonable to claim that commodities derive their character from the social and ecological networks they are integrated parts of. The process can be understood from both an individual and a systemic perspective. We can consider the formation of the system from the characterization of the individuals; "or we can characterize the individuals and conceive them as formative of the relevant process" (Whitehead, 1966, p. 98). In this perspective, everything is an integrated part of dynamic networks. Nothing can exist as an isolated atom. The interconnectedness between the product and its natural and societal environment becomes obvious. Firstly, relations become more important than objects. This means that the product cannot be understood as an isolated entity. The product depends on numerous relations to many different processes, which are interwoven with one another in the entire lifespan of the product. Secondly, since the product is integrated in social and ecological networks, values such as responsibility and fairness cannot be separated from the product. An important feature of the philosophy of organism is that everything is interdependent both temporally and spatially (Ims and Jakobsen, 2006). According to this line of argumentation, it is essential to capture the environmental, social and ethical dimensions of the product, to broaden the time horizon both in the past and in the future, and to expand the spatial focus from local to global.

Accepting organic ontology has important implications for the economic actors. Being aware of "product as process" leads to acceptance of the actors' "co-responsibility" for the whole life-cycle of the product they use or produce.

4. Discussion

"Since the world is not mechanistic, as supposed by neoclassical economists, but organic, as understood by ecological economists, it is no surprise that (...) mainstream economics creates economists who don't understand the real world" (Max-Neef, 2014, p. 152). Using the same line of argumentation we argue that we need an ontological shift in economics to solve some of the most serious problems in our time, the converging crises of climate, water, soil erosion and poverty. More specifically we argue that, in order to understand and possibly solve these problems, the interpretation of the product concept is of great relevance. One important consequence is that the definition of the product changes from being a "bundle of characteristics offered by one party, the seller, to another party, the buyer" (Bagozzi, 1986, p. 137) to a complex nexus of entities integrated in the flux of social and ecological networks. In ecological economics the product cannot be reduced to a static object, it is a dynamic phenomenon integrated in social and ecological processes.

To illustrate this phenomenon we describe some important stages in the life-span of coffee. "Coffee" may be the coffee beans hanging on the trees in Brazils, or what is produced at a coffee roasting factory. Usually "coffee" as a commodity is understood as the different coffee brands exhibited in grocery shop shelves, or "coffee" may be what we are served for breakfast. In addition we can focus on "coffee" as waste from all the functions in the value-chain. This means that "coffee" is an integrated part of nature in addition to being a part of the farmer's life, the wholesaler's life, the manufacturer's life, the people working in the groceries' life, the consumer's life, and the life of people in reprocessing and waste handling. "Coffee" cannot be separated from its economic, ecological and social contexts.

The methods of farming, manufacturing, transportation, and distribution are important, both concerning ecological sustainability and

individual and social health. In all the different stages of the value chain, the price of the coffee should be adjusted to the living conditions of the people involved, securing their possibilities to live a decent life. Also externalities should be considered. The producer should earn a living wage to support his or her family and the price should not prevent the consumers from buying the products. The cultivating, manufacturing, distribution and consumption of coffee also have impact on the social dimension. To understand how “coffee” influences the local and global conditions of the natural, social, and individual environment we have to be aware of the temporal and spatial dynamics characterizing the product as a process. The distance between the original farming place and the shelf in the supermarket is very long both in time and in space. In the supermarket, the buyer can choose among different brands of coffee. The choice between the different brands depends on the context of interpretation characterizing the marketer and the coffee shopper respectively. From the perspective of mainstream economics, the branding strategy is to add specific dimensions to the product in order to differentiate the product from other competing products. Assuming that the commodity has a strong brand image, the buyer's preference is influenced and has an important impact on the buying behavior. Being satisfied, he or she can return to the shop, buy the product again and, strengthened by looking at the brand advertisements, he or she becomes convinced that his or her choice was the right one.

One interesting question is: which attributes have the strongest influence when the consumer chooses between different brands of coffee? A study conducted by Wood (2007) examined the functional and symbolic attributes of product selection by 18–24 year old consumers for a range of food and toiletry products. For coffee Wood found that flavor, aroma and brand are ranked as the most important attributes of the product, whereas environment, ethics and health/organic production attributes were ranked at the bottom of the scale. This study indicates that young people who buy coffee give low ranking to environmental, ethical and health aspects related to the product. The study concludes that consumers need to develop a wider horizon and move beyond a narrow-minded, myopic perspective. Decision-making in traditional mainstream economics implies a short-time horizon and customers therefore neglect important systemic effects of their repeated buying decisions.

In most commercials, the intangible aspects of the product dominate and the environmental and social context of the product – such as international justice and environmental sustainability – is usually not emphasized. Instead of being aware of the producers “working conditions” and their income, and the way the product is cultivated, there is a tendency to present the product as an object abstracted from its dynamic context. When the managerial perspective of building a strong brand is based on shortsightedness with respect to both time and space, consumers are often unaware of the (often unintended) negative consequences of their buying behavior. This is an example of the “tyranny of small decisions” where every single act is relatively innocent, but the accumulated impact of all the acts together can pose a serious threat to the common good.

Mainstream economics and marketing focus on market shares and profits. “Even though advertising first impacts affect and cognition, the ultimate goal is to influence consumers' purchase behavior” (Peter and Olson, 1996, p. 538). People are treated as prospective consumers and thus exposed to a number of marketing messages in order to turn them into actual consumers who prefer to buy the firm's product. The reduction of individuals to homo is not without serious effects. When instrumental practice is used extensively, it may result in the loss of freedom for the individuals thus flattening their life-world and culture (Taylor, 1991).

On the one hand, mainstream economics and marketing suggest offering what the buyers want. The responsibility is thereby put upon the buyer. The study of Wood (2007) indicates that customers do not always want what they “should have wanted” from an ethical perspective. There is a difference between whether customers act from a moral horizon with important values (Taylor, 1985) which may be

centered on sustainability and pro-social values, or merely act instinctively – following their first order preferences. Following Taylor further then, we believe that a second-order evaluation of our preferences is of the utmost importance in a world dominated by mainstream economics and “commoditization” – there is a tendency to convert all kinds of entities into atomized products.

On the other hand, it is also possible to find examples in which economic practice lies close to ecological economics. LOHAS (the acronym for “Lifestyles of Health and Sustainability”) is a group of customers who care about the world, wishing to buy products produced in a sustainable way, and caring about their inner development (Cortese, 2000). According to Spash biophysical and social realities are interconnected and “facts about social reality are inseparable from values” (Spash, 2012, p. 45).

Developing this argument further, let us consider the selling concept of mainstream economics and marketing, which says that “consumers and businesses, if left alone, will normally not buy enough of the organization's products. The organization must therefore, make an aggressive selling and promotion effort. (...) The purpose is to sell more stuff to more people more often for more money in order to make more profit” (Kotler and Keller, 2006, 15). However, from the perspective of ecological economics, the mainstream selling concept is unacceptable. The economy should serve the well-being of both individuals and society within sustainable eco-systems.

Ecological economics can be exemplified by social labels creating new brands that explicitly associate ecologically and socially responsible practices (Vogel 2005). The use of social labels to trace certain commodities back to their origin has become well-established practice in some industrial networks. Fair trade coffee is probably the best-known example. However, the fair trade product range is actually quite broad: in addition to coffee, it includes among other things, bananas, cocoa, tea, juice, sugar, and even wine. Fair trade labeling started in the Netherlands in the 1980s when the organization Max Havelaar voiced poor Mexican farmers' interests, claiming, “we want trade, not aid!” (Moore, 2004). Today fair trade practiced by Max Havelaar has grown into an international movement of major importance.

By fair trade we mean a “trading partnership, based on dialog, transparency and respect which seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions, and securing the rights of marginalized producers and workers, especially in the South” (European Fair Trade Associations, 2001). The carpet industry provides another interesting example of a successful social label called Rugmark. In the carpet industry, where child labor is usually widespread, German activists started to organize public campaigns against the use of child labor in the 1990s. The campaign was highly effective and was then followed up by launching Rugmark, a “human rights” label, which gave children educational opportunities. Rugmark's inspection system is regarded as reasonably effective.

A special kind of brand strategy within mainstream economics is building brand identity by creating a set of associations in order to build a strong brand. In contrast to brand image which is the brand's current associations, “the brand identity is aspirational” (Aaker and Joachimsthaler, 2000, p. 40). The idea is to change and augment the image of the product by making the product into more than a just product. The attempt is to attribute meaning and even character to the product by using the concept of identity – a concept that synthesizes and involves aspects from a number of terms like self, soul, character and personality. Today meaning- and identity-creating processes are heavily influenced by the efforts of big corporations. Massive marketing campaigns support this practice giving the products a strong position in peoples' lives, which makes the prevalent culture extremely materialistic (Jeurissen and Van de Ven, 2008).

We find today's branding practices to be an ambiguous activity. On the one hand, some branding practices try to hide the origin of the products, while others highlight it, by flagging the region or country of origin (Dimara and Skuras, 2001; Fandos and Flavian, 2006).

However, this strategy is strongly connected to mainstream economics where selling more is always better than selling less. On the other hand, there are opportunities for activities within the context of ecological economics where the focus is on quality of life and sustainable ecosystems.

Frugal marketing and conscious consumerism are growing in importance, especially in affluent Western economies. This implies the voluntary self-limitation of marketing itself. *Jeurissen and van de Ven (2008)* argue that sometimes, it does make good business sense to sell less.

Several consumer trends point to it – not only frugality, but also ecology and the aging of the population. The “Sense and Simplicity” campaign launched by Philips seems to understand this notion. There is a market for products that are good but straightforward, easy to operate, stripped of all the unnecessary gadgets and features that 99 percent of consumers never use. Simpler products can be sold at lower prices, without giving up profit margins. Besides, simple and sturdy products will last longer, need less maintenance and have fewer defects. Frugal consumers may be willing to inform themselves more about these kinds of “sensible” products. This may invite sellers to communicate more about less visible product characteristics that actually really matter, such as life expectancy, total life-cycle costs and total costs of ownership. What people see and get in a store may change completely when greater numbers of consumers take on frugality (*Jeurissen and van de Ven 2008: 240*).

5. Conclusion

One of the most important differences between mainstream and ecological economics is that ethical considerations in the former are imposed from the outside while in the latter case the ethical values emerge inherently. The consequence is that all agents involved in these broad and long-lasting processes have an undeniable ethical responsibility for the environmental and social impacts of the product – both “up-stream” and “down-stream”.

Referring to ecological economics, we agree with *Taylor (1991)* who describes the authentic identity formation of the individual as a process in which the individual adopts a wider horizon of important values moving beyond his or her individual self. Such important values can include nature, history, citizenship or fulfilling the needs of others. Such an idea of an extended self can transcend hedonism and narcissism which are shallow, narrow and trivial modes of being.

We have used the social labels “Fair trade” and “Rugmark” to illustrate the product as process. In these cases, the past and the prospective future are added to the product and it is integrated in a wider social and ecological context. The product obtains identity through being part of the natural and social environment.

In addition, in ecological economics, the product is understood holistically, that is, the processes forming parts of the creation, distribution, use and deposition/recirculation of the product are emphasized. Thus, we suggest an extended view encompassing the space and time dimensions of the product: When, and where was the product created? Who produces it? Which materials and energy were used? Which means of transportation were employed? What was the profit margin at different stages of the value chain? What happens with the product after use by the customer? Is it reused and transformed into new resources, or left as waste? How does the used product influence the ecology of the planet and the wellbeing of society at large?

Buyers and sellers anchored in mainstream economics perceive values and norms as external claims, and social and environmental responsibility do not directly make an appeal to them. A shift in the ontological assumptions may increase the actor's responsibility in the market in a profound way. From the perspective of ecological economics, both sellers and buyers look upon themselves as guardians who should serve the wellbeing of individuals, society, and natural ecosystems.

Here we can refer to *Cox (1962)* and *Priddie (1994)* and their classical contributions claiming that economy must be based on a network perspective. Priddie argues that, “all of us live in a community – a system of local and mutual interdependence, where our welfare depends directly on the welfare, cooperation, and activities of our neighbors, locally and globally” (*Priddie, 1994, p. 57*). Instead of focusing on the product as an atomized commodity, both the total set of consequences connected to nature and society should be taken into account. Interpreting the product as process assumes “understanding the basic principles of ecology” (*Capra and Luici, 2014, p. 353*).

We conclude thus that to change the economy in a socially and environmentally responsible direction, it is necessary to move beyond mainstream economics' traditional product concept. To realize that economic actors are responsible for the societal and environmental impact of the products and for what they use and produce, the mechanic ontology of mainstream economics has to be replaced by the organic ontology of ecological economics in which products are seen as processes.

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