Theoretical and ethical reductionism and the neglect of subjectivity in economics and economic education

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Short Abstract:

The dominant ethical stance in economic analysis, especially microeconomics, is grounded on a reduction of human behaviour to its utility maximisation dimension. We explore the concept of utility which is central to economic analysis, and we investigate the significant semantic shift that it has undergone from the "old" to the modern "Max U" approach. We show that both the "old" and "new" concept of utility are expression of some forms of reductionism, with the modern version being a more radical reductionism. This reductionism reveals a deeper reductionism that has replaced truth with the useful (i.e., utility maximisation), forgetting the theoretical philosophical dimension of ethics, and subjectivity with individual's preferences. If economic science is interpreted in the light of a theoretical philosophical perspective, it is possible to articulate the ethical dimension through the manifold forms of welfare that it aims to achieve, moving from the transcendental idea of the *true* good. This perspective allows to recover the various goals (gr. Skopoi) that economic agents try to achieve (individual, social, general welfare), but by carefully distinguishing these goals from the end (gr. Telos) that enlivens intentionally the research. This tension towards the ideal is precisely what is missing in the "Max U" approach and, by virtue of it, it is possible to grasp the limit of the specific characterisation of the ideas of welfare (well-being) that serve as the referents of the corresponding economic conceptions.

1. Introduction.

The dominant ethical stance in economic analysis, especially microeconomics, is grounded on a reduction of the complex dynamics of human behaviour to its utility maximisation dimension, that considers economic agents exclusively as utility maximisers subject to constraints, leading to the well-known paradigm of *Homo Oeconomicus*. Various economists from diverse perspectives as McCloskey (2016) and Hodgson (2019) have investigated this "MaxU" approach, which is predominant in economic analysis, criticising its reductionism. Since economics textbooks, from the undergraduate to the postgraduate level are informed and imbued by this approach, both scholars and students tend to identify economics with the logic of the *Homo Oeconomicus*, despite the criticisms that the model has undergone.

Many authors have already criticised the shortcomings of this model because of its hyper-rationalism and constructivism (Hayek, 1960) or because of the forgetfulness of the fullness of the anthropological dimension of the human being (Sen & Williams, 1982). In this article, however we do not aim to provide a full review of all the critiques and the problems that they have raised, but instead to indicate a philosophical criticism that looks at the theoretical roots of reductionism in economics as a specific expression of a more general

reductionism that affects sciences, specifically social sciences. This consists in neglecting the essential theoretical dimension of ethics, from which economics cannot be separated either on the epistemological or on the ethical level, as we aim to show by investigating a crucial separation between ends and means that occurs in the economic discourse and is paradigmatically expressed in Robbins's classic (1935, Ch. 2). Since the aim of this article is to investigate this aspect by looking more specifically at the impact of this reductionism in economics theory and education, we will concentrate on the "Max U" model as it is presented by some textbooks and the critiques thereof.

In the following sections, we will first present some key features of the so-called model of *Homo Oeconomicus* and the criticisms of this reductionist model as presented by some economists as McCloskey, Hodgson and Zamagni. We will then point at a missing theoretical element in this critique of economic reductionism, which in our view lies at the heart of the mainstream approach, and we will conclude by showing the implications of reductionism and the role that subjectivity should have in revitalising economic analysis, if the latter is meant as the study of *human* action.

2. The *Homo Oeconomicus* Model and its reception in current economics teaching.

The *Homo Oeconomicus* (HO) model aims at explaining human behaviour in social interactions in terms of the rational economic behaviour. The rationality of economic decision is characterised in terms of its future directedness, consistency and self-centred motivation. The latter characterisation encompasses both egoistic and non-egoistic behaviour, provided that economic behaviour can be modelled "as if" maximising (Kliemt, 2013). This means that the model indicates that *Homo Oeconomicus* is behaving *as if* he were maximising a utility function, but neither the value of this utility function nor the specific meaning of the concept of utility have been subjected to sufficient scrutiny, as we will discuss next. Here we want to highlight some main features of the model, in order to show its predominance in economics and economic textbooks and the criticisms that have already been raised against its reductionism.

As pointed out by Melé and González Cantón (2014), the HO has its immediate sources in John Stuart Mill and, to some extent, is traceable to Adam Smith. We will not pursue here the discussion of the historical antecedents and the long-lasting debate on the so-call "Adam Smith problem", but we will be concerned with the defining features of the model. However, it is important to stress that Smith's original analysis of man's economic behaviour both in his *Theory of Moral Sentiments* (TMS, 1759) and *An Inquiry into the Nature and Causes of the Wealth of Nations* (WN, 1776) was grounded on a philosophical anthropology. Though we will not enter into the discussion of whether it was the same in the two works, the presence of an elaborated philosophical anthropology should not be underestimated when this is compared to the current view of HO, which – as we will see – tends to reduce human beings to automata.

Indeed, "self-love" plays a central role, not only in the famous and often-quoted sentence concerning the "benevolence of the butcher, the brewer or the baker" in the WN (1981, I: ii,

2), but also in the TMS. As pointed out by Sen (1987), this does not mean that self-love is the only element characterising human behaviour. Indeed, in the TMS he claims that the human being is able to show compassion for others overcoming the strictures of self-interest: "there are evidently some principles in his nature, which interest him in the fortune of others, and *render their happiness necessary to him*, though he derives nothing to it except the pleasure of seeing it" (1982, I, i, I, 1, italics added). Thus, self-interest is seen as an element that allows promoting more effectively the social interest, even beyond the individual's intention.

This is reflected in the metaphor of the invisible hand: "he intends only his own gain, and he is in this, as in many other cases, led by an *invisible hand* to promote an *end* which was *not part of his intention*. Nor is it always the worse for the society that it was no part of it. By *pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it.* (1981: IV, ii, 9, italics added).

While "self-interest" and the "invisible hand" were thought by Smith as elements of a wider philosophical anthropology, with J. S. Mill they serve to characterise human behaviour within a specific domain. Indeed, according to Mill, political economy is a specific discipline that

"does not treat the whole of man's nature as modified by the social state, nor of the whole conduct of man in society. It is concerned with him *solely as a being who desires to possess wealth*, and who is capable of judging the comparative efficacy of means for obtaining that end" (1844: V, 137, italics added).

And he goes on to say:

"It [political economy] *makes entire abstraction of every other human passion or motive*; except those which may be regarded as perpetually antagonizing to the *desire of wealth*, namely, *aversion to labour*, and desire of the present enjoyment of costly indulgences. These it takes, to a certain extent, into its calculations, because these do not merely, like other desires, occasionally conflict with the pursuit of wealth, but accompany it always as a drag, or impediment, and are therefore inseparably mixed up in the consideration of it." (1844: V, 137, italics added).

Any science, as pointed out by Agazzi (2014), must select ("cut") some aspects to form the object of investigation, these aspect are essential to define the purpose and scope of a scientific activity, because they indicate the perspective from which a scientist looks at the "thing" that he is investigating, and Mill seems to point out at a specific conception of human being as wealth maximiser, making abstraction of every other human passion and motive. However, while the domain of economic activity in Smith was restricted to how the human being, in its entirety, with all his passions, virtues and vices, dealt with some specific problems as the division of labour, the subsistence goal, trade and price determination, with Mill instead the abstraction concerns some specific elements characterising the human being. Also, despite being a "classical" economist, thus predating the subjectivist marginalist revolution, it is possible to see that some subjective elements enter the characterisation of economic activity as

"desire", "aversion", "enjoyment". Still in Mill, the object of maximisation is an objective element: "wealth"¹.

It is, however, with the marginalist revolution and the neoclassical school that the abstraction of the HO model is fully defined to characterise the object of the economist's investigation. The HO model which emerges from the neoclassical approach is summarised by Weintraub (2007) in three key elements:

- 1. People have rational preferences among outcomes;
- 2. Individuals maximise utility and firms maximise profits;
- 3. People act independently on the basis of full and relevant information.

More in detail, Gaus (2008, 19-27) provides a compelling characterisation and critique of the defining features of the HO model in five traits:

- 1) More is better than less;
- 2) Decreasing Marginal value;
- 3) Downward sloping demand curve;
- 4) Selfishness/Wealth maximisation/Non tuism;
- 5) Constrained Maximisation.

Various criticisms are raised by Gaus, as for example that the model is better understood in terms of "goals" rather than "goods" satisfaction. In particular, "goals" should be seen as "abstract aims, ends and states of being" (Gaus 2008, 20), otherwise the model would lead to some inconsistencies. For example, "we do not think eating a ten-pound steak is better than eating a two-pound steak" (Gaus 2008, 20). More substantial shortcomings are investigated by Gaus and others, but here we limit ourselves to indicating that the model that permeates neoclassical economics is based on the assumption of *utility maximisation subject to a resource constraint*.

The identification between the "metaphor" of the Homo Oeconomicus and the utility maximisation hypothesis has been pointed out also by a methodologically sophisticated economist as Machlup. Indeed, after having defended the logical role of this postulate or "fiction" as a premise in the hypothetic-deductive system of economic theory, he says:

The fundamental assumption – whether it be regarded as a conventional postulate, a useful fiction, or a well-known fact of experience – of maximising behaviour, that is, of utility-maximising reactions of households and firms, is recognised as a useful and probably indispensable part of the theoretical system of economics. This assumption has frequently

¹ We tend to agree with Broome's (1991) interpretation of Mill's concept of utility who says: "Mill is not using 'utility' as a synonym for 'happiness'", though there is a debate on this point and Melé and Cantón hold instead that Mill's utilitarianism rests on "the idea of utility understood as the object of human desires. Utility boils down to well-being or, more generally, "happiness," understood as pleasure or satisfaction" (Melé and Cantón 2014, 12). We will return on the concept of utility, which is crucial in our analysis, but we will not investigate which of Mill's interpretation is correct, since our aim is to discuss the philosophical aspect of the different interpretations of utility.

been hypostatized into the symbolic figure or 'personal ideal type', the Economic Man (Machlup 1978, 301).

Modern textbooks take this view as "the" economic approach, not as the "neoclassical" approach. If, for example, we consider a standard textbook as Begg et al. (2020), the authors say: "We assume that the consumer is rational, implying that she chooses the affordable bundle that maximise her utility" (Begg et al. 2020, 81). Similarly, Lipsey and Chrystal (2020) synthetise "the" economic approach as one where "each individual consumer seeks maximum satisfaction, or well-being, or utility, as the concept is variously called. The consumer is assumed to 'maximize utility' within the limits set by his or her available resources" (Lipsey and Chrystal 2020, 25). Finally, we can refer also to Mankiw and Taylor (2020), who call this approach the "Standard economic model" and they provide the following description:

When you walk into a shop or look to make a purchase online, you are confronted with a range of goods that you might buy. Of course, because your financial resources are limited, you cannot buy everything you want. The assumption is that you consider the prices of the various goods being offered for sale and buy a bundle of goods that, given your resources, best suits your needs and desires. In other words, you are behaving rationally. In economic terminology, you are seeking to maximize your utility subject to the constraint of a limited income. This model is called the classical theory of consumer behaviour or the *standard economic model* (SEM) and is fundamentally based on an assumption that humans behave rationally when making consumption choices (Mankiw and Taylor 2020, 74).

This textbook, at least, devotes some few lines in a short section called Schools of Thought (2020, 25-26) to clarify the main features of the neoclassical approach, together with other approaches (Feminist, Marxist and Austrian), defined as such:

In analysing markets and outcomes, the neo-classical approach assumes that decisions are based on rationality, that economic agents act out of self-interest, and are autonomous. The neo-classical approach models behaviour through constrained optimization problems. This means that it is assumed economic agents seek to maximize or minimize outcomes but are subject to constraints. Individuals seek to maximize utility subject to the constraint of their income; firms seek to minimize costs subject to the constraint of resources available and the price of those resources (Mankiw and Taylor 2020, 25).

However, apart from this comment, the authors do not make it explicit that the "standard economic model", that is adopted in the textbook is the neoclassical model. The same is true also of the approach developed by the CORE Team (2021), who claim to provide an alternative pedagogical approach, but with regard to this specific point, they devote the entire Unit 3 to the traditional utility maximising approach subject to constraints, with no mention of this being the "neoclassical" approach (the existence of a "neoclassical" school is mentioned only when presenting some historical figures as Marshall or Pigou, later in the textbook). This short selection of textbooks could be extended to the vast majority of current textbooks where the neoclassical approach is usually not even called as "neoclassical", but just presented as "the economic approach" and spelled out in the pages of the textbook.

Utility maximisation subject to constraints has become so ingrained within the discipline that it is easily identified with it and, as we have seen, this is particularly evident at the pedagogical level, through textbooks, which prepare generations of new economists. Some economists as McCloskey, Hodgson and Zamagni have reacted to this form of reductionism pointing out at what is missing in it.

3. The Homo Oeconomicus Model and some critiques of its reductionist approach: McCloskey, Hodgson and Zamagni.

In a series of writings, McCloskey has maintained that economics has neglected the humanities in its investigations focusing exclusively on quantitative analyses. As she says: "economics has ignored the humanities, such as philosophy and literature, theology and history, and the related social sciences, too, such as cultural anthropology and qualitative sociology – that is, it has ignored the study of human meaning" (McCloskey 2021, 9). Also, from an ethical point of view, in its analysis of human behaviour, this approach has neglected the variety of human virtues focusing on "prudence only" (McCloskey 2006, 7). Multiple forms of reductionism are at work at the epistemological and ethical level, which tend to reduce human action to its instrumental dimension.

In particular, McCloskey notices that "formal maximum-utility economics cannot explain sweet talk, and the sweet talk matters greatly" (2021, 12). The reduction of human behaviour to the pure "Max U" approach has led to a loss of the communicative, discursive, nature that characterises human interactions, which constitute the essence of the economic analysis. Human beings are conveying a meaning through discourse, dialogue and conversation, instead "Max U doesn't have to talk" (2021, 12). The very "rules of the game" are the outcome of a conversation and they too evolve and can change.

Utility maximisation as it is currently understood in economics "is not human meaning", since it takes individual's preferences for granted and rests on a behaviourist conception of the economic man. In other words, what is missing in the traditional Samuelsonian² (and Northian) "all constraints" approach is the that human beings have always to do with human meaning, or we could also say, as it will become apparent in the following sections, that human consciousness is inherently intentional (teleological) and reflective.

We can add that "constraints" must be understood and communicated and when they are grasped in their full philosophical meaning, they point to that which transcends them. Indeed, if by "constraint" we mean, philosophically, the "limit", then a limit has two sides, one looking inwards and another outwards, and an awareness of the limit is only possible if that which transcends it is grasped in its implications. In other words, "constraints" must be understood as something that is never given as such, but they are in relation to the wider set of available options, and even the "economic" concept of opportunity cost could help seeing this point.

² We do not enter into the discussion raised by McCloskey (2016) of whether "Samuelsonian" economics would be a more appropriate definition of the maximisation of utility subject to constraints approach than "neoclassical" economics. We think that McCloskey is right at pointing at other streams within the neoclassical school as the Austrians, the Marshallians and to some extent also the Post-Keynesians, but since these Schools, are either known by their name (Austrians and Post-Keynesian) or have been absorbed into the general equilibrium framework of the neoclassical approach (the Marshallians), we take the two terms as synonyms.

Thus, McCloskey concludes that it is

Time therefore to cease believing that only a reactive scientific and mechanistic materialism governs the human world and to start acknowledging that there is such a thing as human, spontaneous action, what the theologians call free will. Time to let the humanities into economic science without abandoning any of the mathematics or statistics, or at any rate the parts that make economic sense (McCloskey 2021, 48).

McCloskey agrees with the hermeneutic approach heralded by Lachmann in economics, who led the latter to criticise the "Max U" approach because in the latter the individual is reduced to some predefined behaviourist characteristics (given "tastes", "preferences", psychological traits). According to Lachmann the true "act of mind" which informs all human action (and thus, any economic activity) is reduced to a given set of tastes:

From time to time neoclassical economists are apt to flaunt consumers' tastes, one of their data, as a mark of their individualism. But on closer inspection their individualism turns out to be a pseudoindividualism. The individual interests them only in his capacity as a possessor of given tastes, not as a possessor of a mind capable of probing and digesting experience, of acquiring and diffusing knowledge (Lachmann 1976, 218).

This reductionism that affects economics at the epistemic level is also found at the ethical level, though the distinction is not indicated in McCloskey (2016 and 2021). Indeed, the seven virtues that characterise the classical (and also modern revival of) virtue ethics are reduced according to McCloskey to only one of them: Prudence. She criticises not only the standard neoclassical (Samuelsonian) approach but also the modern neo-institutionalism à la Acemoglu and Robinson. Indeed, she says:

Acemoglu and Robinson do not see that what failed was the new P-only [i.e., Prudenceonly], Max-U theory of the economics profession of add-institutions and stir. 'The root cause of the problem', they conclude, was 'extractive institutions'. On the contrary, the root was ethical failure, in the presence of which no set of instituted incentives will work well, and under which extraction will persist (McCloskey 2016, 11)

It is the full set of virtues including the three "theological" virtues hope, love, faith as well as the remaining three "cardinal" virtues temperance, courage and justice that define humans. According to McCloskey instead, prudence characterises every form of life or quasi-life from bats to rats. We would like to add that while we agree with McCloskey's point, we should not forget that prudence itself, as noted by Pieper (1966), cannot be reduced to the mechanic activity of seeking to maximise utility or profit, it involves a constant practice by the human actor, which is rooted in the "phronesis" (Greek term for "prudentia" in Latin, which derives from "providentia", i.e., looking forward, looking towards the future). It is an "intellectual" virtue ("dianoetic" virtue, in the Aristotelian terminology), not a moral virtue, which is acquired through a constant study and experience. It is the capacity to reason about particular cases concerning contingent questions to establish what the right thing to do is. This reasoning is obtained through reflection and realised through deliberation. Thus, it plays an essential role with regard to the end ("telos") which is human flourishing (happiness or "eudaimonia"), and it guides the other cardinal virtues thanks to its capacity to coordinate individual and collective interests.

"Max U" ethical reductionism is thus even more serious than McCloskey has pointed out, since even the classical virtue of prudence can only be ascribed to self-conscious and reflective human beings who are acting purposefully and cannot be reduced to animal behaviour or robots.

On the other hand, and from a different perspective (i.e., institutional economics), Hodgson (2019) analyses the importance of Utility Maximisation subject to constraints ("Max U") as a demarcation criterion between Orthodox (Neoclassical) Economics and Heterodox Economics (in all its varieties). Hodgson first, correctly, shows that even some critiques of the neoclassical approach still assume the maximising agent as the centre of the analysis (e.g., the Sraffian critique leaves the maximising agent approach "intact" (Hodgson 2019, 26)) and that this approach is not meant to favour one political ideology over another (it served to justify either a free market or an interventionist approach (Hodgson, 14)) and then clarifies his thesis:

Neoclassical economics always emphasized individual incentives. But it took a questionable view of what those incentives mean and how they could be modelled: it assumed self-interest and utility maximization. Any successful assault on the neoclassical citadel would have to criticize these assumptions carefully, and not simply dismiss them with vague labels such as 'marginalism' or 'methodological individualism' (Hodgson 2019, 27).

He claims that "rumours" or hopes held by some as Colander and Davis of the death of Max U in the mainstream approach are largely exaggerated and despite the fact that contemporary economic theory has encapsulated some behavioural economics insights as well as some psychological elements, they have been embedded within the standard Max-U-subject-to-constraints approach. This is actually what defines the orthodox (mainstream) approach and any alternative should aim at questioning the validity of this central feature. Orthodox economic, especially in the last decades, has proved very agile and resilient, it has included insights from experimental economics (as the Nobel prize recognition to Vernon Smith and Kahneman in 2002 proves) to psychological and behavioural economics (see the impact of "nudge" theory and the Nobel prize award to Thaler in 2017) or the experimental market design approach (Roth was also awarded with a Nobel Prize in economics in 2012). Many of these approaches have been simplified and presented in economics textbooks (see for example the above mentioned Begg et al. (2020)) and it is challenging to find a common denominator to these different paths taken by economics in the last quarter of century, but as Hodgson notes:

Yet an obvious definition of orthodox economics exists. I suggest that it can be defined in terms of the centrality of the assumption of utility-maximizing agents with preference functions, otherwise known as Max U. It is well known that Max U derives from a version of individualistic utilitarianism, inspired by the seminal work of Jeremy Bentham. This postulate of maximization dovetails with the widespread use of equilibrium analysis: maximization occurs when an equilibrium is reached (Hodgson 2019, 78).

Even if Hodgson does not refer to Lachmann's analysis, which we have quoted above, he seems to point at a common "behaviourist" departure from true subjectivism.

Even the rise of behavioural economics has not displaced Max U: the new behaviouralists treat evidence that contradicts Max U models as deviations from strict maximization, due to agent errors or to inadequate information (Hodgson 2019, 78).

This behaviourist feature is a central aspect of modern economics which we will investigate further in the next sections. What we want to stress, at this stage, is that any understanding and possible questioning of orthodox economic theory should not be distracted by some ideological

attacks to the neoclassical approach, but should focus on what characterises it, despite the variety of the many (sometimes even contrasting) applications of the main tenet. Both McCloskey and Hodgson, starting from different perspectives, have converged in highlighting that "Max U" is the defining feature of the orthodox theory and they have also pointed out at its reductionism. However, in Hodgson's analysis the theme of reductionism is not explicitly thematised and is mentioned only with regard to Jevons's reduction of the complexity of human psychology to utility maximisation in mathematical terms (Hodgson, 79).

Reductionism in the neoclassical economic approach is, instead, explicitly investigated by Zamagni, who has provided a taxonomy of the various forms of reductionism in economic thought. He has singled out four versions of reductionism (Zmagni 2000, 197):

- relations among human beings are reduced to relations of equivalents;
- economic rationality is reduced to rational choice;
- trust is reduced to reputation;
- the category of happiness is reduced to that of utility.

The aim in Zamagni is "to enlarge the scope of economic research" (Zamagni 2000, 198) by grounding economics on a richer anthropology and make the discipline more relevant for the analysis of policy means and ends. The author clarifies that the purpose of the contribution is to present some key aspects in a "not fully worked out" (*ibid.*) way in order to stimulate debate. In this spirit we want to continue this dialogue and concentrate on the last form of reductionism pointed out by Zamagni (i.e., the category of happiness is reduced to that of utility, on which one can also see Zamagni (2006)) while various recent approaches within economics in recent years have tried to tackle the other three aspects. Instead, the reduction of happiness to utility is extremely relevant, especially if we agree with McCloskey's and Hodgson's identification of mainstream/neoclassical/orthodox economics with the "Max U" approach.

Zamagni first notices that "it is a fact – often ignored – that the early history of economic science is characterised by the centrality of the happiness category. Economics is essentially seen as the 'science of happiness' whose fundamental target was to provide an answer to the question, 'what should I do to be happy?'" (Zamagni 2000, 203-204). Then, he points at the reduction of the notion of happiness to that of utility, which in his view has derailed modern economics, since the marginalist revolution. This reductionism is identified with the *Homo Beckerianus*, "a perfect specimen of social idiot, a subject so completely devoted to rational pursuit of its own utility as to be unaware that in order to do so it has to manipulate, systematically and explicitly, other people's behaviours and choices" (Zamagni 2000, 203). What is missed due to this reduction, according to Zamagni, is that many social interactions lack "instrumentality and are desirable only as such" (*ibid*.). They are driven by a gratuitous act as opposed to the manipulative and utilitarian logic of the *Homo Beckerianus*.

It is true that Zamagni does not refer to the *Homo Oeconomicus* model which we have analysed but his critique is meant to address a prevailing method in economic analysis which he has identified with the Beckerian method (also criticised for its economic imperialism, i.e., the extension of the same method beyond the sphere of economics, "colonising" disciplines as politics, laws, sociology etc.). However, the HO model, as we have seen above, does not necessarily imply that the economic agent is understood as "selfish" or "lonely" or "unhappy", these are psychological characterisations that concern some specific human beings, but are not traits that characterise the abstract model of HO. The HO, as defined in the model, enters into mutual exchanges and takes others' decisions into account; it may be motivated by the desire to leave a legacy to the future generation (as in the intertemporal generation model), and it may reach a level of satisfaction (be "happy"), but it is still constantly defined by a "Max U" approach.

Instead, we think that the change of focus from happiness to utility, highlighted by Zamagni, needs to be further investigated in its philosophical dimensions, especially if utility maximisation is seen as a defining feature of the prevailing orthodox approach, as indicated by McCloskey and Hodgson.

4. The concept of utility and its transformation: from means to end.

Despite playing a central role in economic theory and economic education in the last century, the concept of utility has not been subjected to the same scrutiny, from economists and philosophers of economics, as other economic concepts (equilibrium, welfare, rationality, decision etc.). This is particularly striking since modern economics cannot be fully understood without a conceptual clarification of its meaning; yet following how the concept of utility has evolved in the use that economists made of it may show some of the implicit philosophical underpinnings of the project of modern economic theory.

Those who devoted themselves to the study of economics before the marginal revolution, as noticed by Zamagni (2000), from Muratori to Verri, Genovesi, Quesnay, Hume and Adam Smith either explicitly devoted their work to the theme of "happiness" or intended that the scope of economic activity was the achievement of happiness at the collective level or individual level. This is true also of utilitarian philosophers as Bentham, who echoing Beccaria's theses, claimed that the scope of human action is to achieve "the greatest happiness of the greatest number".

Utilitarianism informed the early attempts to formalise the economic method as in John Stuart Mill and its main tenets can be summarised in these three elements (Welch 2018, 14195):

- 1) Individual well-being ought to be the end of moral action;
- 2) Each individual is to 'count for one and no more than one';
- 3) The object of social action should be to promote the greatest happiness of the greatest number.

In the same vein, though criticising Bentham's hedonism, John Stuart Mill in his classical work, *Utilitarianism* (1861), makes it clear that "no reason can be given why the general happiness is desirable except that each person, so far as he believes it to be attainable, desires his own happiness" (Mill, 44). And even in his autobiography in which he acknowledges some of the difficulties inherent to the direct attainment of happiness, Mill recognises that despite not directly attainable, happiness still represents the ultimate goal of life:

I never indeed varied in the conviction that happiness is the test of all rules of conduct, and the end of life. But I now thought that this end was only to be attained by not making it the direct aim. Those only are happy (I thought) who have their attention fixed on something other than their own happiness: on the happiness of others, either individually or collectively; on the improvement of mankind, even on some art or favorite pursuit followed not as a means but as an ideal end. Aiming thus at something else, they find happiness by the way (Mill 1873, 109).

As pointed by Welch (2018, 14198) "utilitarianism has overtly triumphed in only one area of what was once termed the moral sciences, namely, economics". We will not follow the development of utilitarianism in all its different expressions, neither in general as an ethical theory nor its influence in economics, but we want to point out that both in the utilitarian (Bentham, Mill) and non-utilitarian tradition the end of economics was "happiness", not utility.

The difference between the two concepts, "happiness" and "utility", has been lost in the subsequent developments of economic theory and the shift has rarely been thematised in its philosophical implications. Among the few economists that have paid attention to this shift there is Georgescu-Roegen, who has noticed that "its meaning has shifted continuously" (Georgescu-Roegen 1968, 236), while at the same time playing an essential role in shedding light on the crucial problem of value. The initial meaning was what we can define as an "instrumental" one: usefulness. For Galiani, utility was the "capacity of a thing to procure us felicity" (ibid,) and for Bentham it was the "property of an object, whereby it tends to produce benefit, advantage, pleasure, good and happiness" (ibid.). However, Bentham was ambiguous as pointed out by Gheorgescu-Roegen, in his use of the term, because he also spoke of the "principle of utility" consisting in organising "society so as to achieve 'the greatest happiness of the greatest number" (ibid.). The same point is investigated by Broome (1991) who, departing from Georgescu-Roegen, considers that Bentham's "principle of utility" is the "principle that actions are to be judged by their usefulness in this sense: their tendency to produce benefit, pleasure, good or happiness" (Broome 1991, 1). According to Broome, Mill's use of the term "utility" does not make it a synonymous with happiness, though some passages may seem ambiguous.

Despite Jevons's acceptance of Benthamism in his Theory of Political economy, it is with Jevons, as noticed by both Georgescu-Roegen and Broome, that utility undergoes a radical shift. It no longer represents the tendency of a good or object towards the achievement of happiness, but it refers to the "good an object produces" (Broome 1991, 2). Thus, utility became synonymous with "good". While in Jevons and Marshall, the term could still be interpreted in the "usefulness" sense, with Edgeworth's work (1881) the new "utility-as-good" sense became dominant, in particular when he refers to the task of the unionist consisting in increasing the "labourer's utility" (Edgeworth 1881, 45).

This is the crucial point: the two meanings of utility are very different and they unveil two different approaches to the underlying ethical stance. In the first or "old" view, *utility is a means to an end*, i.e., *happiness*; in the second or "new" view, *utility is the end itself*. The modern approach further develops the latter, by eliminating any relation to happiness or pleasure as an "end" of the economic activity. More formally, we can state that the "old" view maintains that if the bundle x is more useful than bundle y to the attainment of an end z, e.g., happiness, then a (rational) consumer will prefer x over y: $u(x) > u(y) \rightarrow x > y$. Instead, according to the "new" view, preference and utility are interchangeable concepts, thus: u(x) > $u(y) \leftrightarrow x > y$, but this also means that "utility" is no longer seen as instrumental to an end, but an end in itself.

We think that both approaches deserve a closer scrutiny, because on the notion of utility the entire edifice of modern economics rests, as we have seen in the previous sections. By breaking the means-ends relationship, however, the perspective with which goods are considered and, more generally, how the scope of economic activity is viewed change radically.

With Pareto first and Hicks later, this shift is even more evident and becomes definitive marking the path of modern economics as it is known and taught nowadays. It has already been noticed by many that rationality in economics has been reduced to instrumental rationality (see Gaus 2008, among many) but it is less well-known what the end of this instrument is. According to the classical economists, it was "happiness" that represented the scope of economic activity. However, the way in which the concept of happiness was defined varied considerably among economists and moral philosophers, in particular utilitarian philosophers who influenced enormously economics in the XIX century. By some of them, happiness was identified with pleasure, by others with satisfaction, wealth, well-being, altruistic sentiments etc. Not necessarily they held a hedonistic view of happiness, in fact Mill criticised Bentham on this point, but they thought that happiness could be reduced to a mental or psychological state, and they thought that it could be measured.

This evolution of the concept of utility has been further defined and perfected in modern economics, where utility stays for the "structure of preferences". As pointed out in a modern mathematical treatment of the subject "a utility function is a summary of some aspects of a given individual's tastes, or preferences, regarding the consumption of various bundles of goods" Silberberg and Suen 2001, 254). At the beginning, the early marginalists interpreted the utility function as providing a cardinal measure of satisfaction, or utility, with Pareto and Hicks, however, "the concept of utility as a *cardinal* measure of some inner level of satisfaction was discarded. More importantly, though, economists, particularly Pareto, became aware that no refutable implications of cardinality were derivable that were not also derivable from the concept of utility as a strictly *ordinal* index of preferences" (ibid.). Thus, the concept of utility in the modern usage is tantamount to individual's ranking of alternative bundles.

This approach – and this is a point that we would like to highlight since it plays a crucial role in the development of economic theory – is silent as to *why* and *for what aim/end individuals are ranking bundles*. The underlying assumption is that individuals carry with themselves a set of behavioural connotations (tastes, preferences) which need not be further investigated.

This has been seen by many as an advancement, from a scientific point of view, in that it was devoid of any psychological or ethical connotations. For example, Irving Fisher in discussing some possible substitutes for the concept of utility said that a word as "desirability" would not be appropriate because it would carry with it the same "ethical connotation" (Fisher 1918, 336) as utility. The same was true of Robbins and Hicks. The latter for example said:

If one is a utilitarian in philosophy, one has a perfect right to be a utilitarian in one's economics. But if one is not (and few people are utilitarians nowadays), one also has the right to an economics free of utilitarian assumptions. [...] The quantitative concept of utility is not necessary in order to explain market phenomena. Therefore, on the principle of Occam's razor, it is better to do without it. For it is not, in practice, a matter of

indifference if a theory contains unnecessary entities. Such entities are irrelevant to the problem in hand, and their presence is likely to obscure the vision (Hicks 1946, 18)

From these quotes, it is evident that the new generation of economists, from Pareto to Hicks, wanted to rescind any reference to the scope of human action, that is, the ethical dimension of human behaviour. Instead, the behavioural connotations of human beings are assumed as given, but then, even if formally it is possible to prove that the two problems are equivalent, in the modern approach the choice of the optimal bundles is assumed away. When they make a choice and select a bundle, individuals are optimising, given their subjective preferences and the available resources. Individual's choice is self-explaining, it no longer rests on aim or scope that would legitimate it.

As Samuelson said in his famous Foundations of Economic Analysis:

The concept of utility may be said to have been undergoing throughout its entire history a purging out of objectionable and sometimes unnecessary connotations. The result has been a much less objectionable doctrine but also a less interesting one (Samuelson 1947, 90).

In addition to this remark, Samuelson also pointed at the circular nature of the modern interpretation of the concept of utility:

Thus, the consumer's market behavior is explained in terms of preferences, which are in turn defined only by behavior. The result can very easily be circular, and in many formulations undoubtedly is. Often nothing more is stated than the conclusion that people behave as they behave, a theorem which has no empirical implications, since it contains no hypothesis and is consistent with all conceivable behavior, while refutable by none (Samuelson 1947, 91-92).

It is true that Samuelson argues that the theory is not meaningless in that it is a hypothesis that places some testable "restrictions" on the demand function, which "could be refuted or verified under ideal observational conditions" (ibid.), but leaving aside some considerations that relate to the general philosophy of science which with Popper has questioned the criterion of verification and then with the Duhem-Quine Thesis has questioned that of falsification, the problem of circularity remains if the theory is used to explain consumers' choices. In order to choose a bundle, x, over another, y, the consumer is assumed to prefer x over y. Thus, no explanation is provided, nor is it needed in this framework for why x is chosen over y.

Joan Robinson also famously accused "utility", as used in the neoclassical theory, of being circular, following a line of argument which is not far from that advanced by Samuelson, despite the differences between these two economists with regard to utility theory and neoclassical economics in general:

Utility is a metaphysical concept of impregnable circularity; utility is the quality in commodities that make individuals want to buy them, and the fact that individuals want to buy commodities shows that they have utility (Robinson 1962, 48)

but as noticed by Hodgson (2019, 28) she did not go much further in explaining this circularity.

We think that the problem with the concept of utility, in its modern usage, is not that it is "metaphysical", but that it is exactly the opposite, i.e., dogmatic, since a dogmatic, reductionist conception of human being is assumed, and never questioned (i.e., not legitimated from a philosophical point of view).

In the next section we aim to show that a form of reductionism is present in both approaches to the concept of utility, the "old" and the "new", but in a different degree, i.e., moderate and radical.

5. The "old" concept of utility and the loss of the alethic dimension: a moderate reductionism.

The classical approach can be considered as a non-radical form of reductionism, indeed it preserves a teleological or intentional conception of human action. Human action is purposeful, it transcends itself aspiring to an aim or end, which is identified with "happiness". However, it does not sufficiently thematise, from a philosophical point of view, some economic categories as "end", "happiness", "utility", but it preserves the human actor as a conscious subject, who acts purposefully.

The "end" is identified in turn with pleasure, satisfaction, wealth, i.e., with some psychological or physiological aspects, which represent the scope of action. Its reductionism consists precisely in reducing the end to a determinate and measurable object. The end is no longer seen as that which enlivens the search, orientates and evokes it, but as a specific object to be attained, and because of this it can also be measured.

However, if the end is reduced to an object, since it is seen differently by any scholar, but also by any human being, there is a multiplicity of interpretations of the end. This conflict has led first to discussions and debates among philosophers from a hedonistic approach to a sentimental to a romantic and idealist one, but eventually it has led to abandon the search for the "good" as the end and to pretend that economics could do without these "metaphysical" questions. Hence the shift in the notion of "utility" which from means (instrumental value) has been transformed into the end. The "new" approach, instead, need only assume, as we have seen, a behaviourist conception of the mind, with the subject's consciousness replaced by an automaton, endowed from the start with some tastes and preferences whose only aim is to rank pairs of alternative bundles of goods.

The reductionism of the "classical" view is an expression of a deeper reductionism that has replaced truth with a specific concept of the end or with the "useful" *forgetting the theoretical philosophical dimension of ethics*. Only the latter can question whether that which is considered "useful" is *truly* useful and how the end should be thought, without reducing it to a given, i.e., a determination, This lack of an alethic dimension has led to inevitable conflicts between different viewpoints and eventually the abandonment of the teleological perspective, which instead is essential to a comprehension of human action.

Though grounded in some specific ethical schools (utilitarianism, virtue ethics, hedonism) the prevailing conceptions of happiness, which are at the basis of the "old" conception of utility, assume that ethics does not need a theoretical foundation. Indeed, what is missing in both is the *alethic* dimension, that is, their legitimation in terms of truth. This is so because the different conceptualisations of the concept of happiness are presupposed but not legitimated as assumptions (i.e., they are just assumed, not legitimated). Why the end

(happiness, "eudaimonia") should coincide with pleasure? Why with benevolence? Why with satisfaction?

This approach has taken a dogmatic stance towards truth since it has hypostatised truth and transformed it into a set of definite statements, forgetting that truth can never be determined, for only truth can determine itself (indeed, whatever determination of truth one is proposing, one could always ask whether it is a "true" determination). Instead, we maintain that *truth as an ideal* cannot be taken out of the search, because there is no search without the truth of that which is searched for: if one is not searching for the truth of that which is investigated, one is not searching at all.

Thus, ethics needs to be grounded on an *intention of truth*, i.e., on a theoretical intention. But this requires that an ethical investigation must be grounded on a reflective and critical thought that is the only one capable of grasping the limits of premises and assumptions, for only this reflective thought is enlightened by the awareness that assumptions – precisely because they are assumed, not legitimated – are never authentic truths.

However, when we refer to the *intention of truth*, truth is not understood as *regulative ideal*, which binds the search and indicates what the end is, nor are we referring to a pretended "revealed" truth be it by religion or science, but as a *constitutive ideal*, that is immanent to the search, orientating and evoking it, and that cannot be eliminated without eliminating the search itself. Search only "lives" within this search for truth, but the latter cannot be defined without denying the truth and, as a consequence, search itself.

In the *Proemium* to the *Protrepticus*, Aristotle after telling Themison that "no one had greater advantages for becoming a philosopher; he had great wealth so that he could afford to spend money on philosophy, and had reputation as well" (Aristotle 1952, Fr. 1, 27), later adds: "seeing the misfortune of these men [i.e., those who follow the material wealth], we ought to avoid it and to consider that happiness depends not on having many possessions but on the condition of the soul. [...] if the soul has been disciplined such a man and such a soul is to be called happy, not a man splendidly decked with outer things but himself worthless" (Aristotle 1952, Fr. 3, 29, italics added). The relationship between philosophy and happiness ("eudaimonia") plays a central role in this and other Aristotelian works. While there might seem to be a contradiction between these two statements, we think that Aristotle is perfectly consistent since while he praises the material wealth if it is an instrument to devoting oneself to philosophy, he does not confuse these material objects with happiness (eudaimonia) which is not an extrinsic condition, which can be useful, to begin a search for truth, but an *intrinsic* or structural condition of the soul in search for truth. The soul is truly happy only to the extent that is entirely devoted to the search for truth, "de-absolutising" the specific objects that are considered as the aim of the search.

To determine what happiness is, one cannot do without reflective and critical thought, i.e., the subject's consciousness. The latter, indeed, is not only knowing, but also a self-awareness of knowing and knowing what knowing is. This means that only by virtue of consciousness it is possible to know that which happiness is, and also to know what is "useful" towards that end.

If the transcendental subjectivity, in all its richness as the subject's self-consciousness, is limited to its empirical dimension, which misses the reflective and critical side of the

transcendental consciousness, then a conflict between the arbitrariness of the different proposed ends arises. The "new" concept of utility has thought to dismiss this search altogether and replace the dogmatism of the end with an even more dogmatic philosophical approach which hypostatises human being's behavioural traits.

Instead, only a transcendental conception, centred around the grounding value of consciousness, can grasp the limits of the subject, in its finite constructions. Grasping the limits and limitedness of consciousness is the result of an *act of consciousness* that allows defining the relationship that exists between *identity* and *difference*. This act questions the specific ends that each time the subject purports to achieve and, in so doing, it transcends them and allows the dynamic activity of human beings.

6. The "new" concept of utility and the loss of the subject: towards a radical reductionism.

The "old" concept of utility has shown its underlying reductionism in reducing the end to a specific connotation of "happiness", still preserving, however, a teleological conception of human action, according to which the utility was "instrumental" to the end; the "new" conception of utility, instead, transforms the utility in the end of the economic activity, "utility" becomes a synonymous with satisfaction, wherefrom "utility maximisation" as a defining feature of the orthodox neoclassical approach.

In the modern approach to utility, the utility function represents the individual's preferences. When these preferences satisfy certain axioms, they can be represented as a utility function, The "function" of this utility function is to assign a certain numerical value to the individual's ranking of a pair of alternatives.

In this approach the human being is reduced to his behavioural traits, which are taken as given, and self-explanatory. This form of reductionism is more radical than the "old" conceptions, because the human being is no longer considered as in search for an "end". He is only applying his given "tastes" and "preferences". If the latter are mediated through consciousness, i.e., they are questioned and revised by the subject, then the same problem as that with the "old" approach arises; if, however, consciousness is excluded altogether from the ascription of specific tastes and preferences to the individual – as it seems to be the case in modern economics –, then preferences are to be considered as "inputs" that activate a process, i.e., software. This explains the development of and interest, in the last decades, for neuroeconomics, which is a natural consequence of the reductionist assumptions on human behaviour. In Neuroeconomics as in cognitive science the mind of the subject is reduced to its brain, which represents the most radical form of reductionism. In this approach, to understand decisions and actions, one must start from the structure of the brain and the connection among synapses.

It is no coincidence that the introduction of this new conception occurs at the same time in which behaviourism entered the philosophical discourse. As noticed by Kim: "Behaviorism arose early in the twentieth century as a doctrine on the nature and methodology of psychology, in reaction to what some psychologists took to be the subjective and unscientific character of introspectionist psychology" (Kim 2010, 60). And as a paradigmatic exemplification of the underlying philosophical approach, Kim quotes J. B. Watson "who is considered the founder of the behaviorist movement: 'Psychology . . . is a purely objective experimental branch of natural science. Its theoretical goal is the prediction and control of behavior" (ibid.).

The starting point of this method of investigation is clear: eliminating the study of the mind, with its aspirations, intentions, ends and replacing it with the study of what can be observed. On the other hand, also the scope is clear: devising a method that allows to control and predict human behaviour. If accomplished, this would be the surest mark of a scientific investigation, according to their supporters.

Behaviourism is thus perfectly aligned with a form of radical naturalism, according to which reality coincides with and is resolved entirely in the universe of perceptions and sensations. In the specific way in which it has entered economics, through the "utility function" and the HO model, the image of man is that of a processor of information, as an artificial intelligence or a robot. The human being is endowed with specific inputs (tastes and preferences) and a specific processing program (utility maximisation which is tantamount to selecting the preferred bundle) which produces an output (the "revealed" choice).

Classical cognitivism in philosophy of mind has borrowed its framework from Computer Sciences equating the mind to the software of a computer and the brain to the hardware. As it happens in computer science, thanks to the principle of "multiple implementation", according to which the same software can be implemented in multiple hardwares, so it happens with the "Max U" and "representative agent" approach, adopted by economists.

Even when the role of mind is rediscovered by classical cognitivism as Putnam (1975) and others who develop some versions of functional computationalism, the focus is on the role played by internal variables (i.e., cognitive processes) to produce responses to external stimuli. However, mental processes are interpreted as computational processes, that is, procedures that are implemented in accordance with some rules, thus mechanical procedures. Therefore, subjectivity, understood as a conscious self, is reduced to the mechanical processes only. This reduction was later fully accomplished in the model of materialistic monism, adopted by cognitive neurosciences. As a consequence, the functionalist reductionism of the classical or "symbolic" cognitive model was replaced by the materialistic reductionism which has reduced the mind entirely to the biological structure of the brain.

Thus, though, at the beginning, the marginalist revolution and the neoclassical school claimed that the individual was acquiring a central position in their methodological and epistemological construction of economics, especially with regard to value determination, by getting rid of the authentic subjective moment and assuming individuals as endowed with given preferences, they have opened the door to the *elimination of the subject from economic analysis*. The self, with its consciousness and willingness, is progressively eliminated and reductionism has become more and more radical. But its seed was present since the start, when the subject was reduced to an object with given inputs (preferences and tastes).

When the enhancement of subjectivity is reduced to the enhancement of given mechanisms, instincts, impulses, unconscious desires etc., the authentic subjectivity of consciousness (i.e., self-consciousness) is missed and cannot emerge. That which emerges is

the affective subconscious (impulses and desires), which are studied by psychoanalysis, or the cognitive subconscious, understood as mechanisms of information processing, which are studied by cognitive psychology and, more recently, cognitive neurosciences.

However, this subjectivity is a *pseudo-subjectivity*, since it is the subjectivity of the automaton, *not the subjectivity of consciousness*, which is grounded on the Socratic awareness of the "knowing of not knowing" and crosses the history of philosophy from Augustine to Descartes, Kant, Hegel and Husserl. Indeed, the pseudo-subjectivity of modern individualism while pretending to explain "value" starting from individual's preferences misses the most essential element of the subject: its *self-awareness*. The subject no longer chooses a good because it is aware (i.e., is conscious) of a preference, but on the basis of biological, physical, genetic conditionings, which determine its choice. Thus, the economist, in this new version of the concept of utility, is no longer dealing with a subjectivity in act (i.e., the "act of consciousness"), but with subjective states, which can never be translated into or converge towards the authentic subjectivity. This is a mechanical view of subjectivity, which by objectifying the subject, denies it (as subject).

According to philosophical naturalism, reality is composed by a unique type of entities, those investigated by physics. Nonetheless this is an assumption, which is not questioned by the approach itself, and if it would be questioned – as it should be in a truly philosophical inquiry –, it would be disproved by the critical analysis which posits the object of thought on a different plan with respect to the act of consciousness, which reflects on it.

However, when the mind is investigated with the same methods that are used in natural sciences, then the naturalisation of the *method*, inevitably leads to the naturalisation of the *object* of investigation, and eventually to the naturalisation of the subject of investigation. But *objectifying the subject* is a contradiction in that it *denies the essence of the subjectivity*. This a paradoxical result for a school of thought (marginalism) that claimed to place the subject at the centre of economic analysis.

7. The Act of Consciousness and the Transcendental Foundation³.

If subjectivity is to be preserved in its authentic dimension, then the transcendental subject, and its *act of consciousness*, must be grasped in its condition of intelligibility (i.e., "transcendental" condition) of the relationship between the empirical subject and the object. The reflective property of thought is its capability to "turn back on itself", recognising itself in the various determinations that are produced by thought.

The characteristic of thought is that it can recognise its thoughts (*noemata*) because it can recognise itself as thinking (*noesis*) and it is by virtue of this reflective function that the thought can recognise itself in the objects of thought. This is a peculiar feature of thought:

³ We have further elaborated on this theme, with regard to the concept of "responsibility" in economics, in Ianulardo, Stella, De Angelis (2022).

indeed, thought is not immediately identical with itself, but its identity is mediated through the difference (i.e., the object of thought), which is accepted by thought as an essential moment for its constitution. Thanks to this reflective property, thought appears not as a static unity, but as a dynamic and active unity.

The act of thought objectivises itself in some specific configurations, which differ from the act itself, as their subject. Thus, *difference* is essential to the constitution of thought. It is thus essential to correctly understand the *act of consciousness*, because on one hand it seems to be a consequence of the process of differentiation, i.e., its relationship to the difference, on the other hand instead, it seems to be a precondition of it.

Thought requires language and discourse to be expressed in a determined way, but on the other hand, the act of thought, i.e., the transcendental self-awareness, is not a consequence of the process of differentiation but the unconditioned condition that grounds it. This act of thought (or, act of consciousness) expresses the property of thought of being self-conscious, its self-awareness. Without this self-consciousness, nothing could be present to the thought since it could not recognise it as its own thought.

We are thus distinguishing a *formal* level, which takes place when consciousness expresses itself through discourse, language, and dialogue, from a *transcendental* dimension, the "act of thought", which overcomes its formal expression, since it represents its condition. The act of thought is the act by which consciousness grasps the limit of a determined being, and in so doing, it transcends it. In this sense, it is unconditioned, because it does not require the determined being, but grasps the limit of the latter, and more precisely, it represents the act by which the determined thought transcends itself.

When we say that the determined being transcends itself, all that we mean is that the determined being recognises that it requires that which is other from it (i.e., the difference) and thus it is tied to it (i.e., it is conditioned, determined, by something else). On the other hand, the act of consciousness, in its transcendental sense, grasps the limit of the finite being and its relative existence.

The act of thought that emerges beyond the objectivised forms of thought and allows grasping their limit, as determined forms, is what we have called the *act of consciousness* (or, act of thought). This act not only grasps the relativity of the various forms, and in doing so it transcends them, but this transcendence beyond its determinations (i.e., beyond itself as empirical consciousness) characterises it as reflective thought.

8. Conclusion: renewing economics through a teleological transcendental ethics.

In his famous Presidential Address to the Southern Economic Association, significatively titled "What should economists do?", Buchanan, claiming that economics should not deal with the "logic of choice" and should replace it with the study of human interactions ("catallactics"), had pointed to an inherent paradox:

If the utility function of the choosing agent is fully defined in advance, choice becomes purely mechanical. No "decision," as such, is required; there is no weighing of alternatives. On the other hand, if the utility function is not wholly defined, choice becomes real, and decisions become unpredictable mental events. If I know what I want, a computer can make all of my choices for me. If I do not know what I want, no possible computer can derive my utility function since it does not really exist. But the distinction to be drawn here is surely that about the knowledge of the utility function (Buchanan 1964, 216-217).

The analysis of the behaviouristic reductionism inherent to the "Max U" approach points in the same direction highlighted by Buchanan, but there is further paradox which is not highlighted in Buchanan's article, which is the fact that while the marginalist revolution has tried to recover the role of the subject in the determination of the exchange value, prices, equilibrium and other economic categories, it has lost the *authentic subjectivity*, which plays no role in the economic process. Man is reduced to an automaton with no end and no thought, endowed with "inputs" (tastes and preferences) that are applied and "revealed" in the decision taken by the individuals.

It is only if the economic analysis can go back to the fruitful exchange and crossfertilisation with the philosophical tradition, which marked its origins with Hume and Smith, but also Menger and Wicksteed, that economic analysis can recover its mission of understanding human action (and interaction) in its richness. Philosophy, here, is not understood, however, as a justification of practices and methodologies of economists, but in its authentic *transcendental* dimension, which allows the subject to question any determination, and ultimately itself, as an empirical consciousness.

On the other hand, if economic science (and its academic teaching which prepares future scholars and practitioners) is understood in the light of a philosophical theoretical perspective, it is possible to articulate its ethical dimension through the various forms of "good" or "welfare" that it aims to achieve, moving from the *transcendental* idea of the *true* good. It is worth stressing that this idea is not defined *intensionally* (i.e., in terms of the properties that connotate it), but only *extensionally* (i.e., in terms of the elements that instantiate it). Nonetheless, it is only from the idea of "true welfare" (or "true wellbeing") that it is possible to determine the manifold forms according to which the idea of the good finds its expression.

This perspective allows to recover the various *goals* (gr. *Skopoi*) that economic agents try to achieve (individual, social, general welfare), but by carefully distinguishing these goals from the *end* (gr. *Telos*) that enlivens *intentionally* the research. This *end* is that universal good – and not the general good –, which can never be determined once and for all, but that serves as an *immanent ideal* of inquiry (search), which each time determines the specific forms of welfare (individual, social, general).

This *tension towards the ideal*, by making the ideal immanent (i.e., present) in the research, is precisely what is missing in the utilitarian approach and that leads the latter to the reductionism discussed previously.

In view of the implications for teaching ethics to economists, we think – as we hope to have shown in the preceding sections – that the beneficial role of philosophical ethics to economics, understood as the science of human action, cannot consist in a series of normative rules to be integrated as an aside to economics textbooks or as a mere set of ungrounded (since they are not justified within those textbooks) moral demands which are treated in specific chapters with no interaction with the basic postulates of the economic theory, as it happens

sometimes with topics as equality (usually limited to its distributive economic dimension), sustainability (usually limited to its environmental dimension), diversity (usually limited to its gender or ethnic dimension) etc.

Indeed, if the very ground starting from which the construction of economic theory is built rests upon a specific reductionist anthropological conception, then the integration of those aspects, which per se are welcome, will be investigated along the lines and using the tools of the standard economic model, i.e., "Max U", they will suffer from the same weaknesses as the general approach. Worse, each of these specific ethical issues will be studied only until and to the extent that in a specific time they are "fashionable". We think, instead, that philosophical ethics can and should be studied for its unique capacity to question the ungrounded assumptions of economic theory, starting from its "utility maximisation" assumption. It is not simply that the latter should be rejected and replaced with another set of unjustified assumptions, but it must be shown why it is untenable from a philosophical point of view. Its inherent weakness consists in the concept of "utility" that is being maximised subject to constraints and this, in turn, depends on the neglect of subjectivity. The subject cannot be reduced to an automaton with given behavioural traits, but only as a subject in search for its self-fulfilment and selfdetermination. This is the *transcendence of man* in a continuous tension towards the *ideal*, that each time finds its realisation in specific achievements and goals, which are then constantly challenged and revised by the reflective consciousness, precisely because they never meet the ideal that is always searched for.

Some recent trends seem to be moving in this direction as the Humanomics approach (see Smith and Wilson (2019) and McCloskey (2016)), Phelps' Mass Flourishing (2013), Bruni and Zamagni's Civil Economy (2016) approach, and others could be added that have pointed at the undelayable need to look at the economic agent as a human being in all its integrality. Crespo (2017) provides an accurate and critical account of some current trends in economics where some future developments are highlighted. Crespo shows that in various domains of economics a philosophical perspectives can be fruitfully integrated and add value to economic theory: the concept of rationality (no longer confined to instrumental rationality), the different concepts of happiness (no longer limited to a status but interpreted a telos, as in the Aristotelian Eudaimonia), the civil economy tradition, where the market is no longer seen as "an instrumental tool but also as a practice with inherent value" (Crespo 2017, 168). What seems to emerge as a unifying theme of these recent perspectives, according to Crespo – though he also points at various ambiguities in the different approaches – is that economics must resort to "practical" rationality, "which is the use of reason to discover and decide the ends of human action" (ibid., 169), but in order to achieve this economic currents must "be 'stripped' from the predominant materialist orientation" (ibid.). As we indicated in the previous sections, we think that it was precisely the replacement, at the centre of economic analysis, of subjectivity (that is always in search for human ends) with a predefined given automaton, with a set of given preferences, that had led economics to miss the authentic human being that it wanted to investigate in its dynamicity.

Still we think that the full contribution of these and similar approaches can best be appreciated only if the *dynamic* nature of the reality of the subject replaces the *static* behaviourist anthropology that underlies the current mainstream economic theory. Any attempt to build a more humane economics that accepts these assumptions is doomed to fail in integrating the human being in all its fullness. On the other hand, any attempt to build an

economic theory that neglects the dynamic nature of subjectivity is missing the defining cipher of the subject matter of economics.

In conclusion, by criticising the reductionism that permeates the different concepts of utility that substantiate modern economics and proposing a teleological ethical perspective that is alternative to the dominant utilitarian perspective, we aim to start a fruitful interdisciplinary dialogue in which economics, philosophy and teleological ethics enrich each other. However, when we refer to the teleological ethics we intend it not in the sense of a *dogmatic teleological ethics*, that pretends to determine the end (i.e., the true good) to achieve, but as an awareness of the necessity of a *transcendental teleological ethics*, that emerges as a determining condition, but never definitely determined. It is precisely by virtue of this transcendental ethics, centred around the grounding role of subjectivity (self-consciousness), that it is possible to grasp the limit of the specific characterisation of the manifold ideas of welfare (or well-being) that serve as the referents of the corresponding economic conceptions.

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