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Carl Menger and the Second edition of his *Principles*

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Comments and suggestions are welcome

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This paper deals with the contents of the second edition of Carl Menger's *Principles of Economics*. Its aim is to show what is new in this edition, that was published 52 years after the first one, posthumously, in 1923 (two years after his death). A secondary aim of this paper is to insert this second edition in the very recent debate on the possible connections between complexity theory and Austrian school (Rosser 2010 and Koppl 2010). This paper is mainly based on my recent work at Carl Menger's archive, held in Duke University. Carl Menger papers contain notes and drafts Menger wrote for the second editions of his *Principles*, that was edited by his son, the mathematician Karl Menger (from now on Karl), who wrote an introduction as well. He explained that his father had long intended to revise and extend the first edition (1871), above all after his retirement at the beginning of the century.

The misfortune of the second edition of Carl Menger's *Principles* (1923)

The second edition of Carl Menger's *Principles* was never re-published in German, nor translated into English. During the early 1930s, Hayek edited Menger's *Collected*

Works (in German) and wrote a well known introduction to Menger's thought that was published in *Economica* (Hayek 1934). In this essay, Hayek mentioned the second edition and overtly claimed the uselessness of its re-publication because there was nothing new in it; and most importantly, the draft material was too fragmentary and in awful disorder. Hayek wrote: "an inspection of his manuscript has shown that, at one time, considerable parts of the work must have been ready for publication. But even after his powers had begun to fail he continued to revise and rearrange the manuscripts to such an extent that any attempt to reconstruct this would be a very difficult, if not an impossible task. Some of the material dealing with the subject-matter of the *Grundsätze* and partly intended for a new edition of this work, has been incorporated by his son in a second edition of this work, published in 1923. Much more, however, remains in the form of voluminous but fragmentary and disordered manuscripts, which only the prolonged and patient efforts of a very skilful editor could make accessible. For the present, at any rate, the results of the work of Menger's later years must be regarded as lost" (Hayek 1934, 415-16).

In 1937, Stigler wrote a paper on the legacy of Carl Menger: in this article he mentioned the existence of a second edition of his *Principles* but clearly stated to steer clear of it, without any further explanation (Stigler 1937, 230). In 1950 the first English translation of Menger's *Principles* was published. The translators wrote: "The translation presented here is a complete rendering of the first edition of the *Grundsätze* which was published in Vienna in 1871. A second German edition was published in Vienna in 1923, two years after Menger's death. We rejected the possibility of a *variorum* translation because it was the first edition only that

influenced the development of economic doctrine, because of the posthumous character of the second edition, and because the numerous differences between the two editions make a *variorum* translation impractical” (Dingwall and Hoselitz 1950, 39). Frank Knight, who wrote the introduction to that English, never mentioned Menger’s second edition (Knight 1950). The followers of the Austrian school were aware of the misfortune of the second edition of *Principles*, and Hayek’s point of view was never questioned.

Some remarks, before going on:

1. Menger papers at Duke include the personal archive of Carl and Karl Menger. Both Menger’s archives arrived in Duke in 1988, as a donation from Eve Menger (Karl’s daughter), and a first inventory of its content was published in 1990 (Barnett, 1990). The first scholar who studied the relationship between Carl Menger’s archive and the making of his *Principles* was Yagi (Yagi,1993), who described the genesis of Menger’s first edition (1871); Yagi also reminded that Karl edited the second edition and that he strongly wished to write a biography of his father (mainly based on his private notes, diaries and correspondence)¹.
2. The drafts of the second edition of Menger’s *Principles* are held in boxes 5-13 (the total number of boxes in Carl’s archive is 26). Boxes 5, 6 and 7 hold the drafts of the new parts of the second edition: chapter I (1903-1907) and chapter IV (1906-1907).

¹ As we know, Karl never wrote this biography; he worked a lot on his own autobiography, partly published in a volume on the Vienna Circle Collection (Menger 1994) and now assembled in a more recent publication (Menger 2009).

3. According to Karl, his father did not change the general meaning of his previous book, but he made some minor adjustments to the central and final chapters (on value, exchange, price and money). Nevertheless, as Karl himself recalled, Chapter I (on human needs), the first paragraph of Chapter IV (on the nature of economy), and the third paragraph of Chapter IV (on the two basic directions of the human economy) were totally new. As new chapters were added, the 1923 edition is composed as following: Chapter I is new; Chapter II (1923) is the former Chapter I (“The General Theory of the Good”); Chapter III (1923) is the first half of the former Chapter II (“The Origin of Human Economy and Economic Goods”) and Chapter IV (with two new paragraphs) is the second half of the former Chapter II; Chapter V (1923) is the former Chapter III (“On value” 1871) and so on: from Chapter V on, there is a shift of two chapters from the first edition, and new parts were added as well.
4. Two reviews of Menger 1923 edition appeared: by Mises (1923) and by Weisz (1924, cit. in Hayek 1934 and Kirzner 1978. The second edition was soon dismissed by the followers of Menger’s thought (and by historian of economics in general) mainly because of Hayek’ rejection to re-publish it in 1934 and the following rejection to translate it in 1950. In 1971, Karl Polanyi raised the problem of the missing translation of Menger’s second edition, and he strongly criticized Hayek and Knight (Polanyi 1971). Polanyi read the German edition when it was published (at that time Polanyi lived in Vienna and worked as a journalist, attending Mises’ private seminars). As we’ll see, Polanyi focused his

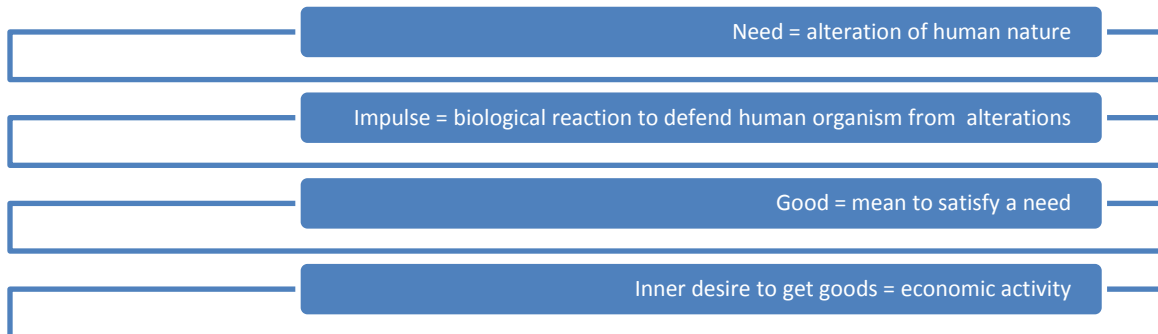
attention only on Chapter IV (“the two basic directions of the human economy”), without any mention to Chapter I.

On Human Needs (the new Chapter I)

In his introduction, Karl explained that his father was not satisfied by his theory of goods he had expressed in the first edition of his *Principles* (Chapter I): the nature of goods, the causal connections among them as well as the laws governing goods-character should be rooted in a more deep background, based on the psychological and physiological study of the nature of human needs. Hence, after his retirement, Menger started to study biology and psychology (as his notebooks testify) mainly in a perspective focused on the consequences of biological alterations on psychological impulses and vice versa. He exposed his results in a new chapter on human needs to be added in the second edition of his *Principles*. As Menger wrote in his notes, this new chapter was thought to come before the chapter on goods, because the nature of goods cannot be wholly understood without a deeper understanding of the nature of human needs. Menger described economics as a sort of genetic-environmental interaction between individuals and their environment, and seemed to consider economic behavior as a kind of adaptive contingent response to environmental variations.

In the *incipit* of the chapter, Menger underlined that human needs theory represents the passage from biology to moral sciences, and economics in particular: ‘human needs are the starting point of any economic inquiry and the fundamental cause of

economics'. He defined a human need as an 'biological alteration of the human nature as a consequence of external *stimuli*'; this biological alteration requires a cultural response. Some needs reach the 'brain and neuron-system' and upset the mental state of equilibrium; when it happens, an unconscious *impulse* tends to restore normality. Impulses are independent from the *knowledge* of the *means* for the satisfaction of needs; but senses, experience, habits, traditions enable human beings to know the means they need to satisfy a need. These means are goods. When a mean is known, an *inner desire* arises to get those goods which human beings need to.



According to Menger, impulses and desires are not sufficient to explain how to conserve life and to reach a state of well-being, because:

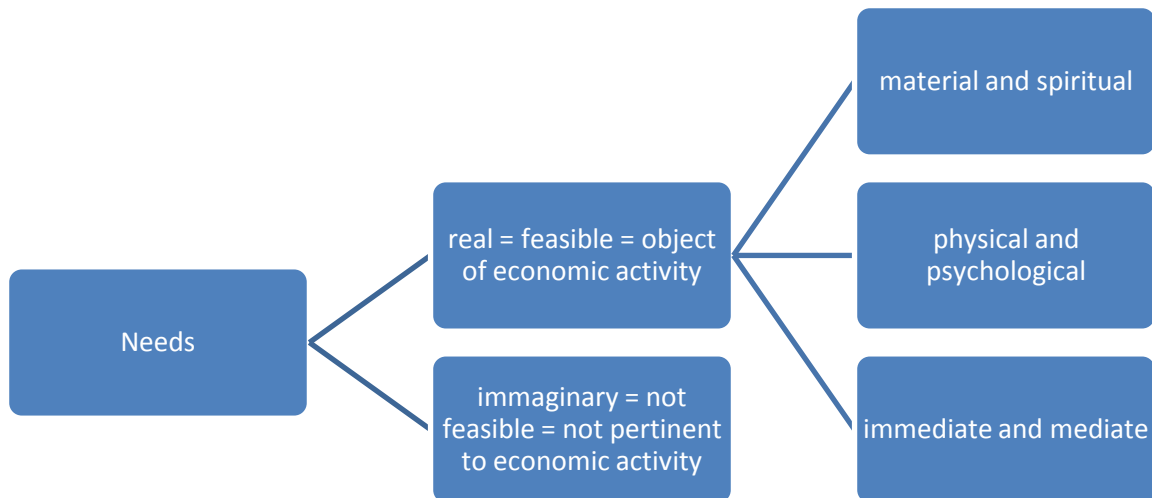
1. Impulses are often wrong about our need for conservation and development of our lives. For instance, there are false impulses not caused by real necessities but by a morbid excitement of the nervous system or deception of the senses.

2. Impulses are related to the present position of our state.
3. The satisfaction of impulses may produce new disturbances and upsets even greater than the ones just satisfied.
4. Normally, humans beings feel impulses and desires for means directly available rather than for those far to be reached.

Human economy is based on the knowledge of the nature of *needs, impulses* and *goods*: this knowledge is necessary for the conservation and harmonic development of the humanity as a whole. Human needs can be satisfied in two opposite ways: by realizing the conditions that they require or by their total or partial rejection, but the latter is not always possible. Human needs are not arbitrary because they depend on our nature and the actual situation, and they are independent from our will. They arise from our organism and from interactions between the external environment and our human nature. Needs can be *real* or *imaginary*. Imaginary needs result from an insufficient knowledge of human exigencies: the more complete is the knowledge of physical and psychological nature of human being, the easier is to get those goods able to satisfy human needs. Real needs can be material or spiritual: they are real if they are feasible. Human economy exclusively deals with real needs: the nature of a human need (real or imaginary) depends only on its feasibility, not on moral or juridical conditions (in this passage, Menger is clearly explained what later Weber called the “avalutativity”, - ‘Wertfreiheit’ – of economics).

According to Menger, there are the following kinds of needs: physical and psychological (and it is absolutely false that only physical needs are the subject of economics); egoistic and altruistic; immediate and mediate. This last distinction

between needs is the counterpart of the well known distinction between goods of different degrees: needs of first order are satisfied by goods of first order, which are immediately available.



According to Menger, many animals and human beings share a very similar mechanism of biological feedback between them and their environment. The role of environment is central in the well-being of humans and animals: in fact both can live in an environment in which quantitative and qualitative conditions have to be coordinated. Without this coordination, biological alterations of their nature occur and individuals start to need something. The analogy between human behavior and animal behavior can also be applied in a social context: humans and some other species of animals have similar social dynamics that enable a rational organization of social life.

Menger defined three different social groups (associations, institutions and states), and he claimed that human economy can be studied from different perspectives:

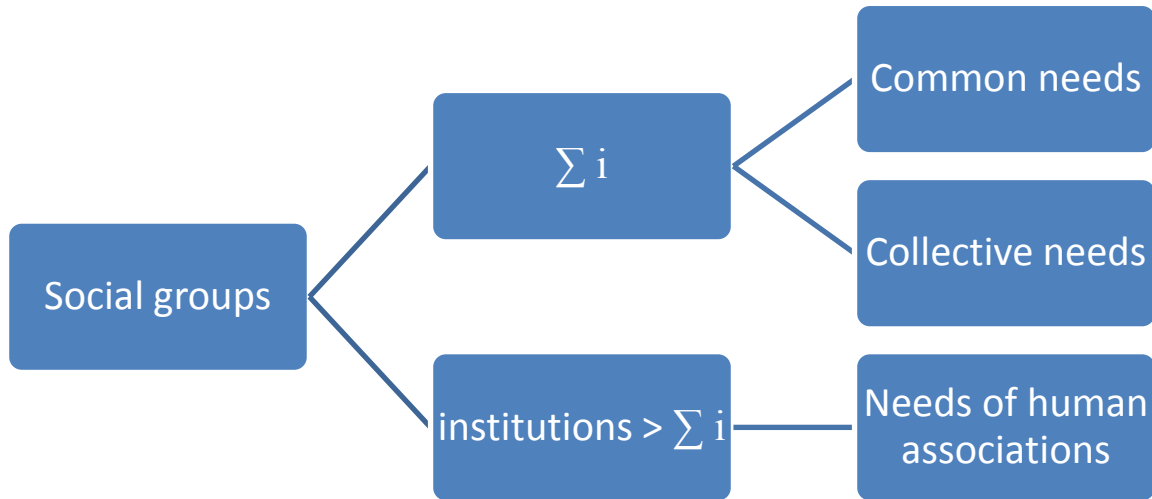
subjective (based on individual behavior), and collective (based on social groups behavior). The collective economy can be ‘national’ or ‘global’².

Menger claimed that an exact definition of social needs is fundamental. Social needs can be different from individual needs: sometimes a group can be simply reduced to the sum of its individual components, and in this case it is possible to apply the mechanisms of individual behavior to social dynamics; sometimes a group is more than the sum of its parts and the analogy between individual behavior and groups dynamics doesn’t work anymore.

Social goods are means to satisfy social needs. According to Menger, there are three kinds of social goods: ‘common goods’, ‘collective goods’ and ‘goods of associations’. When many individuals share the same need without any connection among them, their need is a common one and it requires a common good to be satisfied (for instance when people needs water and they use the same water-spring). Collective needs are different: they arise when people who share the same common need (transport facilities or schools) require a good able to satisfy any individual need and a delegate agency able to provide that good demanded by the community as a whole. This social group is composed by the sum of all individuals who share the same common need (from a methodological point of view, Menger is still maintaining his individualistic approach, or the well known ‘compositivism’).

² This passage from an individual perspective to a national (or collective) one was a common feature in the traditional German economic literature. Austrian scholars are accustomed to consider Menger a strong opponent to German political economy, but his notes in his papers and his reading show how strong was the influence of the German Old Historical School on him.

Finally Menger introduced the ‘needs of human associations’: common needs shared by individuals who are voluntary linked in a particular association (‘institution’), able to provide common goods required by the members of that association. As soon as institutions arise, they cease to be merely means to satisfy common needs: they acquire their own needs, and they are no longer the sum of single individuals but a whole that is more than the sum of its parts.



On the nature of economy and the two basic directions of human economy (the new Chapter IV)

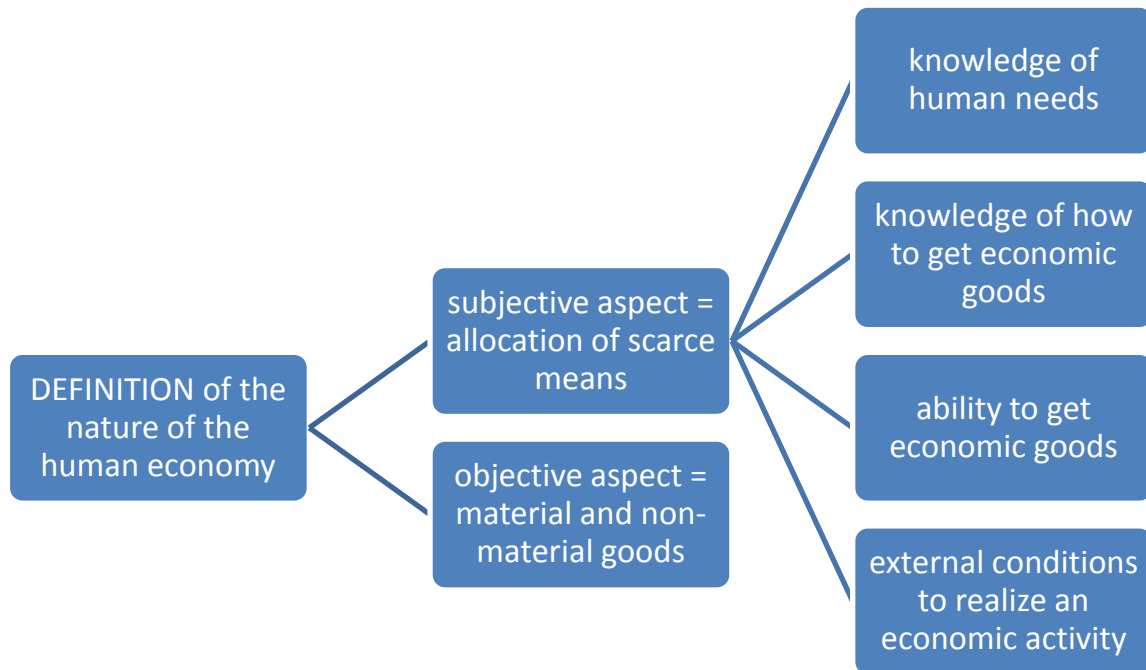
In the first paragraph of the new Chapter IV, Menger claimed that a missed satisfaction of a human need could bring pain and frustration to individuals; he also maintained that even an excess of satisfying human needs can have a bad effect on human well-being. Hence the proper economic behavior is a result of a *wise* ranking of needs, a proper knowledge of goods able to satisfy them and of their feasibility in

relation with the environment. The *aim* of any economic behavior is a sort of ‘harmonic satisfaction of needs’. The satisfaction of present needs is not yet an economic activity *strictu sensu*: according to Menger, a *real* economy (Menger emphasis) concerns with the satisfaction of future needs.

There are four conditions to satisfy human needs:

1. The knowledge of human needs;
2. The knowledge of the means for their satisfaction;
3. A strong determination to satisfy them;
4. ‘A natural environment or a juridical condition’ that enable individuals to realize their economic activities.

The relationship between scarce means and given ends is the *subjective* aspect of the human economy, but the definition of the *nature* of human economy is something more than that. The complete definition of human economy as a *real* phenomenon includes its *objective* aspect (the whole set of goods – material or not – of first or higher order).



Hence Menger distinguished between ‘economy’ and ‘economizing’: the former is the sum of the subjective and the objective aspects and the latter is just the subjective one (i.e. ‘any activity to achieve an aim’) and – he said - ‘it’s not a paradox to talk about an economizing economy and a non-economizing economy’.

The drafts of this part of Menger’s *Principles* show how complicated was its composition. Menger wrote many notes on the differences between the meaning of ‘economizing’ and ‘economy’ in other languages (English, French, Italian). The problem is that ‘economizing’ has two meanings: ‘engaged in economic activity’, in the sense of the allocation of means in a context of scarcity (in this case the proper German word is ‘wirtschaftend’³), and ‘engaged in saving resources for any future need’ (this meaning has nothing to do with the allocation of scarce means and the

³ In this context the German word for ‘economy’ should be ‘Wirtschaft’ (= the economy of a nation) that is different from ‘Wirtschaftswissenschaft’ (= economics as a science).

German term is ‘sparend’). Both meanings are parts of the general definition of ‘economy’ (‘Oekonomie’).

The double definition of the nature of human economy (the subjective one, based on the allocation of scarce means, and the objective one, based on the notion of the total amount of goods and labor), as well as the following semantic problem faced by Menger, were firstly pointed out by Karl Polanyi (Polanyi 1971)⁴. According to him, the objective meaning of human economy was not present in Menger’s first edition of his *Principles*, where he introduced just the subjective definition, and, for this reason, he was rightly recognized as one of the founders of the postulate of scarcity by his followers within and outside the Austrian school. Nevertheless, according to Polanyi, Menger himself considered the subjective definition of economy as partial, and he felt the urgency to find a more general meaning of economy⁵. Polanyi’s interpretation seems to be correct; but his perspective seems to be problematic quite a bit. Polanyi maintained that Menger wrote the paragraph of the two meanings of ‘economy’ in order to highlight the importance of its objective meaning, rather than its subjective one. This is not exact. Reading the new parts of the Chapter IV, it is exactly the contrary: Menger was complaining about the fact that the subjective aspect of the human economy was let in shadow and the objective aspect had always prevailed,

⁴ Polanyi expressed a sort of theory of conspiracy against the second edition of Menger’s *Principles*: “the reaction of economists [Hayek and Knight] was to assume that “poor old Menger had not understood his own theory. It was not necessary they felt, to bring in a more general theory in order to understand perfectly all economic activities [as] the price mechanism ... could explain everything” (Polanyi, 1971 21). His interpretation of Menger’s second edition of his *Principles* is very well known among scholars interested in Polanyi’s thought, but almost unknown among Austrian scholars.

⁵ This more complete meaning of the nature of human economy was expressed in the second edition of his *Principles*, where Menger introduced the *two* basic directions of economy: “only *one* of which was the economizing direction stemming from the insufficiency of means, while the other was the ‘techno-economic’ direction deriving from the requirements of production *regardless of the sufficiency or insufficiency of the means*” (Polanyi 1971, 18).

above all in the British Classic School from Smith to Ricardo. As Karl wrote in his introduction, the general meaning of his father's work didn't change in his second edition, but Polanyi rightly claimed that Menger considered the definition of economy he gave in his first edition as incomplete⁶.

After having given a more complete definition of human economy, Menger added a new paragraph (the third of Chapter IV), where he distinguished between two basic directions of human economy: the techno-economic and the economizing. The former can be applied to the subjective aspect of human economy, and it recalls the formal aspect of the logic of rational choice; the latter can be applied to the objective aspect of human economy, it concerns with the 'material' conditions of the human economic activity, and has a strong focus on the safeguard of natural resources of the environment.

The techno-economic basic direction of economy includes:

1. The knowledge of human needs
2. The knowledge of those goods that can be used in order to satisfy any future need
3. The knowledge of human requirement for goods of first and higher order
4. The proper (rational) allocation of available goods of any order to satisfy any future need.

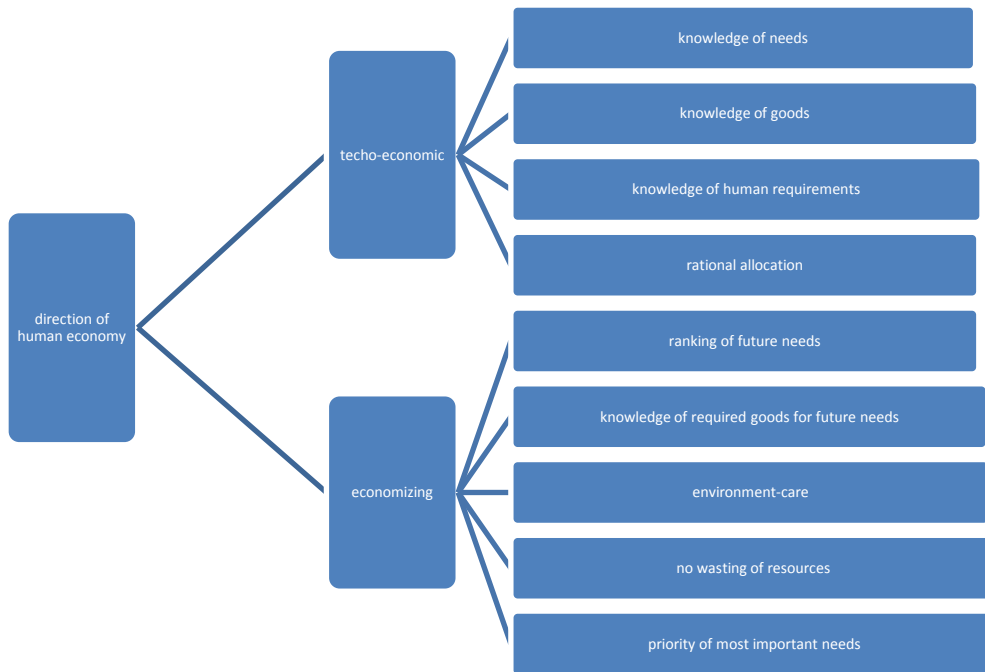
⁶ Polanyi's interpretation of Menger's Chapter IV is mostly biased by his personal struggle against the formalist tradition in economics and anthropology, unable "to recognize any other form of economy than the one based on market-price mechanism: the self regulation of the market is never questioned, and the economist's question is reduced to the understanding of how does it work" (Polanyi, 1971, 17).

The economizing basic direction is called “sparende” by Menger; it means “saving”, in the sense of “to economize” or “to save up for something”. It is rooted on the idea that the total satisfaction of human needs can be regarded just as the ‘ideal’ aim of human economy, because resources are not infinite. From a more realistic point of view, the concrete aim of human economy is the allocation of the maxim quantity of goods to satisfy human needs, and it includes:

1. A ranking of the future needs
2. The knowledge of the quantities of goods able to satisfy any future need
3. The respect of the natural environment in order to avoid any loss of available goods
4. The limitation of the wasting of resources
5. The satisfaction of the most important needs, putting less relevant needs aside.

Menger clarified that these two basic directions of human economy ‘spring from *causes that are different and independent from one another*’ and they are actually independent from one other, but they are connected and their connection determines the most complete meaning of the nature of the human economy⁷.

⁷ Polanyi saw in Menger’s double definition of human economy the first approach to economy as an instituted process, able to comprise the facts of the other social sciences like anthropology and sociology, and able to go beyond the narrow “scarcity definition of economics”, limited just to “the discipline of economic analysis” (Polanyi, 1971, 22).



A possible place of Menger in the recent debate on Austrian school and complexity theory

Reading the second edition of Menger's *Principles*, there are some elements that remind the so-called complexity theory, or better said the application of complexity theory to economics⁸. The first scholar to link the Austrian School with complexity theory was Karen Vaughn (1994): she considered Menger's idea of the spontaneous origin of institutions (which arose without a common will), he inherited by the Scottish Enlightenment (according to the common interpretation of Hayek) as the most prominent manifestation of the economic growth regarded as increasing

⁸ Generally speaking, complexity theory can be used in economics as a new paradigm within which to describe the dynamics of individuals and social groups. Knowledge of social dynamics can be organized and understood because societies are sets of institutions, and institutions are expressions of individual knowledge. Because there is an isomorphism between the cognitive and institutional levels, it may be possible to acknowledge and explain how the knower constructs knowledge using an anti-reductionist approach, able to include uncertainty and consider it as an opportunity for creativity and for the development of new perspectives.

complexity in the system⁹. More recently, most studies on this specific subject have focused on Hayek's thought¹⁰; and there is a very recent debate between Rosser and Koppl (forthcoming 2010) on whether there are actually any connections between Austrian school and complexity theory. According to Koppl, Austrian economics as a school of thought can be regarded as part of the "broader complexity movement in economics." (Koppl 2009, 1)¹¹. Rosser admits that there are some overlaps between Austrian economics and complexity theory¹², but there are many more "substantial elements and strands within Austrian economics that do not fit in with any of the multiple varieties of complexity theory, even though there are some that clearly do" (Rosser 2010). Some of the Rosser's arguments against Koppl's point of view are focused on Menger. In particular: Menger's strong opposition against the precursors of institutionalism (the German historical school) and the importance of the concept of equilibrium in Menger's marginalism¹³.

⁹ Complexity is caused by a larger number of products on the market, the division of labor, and the increasing number of economic institutions due to the development of information and to the improvement of exchanges. Complexity and spontaneous order are linked in the Austrian paradigm by "a process of systematic, ordered change in either the formal or informal rule structures by which people attempt to achieve their purposes" (Vaughn 1994, 125). According to Vaughn, the unplanned and unconscious changes in institutions are common to Menger's and Hayek's theories, as well as to those of Mises and Lachman (150).

¹⁰ For many reasons: first of all because he wrote an article on complex systems (Hayek 1967) but also because of his studies on psychology and their link with Simon's concept of bounded rationality (Simon 1962).

¹¹ He has introduced what he terms "BRICE economics" in order to describe elements of complexity theory within economics, pointing out that the Austrian economic tradition shares BRICE with complexity theory. BRICE is the acronym for Bounded rationality, Rule following, Institutions, Cognition, and Evolution.

¹² They are the idea of a spontaneous order; the introduction of "emergence" (the idea that beyond the whole and its parts there is something more (a *quid* that emerges); the acceptance of evolutionary theory as regards biology.

¹³ Rosser's arguments seem to have some faults: the fact that Carl Menger was strongly opposed to the new generation of the German Historical School is not an argument against his *ante-litteram* "belonging" to complexity theory. On the one hand, why should German historicism, like any other historicism, belong to complexity theory? And, on the other, the relationships between Menger and the

What are the elements of Menger's thought which can be considered linked to complexity theory? According to Hayek (Hayek 1973, 1978), Menger's aim was "to trace the complex phenomena of the social economy to their simplest elements which are still accessible to certain observation" (276-7), as he wrote in his Preface to his *Principles*. Menger's method of investigation was based on an empirical procedure: "in the social sciences we start from our acquaintance with the elements and use them to build models of possible configurations of the complex structures into which they can combine and when are not in the same manner accessible to direct observation as are other elements". According to Hayek, when we observe the actions of other people we understand the meaning of such actions in a different way from that in which we understand physical events. The subjective character of Menger's theory is based on our capacity to understand the meaning of observed actions. For Menger, observation entails the concept of *Verstehen*, which means *understanding* and implies an *introspective knowledge*¹⁴. The role of *Verstehen* (=understanding) vs *Erklären* (=explanation) was chosen by Menger in order to emphasize the psychological aspect of knowledge.

German Historical School were rather more complex than has been claimed. The notes and comments in his archive show that the influence of the old German historical school was quite strong on Menger's composition of the *Principles* (Menger's strong opposition against the German Historical School was above all against the new generation of German historicists, and it took place after the reaction of Gustav Schmoller to Menger's *Untersuchungen* (1882) in the late 1880s). Moreover, the idea that Menger was one of the founder of the model of general economic equilibrium and is also rather difficult to admit. It seems to derive from Block (1940), according to whom Menger was the mathematician counterpart of Walras, and generally speaking that the Austrian school can be considered the psychological variety of the neoclassical tendency, and also that the Walrasian school was the mathematical variant of the neoclassical tendency.

¹⁴ Some secondary literature has stressed Menger's *verstehende* approach. According to Max Alter (Alter 1990), Menger's philosophical background – which is fundamental in order to know his methodology – is based on that approach (and on Aristotelianism). See also Lavoie (1990), who claimed that the idea of understanding as a spontaneous process in Menger's thought can be read in hermeneutic terms.

A couple of considerations are in order. First, in the first edition of his *Principles*, Menger talked about “complex economic phenomena”, but he immediately explained that his aim was to reduce them to their simplest elements; otherwise it would be very difficult to find the laws which they obeyed. This was a point against complexity theory, because it implies a sort of reductionism from a methodological point of view, i.e. the idea that a whole can be analyzed or reduced to its atomic elements. Second, for Menger it was essential to establish a link between human and natural science, because they are both subject to exact laws (and this “exactness” is not in contradiction with human freedom). This point can be treated in two ways as regards a possible connection with complexity theory. It is not clear what Menger had in mind when he referred to “all fields of science” beyond social science. Was it physics? Was it biology? Or both (Menger was unconcerned about the distinction between them and regarded them both as “natural science”)? Complexity theory tries to bridge the gap between natural and social science by using the same methodological approach. But it is more likely that Menger had physics in mind: in this case, his thought is entirely embedded in the method of theorizing of the early neoclassical economists, who borrowed from the physics of the nineteenth century (Mirowski 1989). But some interpreters of Menger’s thought would totally disagree with this statement. First of all Hayek, who claimed that one of the most important features of Menger’s methodology was its capacity to *understand* the meaning of human actions in a different manner from physical events¹⁵.

¹⁵ And, as Hayek complained, this point of view (typically Austrian) was forgotten by microeconomic theory and the later development of the indifference curve related to “the revealed preference

If we want to find a link between complexity theory and Menger's thought we have to go straight to the second edition of his *Principles*. Because a desire and the subsequent satisfaction of that desire are a change from one state to another, there is a causal connection between the desire and the thing able to satisfy it (good): in other words, there are forces in operation within one's organism (needs) and external useful things which can satisfy those needs (goods). How do these forces operate within a human organism? And what is the relationship between them and the external environment in which goods for their satisfaction can be found? The answer is the theory of needs (*Bedürfnissen*), which appeared in the second edition of Menger's *Principles*¹⁶ (where there is a strong relation between biology and psychology), and in the passage from the rise of collective needs to the foundation of institutions where Menger introduced the idea of the whole as greater the sum of its parts and the concept of emergence¹⁷. Menger's theory of needs can be also considered as a following development of Book 3 (*The organic understanding of social phenomena*), of his *Untersuchungen* (Menger 1882), where he explains the analogy between social and natural phenomena: there exists a similarity between natural organisms that are complex in their details and in their unity and structures of social life formed of parts (individuals) and wholes (groups). Neither natural nor social structures are the result

approach, which were designed to avoid the reliance on such introspective knowledge" (Hayek 1973, 9).

¹⁶ According to Alter, Menger's theory of needs was influenced by Oskar Kraus' book *Das Bedürfnis* (1894).

¹⁷ John Stuart Mill was the first philosopher to used the term "emergence" in order to explain some properties of dynamic realities (physical and social) (Mill 1843): the more modern concept of emergentism derives from the general system theory developed by Ludwig von Bertalanffy (Bertalanffy 1950). From a historical point of view, the forerunners of complex system theory were nineteenth-century Darwinian organicists like Schäffle and Spencer. Menger paper showed how carefully Menger read Schäffle during the composition of the second edition of his *Principles*.

of calculation, but rather of a natural process as unintended products of historical development. Menger added that only some social phenomena exhibit an analogy with natural organisms: parts and whole are linked by mutual causation; there is an organic origin of some social phenomena: “the general nature of the process to which those social phenomena owe the origin which are not the result of socially teleological factors, but are the unintended result of social movement” (158). This way of describing social phenomena and institutions is based on a strict connection between biology and economics; and in this form it is quite similar, on the one hand, to what German social thinkers of that time¹⁸ had in mind (important from this perspective is Menger’s link with Schäffle, who was very popular at that time in Germany and Menger read and quoted him in his works), and, on the other, to what Marshall later wrote in Book 4 of his *Principles*¹⁹.

Conclusions

Seventy-seven years after the publication of Menger’s second edition of his *Principles*, its English version is not available yet. This is quite bizarre: Menger’s fundamental place in the history of economics is unquestionable and his contribute is well recognized not only within the followers of that Austrian school he founded, but also outside the “Austrian” milieu, in the mainstream (as one of the founder of the

¹⁸ This idea seems sharply in contrast with the recent interpretation by Hodgson (2005), who argues that even if biological metaphor was not directly attacked by Menger, he indirectly criticized it to such an extent that its usage diminished in Germany. Hodgson did not argue further in his interpretation; and in any case he based it on Menger’s *Untersuchungen* and their subsequent developments.

¹⁹ On a possible relationship between Menger and Marshall, Hayek seemed to suggest a possible influence of Menger on Marshall, as he carefully read Menger’s *Principles* and wrote many “marginal annotations summarizing the main steps in the argument but without comment” in the copy of Menger’s book, held in Marshall’s library at Cambridge (Hayek 1973, 279).

concept of marginal utility) as well as in heterodoxy (mainly because of the role of time and uncertainty in his writings). He worked on the revised and broader version of his *Principles* for at least ten years, after his retirement, as testified by his private archive. Hence, an English translation of the second edition of his *Principles* seems to be fundamental for a reconstruction of his intellectual biography as well as for the history of economic thought. Last but not least, its new parts on human needs, on social goods, on the nature of institutions and on the relationship between individuals and environment can be included in many present debates inside the discipline.

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