

The Economics of Carl Menger

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All students of economics are aware that Carl Menger was one of the founding fathers of neoclassical economics. To mark the publication of a French translation of one of his major works, Cyril Hédoin discusses Menger's contribution and legacy.

Reviewed: Carl Menger, *Recherches sur la méthode dans les sciences sociales et en économie politique en particulier*, translation by Gilles Campagnolo, Paris, p. 576, Presses de l'EHESS, 2011.

The Austrian-born Carl Menger (1840-1921) holds a prominent position in the history of economic thought, even if this fact is often little-known. The recent French translation of *Untersuchungen über die Methode der Sozialwissenschaften, und der politischen Ökonomie insbesondere*, first published in 1883 and which looks at issues regarding methodology in economics, provides a good opportunity to re-examine just why Menger was, and continues to be, a major force in the development of economic theory.

Menger's name is generally associated with a fundamental change in theory in the history of economic science, referred to as the 'marginalist revolution'. Beginning with Adam Smith, and continuing on for most of the 19th century, scientific economic thought was largely dominated, particularly in the United Kingdom, by figures such as David Ricardo and John Stuart Mill, who espoused a classical form of economics. Change came at the beginning of the 1870's with the almost simultaneous publication of three separate works, developed entirely independently by three different economists, which redefined the founding ideas of economics. These were the *Theory of Political Economy* by the Englishman William S. Jevons (1871), *Éléments d'économie politique pure* by Léon Walras (1874) (of French nationality but based at that time in Switzerland) and finally *Grundsätze der Volkswirtschaftslehre* (Principles of Economics) by Carl Menger (1871). These

three works each upheld the founding notions of marginalist economics, which was to become neoclassical economics later in the twentieth century. These were a rejection of the theory of labor value in favour of the subjective theory of use value, the adoption of 'marginal' reasoning and using the concept of marginal rates of substitution to explain price formation. These three principles today remain at the heart of economic analysis, with Menger, Jevons and Walras, representing the founding fathers of the science of modern economics.

The foundations of neoclassical economics

The marginalist 'revolution' is characterised by a certain number of developments in thought. Three main principles can be identified.

1/ The subjective theory of value

Most classical economists (notably Smith and Ricardo) but also Marx, espoused an objective theory of value, in which the value of goods depended on the objective quantity invested within them, i.e. the amount of work necessary for them to be produced. Marginalists chose the subjective theory of value (already put forward by Condillac and Say) which stated that the value of any given goods was simply the degree of usefulness accorded to them by an individual.

2/ Marginal Reasoning

Marginal reasoning was the major methodological contribution of the marginalists. It is marginal utility which determines the behaviour of individuals, that is to say the additional utility created by an infinitesimal unit of additional goods. In mathematics, utility is represented by a function and marginal utility is its derivative.

3/ Price formation

The crux of neoclassical theory is the determination of equilibrium prices for perfectly competitive markets. The consumer maximises utility by choosing a set of goods which makes equal the marginal utility of each good divided by the prices of those goods. Thus we can say that the ratio of the price of two goods (the relative price) is equal to the ratio of marginal utility of these goods, which is referred to as the marginal rate of substitution.

However, what sets Menger apart from the other two economists, and what is different about his position is that, if Walras and Jevons are to be considered the direct originators of neoclassical mathematical economics of the twentieth century, Menger's legacy is more within a school of thought which, while still enduring, is beginning to slip from the academic agenda; that of the Austrian school of economics. The subject of his legacy will be discussed further at the end of this essay, but we may note already that it is not simply a rejection by Menger (unlike Jevons and particularly Walras) of the use of mathematics to study various economic phenomena, but that it has much deeper philosophical and methodological foundations. It is these foundations which will be examined more closely here, by focusing on two aspects of Mengerian thought - his philosophical

realism coupled with an ontological individualism on one side, and on the other, his defence of the 'organic' explanation of social sciences.

Menger and the 'quarrel of methods'

Around the time that Menger's *Principles* were published, the German-speaking academic world of the social sciences was dominated by the concept of *historicism*, a term reflecting a particular type of philosophical conception of social phenomena. The science of German, and more widely, of German-speaking economics, was thus heavily influenced by the work of the German historical school of economics, lead in particular by Gustav Schmoller (1838-1917), and which Max Weber was to join a few years later. Schmoller was, right up until his death, particularly influential in German political and academic spheres. Opposed to the classical school, the historicists were equally dismissive of the theories of the marginalists. Schmoller was worried about maintaining the position of the historical school in Germany, and so he set about trying to limit the spread of Menger's *Principles*, which, most notably, criticised the historicist concept of a 'national economy' (Campagnolo, 2004). In response, Menger published his *Untersuchungen* in 1883, which, through a carefully plotted but staunchly academic attack of historicist economics, allowed him to outline what he believed to be the philosophical and methodological foundations of economic science. This was the start of a methodological conflict which was to become known as *Methodenstreit* ('the quarrel of methods') and which was to progressively degenerate into a settling of scores.¹

As part of the quarrel of methods, Menger set about denouncing what he felt were the 'mistakes of historicism' and defending a realist (in the philosophical sense) and individualist (both in the ontological and methodological sense) conception of economics. For Menger, the German historicists' main error was to confuse theory with history. The historicist economists, lead by Schmoller, believed that the only way to truly grasp socio-economic phenomena was to place them within their historical context, by emphasising their specificities and singularities. Menger saw in this approach a deep misunderstanding of the aims of theoretical enterprise and of the relationship between the latter and history. The Austrian economist stated that all phenomena could be understood using two approaches, each as valid as the other, but each distinct from the other; that of historical orientation on the one hand, and theoretical orientation on the other. If the former focuses on the individual qualities of phenomena, by aiming to draw attention to their specificities, the latter focuses more on understanding the general qualities of these same phenomena. In other words, theoretical research is based on the premise that the phenomena which one studies empirically can

¹ Joseph Schumpeter (1954) described the conflict between Menger and Schmoller as a 'dialogue of the deaf,' which was fairly representative of general opinion on *Methodenstreit*. This description is, however, somewhat excessive since the debate, at least at the offset, was based on real methodological and philosophical content.

be said to have a common body of characteristics which can be subsumed into general laws or theories. Menger named these recurring empirical forms which are common to a collective body of phenomena 'types'. The purpose of theoretical research is to uncover these types. In the context of economics, this concept led Menger to distinguish between economic theory and economic history.

Menger went further, by distinguishing between 'exact' research and 'empirical-realist' research, the very heart of theoretical research (and thus also of economic theory.) While these types of research might both see phenomena in their general terms, the first promotes an idealised, abstract and 'pure' conception of phenomena, whereas empirical-realist research consists of analysing types and typical relationships of phenomena as they appear themselves in their real empirical state. Unlike historical research, which only focuses on the particularities of a phenomenon, empirical research aims to achieve a general understanding of phenomena. However, unlike exact research, it essentially operates through a process of induction. While subtle, this is nevertheless a significant difference as, according to Menger, it becomes apparent very quickly that empirical-realist research cannot fully achieve what it sets out to; concrete phenomena never manifest themselves as empirically detached from the specific historical context in which they are formed. This research can only uncover 'real types' and empirical laws, which are limited in their generalisation.² Exact research goes further: it attempts to understand phenomena by revealing their 'essence', as a way of uncovering 'exact' laws and types.

Menger's brand of realism and individualism

According to Menger, there is no hierarchy between historical and theoretical research, nor between exact research and empirical-realist research, which lies at the heart of theoretical research. However, Menger's emphasis on the importance of research of exact types clearly indicates that, for him, the aim of all science was to grasp the essence of phenomena. This stems from an Aristotelian form of realism which suggests that knowledge is acquired first and foremost by understanding the general and shared qualities of different phenomena.

It is interesting to note that Menger does not believe there to be any qualitative difference between natural and social sciences in this respect;³ all sciences attempt to grasp the essence of

² Menger's 'real types' share a certain resemblance with the notion of ideal type suggested by Max Weber. Weber also based his notion of ideal type on the works of marginalist economists, since he explicitly states that 'economic man' should be interpreted as an ideal type. However, unlike Weber, for whom knowledge could not surpass the creation of the ideal type, Menger did not believe real types to be the ultimate form of knowledge. This accolade he reserved for 'exact types.'

³ Menger was thus in opposition with neo-kantianism, which was the dominant philosophy in the German-speaking world. During that period, neo-kantianist philosophers attempted to base the scientific character of the 'culture sciences'

things, but this objective is invariably hindered by the fact that the empirical forms which phenomena take are affected by 'impurities'; 'real gold, real oxygen and hydrogen, real water – not to mention at all the complicated phenomena of the inorganic or even of the organic world – are in their full empirical reality neither of strictly typical nature, nor, given the above manner of looking at them, can exact laws even be observed concerning them.'⁴. Thus, if empirical-realist knowledge is to be based on a form of conjecture (the observation of phenomena and of their empiric form in time) exact research should necessarily proceed in a different manner. Menger thus considers that knowledge of laws and exact types can be grasped by breaking empirical phenomena down into their most simple form, via the elimination of historical conditions, in order to preserve only their essential qualities. In the natural sciences, this could consist in studying the function of the law of gravity in the absence of any friction. For the social sciences, exact theoretical research aims to reduce human phenomena down to their most simple integral element; the individual. Menger's individualism is above all ontological in nature. The method of using individual actions to explain social phenomena is not as much a methodological strategy as it is an ontological necessity. It is because the individual is the simplest and, in many respects, most unbreakable element of all social phenomena, that theoretical research must use it as a starting block.

Menger's ontological individualism goes even further. The assumption that individuals are motivated by their desire for satisfaction and that they are only interested in their economic well-being is a legitimate idea put forward in economic research. Following on from John Stewart Mill, Menger thus tried to justify the notion of the 'economic man', who came under repeated attack from members of the German historical school. According to Menger, it was not a question of suggesting that the individual was solely motivated by personal interest, but rather in accepting that in order to grasp the essence of economic phenomena one would have to use an idealised notion of the individual, in the sense that we take into account only a single and unique aspect of his behaviour. Menger (1883 [2011], p. 212) illustrates this approach in the context of economic theory by using the example of price formation. Exact research on price formation shows us that when demand for a product rises in a particular place and under particular conditions, the price of the product will also rise in a manner that can be precisely calculated. This is based on four assumed conditions:

on an idiographic (particular, specific) type of knowledge, compared to the nomologic (based on general laws) nature of knowledge in the natural sciences. The German historical school, including Max Weber, based their ideas to a large degree on this notion.

⁴ Menger, 1883 [2011], p. 199. « Real gold, real oxygen and hydrogen, real water – not to mention at all the complicated phenomena of the inorganic or even of the organic world – are in their full empirical reality neither of strictly typical nature, nor, given the above manner of looking at them, can exact laws even be observed concerning them » (Menger, 1883 [1996], p. 26).

- 1) that all the economic subjects in question aim to fully protect their economic interests;
- 2) that no errors are made by those individuals trying to achieve their objectives and in the measures they take to achieve those objectives;
- 3) that the economic situation is unknown to the individuals in question, in as much as it influences price formation;
- 4) that no external force which could restrict their economic freedom is exerted upon them.

In real economies, these conditions are clearly almost never met, so that real prices do not correspond with 'economic prices.' The stated rule is therefore not true in empirical terms. However, this law is valid in terms of its logic, and is of great interest from the point of view of exact research.

Menger and the 'organic' explanation

The philosophical ideas developed by Menger on economics have their methodological counterpart. The ontological individualism which Menger advocates inevitably translates into a defence of methodological individualism, which the vast majority of economists today recognise as being valid. Beyond this, Menger is certainly one of the primary advocates of a form of explanation that can be qualified as 'organic' or as 'genetic.'

In his work of 1883, Menger developed extensive ideas on the similarities between the way organisms and social structures function. Natural organisms and social structures share the fact that they are made up of a variety of parts or organs. Change to one of these parts, or to the way that several parts relate to each other, is highly likely to disrupt the organism or structure as a whole. What's more, these parts can only function as a part of the larger structure or organism. Another common point between the natural world and society can be seen in the processes from which social and natural phenomena emerge. In nature, the equilibrium that exists between the different organisms and the environment as a whole is not born of a specific calculation but rather of a spontaneous process. A similar process can be found in the emergence of certain social institutions; natural phenomena and certain social phenomena have in common this state of having emerged as the unintentional product of a body of decentralised processes. For all that, Menger does not propose just any old form of organicism⁵ (such as that which can be found among the first members of the German historic school). What's more, he readily accepts the limits of this analogy. Menger

⁵ Organicism can be defined as a form of representation of social sciences based on an analogy with living organisms. The German economists of the nineteenth century thus assimilated societal functions into those of the human body. Society was thus characterised by different 'organs', each with their own function.

compares what he refers to as 'organic' institutions with 'pragmatic' institutions. The latter represent rules and organisations which are the product of a concerted and planned collective action. They are the result of a consciously developed design by one or more individuals. Conversely, organic institutions are the unintentional product of intentional individual actions. In other words, an organic institution is an unexpected, unwanted even, (collective) social consequence, which is the result of actions undertaken by several individuals. For Menger, numerous social phenomena result from this type of process; law, language, the markets and money are all examples of at least partially organic institutions.

Menger accepted and interpreted in his own way the research developed by 'Scottish enlightenment' philosophers, beginning with David Hume and Adam Smith, which saw organic institutions as effectively being the result of an 'invisible hand.' Regarding Hume and Smith, the Austrian economist tried to specify what the underlying mechanisms to the emergence of these institutions were. In his article 'On the Origins of Money' (1892), Menger was determined to challenge the belief (very popular at that time among the German historical school), that currency was a pure product of the law, in itself a result of the will of governments. According to this theory, currency owed its existence entirely to the fact that states guaranteed its exchange value. Menger challenged this theory by countering it with a 'genetic' explanation (which would today be qualified as 'evolutionary') which involved showing how currency, as a universally accepted means of exchange within a community, was able to emerge progressively as part of the attempts by each individual to safeguard his personal interests.

Menger thus described the processes by which each individual, within a context of bartering and division of work, progressively learnt to identify the goods which could be exchanged the most easily. If we consider that all goods do not share the same qualities (some are longer-lasting, or are more easily transportable than others), that these qualities can affect the probability of finding a purchaser for a certain product within a certain period of time, that the time it takes to store certain products while a purchaser is found can be expensive, and finally, that individuals seek to protect their economic interests by reducing the costs inherent in economic transactions, it is clearly in the best interests of each individual to identify which goods can be most easily exchanged. Menger believed that certain individuals would be able to determine this faster than others but that, through a process of imitation, the community as a whole would progressively learn which goods best served as exchange goods. Furthermore, once certain goods are recognised by a sufficiently significant section of the population as being 'exchangeable', it then becomes in the best interest of the remaining individuals to adopt the same convention, regardless of the intrinsic qualities of the

aforementioned goods. It is thus that, through a cumulative and constantly evolving process, a conventionally and universally accepted exchange unit is able to emerge at the centre of a population, without the slightest intervention from any centralised political power. With money as with other organic institutions, Menger did not deny that intervention from public authorities played a role in the formation of emerging monetary institutions, but he wanted primarily to show that at least a certain part of human institutions can originate spontaneously.

Menger's theory of the origin of currency has been highly criticised, particularly among sociologists and anthropologists. The latter noted in particular that, firstly, the general practice of bartering, which serves as the initial state in Menger's theory, was never a historical reality, and secondly, that the majority of currencies in primitive societies did not have economic value but rather fulfilled a symbolic and social function. The proposed explanation thus seems doubtful if taken in the context of history. However, while such criticism was well-founded, it ignored the fact that Menger was not trying to provide a complete historical explanation but rather to provide an explanation of an exact type, in an attempt to provide a plausible mechanism which would be able to *partially* explain the origin of currency. In other words, Menger wanted to reveal the *economic* origins of currency without claiming that currency had purely economic origins.

Epilogue - Menger's legacy

As discussed at the beginning of this essay, although Menger was one of those at the forefront of the marginalist revolution, the developments in economic science which came about during the twentieth century, particularly those in neoclassical theory, are far removed from Mengerian thought. Nevertheless, his legacy is real and has two main distinctions. First and foremost, Menger is almost unanimously considered to be the founder of the Austrian school of economics. This school of thought, with its liberal inspirations, underwent significant change in the twentieth century and has recently seen a certain revival during the the financial crisis. In many respects, Menger's notions of exact laws and types prefigure the 'praxeology' developed by Ludwig von Mises which tried to establish laws of human action⁶. In particular, the idea of the organic institution and the type of explanation which went with it were to be systematised by Friedrich von Hayek through the notion of 'spontaneous order'. During the second half of his career, Hayek dedicated a significant part of his writing, more philosophical in nature than economic, to defending the theory that the majority of human institutions (beginning with the markets) were the emerging

⁶ See notably von Mises main work, *Human Action*, first published in 1949. It should be noted however that von Mises based his approach on neo-kantianist notions that were rather different from Menger's philosophical ideas. A little later, Murray Rothbard returned to Menger's realist and aristotelean philosophies to defend von Mises' stance.

and unintentional product of a collective body of decentralised actions. In denouncing the ravages of 'constructivism', he radicalised Menger's comparison between organic and pragmatic institutions.

Despite what has been described above, Menger's legacy can also be found in certain parts of more dominant economic theory. Menger was actually, along with certain Scottish philosophers, one of the pioneers of analysis of social phenomena in the context of the invisible hand⁷. There is a growing body of literature on the theory of games and of neo-institutional economics which explains social phenomena in evolutionary terms. Several works have recently tried to justify the organic explanation for the emergence of currency as proposed by Menger, with the help of formalised models of the theory of games⁸. These studies mostly confirm Menger's results, by showing how the emergence of a stable and unique medium of exchange within a community usually comes about as part of an evolutionary process. These studies also show how it is highly likely that the goods chosen as currency will, as a result of their intrinsic qualities, be best able to fulfill this function (an obvious example is precious metals.) As with the analysis put forward by Menger, these studies are not trying to provide a global historical explanation of the emergence of currency, but rather to shed light on part of the mechanisms which form the basis of its emergence. In more general terms, this establishment of a pattern, which today takes the form of computer simulation incorporating many variables, is used to examine a large variety of different social phenomena, such as discrimination or corruption, the evolution of cooperation and the emergence of different social norms, etc. This legacy explains why Menger is and will remain an important figure in the history of economic theory.

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⁷ The interested reader can find a very stimulating historical and especially philosophical study of analysis on the invisible hand in economics in the work of Emrah Aydinonat, *The Invisible Hand in Economics*, Routledge, 2009.

⁸ Kiyotaki and Wright (1989) and Sethi (1999) are two very good examples, amongst many other works of a similar type.