

Carl Menger on Time and Entrepreneurship

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Introduction

Carl Menger is probably less remembered for his analysis of entrepreneurship (in other words, in the following analysis, fundamental notions related to the nature of business practice) than for his views on other matters, like money, individualism and the nature of institutions, etc. (There are exceptions to this subdued interest in this part of Menger's work, like Kirzner, 1978).

As is well-known, Menger built a theory and methodology that resulted in the rise of a new school of economists, against both the dominant British Classical School and the German Historical School (GHS): the last third of the nineteenth century was such a 'Great Crossroads' of currents in economic thought. The so-called 'Austrian School' born from Menger's works would hold steadily to concerns about the entrepreneur, whereas the so-called 'mainstream' would debate theories of the firm as such when dealing at all with the private business side of economics. We argue that the notion of time as it is set in perspective in Menger's frame made let the notion of entrepreneurship surface quite naturally, through the notions of duration and uncertainty and through the philosophical related points that we point out in Aristotle and Kant.

Contributions by Menger's disciples, to start with Eugen von Böhm-Bawerk, would need be discussed further, but here we focus on Menger proper to analyze the qualitative nature of entrepreneurship as he saw it, the role of foresight as key in a causal nexus. German authors on the capitalist entrepreneur (*der kapitalistische Unternehmer*, to quote the title of a text by Werner Sombart, 1909) were more than by-products of Menger's theory and probably the nature of capitalistic interest and return on investment was clearer in Böhm-Bawerk, but it is the nature (*das Wesen*) of the economic agent (the "economic man", *wirtschaftender Mensch*) that shall mostly retain attention, especially key underlying notions of time and the ordering process in time and uncertainty. Later and outside the 'Austrian School of economics' (understood narrowly) others would also re-explore such matters (Frank Knight or John Bates Clark), but again we focus on Menger only to track original incipient views on entrepreneurship as they surfaced in Menger's writings from the relationship between time, the subjective appraisal of value and his major concepts.

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We start with the three key notions of the *Principles*: the satisfaction of needs, *Bediürfnisbefriedigung*, the availability of goods and services, *Verfügbarkeit* and their marketability or saleability, *Absatzfähigkeit*). Time comes then, with ignorance (related to time since hopefully the latter may recede with the former passing and bringing new insights), one obvious dimension that Menger's founding *Principles* put forth in his times. One century later almost, it served well the revival of Austrian studies towards a larger audience. This was basically the incentive for a large part of the literature and the most famous example may well be Gerald P. O'Driscoll and Mario J. Rizzo, *The Economics of Time and Ignorance* (NYC, Blackwell, 1985). The best-seller had a sequel, 30 years later: *Austrian Economics Re-Examined: the Economics of Time and Ignorance* (London, Routledge, 2015). However, we shall start neither from an examination of the book to which we hereby pay respect, nor from the general literature, but from the source itself: Menger's own views in his theoretical masterwork, which provided in the last decades of the 19th century the ground for the Austrian school to later develop as such, and re-flourish in the last third of the 20th century.

Let us therefore start with reminding the three key features to keep in mind while reading Menger's *Principles*, that is to say the 'satisfaction of needs' (*Bediürfnisbefriedigung*), the 'availability of goods (and services for that matter)' (*Verfügbarkeit*) and the 'saleability' (*Absatzfähigkeit*) – the threefold notional structure for the whole book binds together the means (*Mittel*) of material life (goods and services) which support effective transactions that get actual through making real (*Verwirklichung*) the goals and (objectives) of the individual agent, who subjectively basically aim at staying alive, then lead a 'normal' life (in the given place, epoch and stage of civilization they dwell in) and, if possible to live well (*euzein*), which is a goal that depends on the way they conceive of the *good* for their own individual self (therefore not a general judgment upon the best state of things for the world or generally *sub specie eternitatis*, but for oneself according to their needs and wishes, which the economist should not judge from any standpoint but the adequate correspondence between such means as are chosen to realize such goals as are selected subjectively by the individual). This structure and the subjective individual basis analyzed through the reasoning based on marginal utility is the core of Menger's doctrine and the key notion that pervades it is *time*, with the consequence that profiling the economic agent ends up displaying the portrait of the entrepreneur, the undertaker of tasks for which adequate correspondence between means and goals is the center and focus of their activity.

The presentation shall display Menger's understanding of the entrepreneur as twofold. Firstly, Menger stressed uncertainty within economic action, based on philosophical views about time (Part I "Menger on time"). Secondly, Menger clearly set apart entrepreneurs from capitalists: the entrepreneur is in charge of collecting information, making economic calculations, (Part II "Time as duration leading to uncertainty and the role of causality"). Retrieving the conceptual mechanisms at stake shall point not only to Ancient philosophy with Aristotle, but also Modern with Kant (Part III). Then to fill in gaps in a (possibly) Mengerian theory of entrepreneurship, we shall raise issues with developments in his direct heirs, but also the idea that the founder of the Austrian School brought about other concerns and an anthropological view related to the entrepreneurial nature of the capitalist economy (Part IV).

I. The notion of time in the *Principles*

What sets Menger apart is his view on subjective marginal utility as well as many concepts and facets of economic analysis, theoretical, methodological and practical. Let us quote here, as being predominant among others:

- The characterization of individual subjectivity, which means a singular consciousness of specific needs as well as care for self-conservation
- The latter gets real through time (our topic here), that entails in turn at least the following concerns:
 - concern for information (conversely, ignorance/error, limitations of knowledge);
 - concern for self-development and dynamics of socio-economics at large (including institutions as the counterpart of fundamental individualism);
 - concern for further developments, hence the foresight that characterizes the undertaker of any task;
 - concern for the facets of socio-economic interaction between the aforementioned individuals (hence again the role of associating, of companies).

It is well-known that, out of those concerns, as a consequence thereof, while fighting Classical political economy just as and simultaneously with Stanley Jevons or Léon Walras, Menger favored dynamics over equilibrium (resp. in Jevons or Walras: partial or general). Menger provided a view of the economic world formulated in terms of descriptive account of *vicissitudes*.

If you could only follow the thousand vicissitudes of the market, all the contracting parties, and if you could strictly analyze their circumstances, if you could weigh, so to speak, their proper needs, then you would have found the solution to our problem (manuscript note by Menger quoted from the French original. Our translation.²

Menger quoted the *Cours d'économie politique* by Count Pellegrino Rossi in French (manuscript note facing page 108 in the Principles). Menger adds ‘sehr richtig’ (‘absolutely exact’). Rossi had succeeded Jean-Baptiste Say at Political Economy Chair at Collège de France. Menger annotated Rossi’s economics textbook, then well spread.

In the first two chapters of the *Principles*, Menger sets the contents of his theory regarding basic notions, including time. To serve as a reminder of the Table Of Contents of the book), one may stress where time directly appears in subtitles, for instance Chapter 1, § 4 is entitled “Time and Error” and Chapter 2, §1, section C is the “Time limits within which human needs are felt” (in the translation by Dingwall and Hoselitz).

However the notion of time pervades all sections. The influence of Aristotle pervades the Principles : as to time, the main insight relates to ordering according to « what comes before and what comes after »³. Incidentally, about the Aristotelian influence, one should point that German Historicists tended to present their own views as faithful to the Ancient, and thus claim his authority (an argument that was then much – and still is? – in use in the academia. The most striking example is provided with the famous incipit of Aristotle’s *Politics* where man is defined as a ‘political animal’ : this argument pro-sociability in man was changed into a proof in favor of the anteriority of the State by the Historicists who were also fierce institutionalists supporting reforms through active government. Menger read closely the texts by the Ancient and both for *Nicomachean Ethics* and *The Politics*, he gave an interpretation faithful to the letter of the text (in Ancient Greek and in the German translation)⁴ Menger showed how Aristotle’s text when correctly interpreted supports his own views on the role of the individual. The same goes with the notion of time, and the debate with German counterparts includes aspects we will raise.

² « Si vous pouviez suivre à travers les mille vicissitudes du marché, les parties contractantes, en analyser rigoureusement la position, en peser pour ainsi dire les besoins, vous auriez la solution vraie du problème » (see Campagnolo, 2009). Manuscript note facing page 108 in Menger’s copy of the *Principles* numbered 3.

³ How did Carl Menger read Aristotle? This is an ‘old had’ debate within Mengerian scholarship. Through exploring archives, new elements were added by Emil Kauder and, more recently, by myself. Some issues were raised by Ricardo F. Crespo. A need to clarify prompted the exchange that finds its way in this journal issue. In an essay published in 2003, Crespo defended the idea that Menger is not an ‘orthodox Aristotelian’. I retorted in a paper coauthored with Aurélien Lordon in 2011 (in French) and we exchange with Crespo in ‘twin papers’ in the 2021 issue of *Cosmos+Taxis*.

⁴ See in Menger’s *Investigations*, in particular Appendix VII and commentaries notably Campagnolo, 2002, 2010 chap. 7 and 2012 resp. in French, English and German).

What is there then to put into order? Human action (as Ludwig von Mises would say), that is to say the way how to satisfy the needs for goods with available resources. Thus the consumer stage is classified as rank #1 as the goal that is to be reached to satisfy a given need and the successive ranking orders goods and services with each step necessary to produce the aforesaid given good. Higher goods and complementary goods etc. ‘Rounadaboutness’ of production is another word for the economic expression of time.

Forming prices, computing available resources for the most economizing productive capacity of goods, stocking them, transporting them, saling them etc. in all actions conditions and time are finite. It is intrinsic to the economic agent who is a finite human being (*ein wirtschaftender Mensch*, says Menger: an ‘economizing’ man) to act as the potential undertaker of any economic action (to produce, to consume, to exchange etc.) according to time ordering.

In other words: if desire is infinite, its realizations are always all but finite. One always acts in this finite frame given by one’s own circumstances. Moreover and the economist is not the one that judges on their ethcial value sub specie eternitatis but their achievement in this finite world. Economic action is thus an ‘art of working within the finite limitations’ by individual human beings, and the economist’s work is to find the theory that explains the regularity in those action, thus relating those actions between themselves through time within one individual and between various individuals (interaction). All starts with human needs and the process of ordering goods and services displays the “before/after” that characterizes the notion of time:

The process by which goods of higher order are progressively transformed into goods of lower order and by which these are directed finally to the satisfaction of human needs is [...] not irregular but subject, like all other processes of change, to the law of causality. The idea of causality, however, is inseparable from the idea of time. A process of change involves a beginning and a becoming, and these are only conceivable as processes in time. Hence it is certain that we can never fully understand the causal interconnections of the various occurrences in a process, or the process itself, unless we view it in time and apply the measure of time to it. Thus, in the process if change by which goods of higher order are gradually transformed into goods of first order, until the latter finally bring about the state called the satisfaction of human needs, time is an essential feature of our observations.⁵

Before we deal with this more in detail, it is worth reminding as well two key tables. The first is the famous marginal reasoning in the chapter 3 of the *Principles*.

⁵ Menger, C., *Principles, op. cit.* Chap. 1, § 4 In the translation by Dingwall & Hoselitz p. 67.

Tableau « en triangle » du raisonnement marginal selon Carl Menger :									
I	II	III	IV	V	VI	VII	VIII	IX	X
10	9	8	7	6	5	4	3	2	1
9	8	7	6	5	4	3	2	1	
8	7	6	5	4	3	2	1		
7	6	5	4	3	2	1			
6	5	4	3	2	1				
5	4	3	2	1					
4	3	2	1						
3	2	1							
2	1								
1									

Indeed this triangle displays the essential role of time since the analysis of the intensity of satisfaction and thus of value depends directly from the successive reading of the units of good within time. This is what each individual subjectively achieves within a described timely device.

The second is the notional table that Kiichiro Yagi presented from a notebook.

Zweck (fin, objectif/ end,goal)	Mittel (moyen / means)	Verwirklichung (réalisation/realization)
<i>Mensch</i> (être humain/human being)	<i>Außenwelt</i> (environnement/environment)	<i>Lebenserhaltung</i> (subsistance)
<i>Bedürfnis</i> (besoin / need)	<i>Gut</i> (bien/good)	<i>Befriedigung</i> (satisfaction)

This table can be read as Yagi mentions it (Yagi 1993) and as we indicate it in detail in (Campagnolo 2008 : 46-48). We shall comment no further here, but turn to the *nature* of time necessary to grasp the various (line and column) readings of this table. Moreover it is already possible to point within this ordering what prepares the introduction of the notion of ‘investing’ within time.

II. Time set in perspective makes the notion of entrepreneurship surface at last

We shall show how time is set in perspective and makes the notion of entrepreneurship surface at last, once the nature of its use is clarified. We shall start from the following quote:

If our requirement for goods of first order for a coming time period are already directly met by existing quantities of these goods, there can be no question of a further provision for these same requirements by means of goods of higher order. But if these requirements are not met, or are not completely met, by existing goods of first order (that is they are not met directly), requirements for goods of higher order for the time period in question do arise. These

requirements are the quantities of goods of higher order that are necessary, in the existing state of technology of the relevant branches of production, for supplying our full requirements for goods of first order.⁶

It is possible to understand those lines as a path towards a theory of investment regarding higher goods. It relates needs for consumption, the issue of available complementary goods, the circumstances of a given the state of civilization and society. ‘Need’ has to be grasped individually and satisfied individually. At a sociological level, what Menger showed is that each individual in a given environment (socio-economic, local, set in time) consumes *as much as he/she is able to represent the world to his/her mind*. Things (*Dinge*) are therefore diverse, but the process that makes them goods (*Güter*) of an economic essence (*wesentlich*) is identical (hence it is so both for goods and services, including labor). The varied species of goods and services in quantities effectively consumed to produce final consumption products are what investment is about. Higher goods (and services) thus mean a plurality of investment, at each stratum for each industry. Menger uses the basic example of what is required to produce a loaf of bread (not only the baker’s work, but the peasant’s work, salt and water and flour, but then wheat and rain and the soil etc.): this applies to *any* good and meets, way down the road, the contemporary theory of investment going up the scale any corresponding industry. Moreover at each stage of production, innovation may come in at any time with the result of raising productive forces and the productivity ratio, making production ever and ever more roundabout and efficient and intensive. A theory of the development of innovation is embedded therein.

In our present investigation, the only topic still remaining to be taken into consideration is the problem of time, and we must demonstrate for what periods men actually plan their requirements. On this question, it is clear, in the first place, that our requirements for goods of first order appear to be met, with reference to a given future time period if, within this time period, we will in the position of having *directly* at our disposal the quantities of goods of first order that we require. It is different if we must meet our requirement for goods of first or, in general, of lower order indirectly (that is, by means of quantities of the corresponding goods of higher order), because of the lapse of time that is inevitable in any production process. Let us describe as Period I the time period that begins now... *[etc.]*⁷.

The ‘periodization’ of time is thus operated by Menger, *both* objectively, that is the ‘delay’ so to speak that any production takes to reach the availability of the good when those of lower

⁶ Menger, C., *Principles*, *op. cit.* Chap. 2, § 1.b. In the translation by Dingwall & Hoselitz p. 84.

⁷ Menger, C., *Principles*, *op. cit.* Chap. 2, § 1.c. In the translation by Dingwall & Hoselitz p. 87-88.

order not being immediately available, one has to go a higher order, and so on – *and subjectively*. One key element of reading is to consider time as the subjective feeling of duration. This goes together with the difference that exists between assigning tasks, dividing labor and defining the conditions of intensifying productivity can be put in a nutshell here: Menger reproached Adam Smith (in the beginning lines of chap. IV of the *Principles*) with arbitrarily assuming a ‘tendency to exchange’ in economic agents, an intrinsic push that needs not be set as a hypothesis to explain trade. In parallel, the elements that point to investment deepen this criticism of Smithian economics from another point: first, in *The Republic*, Plato had described how each member of a given community would specialize in a different task, from which results higher efficiency for the whole village. However, this is only assigning each individual a task according to his/her tastes/abilities. What the division of labor is about is splitting the task itself among individuals, with a significant gain in productivity.

Grasping the mechanism how each stage of production may in itself be analyzed and each element of the analysis made more efficient goes beyond this and requires a theory of complementary higher goods: this is precisely what Menger provided. To seize this mechanism, insistence on the role of *time* is set forth. Investment and innovation may be more systematic and the result of some conscious endeavor rather than a mere chance that may be happening haphazardly.

The key element validating Menger’s attempt at changing views on the production process is whether the assessment of the outcome is made clearer and the outcome itself appears more efficient, that is to say more productive with more *saleable* goods and services: there, the notion of what is *absatzfähig* resurfaces. Relationships in various sets of human action in time are individually as well as socially identified. Individual plans and actions intersect with social circumstances to reach this successful outcome, in one word: the basic elements for *spontaneous order* are set in place. This word itself would come later, though, with Friedrich Hayek, as one major *Enkelschüler* of Menger. Seen strictly in its mechanism of exchange understood from the point of view of subjective marginal reasoning, the descriptive account of *vicissitudes* mentioned at the start of this paper is made sensible and visible.

In all cases, mechanisms are here based on time, where time is understood as *duration*.

Whatever may be the case, time for Menger is essential as *duration*, and this duration is central inasmuch as it is felt by the *subject* of economic action. While material clocks indicate

objective time with regular intervals, it is clear that for the individual *subject* periods of time depend on his longing, on his being satisfied or frustrated and so on⁸.

Mengerian economics deal with such individual reality – as much as with assessing delays in satisfying needs, or roundaboutness in production and transformation of investment processes. Just like Menger in principle, but even further in the details of theory and in practice, Menger's heirs would take into account the flow of time: Böhm-Bawerk would later stress roundaboutness in production, while the finite character of each stage of production⁹. That is with limited resources to allocate, limited information to gather and limited cognitive resources to process those would push Hayek to focus his conception of economics on decentralized information and the aforesaid *spontaneous order*. In Menger, both the ideas in the *Principles* (1871) and in the *Investigations* (1883, especially Book III) are necessary in order to correctly assess the Hayekian contribution in turn.

The notion of duration implies as well the presence of an environment (*Außenwelt*) within which individuals may evolve. Whereas this notion is present from the start in the *Principles*, it is *always* referred to through the agent subjectivity – and never through the lense of some external (or “objective”) appraisal of the nature of this environment, except in the fact that some kind of satisfaction of need is more or less livable (one would not survive long on tobacco only – Menger’s example, or on drugs or substances only, like Vilfredo Pareto will remind whereas stressing that, precisely, the economist does not have to judge upon the nature of the desired good by the individual: the economist is neutral, while the threat to his/her life calls the agent back to reality). Therefore, the environment in which given individuals dwell is precisely the frame within which they are *embedded*. So much so that Mengerian economics may also be seminal in debates with thinkers from streams of thought such as the institutionalists or the environmentalists. This has been made unclear due to the later developments in the fights of the twentieth century fought by Austrians against all kinds of supporters of planned economy.

⁸ Incidentally this points to a notion that would be explored in later decades than the *Principles*, for instance within the phenomenology by Edmund Husserl, on the one hand, or the conception of energy and life by Henri Bergson, on the other hand. While Menger was still actively working on a revised edition of his work at that time, those authors are not found in his notes and probably the interval between the moment Menger formed his thought and such later developments as well as the gap between disciplines (and how much Menger was busy fighting German historicism) explains that he remained impervious to such influences while he was pointing to some similar fundamental notions regarding human behavior.

⁹ See (Jean Magnan de Bornier 2008). Menger did not provide all the necessary means to compute, for instance, how to choose between such and such alternative investment and the know how to compare returns on such investments, or to provide options for some preference. Most key features on business investment were to come later and by authors both in the Austrian tradition (like Böhm-Bawerk) and outside of it. Discounting methods (in accountancy) and further entrepreneurial tasks are not discussed in Menger, which remain seminal and useful in terms of general notions rather than detailed developments on those aspects.

But the key point again is time, providing from the original source of Austrian thought an opening towards some “anthropological” view on human action. (Much later Ludwig von Mises made use of this for his own praxeology, but we leave this aside).

What is of interest here is that this relationship deserves attention in its roots. And time is the notion what directs attention towards individual perception, as well as the advancement of civilization as a whole, since it relates human beings economically interacting exactly inasmuch as they tend to satisfy their needs through production, exchange and consumption (exchange when direct consumption is not available). There exists no need to assume some pre-existing instinct or ‘tendency to barter’ as Adam Smith put forth and as Menger criticizes at the beginning of the chapter IV of the *Principles*, quoting and commenting the *Wealth of Nations*.¹⁰

III. Uncertainty and causality call for a few elements in Kant and in Menger

The main feature ascribed to time as duration is that things may change (this hurdle has not been overcome even in later *mainstream* economics). Since this is obviously the case each time that economics is set into a dynamic frame, then uncertainty surfaces. It impacts the structure of preferences (hence the above said ‘hurdle’ for standard microeconomics), but also that of production, due to innovation that keep on flowing in the way socio-economic structures are ceaselessly defined and redefined. The remarks above about productivity, roundaboutness in productive labor, etc. are to be assessed. Menger wrote about uncertainty from the point of view of his analysis of the ranking of consumption and higher goods and services.

The greater or less degree of certainty in predicting the quality and quantity of a product that men will have at their disposal due to their possession of the goods of higher order required for its production, depends upon the greater or less degree of completeness of their knowledge of the elements of the causal process of production, and upon the greater or less degree of control they can exercise over these elements. The degree of uncertainty in predicting both the quantity and quality of a product is determined by opposite relationships. Human uncertainty about the quantity and quality of the product (corresponding goods of first order) of the whole causal process is greater the larger the number of elements involved in any way in the production of consumption goods which we either do not understand or over which, even understanding them, we have no control - that is the larger the number of elements that do not have good-character.

¹⁰ There is more *passim* in manuscript notes, but one should point that Menger seldom indicts classical texts directly in the main text of the published *Principles*, while he puts abundant references both in published pages and in later handwritten notes or appendixes, as we have examined.

This uncertainty is one of the most important factors in the economic uncertainty of men, and, is of the greatest practical significance in human economy.¹¹

Dealing with uncertainty is a task for those who have *foresight*: now this is the key entry point to deal with entrepreneurship in the Mengerian frame.

It comes up from his view on time. Here I would attempt to bring closer Menger's view and Kantian notions. That is to say that, on this particular point, besides the more general Aristotelian framing of time as 'what can be said relating to what comes before and after' (the ranking of goods in the productive process is illustrative of that), Menger would also, maybe not find in Kant (I shall indicate what he actually read), yet still he would be drawn close to the Modern philosopher, not only the Ancient. This is a hypothesis since what Menger's notes deliver on this is minimal: therefore, I do not mean to prove the point, just to make it salient.

It should also be noticed that a relationship of Menger to Kant was set forth by Japanese scholars, notably Kôzo Sugimura in the 1920s, upon the basis of the archives of Menger's *Nachlass* that had just been bought by the High School of Commerce of Kanda, later to become Hitotsubashi University.¹² Sugimura and his master and colleague, Kiichiro Sôda, originated the tradition of 'economic philosophy' in Japan, as was put forth by Yuichi Shionoya (see the special issue of the *Review of Economic Philosophy* for a French translation while there exists no English translation). However, it is another part of Sugimura's work, and later (after World War II) a paper published by Yamada that puts forth the relationship between Menger and Kant (Sugimura 1926 and Yamada 1955). In both cases, the influence of more general concerns can be felt¹³. Those scholars concluded quite hastily to Menger's 'kantianism'. So, the influence that is brandished should be qualified, and referring to notes helps in that sense, as I shall show.

However, there is one point where I would venture Menger inherited Kantian influence (probably not fully felt as such). It is the link between his concepts of time and of causality, which is fundamental: "the idea of causality is inseparable from the idea of time" (says Menger, in Chap. I, § 4)¹⁴. I would tend to say that this is related to the issue of Menger's rejection of mathematics as the essential tool of research in economics: his view on time, that I tend to feel grounded on a Kantian understanding of time, needs both dynamics and duration as such, may

¹¹ Menger, C., *Principles*, *op. cit.* Chap. 2, § 1.b. In the translation by Dingwall & Hoselitz p. 71.

¹² I have retraced the history of those archives in a few papers (including in English Campagnolo 2000) and I am presently translating Kinnosuke Ootsuka's memories of the acquisition of the Menger Collection.

¹³ For instance, with respect to aspects of international politics before the war favoring confusion between various German-language trends of thought, as long as they could help 'cover one's back' so to speak, but this comes as external to scientific concerns.

¹⁴ « The idea of causality is inseparable from the idea of time » (chap. 1, § 4) see quote above *Principles...* *op. cit.*.

lead him to reject «'mathematizing' time, so to speak. This is a related but different issue, and it is open to debate. The reason to think so is that the mathematization of time tends to negate, or at least, push aside uncertainty and, as a consequence, the innovation process which can never be asserted *sub specie eternitatis* or even in equilibrium. The mathematization of time would participate of a transcendental delusion where models deny the role of time in any other sense than an 'objective' external variable that is isomorphic. Any unit of time is worth any other unit in that perspective, while, on the contrary, each unit is subjectively full different from any other in the way that Menger refers to the economic agent. Time would be 'plastered down' on arithmetic and thus 'lost' in its potential effect to understand the marginal reasoning. In Kant, this criticism is explicit in the "System of all principles of pure understanding" when he points out that this delusion invalidates this reductionist view, but does not preclude the use of causality as the central concept in a scientific approach. At least, this is our understanding of the passage of the "System of all principles of pure reasoning" that Menger quotes¹⁵. The existence of time is the more important as it cannot be merely 'arithmeticized' but implies open-endedness and inner developments in the active subjective agent. In sum, as a 'man of Enlightenment', like Kant, Menger would subscribe to this, which is found in Kant.

This does not make Menger a disciple of Kant, though, and for good reasons: on the one hand, the Viennese intellectual atmosphere in which he evolved was, as is well-known, deeply anti-Kantian (with Brentano and so on). Although Menger did not take a stand, either publicly or even in the notes in his library, about the writings of Brentano and his other contemporary colleagues at the philosophy Faculty, he was in some way part of that intellectual moment. On the other hand, this aspect can be documented, since Menger read Kant, at least some passages, directly or in the textbooks that were then in use. What can be ascertained from those readings and his handnotes is as follows.

First, on the critical assessment of mathematization within the science to be created, Menger stresses what fits our hypothesis above, even if it is not conclusive enough.¹⁶ Secondly, Menger is wondering whether Kant saw 'pure reason' at work in economics at all, that is if the latter could become a science according to him, at last adequately understood (not the way it

¹⁵ This passage deals with the concept of the relationship from cause to effect, wherein the cause determines the effect through time as its *consequence*, and not merely something that happens afterwards according to the ordering of time. The point is, as David Hume raised it, how to see a *cause* if not bringing in the very structure of human reason (*Vernunft*) including reasoning (*Verstand*) while imagination also and perception as well play a role. The *Critique of pure reason* can be read as a thorough inquiry why *post hoc* is not *propter hoc* and what *propter* means.

¹⁶ In a handnote on a blank page added facing page VII of the preface of the *Principles*, Menger quoted Kant: preface of the first edition of the *Critique of pure reason* (Riga, 1781) where Kant pointed out how all paths towards science seemed to have been followed to no avail, leaving room for 'perfect indifferentism', a doctrine that lead to chaos and darkness, which however opens the path to further renovation.

was by Smith, and his followers, according to Menger) and with the categories that Kant put forth. In Menger's eyes, Kant missed target *as far as economics was concerned* (while he correctly identified the issue for chemistry, for instance, after Lavoisier). Indeed Kant set aside political economy and other social sciences from his reflection on sciences in his *Critique of pure reason*, to insert it rather within his *Critique of practical reason*, the rationale being that the second embodies what can be done *with the use of human will* (what ought we do?). Hence economics would be an issue on norms. Menger then noted down: « *Kant sees no pure reason [at work] in pol[itical] eco[nomy]* »¹⁷ [we stress the word 'pure'].¹⁸

As a matter of fact, Menger's readings of Aristotle, Smith and Kant are just a little part of all the readings he made and continued to make for half-a-century after publishing his *Principles* and the manuscript notes provide much information for that reason. However rich this documentary part, one must recognize the limitations thereof and clearly one can simply conclude neither to an absolutely "anti-Smithian" nor to a "Kantian" Menger, but to an economist who found much in Aristotle, fought much against the Classical school from its Smithian origins on, and was the heir to German thought, even where he would combat it in its "Young" Historicist representatives. The preface and the dedicatee of the *Principles* (Wilhelm Roscher, the founder of the - old - German Historical School) are clear enough and the matter can be clarified and qualified as much as necessary from within the texts.

For that matter, let us add incidentally that we develop a viewpoint different from that of Erich Streissler, who wished to describe Menger as a German economist altogether, in sum. He demonstrated that some theoretical parts of the *Principles* derived from the peculiar reception given to the works of Smith in Germany (where the *Wealth of Nations* was criticized from its first translations). Streissler linked his own analysis to the fate of the Austro-Hungary facing the German Reich (and being defeated by Prussia at Königgrätz, once for all). Reflections upon the notion of value are core to the Austrian economics. Austrian economists, notably Joseph Schumpeter, saw things differently and claimed strongly their independence from the German school: the Methodenstreit bears witness to this differentiating process between Menger and

¹⁷ The manuscript note on the copy of Friedrich Überweg's textbook that Menger owned bears : « *Kant sieht in der theoretische Nat[ional]ök[onomie] keine reine Vernunft* ». (*Grundriss der Philosophie der neuer Zeit*, Berlin, Mittler, 1872, note p. 172).

¹⁸ To enter into detail in this issue, Menger could partly be victim of the false symmetry in the titles of his *Critiques* by Kant, since 'practical reason' is also 'pure' (that is to say: transcendently grounded). However it is not 'theoretical'. Hence the full titles of these two *Critiques* are to be understood as '*Critique of theoretical pure reason*' and '*Critique of practical pure reason*'. In any case, if Menger wants to say that Kant missed putting economics in the frame of theoretical pure reason, he is right. And, on the contrary, this is his own goal as Menger re-titled an annotated copy of his own *Principles*, *eine reine theoretische Wirtschaftslehre*, that is to say 'pure theoretical economics/economic doctrine'. It is indeed for this pure economics based upon theory that Menger argues, and which he regrets he could not find in Kant (since it is indeed not in the German thinker's frame).

Schmoller, Austrians and Germans, and it becomes central to understand Menger and the rise of his school. As a consequence, we shall end this paper on Menger and time and entrepreneurship in a manner probably somehow unexpected with notions related to an anthropological view related to the entrepreneurial nature of the capitalist economy.

IV. A question: should one think of a ‘quasi-anthropology’ about Menger on time? And concluding words

Elsewhere, we explored the relationship between theory of the entrepreneur and theory of the firm, on the one hand, and between Menger and Böhm-Bawerk on capital and entrepreneurship, on the other hand (resp. Campagnolo & Vivel 2014a and 2014b, see references for the literature therein, so we refer the reader to this paper). Earlier on, (Campagnolo & Vivel, 2012) were explored other major German authors of Menger’s times on entrepreneurship: especially Sombart and Menger’s disciple, Friedrich von Wieser. Their works were used as resources by Josef Schumpeter who would have them in mind when producing his theory, as he was himself close to, but in some way differentiating himself from the Austrian school proper. This is a different point that we wish to raise here to conclude this presentation.

In the twentieth century, the success of anthropological studies and the rise of “analysis in context” (with long-term consequence that one may still observe nowadays, for instance with so-called ‘intersectional’ studies) had, somehow through historical upheavals, put an end to late nineteenth-century “Pan-Germanism” and “Europeo-centrism”. Interest in early trade ways and means or barter and earlier coinage manners, as well as sociological interest in the cogs and wheels of exchange (through reciprocal gift, like in the works by Marcel Mauss, for instance) all contributed to a new approach. Part of this stream of thought came out of the Viennese cradle as well. If not directly assignable to the Austrian school as it had developed, but analogous with the entrepreneurial developments around Schumpeter motto of “creative destruction” (*schöpferische Zerstörung*), using basic schemes provided by Menger, Karl Polanyi may well be regarded as illustrating views that stress the role of time and civilization process in the individual and societal appropriating of goods and services. In that regard, Polanyi’s *Great Transformation* (1944) has something of a counterpart to the work published the same year by Hayek, his *Road to Serfdom*. Both are fundamental texts in order to understand the evolution

that the Mengerian heritage could yield. Using Menger's texts, both authors (and their followers) not only built their own theories, but challenged each other¹⁹.

In order to support the hypothesis in the direction of Polanyi's use of Menger, there is also one track that leads to the second edition of the *Principles*. This has raised some interest among commentators as the relationship between Menger, his son, and the readings of the 1923 edition (that had practically been left into oblivion) all deserve attention²⁰.

The point with the development of entrepreneurial spirit in time lies in the capacity to pinpoint the evolution of individualism through human exchange at the anthropological level. It is how this related to a renewed understanding of the notion of *Kultur*²¹ between the dominant German and the incipient Austrian schools that calls for attention, between institutionalist views, contextualist views and the rise of methodological individualism in its variants.

The narrative-descriptive approach of the Historicists made room for taking into account time and uncertainty that lead to studying investments in the same manner as the latter did for all economic phenomena, by directing their attention towards the detailed evolution of effective investments, which they would assess through testimonies from the investors, and the entrepreneurs, the men of the *Gründerjahre* of the time and by the use of statistics ("history put into figures"). *Mutatis mutandis*, there are similarities with today's use of *big data*. And just in the same way, the theoretical framework seems either to remain absent, useless, or to recede where it seemed to already hold ground. One should then recall that the interest Menger showed in following the "thousand vicissitudes" of exchange was grounded upon a conceptual general approach and not a factual, or even experimental approach. What was to be followed through time was a process of behavior and subjective thought, not the graphs drawn from such and such given investment process. This reasoning would then also include societies where trade tools would be far less developed, or where altogether different patterns of exchange would exist in practicality.

The point is that, within time, « men provide themselves with tools at each and every stage of civilization (*Kultur*)»²². Menger described human societies as formed from that usage

¹⁹ Actually the debate was mostly between Polanyi and Hayek's "older brother" Ludwig von Mises but we shall not develop this here (see: Pinault 2020).

²⁰ See for instance works by Giandomenica Becchio, like (Becchio 2011) and our own valuation (Campagnolo 2008 and 2011 Editorial Note) and the more recent global evaluation of the role of 'Karl Menger as Son of Carl Menger' (Scheall and Schumacher, 2018).

²¹ See (Campagnolo 2010, chap. 4) on the political economy of mankind and *Kultur* in the German realm).

²² « Men are providing themselves with tools in all strata of the development of their civilization » from the *Principles...* *op. cit.*, note chap. 1 (our translation).

of tools, contrary to animals, Menger adds at a general level (so that discoveries made since then about animal behavior can be taken as exceptions to a general fact simply assessed without interfering with the analysis)²³.

Not only does Menger put in relationship various sets of tools with individual human action in time, but he thus leads his discourse (and our presentation) back to the issue of the division of labor, or rather the intensification of each task through innovation and new entrepreneurial foresight and investment. Time at the individual level and the causality process it entails is ultimately the evolution of civilization as such (for instance, Menger pays attention to the dozen of types of axes that exist through the evolution of some professions that make of them for varied purposes²⁴). Defining human society as a multiplicity of agents who diversified their tools through innovation and investment along stages of development – hence a parallel that can be drawn with the *Entwicklungsstufen* set forth by Bruno Hildebrand within the German Historical School. Like regarding entrepreneurship or, for that matter, money (between Karl Knies' *Das Geld* famous textbook and the chapter 8 of the *Principles*), the elements of reflection that are common can be drawn from both sides of a more essential divide that however remains, which consists in the orientation taken in the analysis. Both views are *dynamic*, but one starts from the facts and processes them through induction, the other uses deduction, or as Karl Milford (1989) put it abduction, but in no case relies upon mere facts. The theoretical framework for all goods is the one that was indicated above between consumption goods and higher goods. The main trait of Mengerian analysis remains a fact throughout – and even when extended to later quasi-anthropological research as Polanyi did.

However, is it then possible to talk about an economic anthropology in Menger? The question is too large here. It would anyway not be an ontology of social objects that heirs like Hayek would tend to build, since Menger remained cautious not only within his *Principles*, but also in the methodological debates that followed with the German Historical School and his arch-opponent, Gustav Schmoller. After all, Menger did not need to enter a dispute that would spill out of the methodological field. His position was to favor general pure theory, as we indicated above when discussing his rationalist and critical stand, in a quasi-Kantian position, recognizing as the same time the role of time in all key concepts he used, like *Absatzfähigkeit*

²³ One could also, nowadays (or rather in some future, or already?) add the same remark about self-automata. It seems that as long as some kind of human intervention would remain necessary, either to create machines or to teach them what to learn (*deep learning* also consists in such many micro-work tasks for which laborers are in order at the present stage of the economy at least, with poor labor conditions, one should add).

²⁴ *Ibid.*, see note on p. 321 in the French translation. Part of these remarks surfaced when conversing with Bastien Massé, a PhD candidate on the theory of innovation and investment: Menger's *Principles* naturally remains source material for today's PhDs.

(again, upon the aforementioned example of axes: they need to have some use, and since they have such use, they are utilized and become a saleable good). Menger does nothing more in a sense than treading the field of economic relationships in all fundamental directions. Entrepreneurship surfaces from this concern, like it would from a minimal anthropology based on the notion of time and from which many features could surge, including the Austrian understanding of a theme that belonged to the debates of the time, the last third of the 19th century, as much as it does to ours, that is the nature of the entrepreneur and entrepreneurship.

References

Becchio, Giandomenica. 2011. Existe-t-il une doctrine Menger qui soit “hétérodoxe”? Sur l’interprétation des *Grundsätze* (1923) par Karl Polanyi. In (Campagnolo 2011) : 167-186.

Campagnolo, Gilles. 2000 “Learning from Hitotsubashi’s Carl Menger Library (Questioning the Origins of Austrian Economics)”, *Bulletin of the Center for Historical Social Science Literature*, Hitotsubashi UP, 20, pp. 1-16.

- 2002. « Une source philosophique de la pensée économique de Carl Menger: l’Éthique à Nicomaque d’Aristote », *Revue de philosophie économique*, De Bœck. 6 : 5-35.
- 2008 (Ed.) *Carl Menger. Discussed on the Basis of New Findings*. Frankfurt/Main – Wien, Peter Lang
- 2009. Origins of Menger’s Thought in French Liberal Economists, *Review of Austrian Economics*, 22/1: 53-79.
- 2010 *Criticisms of Classical political economy. Menger, Austrian Economics and the German Historical School*, London-New York, Routledge, xxiv + 416 p. Foreword by Bertram Schefold.
- 2011 (Ed.) *Existe-t-il une doctrine Menger ?* Aix-en-Provence. Presses Universitaires de Provence (and Open source).
- 2011. Editorial Note and Introduction in In (Campagnolo 2011) : 9-42.
- 2012 « Deutsche Archive in Japan und das Beispiel: Carl Menger und sein Verständnis der Nikomachischen Ethik des Aristoteles» In H. Kurz (Hrsg.), *Schriften des Vereins für Socialpolitik* Gesellschaft für Wirtschafts- und Sozialwissenschaften (neue Folge 115/XXVII, Der Einfluss deutschsprachigen wirtschaftswissenschaftlichen Denkens in Japan), Berlin, Duncker & Humblot: 131-177
- 2021. Was Carl Menger Aristotelian? A Rejoinder *Cosmos + Taxis*. 2021 issue.

Campagnolo, Gilles and Lordon, Aurélien. 2011. Menger était-il aristotélicien ? Nouvelles réflexions à l'occasion d'une réponse à Ricardo F. Crespo. In Campagnolo, G, (Ed.) *Existe-t-il une doctrine Menger?* Aix-en-Provence : Publications Universitaires de Provence : 45-74. <https://books.openedition.org/pup/1608?lang=fr> Last access on May 20, 2021.

Campagnolo, Gilles and Vivel, Christel. 2014a (Eds). The Entrepreneur: Facets of Yesterday and Today. *Review of Economic Philosophy*, 15/1. Contributions by Sandrine Blanc, Virgile Chassagnon, Jean-Sébastien Gharbi, André Lapied, Sophie Swaton, and the Editors.

- 2014b. The Foundations of the Theory of Entrepreneurship in Austrian Economics – Menger and Böhm-Bawerk on the Entrepreneur. *Review of Economic Philosophy*. 15/1: 49-98.

- 2012. Before Schumpeter: forerunners of the theory of the entrepreneur in 1900s German political economy - Werner Sombart, Friedrich von Wieser, *The European Journal of the History of Economic Thought*, 19/6, Dec.: 909-944.

Crespo, Ricardo. 2003. Three Arguments against Menger's Suggested Aristotelianism. *Journal des Économistes et des Études Humaines*, 13(1) : 63-84. Berkeley Electronic Press, 13 (1): 3 <http://www.bepress.com/cgi/viewcontent.cgi?context=jeeh&article=1083&date=&mt=MTI1OTc4NjIwMQ>. Last access on May 20, 2021.

- 2021. Was Carl Menger Aristotelian? *Cosmos + Taxis*. 2021 issue.

Kirzner, Israel. 1978. The entrepreneurial role in Menger's system, *Atlantic Economic Journal*. 6/3: 31-45.

Magnan de Bornier, Jean. Comparing Menger and Böhm-Bawerk on Capital Theory. in (Campagnolo 2008 Ed.): 217-23

Menger, Carl. Carl Menger Gesammelte Werke, reed. by F. Hayek, four volumes, 1934-36, 2nd ed., Tübingen, Mohr, 1968-70. I: Grundsätze; II: Untersuchungen; III: Kleinere Schriften; IV: Schriften über Geldtheorie und Währungspolitik including Geld, pp. 1-116 and miscellaneous regarding the Valutareform.

- 1871. Grundsätze der Volkswirtschaftslehre, Wien, Wilhelm Braumüller. English translation, by James Dingwall and Bert Hoselitz, *Principles of Political Economy*, 1950, Glencoe, Illinois, reed. New York, 1976, Institute for Humane Studies; reed. 1981.

- 1923. *Grundsätze der Volkswirtschaftslehre*, reed. by Karl Menger son, Vienna, Hölder-Pichler-Tempsky (posthumous edition elaborated by the son of Menger without the archives sent to Japan by Menger's widow in 1921).

- 1883. Untersuchungen über die Methode der Socialwissenschaften und der politische Œconomie insbesondere, Leipzig, Dunckler & Humblot. English tr. *Problems of Economics and*

Sociology, part tr. by Francis J. Nock, Urbana, 1963. *Investigations into the Method of the Social Sciences with Special Reference to Economics*, New York, New York University Press, 1985. Full version re-using Nock in some places, rep. and edited by Lawrence H. White.

Milford, Karl. 1989. "Zu den Lösungsversuchen des Induktionsproblems und des Abgrenzungsproblems bei Carl Menger", Verlag der Österreichischen Akademie der Wissenschaften, Vienna.

O'Driscoll, Gerald P. and Mario J. Rizzo. 1985. *The Economics of Time and Ignorance*. New York, Blackwell, 1985.

- 2015. *Austrian Economics Re-Examined: the Economics of Time and Ignorance*. London, Routledge.

Pinault, Santiago. 2020. Karl Polanyi vs. Ludwig von Mises. Esquisse d'un anti-formalisme « vétéro-autrichien. *Austriaca*. Special issue « L'école autrichienne d'économie » 90 : 173-196.

Scheall, Scott and Reinhard Schumacher. 2018. Karl Menger as Son of Carl Menger. *History of Political Economy*. 50/4: 649-678.

Sombart, W., (1909), « Der kapitalistische Unternehmer », *Archiv für Sozialwissenschaften und Sozialpolitik*, XXIX/3, pp. 689-758.

Sugimura Kôzo. 1926. *Inquiry into Menger's Methodology of Social Sciences*, Tokyo, Shogakenkyûkan,

Yagi, Kiichiro. Carl Menger's *Grundsätze* in the Making. *History of Political Economy*: 25(4): 697-724.

Yamada, Yuzo. 1955. 'Carl Menger', *The Formation of Modern Economics*.