REVIEW

Matus Posvanc, *The Evolutionary Invisible Hand. The Problem of Rational Decision-Making and Social Ordering over Time*

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> *Et haec cum dixisset, voce magna clamavit: "Lazare, veni foras!"*
> —(Evangelium secundum Ioannem, 11:43).

This episode from the Gospel according to John is probably one of the most well-known passages in the Christian holy scriptures. Well, when I first read Matus Posvanc's *The Evolutionary Invisible Hand*, I pictured in my mind the image of the author, who is the President of the F. A. Hayek Foundation in Slovakia, shouting "Ludwig Lachmann, veni foras!" After a while, however, I figured out that "Don Lavoie, veni foras!" was probably the most appropriate expression, as the book appears to be solidly grounded in that virtuous interconnection between hermeneutical philosophy, economics and history of ideas so decisively, although briefly, championed by Lavoie, the first prophet of the interpretative turn in economics advocated by Ludwig Lachmann (1971), with its reprise of Max Weber's methodological research programme (see, in particular, Lavoie 1986 and 2011 and Lavoie and Storr 2011).

This is not the place to discuss the influence of Lachmann and Lavoie on the evolution of the Austrian School, but recently Storr (2017, p. 3) stated that there:

> are at least two areas where Lachmann has, arguably, won the day, where Lachmann's views appear to be the dominant ones, where Lachmann either directly inspired these advances in Austrian economic thought or anticipated them. The first is Lachmann's insistence on the thoroughgoing application of subjectivism to our theorizing about action in the world and the second is Lachmann's emphasis on the importance and key role that institutions play in guiding our actions in an uncertain world. Whether we admit it or not, we are all Lachmannians now. Or to be more precise, we are pretty much all radical subjectivists and Austrian institutionalists.

We are all Lachmannians now is a pretty strong statement, and I would guess that many at the Ludwig von Mises Institute would like to disagree. However, it is indeed fair to admit that Lachmannian ideas are at the root of many positive developments within the contemporary Austrian school of economics. He and his first disciple, Don Lavoie, influenced an important group of contemporary Austrian economists: Peter Boettke, David Prychitko, Richard Ebeling, the late Steve Horwitz, Peter Lewin, to name a few, while Deirdre McCloskey (2017, 2021) explicitly refers to the interpretative turn when presenting her idea of *humanomics*.

Lachmann's emphasis on meaning and interpretation is not disconnected from some of the most important definitions brought out by Ludwig von Mises. In fact, after having stated that the task of economics is "to investigate the market phenomena, that is, the determination of the mutual exchange ratios of the goods and services negotiated on markets, *their origin in human action* and their effects upon later action" (Mises 1949, p. 233, emphasis added), Mises clarified that "Human action is *purposeful behavior*. Or we may say: Action is *will* put into operation and transformed into an *agency*, is aiming at ends and goals, is the ego's *meaningful* response to stimuli and to the conditions of its environment, is a person's conscious adjustment to the state of the universe that determines his life" (1949, p. 11, emphasis added). This means that action cannot be isolated from the meaning it has for the subject who is doing it.

In this light we can understand Storr (2017), when he stated that to be "an Austrian economist is to be concerned with meaning. If we hope to understand human action, then we must pay attention to the meanings that individuals attach to their actions, and to the actions of others, and to the various choices that they are considering, and to the possible outcomes of those choices. Ours is at root a science of meaning"

In fact, if the most important contribution of the Austrian school of economics is the definition of economics as the science of human action, and if human action is purposeful behaviour, it becomes obvious that the task of the economist is to interpret those actions and try to understand their meaning, since every action is meaningfully connected with the final end it tries to achieve (Ferlito 2019). In this regard Mises (1949, p. 92) clearly stated that economics:

> is not about things and tangible material objects … [on the contrary] it is about men [sic], their *meanings* and actions. Goods, commodities, and wealth and all the other notions of conduct are not elements of nature; they are elements of human *meaning* and conduct. He who wants to deal with them must not look at the external world; he must search for them in the meaning of acting men.

By introducing the category of *meaning* we reconnect with the world of interpretations (Lachmann 1971), or *verstehen* (understanding), central to the analysis of human action (Antiseri 2011, p. 7) and which is the most important novelty introduced by Lachmann and his followers. Indeed, *interpretative* processes must be seen as the necessary subjective link between different objective facts and events. Human actions are objective facts; they are responses to other objective facts, constituting the elements of reality. However, how such responses are defined is totally subjective, the outcome of interpretation processes, which I defined as 'hermeneutical actions' (Ferlito 2016 and 2018). This is what Lachmann called the subjectivism of active minds. Such a perspective does not deny the objective nature of reality; however, the nature of the response to objective elements is exquisitely subjective and ontologically hermeneutical.

It is now clear how subjective hermeneutical processes constitute the necessary link between objective facts. Without the interpretative moment, reality could not take shape because no action would be decided. Furthermore, while market players are continuously involved with interpretative processes in an attempt to understand reality, economists themselves must deal with a different type of hermeneutical activity: the understanding of the meaning of human actions in the market and of the unintended consequences which go beyond players' intentions. Therefore, understanding is not limited to how players act. Their actions certainly involve hermeneutical processes, but we should add, as explained by Prychitko (2018, pp. 162-163), that so do economists' interpretations and their subsequently emerging visions.

Posvanc's book is fully embedded in this way of analysing essential points of economics: meaning, understanding and interpretation. And he seems to do so in a way which is even more Lachmannian than the method adopted by Lachmann himself; this is the reason why I mentioned the link with Don Lavoie, who was the most radical among Lachmann's followers. Furthermore, in Posvanc's work we find the philosophical spark that was so present between the 1970s and the 1990s in the works of the young Austrian economists, who from South Royalton onward were imbued with the German economist's teaching. I have in mind in particular David L. Prychitko, Richard Ebeling, Karen Vaughn and Mario Rizzo.

The book is an ambitious work, aiming at redefining the very foundations of the discipline, including the subjective value theory in a way which I will discuss in a moment, and it appears to be indeed inspired precisely by Lachmann and Lavoie. I will not undertake the task of checking if his various ambitious targets were achieved; in order to do so, the book would need to be read over and over again, so as to fully grasp and appreciate the depth that can be only superficially tasted when it is read only once. Furthermore, the author's erudition—typical of the high tradition of Continental Europe—allows him to navigate through different disciplines in a way that contemporary economists have lost, while it was very familiar to the masters who built the history of our discipline.

Posvanc's opening claim (p. 2) is that the book solves a fundamental problem: how do we correctly estimate for the future, so that we can learn from realized mistakes and be economically successful? Uncertainty and the fact that—despite it, thanks to it or beyond it—coordination emerges, is probably the most striking fact in the analysis of human action—and one which is at the root of Austrian theorizing. Shackle, Knight, Lachmann, as well as Mises and Huelsmann, are some of the companions in Posvanc's journey.

The author is well aware that, if he wants to properly address the matter, he needs to be equipped with a "realistic and meaningful description over time", which "is one of the basic preconditions for the success of any economic theory" (p. 1).

And yet, according to my impression, these are not the most important features or strengths that the book offers the reader. The two crucial aspects in the book are instead, in my view, the following:

1) The modification of the theory of subjective value in the form of the claim that one perceives the satisfaction of one's needs in the context of one's overall individual portfolio of goods.
2) Anchoring this modification in evolutionary (intersubjective) apriorism.

The central element with regard to point 1 is that the author, discussing Menger's classical link between one good and the subjectively perceived satisfaction the good delivers, shifts that satisfaction from the one good to a group of goods which satisfies a sum of needs. The author brings out the interesting—and appropriate—concept of a sum of needs satisfied by a portfolio of goods; this is not in contradiction with the traditional version of the subjective value theory but an extension in the direction of complexity and realism. Furthermore, the author adds that the portfolio of goods is a formally logical, homogeneous construction of the mind, which is applicable over time.

Posvanc (paragraph 2.2.3) explains that the concept that "man prefers more, rather than fewer goods of the same kind and quality" is not applicable over time "since the valuation of goods can change over time and there need not exist, in value terms, the same goods a few moments later". It is only possible to claim that "man prefers a higher rather than a lower satisfaction of needs". Therefore, the author aims to introduce a time-invariant version of the theory of subjective value, where the crucial point is the attribution of value over time.

The explanation of the modified value theory (p. 64) is worth quoting in its entirety:

> The traditional interpretation of the theory of subject value usually describes this causal link between a particular need satisfied by a particular economic good who writes generally about the issue … The specific need satisfied by a particular good that exists today may not exist tomorrow or theoretically speaking, in a few seconds, *in value terms*. The specificity necessarily causes a perception of value heterogeneity. … The problem is not a time or a change per se; a time flow is given; we must deal with it. Change has its endogenous (action-based) as well as exogenous (outer reality-based) character. The problem is to explain how a person assesses goods over time without any auxiliaries such as the *ceteris paribus* concept or a concept such as goods of the same kind and quality or any other model-static constant presuppositions about an agent's valuation over time.

How might one define a subjective value theory which is valid over time? (p. 65, emphasis added):

> The modification consists of a slight adjustment and a deeper differentiation of the concept of the theory. It states that man always satisfies some perceived factual and expected (counterfactual) *sum of needs* by some *sum of goods* (portfolio); but it is not the whole picture. There is always a combination of some needs. It is a kind of mental concept which has its own structure (thoughts structure) and which is based on a relational character—ideas of needs are combined together. It is thought by man that the needs (as a sum of combination of them) are met through the second mind concept—some sum and combination of means. It is also a kind of mental concept with its own relational structure, which we can refer to as a concept of portfolio today. It means that there are two mental concepts—a sum/combination of needs and a sum/combination of means and a Mengerian *value* causality which is not realized on the particular level of the need-good relationship but on the conceptual level of some thought structures of needs and means which have a consequent reflection into reality in the form of a real combination of items of reality which we call economic goods and which constructs our portfolio of real goods.

This passage is very important and dear to me, because it introduces needs and means as two mental concepts. The recognized causality is the value. This is in line with what I affirmed about capital in Ferlito (2016, 2018), and in fact I argue that there is a strong continuity between the works I published on the *hermeneutics of capital* and the extension of those ideas that I find in Posvanc's book.

The main reflection in Ferlito (2016) started from Menger (1871, p. 53), which clearly identified four prerequisites that need to be present simultaneously in order for a thing to acquire the status of a *good*:

1) A human need;
2) Such properties as render the thing capable of being brought into a causal connection with the satisfaction of this need;
3) Human knowledge of this causal connection; and
4) Command of the thing sufficient to direct it to the satisfaction of the need.

These four points stress the subjective and hermeneutical nature of goods. In fact, if a thing does not respond to a *subjective* need, it cannot be classified as a *good*; it simply remains a thing. Prerequisite 1, therefore, can be identified with expectations. It should be followed by prerequisite 3, which can be seen as the choice of the ends/means framework defined by expectations. From my perspective, moreover, prerequisite 3 is hermeneutical, or interpretative: The possibility for a thing to satisfy a need is not primarily objective; initially, the thing is *thought* to be suitable for a need satisfaction. The human mind subjectively *interprets* the object, imagining that it is able to meet the need under examination. Only then can prerequisite 2 be taken into account: Things reveal their ability to satisfy needs through a discovery process, the result of a procedure to test the previous hermeneutical decision. Prerequisite 4 is the implementation of a plan and cannot be separated from prerequisite 2. Once expectations are formed and a certain ends/means framework is thought to be consistent with them, the choice of the framework is tested through implementation processes revealing, in time, the correctness of our hermeneutical intuitions or the necessity for a revision. In order for a thing to become a 'good', therefore, it is necessary primarily to be thought of as suitable for satisfying a need, and afterward such suitability needs to be tested in reality. The initial hermeneutical process may find confirmation or denial: Subjective processes need always to find confirmation in factual reality. I am free to think of a watch as suitable to cut a steak, but the practical test of my hypothesis would frustrate my expectations. Subjective and objective sides of reality complement each other.

It must be noted that this testing process is never at rest. In fact, a thing could lose, or acquire, goods status if circumstances change. The important elements remain unchanged: expectations, interpreting some means as suitable to achieve desired ends, testing the intuition through a plan implementation, and revising plans as a consequence of information acquired during plan implementation. Now, how does one distinguish between goods and capital goods? I believe that the Mengerian distinction between higher- and lower-order goods is not enough. Similarly, Lachmann's heterogeneous stock of material resources does not help, as it seems to be recursive. What are material resources, then? Lachmann (1956, p. xv) added confusion in arguing that certain *goods* "are capital not by virtue of their physical properties but by virtue of their economic functions. Something is capital because the market, the consensus of entrepreneurial minds, regards it as capable of yielding an income". While I can agree with the first part of the statement, the second part, linking capital and income, sees Lachmann dangerously sliding into a Böhm-Bawerkian or neo-Ricardian trap, which he so vehemently criticized (Lachmann 1973).

The solution I proposed in Ferlito (2016) and further explained in Ferlito (2018) points in the same direction toward which Posvanc is developing his way of thinking: goods and needs as the result of mental (hermeneutical or interpretative) processes. That is why I distinguished between potential capital goods and actual capital goods. Potential capital goods are goods that, in a specific moment in time, are *thought* to be suitable for generating a certain output when combined with other goods in a production process unfolding in time. Instead, actual capital goods are goods that, in a specific moment in time, after being thought of as suitable for generating a certain output when combined with other goods in a production process unfolding in time, are actually implemented in such a production process. *Physically speaking*, then, we might say that, at any given moment, *potential capital* is the set of potential capital goods, which means the set of goods that will be combined into production processes because they are thought, in a specific moment, to be suitable for implementing plans imagined as achieving ends dictated by expectations. *Actual capital* consists, on the other hand, of the set of goods that, in a specific moment, are goods that are combined into productions processes in order to achieve desired ends. In both cases, capital is therefore not simply a set of goods. And, at the same time, it is not simply a set of productive combinations of goods. We are talking about a set of productive combinations of goods consciously implemented because they are the logical outcome of plans set in motion by the thought that they will fulfill expectations.

It might seem that there is no difference between potential and actual capital. However, the first difference lies in the distinct moments in time at which the two entities come into being; Potential capital refers to the moment at which the ends/means framework, following expectation formation, is generated in the economic actor's mind (the hermeneutical moment); actual capital, on the other hand, appears when plans thought to be consistent with the ends/means framework are implemented (the operational/implementation moment). But potential and actual capital can also be distinguished for another reason: The hermeneutical moment could identify as capital goods some things that are not actually at the disposal of the individual for several reasons; a second hermeneutical process would be needed, at a separate moment, in order to identify an alternative. Thus, the formation of actual capital (the implementation moment) could happen, theoretically speaking, only after several hermeneutical moments take place.

It is now clear what I have in mind when I talk about the *hermeneutics of capital*. The identification of capital goods is, first of all, a hermeneutical process in which active minds operate on objects after expectation formation has already happened. Capital without expectations cannot exist, therefore, precisely because capital is a characteristic attributed to objects by the subjective interpretation processes carried out by individuals who try to fulfil expectations. Plan implementation is the link between potential and actual capital.

In a very similar way, Posvanc insists that "there are thought structures (a concept of means and a concept of portfolio) and there are real items of reality which we call goods and combination of goods "a portfolio" (p. 66). The author also emphasizes that it is not possible to isolate a single need per se. The need is linked to a way to satisfy it (via mental processes).

The author also expresses a view which is similar to the one I expressed regarding the distinction between potential and actual capital. At page 68, in fact, Posvanc explains that the "value scale is simple: one, factual (the sphere of a present urgent combination of needs) and, two, counterfactual (the sphere of the possible and the impossible combination of needs). The complexity of counterfactually perceived expected needs can have a real character—these needs are met by a combination of means (the mind concept of the portfolio) acquired by planned actions that can realistically happen and they can also have an unreal character—only imaginary, where the given need may never be satisfied or may not be attainable".

In this regard it is important to place each choice within its temporal framework, which makes that choice unique. The temporal nature of each choice makes that choice unique. The ontology of goods as the outcome of mental processes is stressed again in two important passages. At page 69 we read:

> It has to be stressed that there is no scale of goods (items of reality). It is only the two-leveled complex of factual and contrafactual needs as a mind concept which is thought to be satisfied by a sum of means and transformed into the individual real actions, reflexed by (a) the existing or current portfolio of goods (real items of reality) and/or (b) the expected portfolio concept (as a mind structure of the sum of means) which is either (b1) realistically planned and achievable by some (new) combination of (appropriate, exchanged or produced) means-goods—some potential portfolio, or (b2) which could be only desired and never achieved—a desired portfolio.

And at page 70:

> The mental concept of the portfolio (the combination or sum of means) has an overlap into reality in the form of a real accumulation, production, and exchanging of the real items of reality we call goods. The actual, perceived combination of needs is always satisfied by action … the combination of needs is purely a mental structure of both the factual and the contrafactual, (real and unreal) needs. Then, we have three kinds of thought concepts of portfolio—some actual or current portfolios, some potential portfolios (thought concepts which are possible and attainable and where we focus our planned actions) and some desired portfolios (thought concepts of what we desire, if…).

According to the author, to deal with a *sum* of needs satisfied by a *sum* of goods allows the concept in the interpretation of economic phenomena to be applicable in a time continuum: the sum is a mathematical construct of the mind that is formally time-invariant:

> The concept enables us also to claim that a person will always prefer to achieve a higher (rather than a lower) satisfaction for the combination of their needs through their portfolio over time. They will prefer to achieve satisfaction sooner rather than later; therefore, the creation of their desired portfolio will be subject to their actions (p. 72).

In a nutshell: the imputation of value takes place at the level of thoughts or mental concepts; the *concept* of the *sum* of needs is linked to the *concept* of the *sum* of means. The portfolio is first constructed as the thought concept and only then it is reflected in empirical reality in the form of goods (real items). And here again I read an analogy with my theory of capital.

In this way, there is the possibility of reaching a workable concept of subjective evaluation in time, because we evaluate *homogenous concepts*, meaning, the *sum* of needs and the *sum* of goods (portfolio), although the portfolio is formed from different goods at different times.

From here, we move to the second important contribution of the book. The author wonders:

> How do we estimate the future? Why are we economically successful? I believe that, while the part of the book described so far excels in clarity, originality and insight, the answer to the above questions struggles to emerge from an analysis that probably develops over too many pages. At first read, I must admit, I was lost.

In his analysis of the future, uncertainty and economic success, Posvanc relies on the contributions of many authors but a clear synthesis, so brilliantly presented with reference to the modified subjective value theory, does not seem to emerge so clearly. The author reminds us that, according to G. L. S. Shackle, the future is empty and thus we never can make fully informed decisions. Should we conclude then that decisions can never be rational, they can only be speculative, grounded on imagination? Posvanc agrees that the only way to know the future is imagination, but the author adds to Shackle's view: "we need the existence of time-invariant certainties that are applied yesterday, today and tomorrow, and will be valid at any time in the future". The author says that the first certainty we have is the existing uncertainty: 'future' is a fluid concept. "But the second kind of certainty we have is that our actions and thinking are based on certain abstract, and mutually shared and time-invariant concepts. The third certainty is society: we are sociable beings". Furthermore, the practical certainty associated with knowing reality, and at the same time expanding knowledge significantly, helps people to anticipate and grasp the future. Also, statistical tools, insurance and institutions help.

In this framework, the author presents us the entrepreneur as someone who creates combinations. This expression echoes more Schumpeter's new combinations rather than Kirzner's alertness (Ferlito 2015). Posvanc (p. 80) explains that it "is the specific form of the goods which it is possible to produce under some knowledge and resource restrictions which are offered to the market by entrepreneurs in some particular form. It is precisely this particular form where entrepreneurs' trial and error processes take place. It is clearly possible to achieve something through trial and error, while the basic criteria of recognizing success is that a specific form of the good must somehow meet the defined abstract needs".

It may not be clear from the way in which Posvanc puts it, but the combinations he has in mind indeed present a Schumpeterian flavour; in fact, he defines entrepreneurs as "combinators of knowledge with regard to how to meet other people's needs, by some combination of means (goods). The combination of these circumstances also implies the possibility of learning from economic success or error". Schumpeterian entrepreneurs also embark on projects combining knowledge with regard to new products, production processes, markets, etc, in the attempt (success or failure) to meet other people's needs.

What are the guidelines used by entrepreneurs in order to decide which output (combinations) to try to produce and which goods to combine together into the production process in order to obtain, in time, the desired output? The general belief is that their main beacons are profit expectations and the price system. Horwitz (2019, p. 22) explained that the "fundamental challenge of economic production involves answering the twin questions of "what should be produced?" and "how should we produce it?" The first of the two questions relates to consumer preferences: what is that people wish to buy, or might wish to buy if it were available to them? The second question, which is the one that is often overlooked, especially by critics of capitalism, is the harder one: if we are to make this product, which combination of inputs should we use to make it such that we use the least valuable inputs possible? This question is what economists mean by "economic efficiency"".

How do entrepreneurs compare alternative goods and alternative processes of production to determine that they are creating value rather than destroying it? Here it is enough to say that what "enables us to engage in these comparisons of value are market prices determined by the exchange of goods and service against money" (Horwitz 2019, p. 22). Market prices exist thanks to private property, "which enables people to exchange and form markets, which in turn leads to the emergence of market prices" (Ibid.). Market prices are, thus, the objective synthesis of billions of subjective evaluations, arising from market interactions; thanks to the guidance provided by prices—which give information about consumer preferences and scarcity, for example—entrepreneurs can effectively decide what to do and how. Similarly, market prices allow determining if a production process generated or destroyed value, thanks to the comparison between outlays and receipts; as Horwitz (2019, p. 23) put it, "monetary calculation of profits and losses provides producers with ex post feedback about the wisdom of their past choices that, without market prices, would be unavailable".

Considering that these decisions and production processes happen in a context of uncertainty generated by the passage of time and by the limited content of information available to each individual, the role of entrepreneurial choices appears even more important (Horwitz 2019, p. 24). Successes and failures become an important signal for the entire economic community (Ferlito 2020).

Posvanc recognizes that there is:

> a combination of different types of needs to which the entrepreneur always responds with a specific product … It is precisely the constant discovery of the given abstract constructions of some complex or sum of needs, which in turn causes the one who reveals them to be more successful and vice versa. This is no other principle than the one described by the invisible hand of the market" (p. 85).

However, in his discussion of how such coordination happens in time, it seems to me that an adequate discussion of the role of prices—or, better yet, an adequate price theory—is missing. This is the same flaw that was present in my works on capital, as emphasized by Boettke (2018) and Prychitko (2018). I am now working on filling in that gap.

Hopefully the common ground between mine and Posvanc's works can be an occasion for the elaboration of an adequate price theory consistent with the challenge posed by the interpretative turn in economics.

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