SUBJECTIVISM AND INTERTEMPORAL COORDINATION

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Abstract

The disagreement about intertemporal coordination between Austrians and Keynesians is explained pointing out to differences both in the way expectations and motivations are treated and the methodological principles assumed by each view. Austrians believe that research should proceed showing first what guarantees a successful coordination in individualsŠ plans, and only latter showing which could hinder the "natural" course. Keynes, on the contrary, do not start with any ideal state of affairs, but allows economies to work either "good" or "bad" according to the prevailing expectations among entrepreneurs. In this way uncertainty and expectations are fully incorporated into economic theory. A link between Austrian approach and popperian situational analysis is suggested.

1. Introduction

Keynes as well as the Austrians are critics of traditional economic theory, which fails to incorporate time and processes of change and depicts the market as essentially ordered—the result of some convenient assumptions about agents' knowledge and the environment in which decisions are taken. Keynes and the Austrians, instead, offer an alternative way of doing economics. For them, the relevant problem, is to understand and explain the workings of real economic markets, where production takes time and the assumptions of perfect knowledge and certainty posed by traditional approaches are not valid. In real economies, fluctuations and persistent maladjustments are possible (and also frequent), hindering the full use of resources in the economy. However, even though both visions share the view that real markets usually operate at a sub-optimal level, they strongly disagree about the causes of the mismatches. For the Austrians, market conditions—when unhampered—keep the economy moving persistently towards a position of equilibrium (Hayek 1937, p. 44; Mises 1996a, p. 293). Accordingly, depressions are explained by the intrusion of exogenous factors: mainly state intervention trough monetary policies. Keynes, on the other hand, rejects mechanisms of automatic adjustment. According to him, persistent unemployment may result from insufficient demand, and market economies may remain

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under the full employment level for an indefinite period of time, while its inner forces are wholly unable to modify that situation (Keynes 2002, ch. 18, III). The trouble comes from the entrepreneurs' attitudes, not from state intervention.

The disagreement alluded to is part of what is called the intertemporal coordination problem, i.e., the compatibility between the plans of the two basic sectors of the economy: consumers and entrepreneurs. According to Hayek (who follows Menger and Böhm Bawerk on this point) the key for understanding and explaining intertemporal coordination is the structure of capital (see Hayek 1967). In his view, only a disaggregated view of capital would be able to show the possibility (and the reality) of market coordination. Roger Garrison has recently insisted on the importance of capital theory, and pointed out that it is precisely this theory which distinguishes the Austrian from other approaches to economics.¹ To Garrison, capital theory is the key factor for solving the intertemporal coordination problem in a satisfactory manner, providing a link between consumers and entrepreneurs' decisions. He thinks that *General Theory* failed to describe a situation in which coordination succeeds because there is no capital theory in Keynes' view.²

It seems to me that some fundamental features of the debate between Keynes and the Austrians are lost when so described. As I will argue at length further, the Austrians think that capital theory is all that is needed to attain coordination because, almost between the lines, they inject into the theory a particular set of *mental states*.³ In this paper I will defend two main thesis:

First, the Austrians provide their agents with the "correct" expectations and motivations, omitting from consideration those very states of mind which could jeopardize coordination. In fact, if agents are endowed with convenient motivational and cognitive skills, it is easy to show that the whole process tends to reach an agreement between the agents' plans. But, if as Keynes does, a more realistic attitude towards agents' expectations and motivations is adopted, allowing them to imagine different (and conflicting) future scenarios and taking uncertainty seriously, coordination among consumers and entrepreneurs is no longer secure.

Second, the Austrians have *methodological* reasons for endowing agents with the "right" states of mind. They think that any acceptable explanation of the malfunction of the economy (i.e., coordination failure) should first take for granted a state of affairs in which the market works really well. Researchers should then proceed by two steps: showing first what guarantees that market economies are successful in coordinating individual plans, and only latter showing the hypothetical exogenous causes that hinder their "natural" course. I will call this procedure Basic Austrian Methodological Principle (BAMP). Keynes, on the contrary, proposed a theory of market economies that does not start with any ideal state of affairs, but allows economies to work either "well" or "badly" according to the prevailing expectations of the entrepreneurs.

Working together, both thesis provide a more clear picture of the differences between Austrians and Keynesians regarding intertemporal coordination, showing that they can be traced back to differences both in the way expectations and motivations are treated, and the methodological principles assumed by each view. It will be also showed that BAMP imposes a serious constraint on the Austrians' commitment to subjectivism. Indeed, if BAMP where justified, the (rather simplistic) Austrian treatment of expectations and motivations would also be justified. On the contrary, rejecting BAMP as a necessary methodological constraint, led Keynes to adopt a kind of subjectivist approach that is considerably wider than the one endorsed by the Austrians, and opens the door for the irruption of coordination problems.

2. Böhm Bawerk vs. Bostedo

A good point for starting our analysis is the discussion between Bostedo and Böhm Bawerk at the beginning of the 20th century about the possibility of a successful intertemporal coordination. According to Böhm Bawerk, a correct understanding of the causal mechanism of the economy is necessary if fallacies are to be avoided. Different societies have different time preferences, which implies variations in the proportions of their disposable income consumed and saved. If a society reduces its actual time preferences, a reduction in the immediate consumption (and a proportional increase in savings) ensues. Saving involves the disposition to consume less now with the purpose of consuming more in the future.⁴ The argument is just a ratification of Say's law, which establishes a causal connection between saving and capital formation (investment).

Bostedo refutes this interpretation. He claimed that an increase in savings cannot stimulate production and investment. If the demand of consumer goods is an indispensable condition for the creation of capital, when society as a whole reduces consumption in some proportion it seems paradoxical to think that this very fact might stimulate the creation of additional capital goods. Following this line of thinking Bostedo wondered how Böhm Bawerk could assert that "sane men would borrow money and build factories and machinery as a result of a sudden resolve on the part of all the members of the community to curtail their purchases by 25 per cent" (Bostedo 1997, p. 398). On the contrary, Bostedo is persuaded that saving "has no influence whatever upon the formation of capital. The amount of capital brought into existence is determined wholly by the demand for consumption goods immediately, and by the conditions which determine the general purchasing power" (Bostedo 1997, pp. 398–9). It is easy to see that Bostedo is borrowing from a non traditional view that emphasizes that market economies are demand-driven, and he is anticipating some of the arguments adopted latter by Keynes in his *General Theory*.

Böhm Bawerk's response to these objections comprises several steps. First, he asserts that what diminishes is not the consumption of *any* type of goods, but the consumption of *certain* kinds of them (those which are relatively expensive). In this way, changes in time preference induce changes in the relative prices and, consequently, in the profits earned by different branches of production. The overall result is a reallocation of productive factors, not a generalized paralysis.⁵ Second, changes in the rate of time preferences of the whole society, as the ones described above, are reflected in a downward movement of the interest rates, regulating the ratio that society wishes to maintain between present and future consumption. The reduction of the interest rate becomes the entrepreneurs signal to start moving productive factors from those stages of production nearest to the final goods towards those stages which are far away from them. These changes allow them to start more indirect (and more efficient) production processes, which, when the time comes, will provide the consumption goods that consumers are willing to buy in the future.⁶ The result then is not a reduction of production, but a radical change in the structure of capital.

This analysis shows the importance that the Austrians attach to a *disaggre-gated and stratified* analysis of capital for the happy solution of the coordination problem. Given the structured nature of capital, as long as market mechanisms work unhampered, the whole process goes on in a remarkably efficient way, and intertemporal coordination is not only possible, but the *natural* outcome of a market economy. However, as long as this is a social mechanism, some assumptions regarding the agents' expectations and motivations are crucially needed.

3. Knowledge

What and how much must agents know (believe) about market mechanisms for coordination to be assured? Austrian tradition has adopted a subjectivist and

individualist vision of the agents' knowledge which goes back to Menger and Hayek. In short, Hayek said that no scientific knowledge is needed by individual entrepreneurs, and that the knowledge actually required is scattered among them, and completely represented by changes in their relative prices (the ones reflecting those particular circumstances which are relevant for each individual decision maker). This kind of knowledge seems to be easy to obtain.

However, even admitting Hayek's minimal vision of the amount of knowledge involved in the agents' decisions, entrepreneurs may face problems when deciding *what* and *how much* to produce regarding the future and *when* the products of different ongoing production processes will be in demand. Böhm Bawerk himself recognizes that "it is usually not possible to designate in advance the kinds of consumption goods towards which the demands of those who save will be directed" (1997, p. 409). However, he dismisses the impact that this ignorance may have on the coordination of the many different plans of entrepreneurs and consumers, assuming that a well defined pattern of stable behavior—supposedly known by entrepreneurs—will eventually emerge

... the law of large numbers acts here again as a balancing and compensating agency. It is, indeed, highly improbable that all of those who save will liquidate their counter claims in exactly the same kinds of consumption goods. It is much more probable that their claims to pleasureaffording goods will divide themselves between the different branches of production *in the same proportion that has already determined the direction of previous productive processes, or at any rate that they will not depart suddenly and violently from the standard so set.* (Böhm Bawerk 1997, p. 411; my italics).

This argument meant to show that the unavoidable subjectivity of consumers poses no definite threat to economic theory and can be properly handled. However, this rather common sense position is still problematic: why would those people who were producing those very things which have become relatively expensive (and which are now less consumed) invest larger amounts of money in intermediate goods for producing the same commodities in a more roundabout way, instead of assuming that tastes have changed and is time to produce other things for the immediate (or future) consumption? Sometimes, the Austrians seem to have less confidence than Böhm Bawerk in the existence of regular social patterns. Mises, for instance, after pointing out that consumers are the ones who "determine what should be produced and in what quantity and quality", warns us that they are "full of whims and fancies" and their decisions are "changeable and unpredictable" (Mises 1997b, p. 227). It seems then that Böhm Bawerk's confidence in induction and the law of large numbers seems problematic even in Austrian's terms.

4. Motivations

A completely different approach for sustaining that coordination is guaranteed may be found in Mises' response to a variant of Bostedo's objection. Mises wondered why there should be any entrepreneurial activity in the framework of a retrogressing economy. From Bostedo's point of view (which is also Keynes'), investment, as well as production and employment, should halt under these conditions. Mises' reply to this objection pointed out its inadequate use of aggregate concepts and its inability to endow agents with the "correct" *motivations*.

People who cannot free themselves from the fallacy of thinking in concepts of collectives and whole groups might raise the question of how in such a retrogressing economy there could be any entrepreneurial activity at all. Why should anybody embark upon an enterprise if he knows in advance that mathematically his chance of earning profits are smaller than those of suffering losses? However, this mode of posing the problem is fallacious. Like other people, entrepreneurs do not act as members of a class, but as individuals. No entrepreneur bothers a whit about the fate of the totality of the entrepreneurs. It is irrelevant to the individual entrepreneur what happens to other people to whom theories, according to a certain characteristic, assign to the same class they assign him. In the living, perpetually changing market society there are always profits to be earned by efficient entrepreneurs. The fact that in a retrogressing economy the total amount of losses exceeds the total amount of profits does not deter a man who has confidence in his own superior efficiency. A prospective entrepreneur does not consult the calculus of probability which is of not avail in the field of understanding. He trusts his own ability to understand future markets conditions better than his less gifted fellow men. (L. von Mises 1996a p. 296; my italics)

According to Mises, entrepreneurs neither pay attention to conventional judgment nor become impressed by massive bankruptcies affecting the economy. Individual decision makers do not care about the opinions, feelings and fears of other agents. As soon as entrepreneurs "see" an opportunity, they become

essentially optimists and follow their own intuitions about the chances of their personal investment projects. They think that it is possible to win when the others are loosing.⁷ Mises' remarks about individual attitudes and motivations are fully compatible with Hayek's emphasis on scattered knowledge and relative prices. In fact, Mises's account highlights the fact that merely having the appropriate knowledge may be not enough to prompt the entrepreneur to risk his money in an investment project: some positive attitude is also needed. Both kinds of mental states are required if a successful intertemporal coordination is to emerge.

The main weakness of the vision that assumes that entrepreneurs' reactions to the signals of the market are unproblematic and always positive is that it betrays the kernel of *subjectivism* and the commitment with *uncertainty* that the Austrians endorse so wholeheartedly. The Austrians have insisted that the agents' interpretations of market signals are subjective in nature, a vision that is at the center of methodological dualism.⁸ What guarantees then that entrepreneurs will always reach a definite conviction about the implications of the ongoing changes in market variables, and will not be paralyzed by uncertainty? And why should their separate decisions tend to match one with the others? One should expect that the Austrian response would be "nothing can be said for sure". However, Hayek and Mises depict agents as facing no difficult decision problems. Are these suppositions reasonable? What are the grounds for this theoretical practice?

5. Basic Austrian Methodological Principle (BAMP)

The Austrians particular treatment of the expectations and entrepreneurial motivations can be traced to their *methodological* concern about the appropriate way of explaining and understanding economic phenomena. According to Garrison, Hayek deserves the credit for having proposed what may be called a Basic Methodological Principle (BAMP) for social sciences, that asserts that "... before we can explain why people make mistakes, we must first explain why they should ever be right" (Hayek 1937, p. 34).⁹ Some elaboration is required here to show the full content of Hayeks' principle. Suppose that, 1) certain economic outcome Y is under consideration, 2) a question about what state of affairs *would make* Y *possible* is asked, and 3) a state of affairs X is assumed, which, if true, Y ensues. "Y *because* X" is an *abductive* explanation, in which X is the *explanans* and Y the *explanandum*.

The core of mainstream economics provides explanations of this kind. Gen-

eral Equilibrium Theory starts from an ideal state of affairs (a unique and stable equilibrium) and tries to find out those ideal (not real) conditions which would make it possible. If the Austrian explanations were of this kind, they would be just an intellectual exercise, like the General Equilibrium Theory is. But their commitment to realism makes the Austrians interested not merely in devising an imaginary construction depicting some arbitrary state of affairs. They want to grasp the real conditions that guarantee intertemporal coordination. They do not want just to find out what *would* make coordination possible, but what, in fact, *does* make it possible (and even *actual*). The match of the different individual plans should be reached through the economic process, considering "real" agents who decide in an uncertain environment and participate in production processes that demand time.

In my view, the Austrians have failed to provide such explanation. Although the fact that capital is structured is not controversial, their description of agents' expectations and motivations is far from being obviously true (indeed, as we saw, there is a tradition of economists who have challenged the usual interpretation). The concrete set of mental states that actually prevail among agents in response to changes in economic variables must be empirically discovered. It seems that what is needed is more empirical investigation about how agents form their expectations and adopt decisions in reaction to changes in information. As far as I know, nowhere have the Austrians provided such evidence (and I suspect that they would dismiss the need for it).

Still more important is the existence of a conceptual problem in the Austrian's explanation of intertemporal coordination. A commitment to BAMP presupposes that the "real" conditions described in the *explanans* are not only empirically true (or, at least, feasible) but also *natural*—in the sense that they describe the spontaneous way that the economy is going to take when not hampered. Particularly, the Austrians need to show that the "correct" mental states assumed by economic theory are the *natural* ones. But this justification clashes with the assumption of uncertainty. Let me illustrate my point comparing two of Popper's views of method in social sciences.

Until the early 1970s, methodologists of economics thought that the falsificationist approach was the only Popperian point of view about science. Popper himself helped to reinforce this impression insisting on the existence of a unified method for all the sciences. However, since his early writings, Popper had pointed out that there are important differences between social and natural sciences, a claim that was largely ignored.

In fact, in *The Poverty of Historicism* Popper proposed what he called "Zero Method"—the rational or logical construction of individual actions—in which agents are endowed with complete rationality and (perhaps) with perfect information. These completely rational agents can be used as a benchmark for estimating the "deviations" of the real agents from this ideal behavior. Popper not only advised the convenience of employing such a method in social sciences; he also claimend it was the only method to be used, or, at least, that it outdid any conceivable alternative.

Nowhere does Popper explain why this method is advisable and under which specific conditions could it be properly used. He probably thought it unnecessary to waste time supporting a method that prevailed unrivaled among mathematical (mainstream) economics. However, some justification must be produced if economics is to be more than a simple pastime. Notice that endorsing the Zero Method implies that uncertainty and subjectivism are ruled out. Popper needs the supposition of perfect knowledge (or some other convenient substitute) because if uncertainty prevails and agents have a personal (arbitrary) interpretation of the environment (which is another way of assuming subjectivism), the "ideal" or "normal" behavior remains undefined.

The trouble is that BAMP faces the same problem! Indeed, BAMP as well as the Zero Method are versions of a procedure which goes back to the German tradition (both are closely related with Weber's ideal types). Although BAMP does not require perfect knowledge, a set of "friendly" expectations and motivations must be somehow attributed to agents. They are needed for ruling out the undesired consequences of subjectivism and uncertainty, allowing that an ideal ("natural") pattern of behavior arises. Once the *true* theory of the *good* working of the economy is (supposed to be) in hand, it is possible to take one more step and explain the deviations from the ideal outcome invoking the action of factors which are exogenous to the main mechanism (Mises 1996a, p. 239). The "anomalous" pattern (i.e., failure of coordination) is explained invoking outside intrusions which push agents away from the "natural" interpretation of the changes in economic variables.

In a later paper—"Models, Instruments and Truth"—Popper offered a different description of the method of the social sciences that is fully compatible with uncertainty and restores agents' subjectivity. This time his claim about the existence of a specific method for social sciences—which he labels "situational logic"—was noticed. The pioneer work of Spiro Latsis (1972) brought attention to it, but its relevance for economic theory was largely dismissed.¹⁰ Besides, Latsis' remarks remained virtually unnoticed, to the point that thirteen years later D. Wade Hands published an article—"Karl Popper and Economic Methodology: A New Look"—where situational logic was "rediscovered" and its significance for economic theory vindicated.¹¹ In the last decade, many authors have pointed out the need to review the traditional understanding of Popper's views about social sciences and the existence of two radically different proposals in his work. Some of the main contributions to this interpretation are Caldwell (1991), Hands (1992) and Boland (1994), where Popper's critical rationalism is brought to the public attention along with situational analysis. As an indication of the interest in the new understanding of Popper's contributions, a workshop on "Popper's Situational Analysis and the Social Sciences" took place in Vienna in 1997.¹²

This renewed interest in Popper's view on economics and the social sciences is completely justified. In "Models, Instruments and Truth", he suggested a method for the social sciences that strongly departed not only from falsificationism, but also from the Zero Method described in *Misery of Historicism*. Now, agents are depicted as being only slightly rational, i.e. their actions are informed by their own appreciation of the situation in which they are involved. Here, there is no place for an ideal "normal" behavior for agents to conform to. Rather, the scientist's task is to recover the subjective appreciation that agents have of the situation they are facing, which, once grasped, turns the agents' behavior intelligible for the observer. The crucial point is that in this later account of situational logic there is no room for just *one* rational response (which means that any different behavior is an irrational "deviation"); on the contrary, Popper's claim is that *any* response may be shown to be rational once subjectivity is restored. Within this new framework, to assume a single rational (natural) behavior would be a categorical mistake.

6. The wider subjectivism of Keynes' General Theory

The starting point of *General Theory* is very different from the orthodox one. First, Keynes devised a completely different economic mechanism, which operated at the aggregate level and established new (and, by the time, striking) causal connections between economic variables. In particular, Keynes established new connections between consumption, savings and investment and developed a new theory of interest rates. In his view, if consumers reduce their consumption in an amount *x*, it does not lead to savings increasing by an amount exactly equal to *x* (because something may be retained under the form of liquidity). For instance,

the so-called Keynes' effect asserts that an increase in the quantity of money reduces the interest rate, which results in higher investment (and, ultimately, in an increase in employment and production, through the multiplier). This is a "typical" connection among key variables in Keynes' theory. However, this outcome is far from certain: even though people may have more money than desired, they might decide not to spend all of it. The portion of money retained for liquidity is not saved, does not impact on the interest rate, and does not generate an increase in production and labor.

Other determinant of investment—which at first is independent of interest rates—is the marginal efficiency of capital (MEC). If MEC diminishes *pari passu* with the interest rate, investment will not increase. MEC may decrease due to *expected (future) changes* in at least three factors, which will in turn affect the prices of those goods that will be produced by the new capital during its lifetime: expected costs, the value of money and the value of interest rates. As a consequence, even if the increased quantity of money successfully pushes interest rates downward, a certain (pessimistic) configuration of expectations may hinder the realization of the "typical" connection.

Besides, although the interest rate and MEC are *independent* variables (in a Keynesian sense), the first affects the second, so that it is not easy to decide in advance what the outcome of an increase in the money supply will be. At first, it is expected that the increased amount of money will have a positive impact on the economy because interest rates and costs are pushed down, and the expectation of higher benefits will result in an increased MEC. But MEC is also sensible to expectations about the *future* values of the interest rates. Thus, a reduction in the *actual* value of interest rate is beneficial to investment, but the expectation of successive (future) reductions may deter new investments. The "classical" connections between reductions in consumption and increments in saving, and between increments in saving and a proportional increase in investment, are not mechanical in character—uncertainty and liquidity preference may put a halt to the classical identities. What, then, will the effect of an actual reduction in interest rates on the expectations about its future behavior be? The Austrians refrain from this sort of speculations, even though the expectations agents have in this regard are crucial for the future pace of the economy. The reason of this lacuna is that if these considerations were fully incorporated into the analysis nothing would insure that intertemporal coordination could be reached. As the Austrians themselves have masterly showed, how agents are going to interpret the signals of the market is not decidable a-priori.

The Keynesian theory of a monetary economy allows both, coordination and its failure, to be explained by the same market mechanism. Both states of affairs are possible and equally "normal" in capitalist economies. It all depends on the agents' *expectations and dispositions*, particularly those beliefs concerning *future* values of some key variables which operate directly on investment. They determine whether the economy moves smoothly towards full employment or, on the contrary, remains stuck at a sub-optimal level of employment and production. In letting the door open for both possibilities a more relevant role than in the Austrian view is assigned to uncertainty, expectations and subjectivism.

7. Conclusions

In *The Counter-Revolution of Science* Hayek pointed out that in the last hundred years every advance in economic theory was due to a greater incorporation of subjectivism to the analysis (Hayek 1979 (1952), p. 52). However, as long as BAMP allows only friendly (convenient) expectations and motivations, this methodological principle puts severe constraints on subjectivism and uncertainty. It seems that a trade off between progress in economic theory and the Austrians' commitment to BAMP does exist.

On the other hand, the whole Austrian approach involves an extremely weak version of uncertainty, in which the unknown future only makes it possible (and explains) the occurrence of *failed* actions, *not the suspension of every (productive) activity*. So, a situation in which agents stop making investment decisions is not even conceived. Expressed in general terms, their position seems sound, though, in a way, it is reached by definition. In fact, the Austrians believe that a non-investment scenario will be hard to match with the principle that humans act, because they consider that waiting (is there a better way to conceive inaction?) is a kind of action after all! But the relevant actions here are *investment* decisions, the ones that generate employment. Our claim is that the Austrians have not though the possibility that uncertainty may halt investments (for a considerable period of time and in a generalized way). This possibility—which may arise from an increment of liquidity preference—is hypothesized by introducing convenient suppositions about the behavior of economic agents.¹³

As long as Keynes is not interested in explaining what would make the good working of market economies possible, his approach presupposes a break with the set of "friendly" expectations and motivations to which the Austrians are

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committed to once BAMP is assumed. His starting point, instead, is the rather "neutral" assumption that market economies are so flexible that they *may* perform like orthodox economists wish or they *may* work really badly, even if when completely free of outside interferences. Keynes finds in the fluctuating set of entrepreneurs' expectations and motivations the clue for understanding whether market economies are successful or not in achieving intertemporal coordination. Unlike Mises, Keynes considered that entrepreneurs are not autistic decision makers: they take into account others' beliefs and feelings. Their personal expectations and "spirits" depend on the expectations and spirits of the agents who surround them. Expectations and emotions are not merely subjective, but intersubjective.

There is an important link between the two methods for social sciences proposed by Popper and Keynes' views. In his *General Theory* Keynes distinguished between two quite different types of agents operating in the stock market. The "ignorants", that is, those "persons who do not manage and have no special knowledge of their circumstances, either actual or prospective, of the business in question", and the "experts" or "professional investors" who are able to make "superior long-term forecasts of the probable yield of an investment over its whole life " (Keynes 2002, chap. 12, V).

Such a dichotomy is fully compatible with the Popperian zero method, and has been adopted by some Keynesians. However, it betrays Keynes' deeper understanding of the kind of uncertainty that prevails in market economics.¹⁴ As I developed elsewhere,¹⁵ Davidson (1998) showed that this mistake infects the economic policies of the "old and new Keynesians", who advised the imposition of a tax ad-valorem on financial transactions for reducing volatility in financial markets. The alleged mechanism that will allow to reach this result is the following: based on available information, agents *would be able* to form "right" expectations (rational beliefs) about the future profitability of their actual investment decisions. Experts or professional investors *could* achieve this result. On the other hand, there is a larger number of amateurs who do not perform this calculus and speculate in very short term transactions, generating instability. To go back to stability, these "Keynesians" propose the tax designed to reduce the number (and, consequently, the power) of irrational people.

The milder version of situational logic developed in "Models, Instruments and Truth" reflects a completely different position, more in line with Keynes' *fundamental* uncertainty. In my view it is the absence of a normal or ideal behavior under conditions of uncertainty what Keynes wanted to show all along his Gen*eral Theory*. If the interest rate starts moving in some direction, it is not possible to know in advance, with neither certainty nor probability, what their values will be at different times in the future. This is what uncertainty means. In situations like this, agents can conceive—*without contradiction or error of their part*—quite different future scenarios and take decisions that are incompatible with the ones taken by other agents (equally *un*informed). When uncertainty prevails no action is more rational than any other, because errors and mistakes are seen only later, when the expected events have become actual.

As for Davidson's argument, under "real" uncertainty nobody can use past experience to form right expectations about the future (and, consequently, nobody can reach the rational or more reasonable decision beforehand). What brings stability to the investment markets is the number and diversity of opinions, not the prevalence of rational decisions. As long as the number and diversity of agents are positively correlated, the recommended tax on transactions would have consequences exactly opposite to the ones pursued by those who advocate it. To achieve stability, what is needed is to increase the number of participants, not to reduce it.

Some final remarks may be inferred from the preceding arguments. For many years, Keynes' approach has been described as holistic and, in this regard—due to the existing link between individualism and subjectivism—it was supposed that it was less subjectivist than the orthodox view as well. In spite of this characterization, I have tried to show that regarding some economic decisions the opposite may be true. After all, his *General Theory* may be part of the process of gradual incorporation of subjectivism in economic theory so valued by Hayek in *The Counter-Revolution of Science*. If so, even those Austrian oriented economists who roundly reject Keynes' theory because of its political and economical consequences may learn something from him in this regard. On the other hand, in spite of the reservations that Poppers' views inspire in many contemporary economists and methodologists of economics, situational logic might help to clarify where the novelty of Keynes' ideas lies as well as the kernel of Post-Keynesian commitment with radical uncertainty.¹⁶

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Keywords

Uncertainty, intertemporal coordination, Austrian economics, Keynes, situational logic.

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Resumo

O desacordo acerca da coordenação intertemporal entre economistas austríacos e Keynes é explicado indicando-se diferenças tanto no modo como expectativas e motivações são tratadas quanto nos princípios metodológicos assumidos por cada concepção. Os economistas austríacos acreditam que a pesquisa deva proceder primeiro mostrando o que garante uma coordenação bem-sucedida nos planos de indivíduos, e somente depois mostrando quais poderiam atrapalhar o curso "natural". Keynes, ao contrário, não começa com nenhum estado de coisas ideal, mas admite que as economias funcionem ou "bem" ou "mal" de acordo com as expectativas predominantes entre empreendedores. Dessa maneira, incerteza e expectativas são totalmente incorporadas à teoria econômica. Sugere-se uma ligação entre a abordagem austríaca e a análise situacional popperiana.

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Palavras-chave

Incerteza, coordenação intertemporal, economia austríaca, Keynes, lógica situacional.

Notes

¹ "Austrian economics owes its uniqueness, in large part, to its attention to the economy's capital structure" (Garrison 1990, p. 133).

² "In lieu of a positive theory of capital, we must look for remarks about the way in which the present and the future are linked. These remarks, scattered throughout the book, focus mostly on what Keynes perceived as an absence of intertemporal links rather than on his perception of the links that do, even in his own judgement, actually exist" (Garrison 1997, p. 537). In his review of Keynes' *The Treatise on Money*, Hayek criticized Keynes for his failure to take into account the capital question. I am indebted with an anonymous referee for this reference. See Hayek (1931) and Keynes (1931) for their exchange of points of view on this subject.

³ The Austrians also assume the existence of full employment and a variable structure of capital. These points will not be addressed in the present paper.

⁴ "dots those who save curtail their demand for consumption goods in the present merely to increase proportionately their demand for consumption goods in the future" (Böhm Bawerk 1997, p. 407).

⁵ "The truth is that a curtailment of consumption involves, not a curtailment of production generally, but only, through the action of the law of supply and demand, a curtailment in certain branches. If in consequence of saving, a smaller quantity of costly food, wine and lace is bought and consumed, less of these things will subsequently—and I wish to emphasize this words—be produced. There will not, however, be a smaller production of goods generally, because the lessened outputs of goods ready for intermediate consumption *may and will be* offset by an increased production of 'intermediate' or capital goods" (Böhm Bawerk 1997, pp. 405–6; my italics).

⁶ "There is ... occasion for a change in the direction of production as I should describe it; for if fewer consumption goods are demanded at the moment and more in the future, and production does not to outrun the demand ... the productive powers must be so disposed that fewer consumption goods will be produced at the moment and proportionately more will come to maturity in the future. The principal way to effect this result is to invest the productive forces, land and labor, in more extended or roundabout processes of production, or to produce in larger quantity than before 'intermediate products', from which, at a later period, goods ready for consumption may issue—in other words to increase the production of capital goods" (Böhm Bawerk 1997, p. 408). ⁷ "Those eager to make profits are always looking for an opportunity. As soon as they discover that the relations of the prices of the factors of production to the anticipated prices of the products seem to offer such an opportunity, they step in" (Mises 1997b, p. 234).

⁸ Methodological dualism asserts that no interpretation of the real world is unique and objective: "men react to the same stimuli in different ways, and the same man at different instants of time may react in ways different from his previous or later conduct. It is impossible to group men into classes whose members always react in the same way" (Mises 1985, p. 5).

⁹ See Garrison 2003. This principle is assumed by the whole Austrian school. Particularly, it is perfectly compatible with the Misisian view that some theory is needed to interpret the facts, and an *adequate* theory is needed for understanding them *rightly*.

¹⁰ Latsis called the method "situational determinism" and criticized its use in Lakatos' methodology. From a different point of view, Lawrence Boland (1994) has pointed out the distortion of Popper's view perpetrated by Lakatos (the hijacker).

¹¹ In his paper Hands strongly criticized the traditional falsificationist point of view and the widespread belief that it was adequate for economics. Against this vision, Hands emphasized Popper offered another way of looking at economics and the social sciences. "The problem with this strict falsificationist view of Popper is that it is inconsistent with what Popper and the Popperians within philosophy of science have *actually written about economics* and other social sciences. In the few places where Popper directly refers to economics, he is almost never discussing his falsificationist approach to natural science. Instead, economics is discussed in the context of his 'situational analysis' or 'situational logic' approach to historical and social explanation" (Hands 1985, p. 84). Consequently, he proposes that we distinguish between two Popperian approaches, Popper_n (for the natural sciences) and Popper_s (for the social sciences).

¹² Some of the papers presented on the Meeting were published in *Philosophy of the Social Sciences* **28**(3), September 1998. For a recent revision on this issue see Gorton 2006.

¹³ The following remarks seem paradoxical and reveal a bit of "false consciousness": "The Austrians ... have tried to develop a theory of human action and the market process that focuses upon the actor's point of view rather than impose a set of hypothetical knowledge and informational assumptions upon the actor. Such assumptions may make the economic analyst's task easier for establishing determinate market outcomes, but they do not succeed in explaining how markets actually work, given that the actual actor in the market operates from a different perspective and with different knowledge than that which the economist may have endowed him for purposes of his theory. The Austrians have argued, therefore, that market phenomena must be analyzed within a theoretical framework constructed from the knowledge, intentions and expectations of the actors themselves. This notion of constructing economic theory from the actor's point of view

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is what they mean by methodological subjectivism" (Ebeling 1997, p. XV).

¹⁴ "By 'uncertain' knowledge, let me explain, I do not mean merely to distinguish what is known for certain from what is only probable. The game of roulette is not subject, in this sense, to uncertainty; nor is the prospect of a Victory bond being drawn. Or, again, the expectation of life is only slightly uncertain. Even the weather is only moderately uncertain. The sense in which I am using the term is that in which the prospect of an European war is uncertain, or the price of copper and the rate of interest twenty years hence, or the obsolescence of a new invention, or the position of private wealth-owners in the social system in 1970. About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know." (Keynes 1937, pp. 213–14).

¹⁵ What follows has been developed in more detail in Marqués 1985.

¹⁶ I am grateful to an anonymous referee for interesting suggestions that helped to improve the quality of the article, and to Diego Weisman, for reading a first version of the paper and making useful comments about Mises's position.