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Behavioral economics and the economics of Keynes

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ABSTRACT

The aim of this paper is two-fold: it first evaluates some of the psychological insights offered by Keynes in his economic theories, and secondly it weighs up these insights in the light of recent research in behavioral and experimental economics. We found that many of the psychological ideas set forth by Keynes in his economic works, especially in *The General Theory*, have a defensible behavioral foundation and fit broadly the actual behavior of economic agents in the real world as suggested by recent empirical evidence. As a consequence, we argue that Keynesian economics can benefit from this interaction, especially for issues related to judgment under uncertainty and building solid microfoundations for macroeconomics.

Recent developments in the field of behavioral and experimental economics have provided new grounds to interpret the writings of the great economic authors. Ashraf et al. (2005), for example, highlighted the behavioral underpinnings of Adam Smith's *The Theory of Moral Sentiments*, which included topics related to decision-making, motivation, and interaction. By the same token, we claim in this paper that Keynes's work constantly emphasized the importance of psychological factors in human decision-making, and that these factors were embedded in his analysis of economic issues. In his major philosophical work, *A Treatise on Probability*, he touched upon several concepts that would transform the classic frequentist view of the judgment of probabilities, stressing the necessity of explicitly considering psychology to improve probability theory. But it was in *The General Theory* that Keynes explicitly emphasized the importance of psychological propensities in analyzing the economic consequences of human behavior, and used them to support his departure from the neoclassical tradition; ideas like wage rigidity, animal spirits, money illusion, conventions, and uncertainty all suggest that Keynes refused the imposition of rationality (i.e., obeying some specific axioms of choice) as the decisive criterion of human behavior.

That Keynes paid substantial attention to the role of psychological factors when constructing his economic theories is not a recent fact in the history of macroeconomic thought, even though there is no reference to psychological studies in *The General Theory*. George Akerlof, for example, remarks that the current development in behavioral macroeconomics has its roots in, and is, to a certain extent, a continuation of Keynes' project (2002, 2007). He argues that (2002, p. 411):

> "That dream was the development of a behavioral macroeconomics in the original spirit of John Maynard Keynes' *General Theory* (1936). Macroeconomics would then no longer suffer from the "ad hockery" of the neoclassical synthesis, which had overridden the emphasis in *The General Theory* on the role of psychological and sociological factors, such as cognitive bias, reciprocity, fairness, herding, and social status. My dream was to strengthen macroeconomic theory by incorporating assumptions honed to the observation of such behavior."

Akerlof and Shiller (2009) reinforce this claim that macroeconomics can indeed be based on behavioral foundations, proposing a 'behaviorally informed Keynesianism'. To the best of our knowledge, no single study to this date has explicitly laid bare the potential links between psychology and the economics of Keynes in his own writings, providing textual evidence of his insights concerning the behavior of economic agents that could be directly connected with behavioral studies, nor an assessment of these

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insights in the light of recent advances in the treatment of economic psychology.[1] This is probably due to several reasons, among which it is worth mentioning the relatively recent appearance of behavioral and experimental economics, which creates the possibility of overcoming the fetters imposed on economic analyses by the behavioral postulates of neoclassical economics, the exclusive focus on aggregate relationships in the traditional studies of Keynes, and the sometimes confusing treatment Keynes himself gave to psychology. If on the one hand, Keynes was very clear in describing specific behaviors, on the other he touched upon topics in which psychology was important to him, but treated it in an ambiguous and vague manner, using expressions such as "psychological effects", "psychological laws", etc., without explaining clearly what these are.[2] This paper is an attempt to fill this gap, seeking to find in Keynes's own works the hints and suggestions about what a realistic approach to behavior under uncertainty might be. We claim that there is strong evidence that Keynes was deeply conscious about the necessity to incorporate realistic behavioral assumptions in economic theories that deal with judgment under uncertainty. Moreover, we found that, indeed, his behavioral insights are broadly compatible with and find support in most of the recent findings of behavioral and experimental economics, although his inferences were largely based on "subjective impressions" rather than rigorous scientific studies. A large number of experimental works have been done in areas that Keynes considered important in his General Theory. We will expose these advances in comparison with Keynes's ideas.

The paper is organized as follows: after this introduction, we will briefly discuss some interpretations and controversies surrounding Keynes's ideas in order to contextualize and present our analysis. The following section will provide a comprehensive comparison of the main behavioral tenets of Keynesian theory with the most updated findings of behavioral and experimental economics. The final section concludes the essay.

1. Controversies and interpretations of Keynes's approach to economics

The theories put forth by Keynes have always been surrounded by controversies, which is not surprising considering the far-reaching impact of his work. As a consequence, several schools of thought have emerged with different interpretations of Keynes's work. Obviously, the use of psychology to explain economic behavior has not been the only controversial issue. The IS-LM interpretation, the consumption function, the role of expectations, the real balances effect, fundamental uncertainty, liquidity preference, the influence of the *Treatise on Probability* on *The General Theory*, to mention just a few, have all received a large deal of attention, both in mainstream and non-mainstream circles. And these controversies are related only to the economic aspects of Keynes's ideas. Cottrell and Lawlor (1995) put together different new perspectives on Keynes's thought or how they interact with other approaches, even though 'Keynes and Psychology' was not part of the volume. In this regard, proposing an interpretation of Keynes's theories in terms of individual behavior, emphasizing the psychological dimension, is no less controversial, for several reasons.

The first objection is evident. In stressing the role of psychology we must consider the role of individuals in Keynes's economic theories. There are no detailed methodological discussions in the works of Keynes in general, and in *The General Theory* in particular, that would enable one to claim that Keynes clearly avowed his commitment to methodological individualism. Winslow (2003) claims that Keynes rejected atomism and embraced an organic approach. However, he argued that it is still possible to consider Keynes as an individualist (p. 156, fn 5, italics in the original):

> "Atomic individualism needs to be distinguished from individualism *per se*. Much writing on methodology, for example, on so-called 'methodological individualism', implicitly and mistakenly identifies individualism with atomic individualism. Keynes, though he abandoned atomic individualism, remained philosophically an 'individualist' in the sense of 'Paley's *dictum* that "although we speak of communities as of sentient beings and ascribe to them happiness and misery, desires, interests and passions, nothing really exists or feels but *individuals*"."

Carabelli (2003, p. 218), also supports this view:

> "For Keynes, then, the material, or the object of economics, were the beliefs, the opinions of economic agents. Intentionality, motives and human agency, on this view, are the material of economics."

There remains the question, obviously, of the aggregate behavior of the economy, which cannot be reduced to a sum of individual behaviors. This debate is beyond the scope of our paper, but we accept Winslow's and Carabelli's characterization as a plausible distinction for the purposes of this article. This is because we are mainly interested in the first step of this analysis, viz., the existence of important behavioral insights in Keynes's work.

The second objection is about the rationality of individual behavior, particularly with respect to conventions. According to Keynes, as will be discussed below, in situations of uncertainty economic agents use conventions as useful guides to action, supported by their higher or lower degree of confidence (or weight of argument) in them (Crotty, 1994). Conventions are considered rational (or reasonable, according to Meeks, 2003) if they help individuals cope with uncertainty in a successful manner. Dequech (1999) analyzes the different uses of the concept 'convention' in the post-Keynesian literature. These range from something that structures individual expectations, to individual or collective rules-of-the-thumb that lead to a convergence of beliefs. Dequech then discusses the different arguments employed to defend the rationality of conventional behavior. Again, this is a very important issue, and Dequech provides a very clear explanation of what is at stake in these debates. Nevertheless, these discussions have an intrinsic normative bias, trying to adjudicate between different behaviors in terms of what is a value judgment. This article, however, proposes a descriptive analysis of people's actions, not engaging in the discussion about their specific rationality. Therefore, we do not consider Keynes's psychological insights as merely representing a deviation of rationality as defined by neoclassical economics because we see this discussion as a gridlock, notwithstanding the fact that Keynes disagrees with the orthodox 'principles of behavior' in his *Quarterly Journal of Economics* article (Keynes, 1937).

Moreover, the concept of rationality itself is not crystal clear and has been used in economics in many different ways. Baddeley (1999), for example, discussing Herbert Simon, distinguishes between substantive and procedural rationality. The former is the rationality employed by actors in neoclassical models, whereas the latter is the reasonable rationality used by individuals in the real world. It is worth noticing that there is a direct relationship between

[1] Earlier attempts to link Keynes and Psychology have been Drakopoulos (1992) and Marchionatti (1999). These studies, however, made no or only loose connections with the behavioral economics literature.

[2] This ambiguous treatment opened Keynes' psychological perspective on the marginal propensity to consume to criticisms such as the ones carried out by Schumpeter (1954).