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**Further Issues on the Keynes-Hume Connection Relating to the Theory of Financial Markets in the General Theory**

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**Abstract**

A basic presupposition of the rediscovery, in the times of the crisis, of chapter 12 of the *General Theory* is that Keynes’s treatment of financial markets, and particularly the use of the notion of convention, represents a crucial novelty in both his economics and philosophy. The article offers complicating remarks to critically discuss this interpretation. In particular, we analyse the complex Keynes-Hume theoretical connection in the light of the Keynes-Sraffa correspondence on Hume’s *Abstract*, and emphasize the theoretical legacy of Keynes's 1910 lectures on speculation for the analysis of financial markets in the *General Theory*.

**Keywords**: John Maynard Keynes, David Hume, conventions, financial markets, speculation

**JEL codes:** B31, B40, D84, A12

**Introduction**

The crisis has produced a revival of interest in chapter 12 of the *General Theory* (GT), where Keynes analyses entrepreneurs’ expectations on investment, the dynamics of financial markets, and the role of speculators. Encouraged by a highly influential essay offered by Akerlof and Shiller in 2009, the literature has focused in particular on the notions of `convention´ and `animal spirits´ Keynes employed to analyse investment and financial behaviours in conditions of radical uncertainty about the future. In trying to understand what went wrong with standard macroeconomic models, Akerlof and Shiller insist on `human psychology´ as a major driver of the economy. The book is entitled `Animal Spirits´, the expression being taken to mean `the noneconomic motives and irrational behaviors´ (p. x). The authors claim that the new discipline of behavioral economics is able to describe `how the economy really works. It accounts for how it works when people really are *human*, that is, possessed of all-too-human animal spirits´ (p. xi). `Animal spirits´ are then divided into five categories: confidence, fairness, corruption and bad faith, money illusion, and `stories´. It is clear that Keynes's `name and vocabulary´ (invoked as concerns confidence in particular) have in truth been used by the authors as `rhetorical devices in support of the view that macroeconomics should take a little more notice of psychology and rely somewhat less on utility maximizing hypotheses´ (Laidler 2011: 286): Akerlof and Shiller's central point is the distinction between the `rationality´ of agents of theoretical models and the `irrationality´ of those of real-world markets (Dow and Dow 2011, Zappia 2010).

Despite the intrinsic ambiguity of this `Keynes comeback´, Akerlof and Shiller's attempt to introduce elements of realism into standard economic analysis and the crisis-produced debate on the received view in macroeconomics are to be welcomed as opportunities to reform the mainstream of the discipline. The crisis has put the efficient-market hypothesis under severe stress, and evidently provided a confirmation of the failure of standard economic models not only to predict the financial collapse, but also to evaluate its effects (Stiglitz 2011). Yet, if these are the reasons lying behind the Keynes comeback, the ambiguities of such rediscovery acquire the utmost importance. A basic presupposition of this revival is that Keynes’s treatment of financial markets in chapter 12 of the *General Theory* represents a crucial novelty both in his economics and, more in generally, in his philosophy. Post-Keynesian economists have long insisted that the Keynesian revolution is intimately bound to the concept of uncertainty, which they see as the theoretical architrave of the *General Theory*. As hinted at above, the mainstream is now rediscovering, after decades of disrepute, not Keynes's general vision about the economic material, but the *General Theory* and the policy implications which can be drawn from it, as well asthe belief that `much economic activity is governed by *animal spirits*´ (Akerlof and Shiller 2009: ix). In a similar vein, heterodox approaches concentrate mainly on chapter 12 of Keynes's most famous work with its insights into the behaviour of investment and financial markets (see for instance Orléan 2010). Historians of economic thought simply cannot abstain from considering chapter 12 of the G*eneral Theory* in the light of Keynes's previous works. Yet, they generally tend to argue that in the early Thirties, Keynes had already abandoned his early rationalist beliefs and come to develop (not least because of Freudian influences: see Dostaler 2007) a more nuanced, less naïve vision of human behaviour, not to mention the long tradition of the literature, established by Shackle (1974) and more recently revived by Winslow (1993), which associates Keynes's mature thought and work with the concept of irrationality of beliefs and economic behaviour.

This paper aims to offer complicating remarks to critically discuss this interpretation. In Section I, we discuss the Keynes-Hume theoretical connection by reviewing Keynes's views on Hume's scepticism as exposed in *A Treatise on Probability*. By examining, in Section II, the Keynes-Sraffa correspondence on Hume's *Abstract*, we bring readers' attention to the problematic nature of such connection, and provide arguments to mitigate the prevailing view on Keynes's `Humeanism´ in the Thirties. After a brief critical account of the use Keynes makes of the notion of convention in relation to financial markets in the *General Theory* (Section 3), we expose the key arguments of Keynes's unpublished 1910 lectures on speculation and emphasize the continuity of themes, way of reasoning and methodological positions in the theoretical path covered by Keynes between the first draft of *A Treatise on Probability* and the *General Theory* (Section 4). In the conclusions (Section V), we focus on some key issues of Keynes's economics emerged in this paper, and particularly on the fundamental role knowledge plays in counteracting the shaping of harmful social conventions.

**1. The Keynes-Hume connection**

Scholars who insist on the crucial importance of the concept of convention in Keynes's mature economics tend to argue that the author of the *General Theory* had by then reversed the critical view of Hume’s philosophy exposed in *A Treatise on Probability.* This would explain the Humean flavour of chapter 12 of Keynes's magnum opus. At the end of an accurate research on the historical origins and development of the notion of `animal spirits´, Barens (2011) points out that Keynes employed the term in its literary rather than technical meaning, exactly like Hume in *A* *Treatise on Human Nature* (1978[1739-40]), and that his `renewed interest in the writings of Hume and Descartes´ (Barens 2011: 12) in 1934, when chapter 12 was written (see Gehrke 2010), has clearly to do with the appearance of the term in the *General Theory*. The same for Keynes's treatment of conventions in that chapter: Marchionatti (1999: 422, n8) argues that `in the evolution of Keynes's thought on this subject his uninterrupted dialogue with Hume is also important: as it is well known, according to Hume “custom is the great guide of human nature”´.

These remarks raise an extremely interesting issue: Keynes's dialogue with Hume is truly uninterrupted. As Barens stresses, Keynes's renewed interest in Hume owes to the discovery that the *Abstract* of Hume's *Treatise on Human Nature* (anonymously published in 1740) had not been written by Adam Smith, as widely believed up to 1938, but by Hume himself, who **did** his best to disguise his authorship. As is known, the discovery is due to the research of Keynes and Sraffa, who claimed to have ascertained the true authorship of the *Abstract* in the introduction to the 1938 Cambridge University Press edition – now in *The Collected Writings of John Maynard Keynes* (Keynes 1971-1989; CW), Vol. 28: 373-90. Keynes (like Sraffa) was a book collector (see Munby 1975) and, among others, of works of David Hume (CW 28: 373; see also Scrase and Croft 1983). His brother Geoffrey Keynes had handed him a copy of the pamphlet in 1933. Keynes and Sraffa had already realized that the author was Hume in that same year or at the beginning of the next one, for in a letter to the Italian economist of 5 January 1934, Keynes (in Sraffa Papers[1], D3/11/65/61) wrote: `I have now read the Hume pamphlet carefully and lean strongly to your view that it is by Hume himself. Internally there is nothing inconsistent with this, whilst the Adam Smith story looks very unlikely´.

According to Andrews (1999), the relationship with Hume's philosophy is key to understanding the continuity and change in Keynes's thought from his early writings – and particularly *A Treatise on Probability* – to the *General Theory*. In his words:

Keynes's primary intellectual contexts, G.E. Moore's philosophy and the broader Bloomsbury movement, both required an answer to Hume and Keynes intended his *Probability* to satisfy that requirement. Keynes later reversed himself completely with respect to Hume. While Keynes's position in the *Probability* was a response in direct opposition to Hume, his position in his later writings bear profound similarities with Hume. (Andrews 1999: 2)

This shifting view of Hume's philosophy would therefore help characterize the **transition** (see Davis 1997) from Keynes's early condemnation of `customary morals, conventions and traditional wisdom´ (CW 10: 446), as he himself wrote in the autobiographical sketch *My Early* *Beliefs*, to the explanation he offered in chapter 12 of the G*eneral Theory* for concrete `revaluations of existing investments´, which would be carried out, in practice, through agreeing, `as a rule, to fall back on what is, in truth, a convention´ (CW 7: 152).

The literature on the Keynes-Hume connection considers *A Treatise on Probability* as Keynes's attempt to `solve the induction problem that had been set by David Hume´ (Klant 1985: 83; see also Meeks 1991,2003), i.e. `how to establish reasonable belief in a proposition, as a basis for action, in the absence of certain knowledge´ (Dow 2009: 14-15). A necessary preliminary remark which must be taken into account is that the interpretation of Hume's philosophy itself raises serious problems. Drawing on an interpretation of Scottish Enlightenment as peculiar and distinct from the European (French, English) Enlightenment, Dow (2002, 2009) proposes a historical reconstruction of the reception of Hume which criticises the two dominant but alternative interpretations of Hume as `pure sceptic´, popularized by Kant, and as a father of positivism (a main influence for modern economics), respectively for radicalising Hume's more positions on the role of reason and for neglecting his critical remarks on induction and observation. Still, Keynes's theoretical peregrinations on `Humian paths´ began with *A Treatise on Probability*, and Keynes's position about induction in the essay can scarcely be equivocated: his polemical target are Hume’s `sceptical criticisms´ (CW 8: 302), a `scepticism´ which simply `goes too far´ (55).

Hume believed that the role of reason in providing a theory of human nature was highly limited: all probable reasoning was in his view a sort of `sensation´ grounded not on reason but on customary and instinctive beliefs that the future would replicate the past. Not reason but custom is the guide of life: `that alone determines the mind, in all instances, to suppose the future conformable to the past. However easy this step may seem, reason would never, to all eternity, be able to make it´ (Hume 1993: 131). A priori theorizing does not tell us anything, in Hume's view, about causal relationships: causality is rather inferred from observation (of the effects of causal mechanisms), but we cannot identify the true causal mechanisms at work. Knowledge derives therefore from experience, that is empirical evidence, and authority, that is conventional knowledge. If we are able to generate the idea (among others) of causality, it is because we are endowed with imagination, which allows us to infer even the principle of existence and to apply analogical reasoning, founded on the intuition of similarities between objects. Therefore, the mind can apply logic only to mathematical and logic tautologies, while any judgement, either of values or of probability, rests on conventions, the mind operating through imagination (Fitzgibbons 1988). This clearly makes beliefs the only reasonable basis for human behaviour, and provides room, in Hume's philosophy, for psychology and persuasion (Dow 2009). What drives action is passion, not reason: `reason alone can never be a motive to any action of the will´, and `can never oppose passion in the direction of the will´ (Hume 1978: 413). Rather, individuals act on the basis of self-interest and `natural´ virtues, but also of the `artificial´ virtues embodied in social customs and habits.

Keynes's disagreement with Hume's philosophy in *A Treatise on Probability* clearly rests on a critique of Hume’s scepticism (in general, see Muchlinski 2003a, Fitzgibbons 1988). In the attempt to counteract Russell's radical empiricism, in its turn a reaction to idealism and the Kantian tradition in epistemology, Keynes recurred to Kant (who assigned a fundamental role to a priori synthetic knowledge) and to the philosophy ofcommon sense[2] to oppose both Hume's scepticism and the belief that only mathematical knowledge was valid. Keynes wanted to defend reason and probable knowledge, and advanced an interpretation of judgements as occurring on rational bases. `Judgements´, he believed, `can penetrate into the real world, even though their credentials are subjective´ (CW 8: 57).

His was a logical theory of probability, `concerned with the degree of belief which it is rational to entertain in given conditions´ (CW 8: 4; the following generally draws on Carabelli 1988). As against the frequency theory, Keynes's approach aimed at investigating on the cognitive and logical procedures involved in the formulation of probability judgements. As against the restrictive assumptions of the classical theory of probability, Keynes maintained that the realm of probability was much wider than had previously been supposed by supporters of the classical theory of probability: rather, probable knowledge was the commonest case of knowledge. Keynes extended logic outside its traditional domain, and focused on arguments of non-demonstrative and non-conclusive nature, that is on arguments which were justified by their connection with probability rather than truth. Keynes never defined probability. His approach distinguishes between direct knowledge, as the result of contemplating the objects of acquaintance, and indirect knowledge, that is knowledge derived from perceiving a logical relation between the proposition about which we seek knowledge and another one, between premises and conclusions. `The kind of rational belief which we *infer* in this manner is termed probable (or in the limit certain), and the logical relations, by the perception of which it is obtained, we term *relations of probability*´ (CW 8: 121). Propositions constituting direct knowledge have to be perceived in a direct and certain way, while probability relations are perceived through `intuition´ and direct judgements.

Probability is to Keynes indefinable, a property probability shares with Moore's concept of goodness. In Moore's view, when analysis is no longer possible, one must recur to intuition, that is to intuitive or direct judgements. These latter are self-evident, `synthetic´ – as Kant, explicitly called upon in Moore's *Principia Ethica* (1903), would have called them – propositions. The same for Keynes's notion of probability (and similarity, to mention Keynes's famous analogy between these two kind of logical relationships); yet he was prone to identify `degrees of probability´ with `degrees of rational belief´ (8), the terms `certain´ and `probable´ being used to describe different degrees of rational beliefs. After all, `the fact that we ultimately depend upon an intuition need not lead us to suppose that our conclusions have, therefore, no basis in reason, or that they are as subjective in validity as they are in origin´ (76). Keynes's logical theory of probability assumes the existence of objective grounds for belief.

Among rational, non-conclusive and non-demonstrative arguments, Keynes chose to concentrate in particular on inductive inference; contraan established tradition which considered inductive inference as a method of natural philosophy and empirical sciences only, Keynes saw it at work in social sciences and everyday conduct too. As against positivist thought, he believed that induction belongs to logic and consists in a process of reasoning. He thereby threw light on the role played by analogy, namely to qualitative rather than quantitative likeness or unlikeness of events, and treated the validity of induction in the same manner as the one of probable reasoning. Both are questions `of logic and not of experience, of formal and not of material laws´ (246), and do not depend, respectively, on successful predictions and empirical confirmation. Rather, the validity of induction depends on its reasonableness, that is exactly `on the existence of a relation of probability´: `an inductive argument affirms, not that a certain matter of fact *is* so, but that, *relative to certain evidence*, there is a probability in its favour´ (245-246).

Trying to meet Hume's arguments `on their own ground´ (303), Keynes devoted considerable attention to the logical foundations of analogy and prompted for a justification of induction resting upon common sense. `A priori´ probability must be finite and (that is) a principle of `limited independent variety´ must hold: a system is finite and therefore analysable through induction when its members do not show an infinite number of independent properties. But this is a logical principle, which has no relation with empirical uniformity or physical causality; the adoption of an `atomic hypothesis´ does not imply acceptance of the existence of empirical uniformity. Furthermore, and more importantly, the inductive hypothesis cannot be applied to organic complex systems: in the *Treatise on Probability*, Keynes insisted more on exceptions to the validity of induction than on the rule. His justification of induction is far from simple. Knowledge of the probability of the assumption is directly apprehended by the mind, he thought; it is ultimately rooted in direct acquaintance with things, on which direct knowledge of the hypothesis rests (but the two concepts must be kept separated). What is more, it cannot be known in a truly `a priori´ way, since this would amount to **recognising** its absolute universal validity (whereas `analogy and induction, while they happen to be useful to us in this world, cannot be universal principles of logic, on the same footing, for instance, as the syllogism´, 272). But one could recognise that it can be applied to some, though not all, systems of fact, even when limited independent variety is not a given, but there is a `finite a priori probability in favour´ (289) of it. Moreover, Keynes believed that the hypothesis `stands in a peculiar position in that it seems neither a self-evident logical axiom nor an object of direct acquaintance; and yet it is just as difficult, as though the inductive hypothesis were either of these, to remove from the organon of thought the inductive method which can only be based on it or something like it´ (293-94).

Yet the `disordered and underdeveloped´ (291) condition of what he referred to as the current theory of knowledge was not a reason, Keynes argued, to surrender to Hume's scepticism. He believed that

Hume's sceptical criticisms are usually associated with causality; but argument by induction—inference from past particulars to future generalizations—was the real object of his attack. Hume showed, not that inductive methods were false, but that their validity had never been established and that all possible lines of proof seemed equally unpromising. The *full* force of Hume's attack and the nature of the difficulties which it brought to light were never appreciated by Mill, and he makes no adequate attempt to deal with them. Hume's statement of the case against induction has never been improved upon; and the successive attempts of philosophers, led by Kant, to discover a transcendental solution have prevented them from meeting the hostile arguments on their own ground and from finding a solution along lines which might, conceivably, have satisfied Hume himself (302-3).

Considering Keynes’s writings (from youthful papers to mature writings) as a whole, Dow (2009) argues, as against O'Donnell’s (1989) incompatibility thesis of Hume's and Keynes's views on probability, that Keynes is among those economists who have interpreted Hume as being neither pure rational sceptic nor pure empiricist. This might be taken as a reason why, noting that Hume could not find any acceptable justification of induction, Keynes suggested that he could nonetheless consider inductive argument in practice. The alternative explanation that is here proposed is that in stressing Hume's presumed defence of the self-justifying character of induction, Keynes was in truth advancing his own view about the inductive argument (see Carabelli 1988). Keynes believed that the `inductive hypothesis´ was `adequate to its purpose´ and able to `justify our ordinary methods of procedure in inductive arguments´ (CW 8: 290). Induction, to put it differently, contained in itself elements of reasonableness, those of common sense – analogy and practical intuition. Keynes could thus claim to reject empirical justifications of induction while avoiding, at the same time, the difficulties raised by Kant's transcendental solution to the problem. In this sense, resting on knowledge of the probability of the inductive hypothesis of a synthetic, but not universal and self-evident (since it was relative and contingent) character, Keynes's own specific attempt to justify the validity of induction could satisfy Hume. Keynes had certainly borrowed from Kant a synthetic, “a priori” approach to knowledge, but when adapted to Keynes's own philosophy, its `hard´ version has been replaced by a softened variant, common-sense based and relativistic, which could fit Keynes's criticism of Moore's approach to probability and moral conventions.

**2. Keynes’s (presumed) Humeanism in the light of the correspondence with Sraffa on the *Abstract***

In the Keynes-philosophy literature, two key moments of the presumed `Humean´ shift in Keynes's philosophical thinking from the juvenile years to his mature writings are detected in the obituary of Ramsey and the memoir `My Early Beliefs´*.* Andrews (1999) holds that Keynes would have first recognized that the logical relation of probability is not of an objective character. On reviewing in 1931 the volume containing Ramsey's posthumous essay `Truth and Probability´, Keynes declared to accept Ramsey's distinction between `human´ and `formal´ logic. Human logic is concerned with the `'useful mental habits' for handling the material with which we are supplied by our perception and by our memory and perhaps in other ways, and so arriving at or towards truth´, while the `rules of consistent thought´ (CW 10: 339) belongs to formal logic.

Ramsey argues, as against the view which I had put forward, that probability is concerned not with objective relations between propositions but (in some sense) with degrees of belief, and he succeeds in showing that the calculus of probabilities simply amounts to a set of rules for ensuring that the system of degrees of belief which we hold shall be a consistent system. Thus the calculus of probabilities belongs to formal logic. But the basis of our degrees of belief — or the a priori probabilities, as they used to be called — is part of our human outfit, perhaps given us merely by natural selection, analogous to our perceptions and our memories rather than to formal logic. So far I yield to Ramsey — I think he is right. (339)

A `major concession´, writes Andrews (1999: 7), before noting that Keynes could not accept Ramsey's subjective theory as the definite answer to Hume. In Keynes's words, `in attempting to distinguish ‘rational’ degrees of belief from belief in general [Ramsay] was not yet, I think, quite successful. It is not getting to the bottom of the principle of induction merely to say that it is a useful mental habit´ (CW 10: 339). But after conceding that probability is not a logical relation, Keynes also conceded the rationality of human nature: in *My Early Beliefs*, of 1938, he finally rejected Bloomsbury's claim of `the right to judge every individual case on its merits and the wisdom, experience and self-control to do so successfully´ (446). Bloomsbury wrongly believed in

a continuing moral progress by virtue of which the human race already consists of reliable, rational, decent people, influenced by truth and objective standards, who can safely be released from the outward restraints of convention and traditional standards and inflexible rules of conduct, and left, from now onwards, to their own sensible devices, pure motives and reliable intuitions of the good´. (447)

In short, Keynes and the Bloomsburys

were not aware that civilisation was a thin and precarious crust erected by the personality and the will of a very few, and only maintained by rules and conventions skilfully put across and guilefully preserved´. (447)

Establishing a clear connection between the two aforementioned key moments of Keynes's philosophical shift, Andrews (1999: 10) concludes that `a rejection of the fundamental argument of the *Probability* implies the rejection of the notion that human behaviour is rational´.

Davis (2003: 97) regards conventions as the `central organizing concept´ of Keynes's later philosophical thinking. Chapter 12 of the *General Theory* and the 1937 article in the *Quarterly Journal of Economics* might be taken as a confirmation that Keynes had finally `come to accept Hume's position that reason is not 'the guide of life'´ (Andrews 1999: 16). Although Andrews does not insist on Keynes and Sraffa's discovery of the true authorship of the *Abstract on Human Nature* in 1934, this might help explain, or provide evidence of, the shift in Keynes's philosophy. A possible reason why scholars **of** the debate on Keynes's philosophical thinking are reluctant – with the relevant exception of Fitzgibbons 1988 – to rely upon this joint achievement of Sraffa and Keynes in explaining Keynes's late `humeanism´ is that it appears to pose more problems than it solves. At least, this is what the pre-publication correspondence between Keynes and Sraffa on the *Abstract* seems to show.

In a letter of 1 November 1937, after observing that a careful comparison with the *Treatise* showed that the *Abstract* was `excellent´ for its purpose – `there are several passages where I can find nothing near so good or so Humian as in the Abstract´, – Keynes asked Sraffa to give his opinion on some footnotes he wanted to add to their introduction, broadly centred on Kant's reception of, and response to, Hume.

Tell me if you think my footnotes are getting altogether too irrelevant. But I feel that this is a production where irrelevance is not altogether out of place. I am making further enquiries as to whether I am right in supposing that Kant could not read English. (JMK to PS, 1 November 1937, Sraffa Add.ms.a427/47)

Six days later, he informed Sraffa of his further researches on `Kant and the Treatise´ (Keynes to Sraffa, 7 November 1937, Sraffa Add.ms.a427/48). Most important is Keynes's letter of November 14 (Keynes to Sraffa, 14 November 1937, Sraffa Add.ms.a427/49), accompanied by three pages of the introduction the two economists were preparing, reproducing the text of the footnotes Keynes was referring to in the previous letters. Keynes remarkably defined the whole issue at stake as the `story of the disappearance of the Treatise during the eighteenth century´, one which was `scarcely paralleled in the history of philosophy´. Then, he launched a debate around `Hume's veracity´. Keynes was in fact persuaded, to use Sraffa's words, that Hume was a `liar´.

As Keynes later wrote in a letter of November 27 (Keynes to Sraffa, 7 November 1937, Sraffa Add.ms.a427/50), `Hume regarded [the *Treatise*] as a desperate and disastrous failure all through his life´. Hume, Keynes observed on November 14 in preparing the introduction to the *Abstract*, could not rely upon a second edition of the book, but its necessity was

superseded in his own view by the publication in 1748 of his Philosophical Essays concerning Human Understanding (called, from 1757 onwards, An Enquiry concerning Human Understanding) though in the judgement of posterity a much inferior book. From that time Hume did his best to suppress the Treatise as a "juvenile work", (1) and, aided by its scarcity, with considerable success. (2).

Note (1) was devoted to Hume's exaggeration of his own `precocity´: Keynes's criticism rested upon a 1751 letter to Gilbert Elliot, which he regarded as `characteristically untruthful´. Keynes's Note (2), on Kant, reads as follows:

The Treatise was not reprinted in English until 1817, and its next appearance was in the German translation Ueber die menschliche Natur, published in Halle in 1790, by Heinrich Jacob, who was, perhaps, the first to point out its superiority over the Enquiry and its much greater completeness (vide his excellent preface). In spite of T.H. Green’s presumption to the contrary (Introduction to his edition of the Treatise Vol. I, p. 3), modern Kantian scholars are convinced that Kant had no direct acquaintance with the Treatise (knowing it, if at all, only through the passages quoted in Beattie’s Essay of which a German edition appeared in 1772) but used the Enquiry, which appeared in 1755 in a German translation, a copy of which is recorded as being in his library (Immanuel Kant’s Bücher by A. Warde). No translation of the Treatise has ever appeared in French.

Sraffa was not convinced by Keynes's arguments. As to `Hume's veracity´, he remarked not only that `the accusation against Hume of exaggerating his precocity is unfair´ (Sraffa to Keynes, 20 November 1937, Keynes PP/64/38-45), but also asked Keynes `Where did you get this notion (of which I find other traces in your additions) that Hume was a liar? I don't know any foundation for it – unless it is that he was an atheist´. Keynes's reply (Keynes to Sraffa, 27 November 1937, Sraffa Add.ms.a427/50) was quite firm:

I have always regarded his statements in regard to the Treatise as unreliable. The effect of the violent disappointment he had about that was to arouse a complex in him which prevented him from being sensible on the matter for the rest of his life; his chief object being to cover up and to excuse. On looking into Birkbeck Hill I find that I am not alone in attributing this side to his character. Hill writes on page viii of his preface: “Hume, with a levity which is only found in a man who is indifferent to strict truthfulness...”.

A letter written by a close cousin of Hume, George Norvell, to Alexander Stenhouse on March 1, 1788 (Keynes PP/87/53; also in Fieser 2005: 202-204), may have had a certain influence on Keynes’s opinion about the character of Hume and particularly his intellectual vanity (Keynes debated around the letter with his brother Geoffrey and others in 1938). But Keynes saw `the publication of the Abstract itself … as an example of his lack of candour where the Treatise was concerned´. Moreover, when Hume `published his next book in 1741, he pretended in the preface that it was his first appearance in print´.

As to the note on Kant, Sraffa wanted Keynes to remove it, since its formulation denied that `Kant ever read the Treatise, even in the German translation´, which was false. He stressed that Kant `did read the full text of the Treatise in 1790´, and `had read parts of it before 1790, through the transl. of Beattie – and possibly had heard more from his friend Jacob or others´. He finally added that `what is left, is an extremely special point, of no general interest´ (Sraffa to Keynes, 20 November 1937, Keynes PP/64/38-45). Keynes came then back on the matter to clarify his point: Kant

was not acquainted with the Treatise a good many years earlier when he was writing on Hume in the Kritik and the Prolegomena. The point was that the Treatise had fallen so much out of sight that Kant was unacquainted with it when he wrote his famous passages on Hume's philosophy (Keynes to Sraffa, 27 November 1937, Sraffa Add.ms.a427/50).

It was Sraffa to win the battle on Hume's veracity. Birkbeck Hill's judgement was not reliable, he maintained:

he takes it from Dr. Johnson that Hume 'as a believer in annihilation had not motive to speak the truth.' When he comes to particular cases it is always a matter of Hume's concealing his unorthodox opinions for the sake of honours, fame or wealth. So did many 18th cent. philosophers. And Adam Smith was no better. They were hypocrites, but it does not in the least follow that they were liars all round.

Sraffa had nonetheless to

admit however that you have a better case than I am making out. But, before accusing a man, in an introduction to his work, of being a liar, one ought to have an overwhelming case, and it ought to be a matter of importance. Neither seems to be the case here´ (Sraffa to Keynes, 4 December 1937, Keynes PP/64/58-63).

Keynes had anticipated in his November 27 letter that he would have had to yield to Sraffa, but that also that he would remain `quite convinced on the merits´ of his accusations (Keynes to Sraffa, 27 November 1937, Sraffa Add.ms.a427/50).

The whole exchange shows Keynes's attention for the ethical issue in Hume's philosophy. Fitzgibbons (1988) is the only economist in the literature to have insisted on `the missing note on Kant´, as he calls it. As **is** known, Keynes could not accept the moral implications of Hume's philosophy, and openly attacked him, in *The End of Laissez-faire*, as a father of utilitarianism and conventional economics. Hume believed moral statements to be akin to probability statements, and based both upon imagination (all probable reasoning being, as said, `a species of sensation´), whereas Keynes saw the `importance of probability´ in that `it is rational to be guided by it in action´, in that `in action we ought to take some account of it´ (CW 8: 356). As he wrote in a draft preface to the *Treatise*, `the logic of probability is of the greatest importance, because it is the logic of ordinary discourse, through which the practical conclusions of action are most often reached´ (Fitzgibbons 1988: 17; see also Carabelli 1988). One cannot but speculate about Keynes's attention **to** Hume's veracity. He certainly opposed Hume's vision about truth-seeking philosophers and men of action and the general divorce between truth and action which is embedded in Hume's philosophy. One may surely note, following Fitzgibbons (10) again, that `Keynes believed that an alternation of mind was characteristic of Hume. There was no need, he said, for Hume to have fancied himself some 'strange uncouth monster, who not being able to mingle and unite in society, had been expell'd all human commerce, and left utterly abandon'd and disconsolate'. The difficulty simply was that Hume's scepticism 'goes too far' (CW 8: 55)´.

Now, Fitzgibbons himself tells us that although *A Treatise on Probability* and the *General Theory* share a common subject matter (uncertainty) and address a common problem (decision-making under uncertainty), the former, ex post, is shaped by Keynes's early `oversimplified rationalism´ (1988: 24), while the latter `assumed the prevalence of human irrationality´ (31). He claims that while Keynes had conceded that `valid intuitions were rare and hard won´ (32), `many examples show that he always held to the essence of the *Treatise*, which is the *possibility* of a logical probability judgement … judgement is complex, but following the rules is no substitute´. In his correspondence with Sraffa on the *Abstract*, Keynes accuses the Scottish philosopher of having prevented Kant from responding on Hume's own terms. But Keynes's response to Sraffa's request to delete the footnotes on Kant – `On the matters in dispute I see that I shall have to yield to you, but I am quite convinced on the merits´ (Keynes to Sraffa, 27 November 1937, Sraffa Add.ms.a427/50) – seems to confirm that Keynes's thoughts on the Hume-Kant connection reveal more about Keynes himself than about Hume or Kant. Two years before the publication of the *General Theory,* but in the very year when he wrote the essence of chapter 12 of the book, Keynes discovered that he had unduly condemned Kant for failing to reply adequately to Hume. The fact itself that Keynes devoted attention to the issue, and that he remained `convinced on the merits´ despite Sraffa's final victory on the footnotes to the introduction to the *Abstract*, are a direct proof of the continuity of focus between *A Treatise on Probability* and the *General Theory*.This also provides reasons to consider the Keynes-Hume connection as a complex object: that is, not clearevidence of Keynes's philosophical shift, but an evolving theoretical relationship which intermingles with the development of Keynes's philosophy. Andrews may be right, but the alternative view put forward by scholars who are more sceptical about Keynes's late humeanism retains its legitimacy. As Fitzgibbons himself writes, it may be that although Keynes's scepticism `continued to deepen … what changed was the data of his system, while his intellectual framework remained the same´ (33).

**3. On conventions in financial markets in chapter 12 of the *General Theory***

A `Humean´ reading of chapter 12 of the *General Theory* obviously provides a suitable basis for the current attempt of the mainstream to reform itself by the introduction of Keynes-inspired behavioral elements in its theory of financial markets. Davis rightly remarks that despite their importance in respect to the determination of the volume of investment and thereby of income and employment, conventions are the object of extremely varying interpretations in the literature. His explanation for this is manifold: on one side, Keynes himself was not clear about `explaining the various different ways in which conventions operated and changed´ (Davis 1997: 155; see Dequech's recent – 2011 – discussion on financial conventions in Keynes's theory), and said little about `the stability or instability of conventions, whether those that govern investment or other domains of the economy´. Moreover, Davis stresses that conventions `emerged in Keynes's overall thinking more as a product of decisions made regarding nonphilosophical matters´ (149).

Conventions in Keynes's thought have thus been the object of analyses centred on the economist's presumed interest **in** `irrationalism´. Winslow (1993) sees the young Keynes as having an `empiricist´ view of direct acquaintance: he would later abandon his logical theory of probability to adopt an `organicist social ontology´ (80), which provided the foundation of a `changed view of probability, induction and ethics´. Keynes would have thereby come to believe `in the importance of uncritical obedience to rules´ (72) and to assign the utmost importance to the irrationality intrinsic to an entrepreneurial economy. Davis takes another stance. If Keynes apologized, in *My Early Beliefs*, for having disregarded Moore's reflections on the importance of social rules of good conduct (`customary morals, conventions and traditional wisdom´, CW 10: 446), this would owe to new awareness of the framework of social rules within which individuals operate. Davis's argument rests on a new interpretation of Keynes's well-known definition of economics as a moral science dealing with `introspection and values´ (CW 14: 300): when referring to the complexity of the economic material and behaviour, Keynes would be pointing out that agents `make assessments of other individuals' motives and behaviour by considering how we ourselves would act in similar situations´ (Davis 2003: 104). Judgement has thus become `a highly interdependent affair´ (105), as in the beauty contest; contrary to his early philosophy, the Keynes of the *General Theory* would see individual judgement as social. Davis's research program on conventional behaviour as interactive activity, which in his view `needs to be understood on its own terms, apart from the issue of whether behaviour is rational or irrational´ (1997: 155), is shared by scholars such as Favereau (1988), Littleboy (1990) and Orléan (1989, 2010), who has proposed a theory of mimetic behaviour in financial markets.

Bibow, Lewis and Runde (2003) have observed that `Keynes had different things in mind when he talks about convention, namely various human practices or 'techniques' for making choices under conditions of uncertainty, ranging from simple induction to deliberately mimetic behaviour´ (185). Some scholars (Carabelli 1988, O'Donnell 1989, Lawson 1993; for a critical survey of this literature, see Dequech 1999) have insisted precisely on the issue of the `rationality´ or, better, reasonableness (à la Keynes) of conventional behaviour. In the light of what precedes, a most interesting attempt to study the Humean legacy for chapter 12 is provided by Meeks (1991, 2003). Meeks argues, with particular concern for the investment decision, that

crucial though Keynes thought the impact of uncertainty on action and especially on the investment decision to be, he did not view the resulting behaviour as unreasonable or (in an important sense) irrational – rather the reverse. While stressing the role of some unreasoned elements in decisionmaking, he can also be seen as offering an account of economic agents' *rational* response to conditions not just of risk but of gross uncertainty (2003: 18).

A series of `Humean antecedents´ (26) would parallel specific aspects of Keynes's insistence on the challenge of uncertainty facing investors. Keynes’s broader notion of rationality as `reasonableness´ of a belief, which depends on having some reasons for holding it relative to a given cognitive situation, would allow for conventions when lack of knowledge does not supply reasons for acting. Keynes and Hume, who observed that `for [his] conduct´ the sceptic `is not obliged to give any other reason than the absolute necessity he lies under of doing so´ (reported in Meeks 2003: 27) would not therefore be so distant on the crucial issue of the wisdom of behaviour relying on experience.

This notwithstanding, Meeks (2003: 32) recognizes that

fragility still lies at the heart of Keynes's account of investment. There is the ever-present possibility of an explosion of doubt because, below the surface, deep uncertainty remains: in investing, we do not 'really believe' in the conventional assumption 'that the existing state of affairs will continue indefinitely. [Indeed] we know from extensive experience that this is most unlikely.

Both the analysis of the Humean antecedents of chapter 12 of the *General Theory*, directly,and the complex character of the Keynes-Hume connection as revealed by the *Abstract affaire*, more indirectly, show therefore the criticality of knowledge in relation to uncertainty in Keynes's thinking about investment and financial decisions: the fragility of knowledge but also its centrality (see Muchlinski 2003b). This leads us back to Ramsey's criticism. Despite important concessions on the bases of our degrees of belief being part of our human outfit, Keynes never ceased to adhere to the contrast drawn in *A Treatise on Probability* between actual beliefs and reasonable beliefs, as he himself wrote commenting on Ramsey's article (see the above quote). In truth, what exactly chapter 12 of the *General Theory* and related writings show is that Keynes never yielded to a view of probability as reducible to individual subject beliefs or to empirical-psychological habits (see Carabelli 2003). Decision-making under uncertainty is in truth a key issue of both Keynes's early work on probability and his later economic writings. At least, this is what Keynes himself admits in his famous 1937 article in the *Quarterly Journal of Economics*, where he explained that the principal point where he departed from the classical economic theory was in rejecting the view that `the calculus of probability´ is `capable of reducing uncertainty to the same calculable status as that of certainty itself´, since `our knowledge of the future is fluctuating, vague and uncertain´ (CW 14: 113). By ‘uncertain’ knowledge, Keynes did not mean

merely to distinguish what is known for certain from what is only probable [...] The sense in which I am using the term is that in which the prospect of a 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. (113-14)

Nevertheless, Keynes holds that `the necessity for action and for decision compels us as practical men to do our best to overlook this awkward fact and to behave exactly as we should if we had behind us a good Benthamite calculation of a series of prospective advantages and disadvantages, each multiplied by its appropriate probability, waiting to be summed´. There followed the indication of three among the most important `techniques´ to behave `in a manner which saves our faces as rational, economic men´:

1. We assume that the present is a much more serviceable guide to the future than a candid examination of past experience would show it to have been hitherto. In other words we largely ignore the prospect of future changes about the actual character of which we know nothing.
2. We assume that the *existing* state of opinion as expressed in prices and the character of existing output is based on a *correct* summing up of future prospects, so that we can accept it as such unless and until something new and relevant comes into the picture.
3. Knowing that our individual judgment is worthless, we endeavour to fall back on the judgment of the rest of the world which is perhaps better informed. That is, we endeavor to conform with the behaviour of the majority or the average. The psychology of a society of individuals each of whom is endeavouring to copy the others lead to what we may strictly term a *conventional* judgment. (114)

Keynes is here reiterating and expanding what he had written in chapter 12 of the *General Theory* while dealing with investors' beliefs about prospective yields on assets, estimates of which are made on a basis of knowledge which is characterized by `extreme precariousness´ (CW 7: 149).It would be `foolish´, he remarked, `to attach great weight to matters which are very uncertain´, whereas it is `reasonable [...] to be guided to a considerable degree by the facts about which we feel somewhat confident´ (148). Hence the `usual practice´ of projecting the existing situation into the future, `modified only to the extent that we have more or less definite reasons for expecting a change´ (ib.). Therefore, the state of long-term expectations does not solely depend on the `most probable forecast we can make´, but also on what, in *A Treatise on Probability*,Keynes had defined as the `weight of the argument´, that is `the *confidence* with which we make this forecast´ (ib.). Yet Keynes makes clear that `those who seriously attempt to make any such estimate are often so much in the minority that their behaviour does not govern the market´ (150).

With the `separation between ownership and management´ and the development of organised investment markets, `a new factor of great importance has entered in, which sometimes facilitates investment but sometimes add greatly to the instability of the system´ (150-51): the Stock Exchange, which clearly governs some classes of investment. Not the `genuine expectations of the professional entrepreneur´, but `the average expectations of those who deal on the Stock Exchange as revealed the price of shares´ (151), in other words, govern such investments. Revaluations of existing investments occurs through a convention, whose essence `lies in assuming that the state of affairs will continue indefinitely, except in so far as we have specific reasons to expect a change´ (152). In truth, Keynes holds, we do not `really believe´ in this; `nor can we rationalise our behaviour by arguing that to a man in a state of ignorance errors in either direction are equally probable´ (152). This assumption would lead to `absurdities´, since `our existing knowledge does not provide a sufficient basis for a calculated mathematical expectation´ (152). What investors are assuming is in truth that `the existing market valuation, however arrived at, is uniquely *correct* in relation to our existing knowledge´ (152). A certain measure of continuity and stability is assured by this method of calculation, `so long as we can rely on the maintenance of the convention´ (152): the investor can then `form his own judgment´ as to the likelihood of a `change in the news *over the near future*´ (153).

But Keynes is aware that such **a** convention, `in an absolute view of things so arbitrary, should have its weak points´ (153). Above all, speculation accentuates this precariousness. A result of the increase in the proportion of equity owned by persons `who do not manage and have no special knowledge of the circumstances, either actual or prospective, of the business in question´ is that `the element of real knowledge in the valuation of investments by those who own them or contemplate purchasing them has seriously declined´ (153). As a consequence,

a conventional valuation which is established as the outcome of the mass psychology of a large number of ignorant individuals is liable to change violently as the result of a sudden fluctuation of opinion due to factors which do not really make much difference to the prospective yield; since there will be no strong roots of conviction to hold it steady. (154)

When `no solid basis exists for a reasonable calculation´, conventions may decay even in the absence of `express grounds to anticipate a definite change´ (154). An important point to stress is, that which Keynes sees as an `inevitable result´ (155) of the modern investment market; namely, that professional investors and speculators, `possessing judgment and knowledge beyond that of the average private investor´ (154), are mainly concerned**,** `not with making superior long-term forecasts of the probable yield of an investment over its whole life, but with foreseeing changes in the conventional basis of valuation a short time ahead of the general public´ (154). They are therefore concerned `with what the market will value [such investment] at, under the influence of mass psychology, three months or a year hence´ (155), that is with `the anticipation of impending changes, in the news or in the atmosphere, of the kind by which experience shows that the mass psychology of the market is most influenced´ (155).

This sort of anticipation game `does not even require gulls amongst the public to feed the maws of the professional; — it can be played by professionals amongst themselves. Nor is it necessary that anyone should keep his simple faith in the conventional basis of valuation having any genuine long-term validity. For it is, so to speak, a game of Snap, of Old Maid, of Musical Chairs´ (155-56); or a `beauty contest´, in Keynes's famous words:

professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. It is not a case of choosing those which, to the best of one’s judgment, are really the prettiest, nor even those which average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practise the fourth, fifth and higher degrees (156).

Keynes then elaborates on the accrued difficulties facing `skilled´ individuals who refuse to play the speculation game and rather continue to base their investment decisions on `the best genuine long-term expectations´ (156) they can frame, as well as on the confidence of the other side of the market, that is lending institutions.

Keynes believed that the modern, complex organisation of investment markets enhances the risk of the predominance of speculation, and explicitly attacked (what he considered as) the American attitude to `be unduly interested in discovering what average opinion believes average opinion to be´ (159). Speculators `may be do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done´ (159): for sure, the Stock Exchange will not perform its `proper social purpose´, which is `to direct new investment into the most profitable channels in terms of future yield´ (159).

**4. Keynes's 1910 lectures on speculation and their legacy**

The analysis of speculation proposed by Keynes in the *General Theory* is generally regarded as a new, original contribution on the subject matter, and one of the theoretical novelties introduced by Keynes in his masterpiece. It is this novelty, together with the use Keynes makes, in the course of this analysis, of the concept of animal spirits (see Dow and Dow 2011), which captures the attention of economists currently engaged in the attempt to construct the approach of behavioural finance, exactly as it had raised, much earlier, the interest of Post-Keynesian economists proposing uncertainty based upon non-measurable probabilities as the key revolutionary aspect of Keynes's theory. According to Lawlor's (2006) work on speculation in Keynes's theory, Keynes's view of financial markets in the *General Theory* owes much to his practical observation of, and participation to, the dynamics of such markets (on which see Fantacci, Marcuzzo and Sanfilippo 2010). But he also adds that `part and parcel of his observation [...] from the beginning of his career to the end, was an attempt to classify the rationality of financial market transactors within the terms of his early philosophical work on probability´ (Lawlor 2006: 106; see also Carabelli 2002, 1998). A close examination of the methodological and epistemological aspects of Keynes's 1910 lectures on speculation (which the availability of the manuscript notes for the preparation of such lectures allows to reconstruct and interpret: see Keynes UA/6/3, Notebook, 8 Lectures on Company Finance and Stock Exchange, Lent Term 1910) offers important hints in this regard.

Among Keynes's sources for these lectures, one should list both Marshall's 1871 essay `Money´ (around) and his 1899 writing `The Folly of Amateur Speculators Makes the Fortunes of Professional. The Wiles of Some Professional´ (see Dardi and Gallegati 1992). Yet this latter is not `entirely original´, since `in almost the essential, Marshall is merely seconding Emery's work´ (Lawlor 2006: 116). In effect, Both Marshall and Keynes made use of the standard reference work on speculation, Emery's book *Speculation in the Stock and Produce Exchanges in the United States* (1896). In his far-reaching historical analysis of the bases of Keynes's theory of speculation, Lawlor (2006: 117) claims that `much of what is now thought of as the distinctively Keynesian view of speculation was … well-known to monetary economists of the early part of the [Twentieth century]´. At the same time, it is `the young Keynes, fresh from his struggle with the logic of probability in relation to conduct´, who `came upon Emery in his early lectures at Cambridge´ (123). Once the notes of the 1910 lectures are read in the light of this `struggle´ (as in Carabelli 2002 and 1998, on which the following rests), a commonality of focus and method appears with chapter 12 of the *General Theory*, which might be put to use in order to grasp the essence of Keynes's main message in that chapter.

In his lectures, Keynes distinguished three main situations according to the nature of the `risk´ involved: 1) situations where risk is not calculable; 2) situations where risk is more or less calculable, whether `averaged´ (2a) or not (2b); 3) speculation. Keynes considered situations 1 and 2b as assimilable to `gambling´. In clearly distinguishing between gambling and speculation, Keynes adopted knowledge as the key factor: `the essential characteristic of speculation is, it seems to me, the possession of superior knowledge´ (Keynes UA/6/3: 93). The speculator's `knowledge or judgement´, he observed, `is superior to that of the market´, whereas gamblers are stigmatized as `ignorant´ who lack adequate knowledge. Keynes is here assuming that the reasonableness of a given behaviour is relative to the quality and amount of knowledge available to individual agents or to the market in specific situations. He believed that subjectivity and psychology were the ultimate roots of individual and market behaviour, but made clear that the `vital distinction´ (98) between gambling and speculation rested upon reasonableness rather than rationality (intended either as coherence or as empirical success in forecasting). He maintained that gambling is never reasonable, whereas speculation may be reasonable, or, in his own terms, `sound´, a concept which he used to mean logically justified behaviour, or *a priori* valid from a logical point of view. Remarkably, the criterion of knowledge – rather than intent or purpose – on which Keynes chose to operate the `vital distinction´ between gamblers and speculators expressly separates his analysis from Emery's.

From risk, Keynes moves to knowledge and finally to probability:

the essential characteristic of speculation is, it seems to me, the possession of superior knowledge. We do not mean by the risk of an investment its actual future yield – we mean the degree of probability of the yield we expect. The probability depends upon the degree of knowledge. In a sense, therefore it is subjective. What would be gambling for one man would be sound speculation for another. (93)

Note that here Keynes calls `speculation´ what the G*eneral Theory* calls `enterprise´, but the contradiction is only apparent: in other passages of the 1910 lectures, the term `investment´ is adopted with respect to forecasting expected yields. Speculators have a short-term view which is in contrast with the long time horizon of professional investors' decisions. Investors and speculators stand on the same side when the criterion of knowledge and reasonableness is adopted: that of speculators is `a reasoned attempt to gauge the future from present known data´, which is also `the basis of all intelligent investment´ (95). Keynes observed that also investors are speculators, when the `true nature of speculation´ is analysed `philosophically´. Still, a crucial difference between the two categories is that while investors buy stocks with a view to holding them in the expectation that future yields will be `higher than the generality think´, proper speculators are engaged in the attempt at forecasting the short-term changes in prices and values, `to take advantage of them by buying and selling´ (100).

In general, Keynes's 1910 lectures seem important for two main reasons. First, as said, they constitute a relevant antecedent for the analysis of financial markets in the *General Theory*, with which (as well as with *A Treatise on Money*, see Lawlor 2006) they share many core themes – starting from the heterogeneity of agents acting in financial markets and the crucial importance of the distinction between speculators and gamblers (or, as Keynes calls them in the *General Theory*, `the large number of ignorant individuals´, CW 7: 154). Second, they help throw light on Keynes's approach to the specific topic of conventions, as well as to the general issues of financial markets dynamics and the role of knowledge in decision-making under uncertainty. A general element differentiating Keynes's view from Emery is the pessimistic vision the former had of the role played by speculation in financial markets. They both praised speculation for its utility in securing accurate information: additional knowledge, in Keynes's vision, increases the weight of the argument, thereby securing both individual and general advantages. Both Emery and Keynes believed that speculation exerts a `distinctive [negative] influence´ on capital investment – the latter de facto depends on speculation, both in the 1910 lectures and in the *General Theory*. Contra Emery, Keynes saw in speculators' attempt to anticipate the market opinion (a central theme of the *General Theory*) a decisive contribution to enhance the risk of undue price fluctuations.

In discussing (after defining them, more clearly, as the `evils of speculation´, 109) the negative elements of speculation outlined by Emery, Keynes recurred once again on the distinction between gamblers and speculators, and on the criterion upon which this distinction rests, that is knowledge. One of the main evil of speculation is that, he stressed, it draws people having `insufficient knowledge´ into the market; this is because otherwise `the possessor of superior knowledge´ could not gain. He then remarked that `superior knowledge underlies successful speculation, not 'speculation' at large´ (104), and clearly distinguished between the ex post empirical success of forecasting, on one side, and the a priori reasonableness of expectation on the other. As Keynes maintains in *A Treatise on Probability* with direct reference to Herodotus (`if a man acts contrary to good counsel, although by luck he gets what he had no right to expect, his decision was not any the less foolish´; CW 8: 351),mere luck does not make unreasonable procedures more reasonable. Finally, speculators may try to manipulate markets **to** their own benefit. They may, in other words, voluntarily induce market fluctuations, thereby creating harmful tensions between their own particular interest and the general interest in market stability (a reasoning Keynes later explained in *The End of Laissez-faire*).

These remarks are of great importance in the light of the beauty contest metaphor in the *General Theory*. The beauty contest is a representation of the contrast between a real judgement (on the candidate one really believes to be the finest in the contest) and an `unreal´ judgement (made to anticipate the average opinion), that is a belief one does not really believe in. When, in the 1910 lectures, Keynes dwells upon the `dishonest means´ available to speculators, he refers to the `spreading of false rumours´ and `possible wisdom of acting on a rumour, which one does not himself believe, if one thinks it will be generally believed´ (109). The speculator forms two radically different judgements, one based on real cognitive foundations, the other on foundations which only appear to be real. Only beliefs based on real foundations are reasonable: Keynes names alternatively, in the *General Theory*, `real knowledge´ or `genuine judgement´ those which are based upon reasons in which one really believes. To sum up, `dishonest´ speculators of the 1910 lectures do not use their genuine judgements in their activities on financial markets so as to promote the general interest of spreading knowledge to ensure market stability. On the contrary, they use their intelligence to their own exclusive benefit, knowing that unreal judgements (rumours) will be believed by the market, that and the expectations they express will self-realize and become real. But it is reasonable, or `sensible´ for them to do so, as Keynes will argue in the G*eneral Theory* (CW 7: 155), since speculators are exploiting specific knowledge relative to the habitual psychological reactions of the market.

In drawing a parallel, in 1910, between panic in the stock exchange and panic in a room, Keynes knew that real effects may derive from unreal dangers, and that apparent expectations may transform in real expectations. Despite the (knowledge-based) contrast which opposes real to apparent expectations, they are both, if shared by the majority, self-fulfilling. In the *General Theory*, Keynes refers to the `convention´ of `assuming that the existing state of affairs will continue indefinitely´, but observes that `this does not mean that we really believe that the existing state of affairs will continue indefinitely´, for `we know from experience that this is most unlikely´. There, conventions are therefore treated exactly in the same way as he had treated panic – based as on apparent, not real expectations – and the effects of its contagion in the 1910 lectures.

**5. Conclusion: Keynes's reply to Hume in his own terms**

A methodological reading of the 1910 lectures shows that Keynes's early analysis of financial markets is organised around the notions of uncertainty, probability and knowledge. Chapter 12 of the *General Theory* provides methodological continuity with such lectures, and the affinity of issues discussed and of general approach used to analyse them is evident. Suffice it to revisit what Keynes said in his speech to the annual meeting of the National Mutual on February 20, 1938:

speculative markets [...] are governed by doubt rather than by conviction, by fear more than by forecast, by memories of last time and not by foreknowledge of next time. The level of stock exchange prices does not mean that investors know, it means that they do *not* know. Faced with the perplexities and uncertainties of the modern world, market values will fluctuate much more widely than will seem reasonable in the light of after-events […] The notion of us all selling to the other fellow in good time is not, of course, a practicable policy for the community as a whole; yet the attempt to do so may deflect prices substantially from a reasonable estimation of their intrinsic value, and become a serious impediment to constructive investment. (CW 12: 238)

All this leads us back to the topic of conventions, and to Keynes's presumed late Humeanism. Conventions as treated in the *General Theory* are clearly not a novelty in Keynes's thinking, although Keynes's late economics attaches great weight to their formation and persistence, as well as to their precariousness. Moreover, there seems to be substantial continuity in Keynes's treatment of conventions, even outside the realm of finance. In 1924, witnessing to the Committee on National Debt and Taxation, Keynes explicitly connected conventions with ignorance:

The business of investment is most unsuccessfully carried on, because it is largely conducted by persons, namely, the individual investor, who know nothing whatever about it. It is lack of knowledge […] It is conservatism, obedience to convention, and lack of knowledge. This is inevitable, and those characteristics exist in the greatest degree in the gilt-edge type of investor. He goes into that class of security precisely because he, rightly, does not like to trust his own judgement. (CW 19: 312)

Keynes's battle in economics was to enhance the possibility of reasonable judgement. He distinguished between a subjective/psychological and an objective dimension in thinking. While recognizing that what `one can think and feel´ reflects one's `nature and past history´, Keynes believed in a certain uniformity of human minds (to the extent that he could speak of `what, apart from peculiar circumstances, a man *ought* to think and feel´, Keynes 1905); this regularity allows for the reasonable aspect of thinking, shaped by logic.On these bases, he distinguished between sources of beliefs and reasons to hold them as guide for action. Among the former, Keynes included habits, social conventions, waves of optimism and pessimism, passions (CW 8: 14-15, 275 n1; CW 10: 447), that is subjective and psychological elements; but the reasons to hold such beliefs belong to logic. Keynes's theory of expectations in the *General Theory* could hardly make exception, and actually is not exception, to the theoretical framework he constructed in proposing a notion of rationality as reasonableness. He clearly believed that conventional expectations and conventions do play an important role in human life and in economics; but he never ceased to believe in the possibility of reasonable judgement and in the possibility of change.

On one side, therefore, Keynes has always been using concepts such as convention, conventional behaviour, conventional expectations, to describe how agents actually behave in the market and the actual drivers which motivate their behaviour. In the *General Theory*, Keynes distinguishes between `ignorant´ agents and `skilled´ agents. The former lack judgement or (though limited) knowledge, or operate in situations of total ignorance; the latter are `expert professionals´ endowed with `judgement and knowledge´ (short-term speculators and long-term investors) which go `beyond that of the private investor´ (CW 7: 154). All this provides direct continuity with Keynes's 1910 lectures: there, the distinction between `gamblers´ and `speculators´ rests on knowledge as the key factor, speculators being engaged in the attempt to foresee `changes in the conventional basis of valuation a short time ahead of the general public´. Actual market behaviour is either reasonable or otherwise according to the knowledge upon which it is actually based. Keynes has always been regarding caprice, whim, optimism and animal spirits as possible helpers in situations of rational dilemmas and radical uncertainty. Admittedly less important than conventions in shaping the dynamics of financial markets, animal spirits have however, and obviously so, captured much attention in the literature, which has interpreted them either as an aspect of Keynes's subjectivism or the result of spontaneous interplay of social rules and the consequence of the evolving social structure. Yet in light of Keynes's distinction between sources of beliefs and reasons for holding them, both interpretations should be rejected, since Keynes placed both subjectivity, and habits and evolutionary practices among the sources of beliefs (Carabelli and De Vecchi 2004)[3].

For sure, data changed, as Keynes registered in *My Early Beliefs*, where he admitted, without abandoning the idea that conventions may play a negative role by producing undesired social consequences, that he had underestimated conventions in favour of rationalism in his juvenile years. But, on the other side, he always treated conventions as `market place idola´ which produce unwanted social outcomes,such as financial instability and unemployment. Keynes's rule for individuals and, even more importantly, public institutions, is that they should not follow conventions, they should rather contrast them. It is true that Keynes saw reasonableness in individuals who act on the basis of conventions when facing ignorance and radical uncertainty, for they have neither reason nor evidence which may ground reasonable judgement. But conventions, in Keynes's thinking, are no more than artificial devices employed to rationalise uncertainty in case of total ignorance. Actual limited knowledge provides on the contrary a ground for reasonable judgement. This means that for Keynes, the individual has to consider the cognitive circumstances of each particular situation facing him, before and instead of relying on traditional judgements and conventions. Hence the need, for long-term professional investors in financial markets, to be `eccentric, unconventional and rash in the eyes of the average opinion´; this notwithstanding the fact that `worldly wisdom´, Keynes ironically writes in the *General Theory*, suggests to the contrary that `it is better for reputation to fail conventionally than to succeed unconventionally´ (CW 7: 157-58).

Hence also a role for public institutions (Carabelli and De Vecchi 2001), as Keynes stressed with force in *The End of Laissez-Faire.* A direct legacy of his logical theory of probability and the related concept of reasonableness is the association, which Keynes constantly made, of spontaneity with instinct and blindness. Public institutions are collective, artificial agents, able to form reasonable judgements, since they are endowed with more partial knowledge than individual agents operating in a market economy. They have therefore a duty to compete with, and counteract market conventions through active policies aiming at promoting the general interest. Fallacies of composition, in Keynes's view, mainly derive from uncertainty. By favouring the formation of conventional expectations, uncertainty transforms entrepreneurs into speculators, and distract them from their social task of investing, with the result that errors in forecasting are made even more frequent. Keynes saw this as an `inevitable result of investment markets organised with a view to so-called liquidity´ (*CW* 7: 155).He constantly sought for remedies to the prevalence of uncertainty on the market: individuals are simply unable to promote the general interest and even find it convenient to worsen the situation, often to his own disadvantage (CW 9: 232, 291-92). Remedies are therefore of a social nature: the state is required to manage aggregate demand, socialize investment, control global saving, while monetary authorities are demanded to control money and credit conditions. Public agencies should recollect and diffuse information, to increase the partial knowledge available to individuals and the whole society, and exercise a function of investigation and direction on the complex aspects of private firms. Finally, economic policies should be `wise´ (CW 17: 263); they should be based upon `correct principles´ (CW 27: 384), and adopt a long-term perspective.

In conclusion, we believe that the Keynes-Hume connection is a most relevant issue in light of Keynes’s mature discussion of financial markets: it makes a big difference if Keynes’s treatment of conventions in the *General Theory* is generally connected with an eventual “back to Hume” reversing Keynes’s youthful attacks on Moore’s “Humian” conventionalism. The discovery of the true authorship of the *Abstract*, with Keynes’s defence of Kant in the correspondence with Sraffa, is evidently of great importance to grasp the essence of Keynes’s opposition to Hume in the *Treatise on Probability*, and sheds light on the epistemological foundations of his anti-sceptic position. Our reconstruction of the quite complex Keynes-Hume connection provides reasons to believe that the strong “Keynes as Humian” argument in the literature relies on foundations which are less firm than is generally believed. This reconstruction helps to re-read chapter 12 of the *General Theory* in the lightofthe continuity it provides with the 1910 lectures on speculation. The focus shifts from conventions themselves to the possibility of rational (reasonable) judgement, and to the fundamental role Keynes assigns to knowledge, however limited and partial, as the basis to formulate such judgements, in opposition to the comfortable but problematic support offered by conventions. Neither conceding to irrationalism nor recurring to the doubtful help of conventions, but concretely acting to reduce uncertainty is Keynes's response to Hume's arguments on their own ground.

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**Notes**

[1] The Sraffa Papers and the Keynes Papers are preserved, respectively, in the Trinity College Library, Cambridge, and the King's College, Cambridge. Documents are referred to, respectively, as `Sraffa´ and `Keynes´ followed by archive reference. We thank the Keynes Trustees, King's College, Cambridge, for permission to quote from Keynes's manuscripts, as well as Lord John Eatwell (literary executor of Sraffa's papers) for permission to quote from Sraffa's papers.

[2] Dow (2002) credits the `Scottish Enlightenment´ background for a certain influence of common sense philosophy on Hume, which would manifest itself in the use Hume did of the notion of belief and the importance he assigned to imagination. In the *Treatise on Probability*, however, Keynes clearly separates Hume from common sense philosophers. He opposes his conception of `having *some* reason, though not a conclusive one, for certain beliefs´ to `Hume's criticism´, which would lose its cogency if the `assumption of methods of certainty on the part of those systems against which it was directed´ had not been made by the `earlier’ common sense ‘realists´ (CW 8: 266), like Thomas Reid and William Hamilton. These latter were `hampered by their not perceiving that lesser claims in the beginning might yield them what they wanted in the end´. Remarkably, Keynes notes the affinity between such early common sense philosophy and Moore's 1906 paper on `The Nature and Reality of Objects of Perception´ (CW 8: 267, n1), whose main arguments were later further developed in `A Defence of Common Sense´ (Moore 1925).

[3] In a recent article, drawing on various Post-Keynesian contributions highlighting the influence animal spirits have on expectations and confidence, and on perceiving uncertainty, Dow and Dow (2011) show how public policy may help strengthening animal spirits to the benefit of the general welfare.

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