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J.M. KEYNES, THE MODERNITY OF AN UN-MODERN ECONOMIST

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ABSTRACT

The paper provides a panoramic view on Keynes's way of reasoning in economics, with a view to highlight the radical "difference" of his thinking with respect to both scholars of his times and contemporary economists. We argue that Keynes was un-modern in the 1930s as he is (and appears) un-modern today; but also that in this lies his modernity. Keynes is modern in trying to transform economics into a discipline of complexity; still, he is profoundly un-modern when discussing the conditions that economics must meet in order to achieve this result. The paper evidences in his strong commitment to avoiding any reductionist approach to the complexity of socio-economic systems the undisputed greatness of his thought.

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INTRODUCTION. THE CRISIS OF MAINSTREAM MACROECONOMICS AND THE "KEYNES COMEBACK"

Mainstream macroeconomists failed to anticipate and then appraise the crisis that exploded in 2007-8. They evidently underestimated the risks to which the economic system had been exposed in the period before the financial collapse. They did not foresee its transformation into a deep recession, believing that a "return of the great depression" was simply impos-

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sible (see Stiglitz 2011; Marchionatti, Kirshner and Kregel 2014). As Lavoie (2016) has recently argued, there are two main views on the part played by economic ideas and theories in this context. While some mainstream economists have substantially denied that the crisis can be attributed to bad economic theories – Blanchard's (2008) famous dictum "the state of macro is good" can be taken as a manifesto of this vision – both non-mainstream economists and "orthodox dissenters" (Lavoie 2016) were conversely prone to recognize not only the fallacious character of the belief that market economies are self-adjusting (or behave as if they are), but also the substantial inadequacy of mainstream macroeconomic (DSGE) models, of their assumptions, of the lack of realism which characterize these latter (in general, for an appraisal, see Marchionatti and Sella, forthcoming). Non-mainstream economists familiar with Keynes's macroeconomics cannot be satisfied with the orthodox defence whereby DSGE models have a normal-times, non-crisis bias.

The Keynesian resurgence of 2008-9 (see Backhouse and Bateman 2011), however, owes a great deal to this line of reasoning. At first, crisis-hit countries favored a return to Keynesianism as means to recovery, adopting fiscal stimulus packages and unconventional monetary policies. But the revival of Keynesian policies was short-lived. The European debt crisis even contributed to resuscitating pre-Keynesian, classical austerity doctrines in the modern guise of "expansionary austerity". At the same time, Keynes the economist became "more fashionable again" (his own words after being appointed to the Macmillan Committee in November 1929) in that biennium. Reflecting on his legacy in 2009, Paul Krugman concluded that "we are living in the second age of Keynes", while a champion of neoclassical economics (Chicago's version) like Richard Posner went so far as to define the *General Theory* "the best guide we have to the crisis" (2009).

After decades in the lumber room – to use Schumpeter's famous expression – with no visits from mainstream economists, a flourishing literature has developed on Keynes's thinking. It has somehow continued, if we are to adopt a broad perspective, the efforts made by scholars of the so-called Keynes-philosophy literature that started in the late 1980s. The general idea defended in virtually all essays that have appeared since 2009 – the year when Clarke, Davidson, and Skidelsky all published their books, followed by Bateman, Marcuzzo and Hirai 2009, Taylor 2010, Backhouse and Bateman 2011, Temin and Vines 2013, but the list is far from complete – is that, to borrow from Skidelsky, and to highlight the difference with respect to Posner, "Keynes remains an indispensable guide to [a] future" when we will have to learn, after the current "economic hurricane", to "reorient economic life towards what is sensible, just and good" (Skidelsky 2009, XI). Skidelsky, in fact, sees Keynes not only as the man with "the right kind of theory" (*ibid.*), as also Davidson (2009) maintains, but as a thinker with something valuable to say about problematic issues of heterogeneous nature (moral judgments, growth, globalization, justice) made suddenly popular by the crisis.

"Keynes remains", but "which Keynes?", ask Backhouse and Bateman; after all, the world has surely changed since *The General Theory*. Yet, as Kirshner (2010) argues in reviewing the 2009 Keynes' revival literature, revisiting Keynes's writings can help to throw light on the main causes of "our current mess": "failures of the economic profession, mistakes by government, and regrettable social trends". Commenting on Skidelsky's book, Stiglitz (2010: 7) claims that "Keynes' insights are needed now if we are to save capitalism once again from the capitalist". This capacity for understanding can be said to derive, as Taylor (2010: VII) writes, from "the ways [Keynes] proposed to analyze macro problems", which according to Taylor "are the only ones of any use in understanding the global crisis of 2007-09". The same applies to Keynes's reflections on international economic relations, which – finding their roots in his work on domestic economies – "can help us today in a global economy" (Temin and Vines 2013: XII).

Following a now established tradition – initiated by "chapter 12 fundamentalists" (Coddington 1976): Shackle (1961 and 1967), Minsky (1975), Loasby (1976), Hutchison (1978) and Davidson (1978), followed by virtually all Keynes scholars since the mid-1980s – the recent Keynes-comeback literature detects in the concept and treatment of uncertainty (and expectations) – fundamental, genuine or radical uncertainty – a "guiding insight at the heart of Keynes's intellectual revolution" (Clarke 2009: 154), and the principal point of departure from neoclassical economics, then (in 1936) and now. Yet, in general, there is no consensus on what exactly was the aim of Keynes's revolution. Dimand (2010) seems right to stress that it was not a revolution in policy, which was once, conversely, the prevalent opinion. Keynes's revolution seems rather to be "one prompted by his engagement with real-world economic policy debates but transcending them with an analysis that changed the paradigm" (Clarke 2009: 147).

It is Keynes's ability to rethink his times that strikes the imagination. His thinking is seen as a theoretical device which may be helpful "to confront problems that have some unnerving echoes, parallels and relevance in the world that we live in today. If we recognise the sort of trouble we face, we may be able to devise specific solutions, as Keynes did in his own day" (Clarke 2009: 178). In more general but similar terms, Backhouse and Bateman add, Keynes propounded a vision of the capitalist economic system in which "economic and moral analysis are intertwined" (2011, 149), one that "transcends the simplistic alternatives on offer" (159). It has become commonplace to refer to Keynes as a fascinating multidimensional personality. A "philosopher-economist comparable with Hume, Smith, Mill, and Sidgwick" (in Backhouse and Bateman's 2006 definition), and even "not primarily an economist", but "the most brilliant mind of modern times who devoted himself to the study of economics, a contemporary of Einstein, Freud and T.S. Eliot who absorbed the mental and cultural vibrations emitted by their worlds, and used them to revolutionize a science which had not progressed since the eighteenth century" (Skidelsky 2009: 192).

Keynes's relevance today is thus the modernity of an un-modern economist born in 1883, the author of a book which, although published in 1936, was acclaimed as indispensable reading in the times of the crisis some eighty years later. Much has been written on Keynes, and much will be written on the appearance of his hitherto unpublished collected writings. But it seems improbable that new perspectives can emerge, on the model of the Keynes-philosophy literature in the 1980s, to enable radically original interpretations of his legacy. Bearing this in mind, our aim in what follows is to provide a potentially enriching panoramic view on the modernity of the un-modern economist, and to evidence in Keynes's strong commitment to avoiding any reductionist approach to the complexity of socio-economic systems the undisputed greatness of his thought.

1. Economic behaviour under uncertainty: knowledge, conventions, and reasonableness

Curiously enough, it was once widely believed that Keynes had treated the problem of uncertainty in an unsatisfactory manner. Patinkin (1976: 142), for instance, famously observed that "in neither *The General Theory* nor the 1937 article in the *Quarterly Journal of Economics* … does Keynes develop a theory of economic behaviour under uncertainty". Keynes himself later acknowledged that the *General Theory* was probably too influenced by his ambition to reduce to "a minimum the necessary degree of adaptation" (*The Collected Writings of John Maynard Keynes*, hereafter CW 7: 146) of his new approach to the economic theory of his times, which might explain, at least in part, why Shackle (1982: 435) described the book as "a harp of many strings, not all of them well-tuned and some mutually most discordant". Brought up in the classical "citadel" (CW 13: 489), Keynes addressed his theoretical efforts more to his "fellow economists" (i.e. neoclassical economists, "the holders of a particular point of view", CW 7: XXXI) than to the "outside opinion" (*ibid.*), hoping to provide an escape route "from habitual modes of thought and expression" (XXIII). The occasion to state the position "in a more clear-cut manner" (XXXI) came with the 1937 *QJE* article, wherein Keynes illustrated his work by placing the concept of uncertainty at the core of the discussion. Thus Chapter 12, the *locus classicus* of uncertainty and expectation in the *General Theory*, becomes prominent.

Long-term expectations – the main determinant of investment – depend on the most probable forecast that agents can make and upon the confidence with which they make it. The state of confidence (the weight of argument in the *Treatise of Probability*, i.e. "how highly we rate the likelihood of our best forecast turning out quite wrong" (CW 7: 148) depends on knowledge of the future, which in its turn, Keynes underlines, is "fluctuating, vague and uncertain" (CW 14: 113). *Pace* Patinkin, Keynes is here rejecting the possibility of a "calculus of probability" able to reduce uncertainty "to the same calculable status as that of certainty itself" (*ibid*.). As he famously remarked, in the case of genuine uncertainty, there is simply "no scientific basis on which to form any calculable probability whatever. We simply do not know" (*ibid*.). Moreover, he wrote in *The General Theory*, "it would be foolish, in forming our expectations, to attach great weight to matters which are very uncertain" (CW 7: 148), for it is generally "reasonable […] to be guided to a considerable degree by the facts about which we feel somewhat confident" (*ibid*). The most important "techniques" that come to the help of "practical men" obliged by "the necessity for action and for decision" to behave like rational Benthamites have a conventional character, notes Keynes, which can be detected inductively by observing market and business psychology:

> 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 […]. 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 […]. 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 (CW 14: 114).

Keynes believed that the historical roots of conventional behaviour in financial markets lay in the "separation between ownership and management" and the development of organised investment markets, which facilitate investment "but sometimes add greatly to the instability of the system" (CW 7: 150-151). The leading figure of old-fashioned competitive classical (*laissez-faire*) capitalism is the entrepreneur, who is also the owner and manager of his own firm: investment depends on the "genuine expectations" of "individuals of sanguine temperament and constructive impulses who embarked on business as a way of life, not really relying on a precise calculation of prospective profit" (150). Entrepreneurs act on the basis of both "cold calculation" (of "the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities") and *animal spirits* – "a spontaneous urge to action rather than inaction" (161), whereby "the thought of ultimate loss which often overtakes pioneers is put aside as a healthy man puts aside the expectation of death" (162). Whereas in contemporary, mature capitalism, important classes of investment are governed by the stock exchange, where the convention that "the state of affairs will continue indefinitely, except in so far as we have specific reasons to expect a change" (152) tends to prevail. This is due to the fact that professional investors and speculators 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).

Now, as well known, the crisis has produced a revival of interest in Keynes's analysis of entrepreneurs' expectations on investment, the dynamics of financial markets, and the role of speculators. Under attack is, specifically, the efficient market hypothesis, or the most radical denial of Keynes's approach. Long-term expectations under conditions of radical uncertainty in *The General Theory* evidently throw light on the inadequacy of traditional rational choice models based on utility maximization, and on the "impossible" strength of their assumptions. When someone claims, under radical uncertainty, to be acting like a rational man in contexts characterized by certainty, s/he is instead adopting "a mythical system of probable knowledge", or "pseudo-rationality" (CW 14: 124). As Thaler (2015) notes, Keynes "would not have been 'shocked'" by recent history. In 2009, Akerlof and Shiller (2009) borrowed from Keynes in their search for what was wrong with standard macroeconomic models. Their essay *Animal Spirits* already embodied the idea, to quote Thaler (2015), that "Keynes was a true forerunner of behavioural finance". Nevertheless, the expression "animal spirits" was taken to mean "the non-economic motives and irrational behaviours" (Akerlof and Shiller 2009: X), including confidence, fairness, corruption and bad faith, money illusion and "stories". Akerlof and Shiller opposed the 'rationality' of agents of theoretical models to the 'irrationality' of those of real-world markets (Dow and Dow 2011; Zappia 2010), and used Keynes to support their thesis that "human psychology drives the economy". Along these lines, Pech and Milan (2011) have even tried to establish that many of the psychological insights contained in Keynes's theories are perfectly legitimate in the light of evidence from recent behavioural experiments.

Ex post, Keynes's notion of the "reasonableness" of conventional behaviour in conditions of radical uncertainty almost inevitably leads the mind to the contemporary microeconomics of bounded rationality and behavioural economics (see Marchionatti 1999), which assume (mainly on the basis of laboratory experiments) that subjects systematically depart from rationality in judgement under uncertainty and use heuristics or rules of thumb. The bounded rationality postulate suggests that heuristics are adopted owing to the necessity to simplify behaviour. They serve to economize scarce cognitive and computational resources in conditions of high environmental complexity which may preclude the use of all available information, and conversely make it rational to follow behavioural rules that differ from substantive rationality and depend primarily on experience. The resulting regularity of behaviour is then affected by changes in the environment making traditional rules become obsolete and prompting their change. Methodologically speaking, Keynes's approach to behaviour under uncertainty shifts the attention from the abstraction of deductive reasoning to the concreteness of changing times and circumstances, to "real" beliefs and behaviour. In Keynes's anti-positivist conception of economics as a "moral" rather than natural science, economic material is made up of beliefs, intentions, and reasons to act. "Economics deals with motives, expectations, and psychological uncertainties" (CW 14: 300): its complex character is made evident by the characteristic of "non-homogeneity through time", a notion that permeates the entire analysis of the economic system in *The General Theory*.

Yet, firstly, and for reasons that are explained below, contrary to behavioural economics, Keynes's reasoning does not theorize about "bias", or deviations from standard rationality because Keynes did not focus his attention on limitations to cognitive ability, but on the availability of knowledge, and reasons supporting beliefs. Secondly, Keynes's ambition was not simply to contrast his arguments with those of the classical theory, to achieve greater realism in the analysis of contemporary financial markets. The new centrality acquired by the concept of convention in *The General Theory* should not distract the attention from his longstanding concern with conventions as arbitrary and therefore precarious and unreliable (in general, see Carabelli and Cedrini 2013). Investors, Keynes maintains, do not "really believe" in conventions (CW 7: 152), nor can the conventional behaviour of assuming that the present state of affairs will continue over time be rationalized "by arguing that to a man in a state of ignorance errors in either direction are equally probable' (*ibid.*). Conventions are directly opposed to "real knowledge" (153) in the valuation of investments: "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 "skilled" professional speculators play the "beauty contest" game,[1] they replace "real" judgements (on the candidate that they really believe to be the finest in the contest) with "unreal" judgements made with a view to anticipating the average opinion. While the former are reasonable, for they are based on real, genuine cognitive foundations, the latter are beliefs in which they do not really believe. Professional speculators simply possess, and exploit, "judgment and knowledge beyond that of the average private investor" (*ibid.*). Speculation, Keynes argued in his lectures of 1910 devoted specifically to speculators' behaviour in financial markets, is of the utmost importance for securing accurate information, which increases the state of confidence with which predictions are made. Conversely, speculators exploit gamblers' ignorance: a "large number of ignorant individuals" (CW 7: 154) populate markets governed, Keynes claimed in his speech to the annual meeting of the National Mutual on 20 February 1938, "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" (CW 12: 238). As he had observed in 1924, when testifying before the Committee on National Debt and Taxation,

> 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).

While Keynes is now rightly acclaimed for having thrown light on the "behavioural" aspects of financial markets, less attention is paid to the precise meaning of his notion of rationality as the reasonableness of a belief, which depends on having reasons for holding it relative to a given cogni-

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1 "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" (CW 7: 156).

tive situation. The spread of conventions depends on a lack of adequate knowledge, which should conversely supply reasons for acting. Actual market behaviour is therefore either reasonable or otherwise according to the knowledge upon which it is actually based. It is reasonable for individuals to adopt the artificial device of conventions to rationalize uncertainty under conditions of ignorance, when neither reason nor evidence can ground reasonable judgements. Because they result from the various fallacies of composition produced by uncertainty in complex social environments, conventions are "market place idols" which produce unwanted social outcomes, such as financial instability and unemployment. That "the capital development of a country [becomes] a by-product of the activities of a casino" (CW 7: 159) is the "inevitabile result" of the organization of the investment market "with a view to so-called liquidity" (*ibid*.). The "*social* object of skilled investment" (*ibid*.), that is, "to defeat the dark forces of time and ignorance which envelope our future" (*ibid*.), is dominated by the "*private* object" of "beating the gun".

Keynes's economics, in general, is aimed at enhancing the possibility of reasonable judgement. Already in *The End of Laissez-Faire*, of 1926, Keynes claimed that it was a duty for public institutions to act as a social remedy against the power of conventions. As collective, artificial agents endowed with more knowledge (however partial) than individual agents operating in a market economy, public institutions must substitute reasonable judgements for conventional thinking. If conventional expectations transform entrepreneurs into speculators, and investors into gamblers, active public policy is required to help individuals to overcome the impasse in which they find themselves. Policy must be "wise" (CW 17: 263), be based upon "correct principles" (CW 27: 384), and adopt a long-term perspective. The state must therefore manage aggregate demand, socialize investment and control global saving, while monetary authorities are required to control money and credit conditions. Public agencies should collect and disseminate information in order to increase the partial knowledge available to individuals and the society as a whole, and they should perform a function of investigation and direction on the complex aspects of private firms.

Finally, public authorities may also have an impact on animal spirits and, indirectly, on social welfare. Keynes distinguished between (subjective and psychological) sources of beliefs (which include habits, social conventions, waves of optimism and pessimism, and passions; CW 8: 14-15, 275 n1; CW 10: 447) and (logical) reasons to take them as guides for action. Traditionally, economists have considered "animal spirits" to be characterized by total arbitrariness, and thereby denied them any role within a framework shaped by pervasive rationality. Keynes's approach, on the contrary, makes animal spirits analyzable through "actual observation of markets and business psychology" (CW 7: 149). Animal spirits, as a positive entrepreneurial disposition towards uncertainty (following Dequech 1999), are strongly influenced by what Keynes calls the socio-political and economic atmosphere. That is, they are sensitive? to the rules of the social game and to the existence of an institutional context favourable to entrepreneurs (changes in this regard induce psychological reactions which may be able to explain sudden changes in animal spirits and in expectations). The "economic" atmosphere consists in a set of organisational and environmental factors that are economically analyzable with concepts like Marshallian external economies, age of firm and intensity of competition, so that it is possible to elaborate a positive theory of animal spirits (see Marchionatti 1999, Dow and Dow 2011).

2. Keynes, thinker of complexity

2.1. *An economic theory for the complexities and interdependencies of the real world*

Keynes's treatment of uncertainty as the main influence on economic behaviour directs the attention to the distinctive nature of economic material as he conceived it. In Keynes's view, economics is a way to reason about the fundamental forces – reasons, beliefs, and opinions – at work in a socio-economic environment. Underlying this conception is a more general view of human conduct founded on the concept of probability.

Probability (rather than perfect knowledge and deductivism) and the related notion of reasonableness, i.e. having some grounds or reasons for belief (rather than pure rationality), are to the author of the *Treatise on Probability* (the first draft of which dates back to 1907; in general, see Carabelli 1988) the guide for human decision-making and action. The economic problem is only "a particular department of the general principles of conduct" (CW 29: 289): it makes use of arguments that have the non-demonstrative and non-conclusive character that also distinguishes the logic of probability, which is contingent upon contexts of shifting cognitive circumstances.

To borrow from a famous exchange on the "method" of economic theory that Keynes had with Roy Harrod in 1938, he considered economics to be a "branch of logic, a way of thinking" (CW 14: 296), or an apparatus of probable reasoning, to explicitly adopt the perspective of *A Treatise on Probability*. It is "a method rather than a doctrine" (CW 12: 851), which "helps its possessor to draw correct conclusions" (*ibid.*), Keynes wrote in the introduction to the *Series of Cambridge Economic Handbooks* of 1922-23.

The "strictly logical" character of Keynes's economic analysis (CW 29: 73) depends exactly on the need to find an alternative to the reductionist bent characteristic of the classical approach to economic material. Economic reasoning simply cannot rest upon hypotheses that explicitly contradict the essence of that material. The "atomic hypothesis" which justifies mathematical calculus is invalidated, Keynes famously wrote in his 1926 *Essay on Edgeworth*, by problems "of organic unity, of discreteness, of discontinuity – the whole is not equal to the sum of the parts, comparison of quantity fails us, small changes produce large effects, the assumptions of a uniform and homogeneous continuum are not satisfied" (CW 10: 262). These are also the reasons for Keynes's criticism of econometrics (see Garrone and Marchionatti 2009). Tacitly assuming both the existence of "numerically measurable, independent forces" and the possibility of treating them as "independent atomic factors and between them completely comprehensive" (CW 14: 286), Tinbergen applied "the method of multiple correlation to unanalysed economic material, which we know to be non-homogeneous through time" (285).

Marshall's legacy (on Marshall, see Marchionatti 2003, 2004, 2011) was certainly a major influence on Keynes's "complexity approach" to economic material (see Marchionatti 2010). In the obituary of his master, Keynes observed that economic interpretation requires an "amalgam of logic and intuition and the wide knowledge of facts, most of which are not precise" (CW 10: 158). Confronted with the problem of interpreting the "complex and incompletely known facts of experience", economists, in Marshall's view, must go beyond the "bare bones of economic theory" (186), that is, beyond (what Marshall called) the "abstract reasoning" of the simplistic neoclassical model of free competition. The main difficulty in this regard is that Marshall believed abstract economics to be effective only for the earlier stages of economic reasoning, where the hypothesis of *ceteris paribus* is used, the influence of time is excluded (that is, static or stationary conditions are assumed), and the method of successive approximations can be safely employed. How to deal with the "living and ever-changing economic organism" [Marshall 1961 (1920): 769] remains an issue, for increasing complexity brings about a qualitative change in the character of the forces at work. Together with philosophical reflections of the late 1920s in particular, this Marshallian legacy provided a stimulus for the construction of a (sort of) 'general' theory of human conduct in capitalist systems able to take account of the organic nature of social relations (CW 10: 447-448).[2]

[2] Still, contrary to Marshall, Keynes never abandoned the idea that abstraction is absolutely indispensable for economic theory. In Keynes's view, "Marshall often confused his models,

In order to tackle complexity, one has to avoid reductionism. Keynes's assault on the classical theory in *The General Theory* was intended to persuade readers of the flimsy nature of the foundations on which that theory rested. Keynes demonstrated that the "settled conclusions" (CW 12: 856) that the classics sought to draw from their theory were not as general as proclaimed. Rather, this aim compelled the classics to introduce tacit assumptions of independence between variables and universality in space and time (neutrality of money, so that changes in its value can be neglected; Say's law, which amounts to assuming that the system always operates at its full capacity – independence from the level of output; and independence from changes in the level of community income when passing from the individual to general level). The classical theory claimed to be, but was not, a general theory, which would not extend "to the system as a whole conclusions which have been correctly arrived at in respect of a part of it taken in isolation" (XXXII), as is the case of the classical money-wage argument (independence of aggregate demand from variations in money-wages). By making the hypotheses explicit, knowing that they are "seldom or never satisfied" (CW 7: 378), Keynes established that the classical theory was only a special case. Evidence of the "lack of clearness and of generality in the premises" (22) undermines also confidence in the generality of the conclusions, because the generality of a theory – theories *have to* be general, in Keynes's view – depends on the correct use of logical reasoning about the economic material. The classical money-wages argument is on the contrary logically erroneous. For it is based on a logical fallacy of "ignoratio elenchi" (259): the premises of the argument are irrelevant to, and incapable of, establishing the truth of its conclusions. Keynes maintained, in fact, that on transposing demand-and-supply schedules for different products of a given industry to industry as a whole, the classics tacitly assumed that the aggregate effective demand is fixed.

Keynes's "own method" (257) does not eliminate complexity from economic analysis; rather, it brings it to the fore by considering exactly those "roundabout repercussions" between variables that the classics neglected for want of a "simple" (*ibid.*) but fictitious generality. Economic models "segregate the semi-permanent or relatively constant factors from those which are transitory or fluctuating so as to develop a logical way of thinking about the latter and of understanding the time sequences to which they give rise in particular cases" (296-297). Relatively constant factors, Keynes observes in the famous summary of *The General Theory* in chapter 18, include "given

for the devising of which he had great genius, by wanting to be realistic and by being unnecessarily ashamed of lean and abstract outlines" (CW 14: 296).

factors", such as the quantity of available labour or institutional factors, and "independent variables", namely the psychological propensity to consume, the marginal efficiency of capital and the rate of interest. But Keynes warns readers that "independent variables" are not so by virtue of any absolute criterion: rather, the selection depends upon the "quaesitum" of the analysis. Factors labelled "independent" are those "whose changes mainly determine our quaesitum" (247), and readers must be aware that the economist inclines towards "those variables which can be deliberately controlled or managed by central authority in the kind of system in which we actually live" (*ibid*.). Nor are "independent variables" truly independent: in Keynes's logical theory of economics, they are "independent for knowledge", to use the terminology of *A Treatise on Probability*. Here, independence concerns logical connections between arguments, not material connections between events. The "roundabout repercussions" to which Keynes refers when discussing the classical money-wages argument are those that – say – a reduction in money-wages has on the three determinants of the system, propensity to consume, marginal efficiency of capital, and rate of interest, which in their turn, are capable of affecting employment directly.

This is Keynes's "two-stage methodology" (see Carabelli and Cedrini 2014a) whereby assumptions of (logical) independence, which scientists are compelled to temporarily introduce in dealing with a complex world (for instance, independence of money-wages from the system's three determinants allowing the economist to focus first on the direct effects of reduced wages on employment), must be appropriately removed in the course of the analysis. Variables are considered "independent" as long as their "values cannot be inferred from one another" (245). But then,

> after we have reached a provisional conclusion by isolating the complicating factors one by one, we then have to go back on ourselves and allow, as well as we can, for the probable interactions of the factors amongst themselves (297).

Simplifying assumptions (chapters 20 and 21 of *The General Theory* provide a direct application of this method) include hypotheses of atomism, homogeneity, and proportionality that seem to contradict the catalogue of attributes of complexity listed by Keynes in the *Essay on Edgeworth*. In fact, they must be removed if the economist wants to address the "complexities and interdependencies" (298) of the economic material under consideration.

The study of a complex economic system that evolves through time required Keynes to go beyond the limitations that Marshallian traditional partial-equilibrium analyses could not overcome; Keynes's two-stage methodology served this purpose. Marshall's legacy was of the utmost importance to Keynes: the use of "ordinary language" in Keynes's analysis finds an antecedent in Marshall's conviction that "abstract reasoning" (in Marshall's sense) must be supplemented by 'trained common sense', and by the use of everyday language which allows for 'shades of meaning' that can be interpreted 'by the context' [Marshall 1961 (1920): 51].[3] And Keynes's adoption of the two-stage methodology itself, instead of one of the various forms of reductionism *à la Russell*, is reminiscent of Marshall's criticism of unqualified mathematical work in economics. The mathematician, according to Marshall, "takes no technical responsibility for the material, and is often unaware how inadequate the material is to bear the strains of his powerful machinery" (781). In Keynes's view, non-homogeneity through time, in particular, compels economics to make limited use of deductive analysis. On the one hand, ordinary language is a strict requirement of the wholly probabilistic second stage of the analysis, wherein intuitive direct judgments like those implied in the choice of independent and dependent variables play a fundamental role. On the other hand, it is through this channel (independent variables are selected on the basis of the *quaesitum* of the analysis) that historical conditions (the Great Depression is in this sense a major influence on Keynes's economics) enter the analysis (see Carabelli and Cedrini 2014b). The *General Theory*, wrote Keynes, represented "a natural evolution in a line of thought which I have been pursuing for several years" (CW 7: XXII). With respect to the *Treatise on Money*, the *quaesitum* of the analysis had changed, from credit cycles and resulting fluctuations in employment and output (while the focus of *A Tract on Monetary Reform* was the purchasing power of money) to the influence of "changing views about the future" on "the quantity of employment and not merely its direction" (*ibid*.). Methodological continuity, in Keynes's economics, allow theories to change: judgements of logical relevance vary according to times and circumstances, and changing judgements bring different *quaesita* to the economist's attention; theories change accordingly.

In his Cambridge lectures of November 1933 (Rymes 1989: 101), Keynes maintained that

on the matter of precise definition of terms, there is some question as to the utility and propriety of the scholastic exercise in trying to define terms with great

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[3] Coates (1996 and 1997) links these reflections to Keynes's involvement with Wittgenstein's criticism of analytic? philosophy from the late 1920s onwards. According to Coates, Keynes pointed out the problems that ensue from defining with artificial precision concepts that are characterized by what Wittgenstein termed "combinatory vagueness": "for the precise definition will leave out of account too much of what we intuitively intend when using the concept" (Coates 1997: 249). This connection probably exists, but Marshall's influence on Keynes' thought is present, as well, and explicitly so in the 1933 lectures.

precision in a subject like economics … there is the danger of falling into scholasticism, the essence of which is treating what is vague as what is precise (102).

When wondering what degree of precision is advisable in economics, Keynes noted with approval that Marshall's definitions were very loose and that many terms were not defined; nevertheless, much was provided that would allow the reader to infer the required definitions. In a 1935 draft of *The General Theory*, Keynes wrote that "much economic theorising to-day suffers … because it attempts to apply highly precise and mathematical methods to material which is itself much too vague to support such treatment" (CW 14: 379).

In a 1932 passage from a Cambridge lecture, he noted that

if an author tried to avoid all vagueness, and to be perfectly precise, he will become so prolix and pedantic, will find it necessary to split so many hairs, and will be so constantly diverted into an attempt to clear up some other part of the subject, that he himself may perhaps never reach the matter at hand and the reader certainly will not. I believe, therefore, that it is necessary in writing economic theory for one's language to be less generalised than one's thought (CW 29: 36).

If "we cannot hope to make completely accurate generalisations" (CW 7: 247), ordinary language comes in, as it does in Marshall. But, as the following quote makes clear, its use is strictly connected with the necessity to extend "stage I"-analysis to the probabilistic landscape of feedbacks in stage II:

In ordinary discourse, where we are not blindly manipulating but know all the time what we are doing and what the words mean, we can keep 'at the back of our heads' the necessary reserves and qualifications and the adjustments which we shall have to make later on, in a way in which we cannot keep complicated partial differentials 'at the back' of several pages of algebra which assume that they all vanish (297-298).

Keynes was not going to reject the use of mathematics in economics *per se*. However, for him, as already for Marshall, mathematical generalisations had an instrumental role. They were especially useful to "disclose gaps and imperfections in your thought" (305). This is because in Keynes's conception of economics, "logical analysis necessarily precedes formal analysis" (O'Donnell 1997: 112). Logical analysis must control for the applicability of formalism to specific topics by verifying if, and what kind of ordering relationships between variables under investigation are involved, as well as by reflecting on the nature of the economic material available to the analyst (needless to say, Keynes's criticism of Tinbergen's econometrics centred on this specific issue). Logical analysis proposes "general relationships between variables prior to detailed investigation of functional forms" (*ibid.*); formalism "may be a legitimate and effective tool to express" such relationships, and – when its use is permitted by the nature of the material under consideration – it may be helpful to "disclose gaps and imperfections in your thought" (CW 8: 305). Formalism's usefulness thus comes towards the end, when "checking on intuitions arrived at by other means" (O'Donnell 1997: 112).

In sum, the modernity of Keynes's un-modern theoretical approach to the economic material lies in conceiving economic theory not as "a machine, or method of blind manipulation, which will furnish an infallible answer", but as an apparatus of thought providing us "with an organised and orderly method of thinking out particular problems" (CW 7: 297). Moreover, it is a vademecum to be used by readers, who are invited to emulate Keynes's efforts to grasp the complexity and interdependence of the economic material. In chapter 21 of *The General Theory*, dealing with prices, Keynes introduces simplifying assumptions as concerns the relationship between employment and the quantity of money. These hypotheses are somehow dictated by the aim to analyse the plausibility of changes in employment (prices) in the same proportion as the quantity of money so long as there is unemployment (under conditions of full employment). Such assumptions are later removed, with an explicit admission that the possible complications thus derived should not be treated as independent one from another. As was already the case with the repercussions of a change in the volume of employment on the schedule of liquidity preference in chapter 18, and of the catalogue of possible reactions to wage reduction in chapter 19, Keynes leaves the list of possible assumptions open-ended, constantly encouraging readers to enlarge the perspective with new "possible complications". Independence is always independence for knowledge, and all closures are provisional, as required by the open-system logic of *The General Theory* (see Chick and Dow 2001).

This logic tolerates, and even favours, the reader's involvement, which is a fundamental characteristic of a conception of economics as a (correct) way of reasoning (see Carabelli and Cedrini 2014). Chapter 20 of the first-volume of the *Treatise on Money*, which deals with the theory of money (which the second volume "applies"), invites readers to read the "Exercise in the Pure Theory of the Credit Cycle" there proposed (illustrating his arguments about credit cycles) and then to continue by themselves, making use of "the general system of thought" there exemplified (CW 5: 292):

> The possible varieties of the paths which a credit cycle can follow and its possible complications are so numerous that it is impracticable to outline all of them. One can describe the rules of chess and the nature of the game, work out the

leading openings and play through a few characteristic end-games; but one cannot possibly catalogue all the games which can be played. So it is with the credit cycle (253).

A peculiar type of credit cycle is presented, along with a catalogue of eight "simplifying assumptions" required "to rule out the various complexities which are usually present in actual life" (274). Anomalies generated by the removal of some assumptions would not "lend themselves to a generalised description" (288); in some cases, the removal of a single limitation obliges the economist to make other assumptions as to the "exact character" of the credit cycle thus generated (285). Simplifying assumptions, in fact, are not independent one from another. Having obtained eight provisional conclusions about the simplified problem, Keynes asks the reader to repeat the exercise by removing the simplifying assumptions, and to apply this system of thought "for himself to any further interesting cases which may occur to him" (292).

2.2 *Economic Policy, Capitalism and the Complexity of Liberalism*

The General Theory has been quite often criticized for being not specific enough about policy recommendations, all the more so because the thirty "glorious" years of Keynesianism favoured the impression that Keynes's revolution concerned policy, more than theory (see Dimand 2010, Backhouse and Bateman 2011). As Chick and Tily (2014: 696) observe, however, *The General Theory* has specific practical aims, in particular to provide "fuller justification" for the monetary reform sponsored by Keynes in his career: "it should be the purpose of the central bank to run a policy of the cheapest money possible under a country's circumstances" (683). Budgetary policy is essential to ensure full employment, but liquidity and confidence are crucial matters for public authorities as part of their general strategy of helping economic agents form reasonable judgments and expectations (see Rivot 2013); fiscal policy may assume a fundamental role when the monetary transmission mechanism is damaged (see also Skidelsky 2009).

Yet Keynes's revolution is in theory, not in policy, and it could not be otherwise. In the 1937 *QJE* article on the core ideas of *The General Theory*, Keynes wrote that this latter

does not offer a ready-made remedy as to how to avoid these fluctuations and to maintain output at a steady optimum level. But it is, properly speaking, a Theory of Employment because it explains why, in any given circumstances, employment is what it is. Naturally I am interested not only in the diagnosis, but also in the cure; and many pages of my book are devoted to the latter. But I consider that my suggestions for a cure, which, avowedly, are not worked out completely, are on a different plane from the diagnosis. They are not meant to be definitive; they are subject to all sorts of special assumptions and are necessarily related to the particular conditions of the time (CW 14: 121-122).

While the "diagnosis" (theory) is logical and general, therefore, policy – "the cure" – is specific and is related to times and circumstances. Before *The General Theory* itself "can be translated into practice, it has to be mixed with politics and passions just like any other way of thinking, and the nature of the outcome is something which I cannot foresee in detail" (CW 21: 348).

It would be a mistake to presume a somehow linear relation from theory to policy in Keynes's economics, with the corollary that external events – the real world, or even experience – would *de facto* dictate shifts in theoretical approaches and therefore in policy suggestions (see Carabelli and Cedrini 2015a). Suffice it to consider Keynes's criticism, in 1944, of the attempt to "crudely put into force" – while "refusing to look in the face all the practical difficulties" – the "splendid intellectual idea" (reported in Aspromourgos 2014: 420) embodied in Abba Lerner's concept of "functional finance". In his correspondence with Machlup, Keynes observed that "functional finance is an idea and not a policy; part of one's apparatus of thought but not, except highly diluted under considerable clothing of qualification, an apparatus of action. Economists have to try to be very careful, I think, to distinguish the two" (*ibid*.).

It was Keynes himself who noted that "Marshall often confused his models, for the devising of which he had great genius, by wanting to be realistic and by being unnecessarily ashamed of lean and abstract outlines" (CW 14: 296). Theory has to be general, whereas policy belongs to the political realm: passing from theory to policy means passing from the realm of generality to one of particularity; from logical relevance to empirical relevance, from science (probable inference) to practice, from thought to action, from diagnosis to cure. Keynes believed that the economist must "[correct] his judgment by intimate and messy acquaintance with the facts to which his model has to be applied" (299), although models, as seen, have a logical nature in Keynes's economics. Policy requires "applying" theory, whose elaboration, in its turn, necessarily depends on specific knowledge of facts, often with special emphasis on the quantitative (not necessarily numerical) dimension. Volume II of *A Treatise on Money*, devoted to the "applied" theory of money, represents the passage from "a qualitative study of the characteristics of a system of representative money" to "a quantitative study of the facts as they exist in the leading monetary systems of today, chiefly in Great Britain and in the United States" (CW 6: 3).

The value of policy lies in being an "apparatus of action". This requires economists to "make more emphatic the peculiarities of the assumptions", as Keynes warned in relation to Kalecki's theory of taxation (see De Vecchi 2008). In his article, submitted to the *Economic Journal* then edited by Keynes, Kalecki had tacitly assumed that capitalists do not adapt their investment and consumption behaviour in the short period to income and capital taxation, on expectations of reduced income. Policy recommendations thus derived from tacit but strong assumptions concerning capitalists' initial reactions. The problem is that when a theory aims, in Keynes's words, "to be applicable to affairs" (CW 12: 792), failure to make the peculiarities of the assumptions explicit amounts to reducing *ad unum* the "variety of scenarios" which can be derived from the "general framework" of the analysis (Asimakopulos 1990: 53), and restricts the validity of the policy suggestions that can follow from the theory.

Economists have to be aware that policy is the domain of specific assumptions. Keynes's presentation to the Macmillan Committee on British unemployment after the return to the gold standard was a discussion of the tacit assumptions surrounding the application of the classical theory of the bank rate to Britain's economic policies in the 1920s. Keynes detected false analogies operating in such theories and fallacious applications, depending on the fact that pre-war assumptions (concerning the effect of unemployment on wages) were no longer valid in "present-day conditions" (CW 20: 54). A series of complicating factors, among which the "electoral power of the working class", invalidated the use of the theory: bank rate policy, "whilst theoretically intact, has broken down as a practical instrument for restoring true equilibrium" (71), and rather "divert[s] … minds from any alternative policy" (*ibid*.).

"Conditions" surrounding the applicability of theory to policy are often political in essence, as shown by Keynes's position on wage policy in the days of the Wall Street slump. Despite his sympathy for the anti-orthodox argument of high wages as means to ameliorate the living standards of workers, Keynes believed that it could not allow any generalization as regards policy: a series of "qualifications … of great practical importance" should be made "when it is a question of applying these ideas in the actual world of today" (CW 20: 8). In the absence of "radical changes in the internal structure and external relations of our economic system" (*ibid*.), there is only a choice between the "liberal" proposal of taxing profits after income has been earned and the "trade union" solution of raising wages. This latter would win over the superior rival because of the political difficulty of inducing trade unions and workers to support alternatives for bettering workers' conditions and achieving a more equitable income distribution.

When reflecting, in 1942, on employment policy for the post-war period, Keynes asserted that assumptions relative to the number of unemployed workers after the end of the conflict must be necessarily grounded on the hypothesis of a "reasonable government policy in the face of the actual circumstances and the change which has taken place in public opinion in the light of war experience as to the practical possibilities of keeping unemployment at a reasonable figure" (CW 27: 303). The quote needs emphasis when reflecting on the relationship between theory and policy in Keynes's thinking. Government policy has to be "reasonable", in the sense given to the term in *A Treatise on Probability* (as opposed to conventional judgments, reasonable judgments are grounded upon some reasons or evidence); it must take the actual circumstances into account; it must focus on practical possibilities, and show consideration for public opinion.

Above all, policy is politics. But politics, exactly like economics itself, must be discussed within Keynes's ethical vision, which is quite close to Aristotle's: it is an ethics of virtues which concerns the whole conduct of human life (see Carabelli and Cedrini 2011). In ethics, Keynes distinguishes between "one's attitude towards oneself and the ultimate", or "speculative ethics", and "one's attitude towards the outside world and the intermediate", or "practical ethics" (CW 10: 436). Because politics and economics belong to the realm of practical ethics (whose ends are neither absolute nor universally valid, but contingent on transitory circumstances), they are at the service of the ultimate aims of (speculative) ethics. They are means to build an "ethically rational society", and they are required to supply the prerequisites for social progress: that is, the material preconditions for the full enjoyment of the general, abstract and universal, intrinsically desirable ends of speculative ethics: *eudaimonia*, the happy and good life of Aristotelian flavour, made of love, friendship, appreciation of beauty, knowledge. Keynes in fact believed that the end of the "economic problem" (CW 9: XVII), as he called it in his socio-political speculations, and in particular in *Economic Possibilities for Our Grandchildren*, would enable people to actively consider those non-material ends whose pursuit is indispensable for expressing authentic human qualities, and to choose deliberately what specific kind of life they want to live.

The emphasis on politics as a science of means derives directly from Edmund Burke, admittedly a major influence on Keynes's political vision. It was Burke to warn Keynes of the evil of a conception of politics which, based on abstract principles, showed no consideration for actual circumstances. "What we ought to do is a matter of circumstances; metaphysically, we can give no rules", agreed Keynes (reported in Helburn 1992). But Keynes rejected Burke's conservatism, and (apart from some universal ethical goods) wanted duties to change in accordance with progress, in particular as regards the economic organization of society (Moggridge 1992; see also Helburn 1992). Keynes approved of Burke's politics of expediency whereby "whatever rights individuals may have, government has and can have no right to do anything which is not for the general advantage" (reported in Helburn 1992). But this does not mean, for Keynes, that governments should abstain from deciding about means and even ends. Rather, the prudence that is embedded in expediency calls for courage. Burke's legacy is therefore evident in Keynes's idea that there must be some sort of "continuous adaptation of the sphere of government" to the general welfare (Cristiano 2013: 57), but Keynes could not accept Burke's idea that "reform, if at all necessary, should be approached gradually and conservatively, and never violently" (O'Donnell 1989: 280).

Rather, Keynes envisaged a fundamental active role for public authorities (see Carabelli and De Vecchi 2001), which he considered, as seen, to be collective agents endowed with more, however partial, knowledge than individual agents who operate in market economy contexts and are subject to market conventions. For Keynes, therefore, the state is an agent of social reasonableness (that is, because it is able to? formulate reasonable/probable judgements, again in the sense of *A Treatise on Probability*, it has a duty to compete with such conventions through active and bold policies expressly aimed at the general interest). But it is also the guardian of the common good, as also Burke would say, protecting the interests of society as a whole (in general, see O'Donnell 1989: 301-302). This is also the main message of *The General Theory*, which Keynes concludes with a discussion of the "social philosophy" towards which his new theory could lead. In truth, the conclusions of *The General Theory* are also the final destination of a theoretical journey on which Keynes embarked in the mid-1920s when confronted with the problem of unprecedented unemployment in Britain. Symbolically, the starting point is *The End of Laissez-Faire*, of 1926, a sort of political manifesto for Keynes. The end of *laissez-faire*, of "individualistic" (as he often called it) *laissez-faire* capitalism, is for Keynes both an inevitable outcome? (at least in part, a *fait accompli* after World War I) and a political programme to be implemented, or an end to be achieved.

Keynes's anti-utilitarian ethics is responsible for a non-linear, and rather ambivalent, attitude towards capitalism. Keynes stressed the contribution of capitalism to solving the economic problem and the stimulus which it gives to the decentralization of initiative and taste, to personal independence, as well as to internationalism (Backhouse and Bateman 2006). But he considered it to be intrinsically unjust and the cause of bad instincts – such as the "sanctification of saving" and the tendency to "sacrifice the present to the future" without being sure that the exchange is worthwhile (reported in Skidelsky 1994: 21) – which result in love of money for money's sake, rentier-like behaviours, purposiveness and greed. Despite its necessity, capitalism becomes a socially disruptive force when it is taken as an end rather than as a means, and ruled accordingly: it ensures the supremacy of "love of money as a possession" over "love of money as a means to the enjoyment and realities of life" (CW 9: 329).

Laissez-faire capitalism may even fail to produce purely economic progress. By exploiting the enormous power that they derive from a purely artificial scarcity of capital (its use does not bring about "a genuine sacrifice which could only be called forth by the offer of a reward in the shape of interest", CW 7: 376), rentiers produce a "social cleavage" (CW 4: 4) opposing them to entrepreneurs and workers. By inducing individuals to profit from market instability rather than from enterprise, which becomes *de facto* a speculative activity, uncertainty rewards hoarding. Moreover, it favours the formation of conventional, rather than reasonable, expectations, producing a state of affairs which Keynes diagnosed, in his 1926 essay *The End of Laissez-Faire*, as a fallacy of composition opposing individual to general interests wherein "it may even be to the interest of individuals to aggravate the disease" (CW 9: 290-291).[4] Thus, in *The General Theory*, Keynes gives the state the task of providing investable funds for entrepreneurs through a policy of "socialisation of investment" (CW 7: 378) which should bring rentiers to "euthanasia" and reduce endemic uncertainty. This should help to remedy, wrote Keynes, "the outstanding faults of the economic society in which we live", that is, "its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes" (372).

But Keynes's criticism of *laissez-faire* capitalism is much more complex than it may appear at first sight. Until the outbreak of the Great Depression, Keynes could describe capitalism as a social system which, though "economically efficient", was "morally inefficient" (reported in Skidelsky 1994, 241). In *National Self-Sufficiency*, Keynes revolted against "the decadent but individualistic capitalism in the hands of which we found ourselves after the War" as "not intelligent […], not beautiful […], not just […], not virtuous". "And it doesn't deliver the goods" (CW 21: 239), he added, deeming it responsible for the spread of the "competitive struggle for liquidity" of the late 1920s and early 1930s. As Skidelsky (2009: 133) notes, according to Keynes, "the pursuit of money […] was justified only to the extent that it led to a "good life". And a good life was not what made people better off: it was what made them good. To make the world ethically better was the only justifiable purpose of economic striving".

Constructivism is thus made necessary by historical (World War I and the demise of the gold standard), theoretical (the outstanding failures of

[4] For a concrete illustration of this line of reasoning on the tragedy of *laissez-faire*, see Marchionatti 1995, where Keynes's analysis of the crisis of the Lancashire cotton industry in the 1920s is shown to offer a microeconomic case against *laissez-faire* itself.

applied classical theory in the 1920s and 1930s), economic (the transformation of enterprise into speculation, the development of finance, and awareness, after WWI, of the virtues of consumption and the vices of abstinence), and *moral* reasons. "The first leading modern economist to reject both the simple behavioral postulate of the optimizing economic man and the forecast of inevitable scarcity ahead" (Goodwin 2000: 406), anti-Victorian Keynes was engaged in a cultural struggle against the presumed inevitability – better, against the presumed inevitable consequences of the presumed inevitability – of the "economic problem", which conversely, capitalism could contribute to solving "within a hundred years". "The economic problem is not – if we look into the future – the permanent problem of the human race" (CW 9: 326). Once the age of abundance has been reached, "man will be faced with his real, his permanent problem – how to use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him, to live wisely and agreeably and well" (328).

Paradoxically, to modern eyes, Keynes's desired public intervention is not, however, at odds with the emphasis that he placed upon individual judgements and ethical dispositions (on which see Helburn 1992); nor is it an imposition on individual activities. Constructivism, in fact, finds its ultimate rationale in the "noneconomic advantages" (CW 27: 385) that virtuous reformers, who have better and earlier assimilated "the potential for change in the moral conventions of society itself" (Carabelli and De Vecchi 1999: 291), can secure. "Central controls" as means to attain full employment are in truth, in Keynes's view, the only way to protect the "traditional advantages of individualism" – writes Keynes in the concluding pages of *The General Theory* – which

> is the best safeguard of personal liberty in the sense that, compared with any other system, it greatly widens the field for the exercise of personal choice. It is also the best safeguard of the variety of life, which emerges precisely from this extended field of personal choice (CW 7: 380).

In most of his socio-political writings, Keynes asks public authorities to abandon their classic "You must do anything" *laissez-faire* philosophy (CW 9: 124). Bold and innovative public action must demonstrate that "there will be no harm in making mild preparations for our destiny, in encouraging, and experimenting in, the arts of life as well as the activities of purpose" (332). Keynes was in fact convinced that "the future holds in store for us more wealth and economic freedom and possibilities of personal life than the past has ever offered. There is no reason why we should not feel ourselves free to be bold, to be open, to experiment, to take action, to try the possibility of things" (124-125). As Backhouse and Bateman (2009: 663) observe, therefore, capitalism was for Keynes "necessary for freedom, but the activities of a capitalist society were not themselves an essential part of what freedom was about". Individualism is the best safeguard of personal choice and the variety of life, both of which are preconditions for enjoying the ultimate ends of speculative ethics and the substance of a good and happy life. The task of economic policy is to give people the autonomy that they need to freely formulate and choose among alternative plans for their lives: this requires public action against the ethically undesirable results of capitalism. True, the "economically sound" is in normal conditions, wrote Keynes, "the best contribution which we of today can make towards the attainment of the ideal" (CW 21: 38). But when it combines with the abuses of utilitarianism and *laissez-faire* individualism to make the economic problem insurmountable, that is, when there is "no moral objective in economic progress, then it follows that we must not sacrifice even for a day, moral to material advantage" (CW 9: 268).

2.3. *Keynes and the Complexity of International Economic Relations*

Keynes's organicist approach to economic material is embodied in the title itself of the *General Theory*, as clearly explained in the preface to the French edition (of 1939): "I have called my theory a general theory. I mean by this that I am chiefly concerned with the behaviour of the economic system as a whole" (CW 7: XXXII). In effect, Keynes's theoretical work can be interpreted as the progressive theoretical deepening of both a conception of economics and an analytical framework able to deal with a social world that is not explainable in terms of the individual behaviour of its parts, i.e. a complex social world. On the analytical level, Keynes offers a theoretical framework whereby the macroscopic outcome of the model is the result of the interaction among heterogeneous, not fully "rational" ("rational" *à la* Robbins) agents that, generally endowed with far from optimal levels of ability to predict, act under conditions of uncertainty and revise their behaviour as they accumulate information. In *The General Theory*, Keynes demonstrates that economic equilibria are in truth, borrowing from Skidelsky (2009), "bootstraps equilibria", that is

> states of rest given by the state of expectations rather than by the 'fundamental forces' of productivity and thrift. The practical conclusion of this approach was a denial that a competitive, free-market economy has a 'normal' tendency towards full employment.

Clarke (2009: 154) correctly refers to the fallacy of composition as an element whose centrality, in *The General Theory*, «can hardly be exaggerated, since it is, in a sense, the general theory behind the *General Theory*». Keynes writes:

> The world is not so governed from above that private and social interest always coincide. It is not so managed here below that in practice they coincide. It is not a correct deduction from the principles of economics that enlightened self-interest always operates in the public interest. Nor is it true that self-interest generally is enlightened; more often individuals acting separately to promote their own ends are too ignorant or too weak to attain even these (CW 9: 287-288).

Whereas "experience does not show that individuals, when they make up a social unit, are always less clear-sighted than whey they act separately" (288).

That Keynes's work as an international economist and negotiator provides the most striking illustration of both this line of reasoning about the conflict between private and public interests, and the practical solutions that can be drawn from it (see Vines 2003), is evidently a conundrum for supporters of the received view about the closed-economy model of *The General Theory*. In truth, however, the conundrum is only apparent. First, because the world is, obviously, a closed economy. Second, because *The General Theory* explicitly addresses, in chapter 24, the problems of the global economy – and contrary to the received view, it adopts a systemic perspective. Third, because it is exactly in his attempt to reform the international economic order so as to establish "a sounder political economy between all nations" (CW 25: 47), that most vividly apparent is Keynes's political philosophy at work, the philosophy that inspires both *The General Theory* and in general his mature economic writings.

International economic relations at the time of the Great Depression provide a perfect illustration of the centrality of the fallacy of composition in Keynes's thought (see Carabelli and Cedrini 2015b). In invoking the "practical protectionism" (Radice 1988) policy of national self-sufficiency in 1933, allowing Britain to "be free from possible interference from economic changes elsewhere in order to make our own favorite experiments towards the ideal social republic in the future" (CW 21: 241), Keynes was directing attention to the socially and individually harmful effects of the "competitive struggle for liquidity" (42) of the early 1930s. This latter was "an extreme example of the disharmony of general and particular interest. Each nation, in an effort to improve its relative position, takes measures injurious to the absolute prosperity of its neighbours; and since its example is not confined to itself, it suffers more from similar action by its neighbours than it gains by such action itself" (52). In the early 1930s, the darkest times of the post-war gold standard, the only rule of *laissez-faire* international capitalism, according to Keynes, was selfishness, the selfishness of mercantilism: and it was with "selfishness and folly" that the international gold standard was being operated. "Instead of being a means of facilitating international trade, the gold standard has become a curse laid upon the economic life of the world" (CW 20: 600). Creditor countries were acting as functionless rentiers, hostile to long-term investment and unwilling to lend their surplus "as Great Britain used to do in the past" (*ibid*.). The only countries that could dispense with building up excessive reserves were conversely hoarding resources like Midas, bringing about "a big increase in liquidity preference" (Skidelsky 2009: 180) at the international level.

The "method" that Keynes employed to analyse the international situation in the early 1930s tells us a great deal about his overall attempt to redesign the global system. In the *Economic Consequences of the Peace*, Keynes had already identified a fallacy of composition at work in the European debt impasse. It was reflected and fostered by the uncertain economic prospects of European countries. A sustainable solution to the reparation affair was impeded by the use made by European policy-makers of the "atomic hypothesis" in international economic relations, and the resulting neglect of the organic interdependence which indissolubly linked Germany's destiny to that of the Allies: by aiming at the destruction of the former, the latter were inviting "their own destruction also" (CW 2: 2). But the deep roots of the impasse were to be found in the dead hand of Inter-Allied debts and their crushing burden on the continent's future. When uncertainty forces individuals to pursue their own interests without concern for the general welfare and ultimately for their own, a social, public-spirited solution is required, wrote Keynes in *The End of Laissez-Faire*: his 1919 proposal of debt cancellation rested, in fact, on an act of "farseeing statesmanship" (93) on the part of creditor countries. Keynes suggested that an opening gift in the form of generous debt forgiveness by the United States and Britain would have induced European countries, in their turn, to moderate their claims against Germany, to the advantage of the whole continent and its future trade partners. The gift would have acted as the mechanism triggering a spiral of "generosity" progressively enlarging the spectrum of countries disposed to take part in the adjustment (through a shared-responsibilities plan) to a more equilibrated world.

Keynes's call for a renewed British leadership in the early 1930s rested upon analogous premises. The attitude of the leading gold countries was "anti-social" (CW 21: 53) in nature: while it was "a high social duty today for everyone" (*ibid*.) to act in such a way as to reactivate the economic machine, creditor countries had contributed to spreading a tendency to curtail or postpone expenditures. In Keynes's view, Britain possessed the "experience or the public spirit" (CW 9: 236) which is typical of social institutions designed to promote the general welfare as opposed to the clash of particular interests. Britain "should regain its liberty of action and its power of international initiative" (CW 21: 57) to be used to "the general advantage" (*ibid.*), and "set the example" (62). In particular, Britain should act as "a reasonable creditor who moderates his claim in view of so great a change in the situation as the recent catastrophic fall in commodity prices' (CW 9: 247). London should use its "influence, whatever it may be, in private and in public, in favour of every kind of expansion and expenditure, which is financially possible to those who incur in it, and which in better terms would be generally admitted to be legitimate and useful" (CW 21: 60).

Because the slump was an "international" one, an "international cure" (CW 9: 235) was required. In other words, the desired international monetary system of the future should remedy the problems affecting debtor countries in a gold standard regime. In *A Treatise on Money*, Keynes had expounded the "dilemma of the international system" as the opposition between the need "to preserve the advantages of the stability of the local currencies of the various members of the system in terms of the international standard, and to preserve at the same time an adequate local autonomy for each member over its domestic rate of interest and its volume of foreign lending" (CW 6: 272). An international standard of value requires, in fact, national monetary policies in conformity with the average behaviour of the system, thus making it difficult for member states to reach the internal economic optimum. Thus, as early as 1930, Keynes had come to identify the problem of (in modern jargon) "policy space", that is, the autonomy available to nation states to select and pursue policies intended to effectively support their growth and development (see Kregel 2008).

Curiously, in *The General Theory*, Keynes maintained that in the absence of alternative methods to control the national inducement to invest, a country would be right in attempting to reach and maintain a favourable balance of trade. For this is the only direct means available to increase foreign investment and the only indirect means of reducing the domestic interest rate (which is otherwise governed by liquidity preference and money supply). He thus furnished apparently surprising support for those same mercantilist policies that he had condemned when adopted by creditor nations in the early 1930s. But Keynes was perfectly aware that mercantilism is a wrong solution stemming from a correct analysis of the problems of *laissez-faire* capitalism. It may work in the short run and as an individual solution, but yields in the longer run, when it proves to be a self-defeating strategy. Simply, as Moggridge (1986) puts it, mercantilism could not represent the final result of Keynes's search for a model of national behaviour which might be in harmony with the needs of the whole system. Which is, on the contrary, exactly the model illustrated and defended in *The General Theory*, although it would be necessary to wait for Keynes's plans of global reform in the 1940s to see how such principles could ground the new order. Keynes wrote in *The General Theory:*

> It is the policy of an autonomous rate of interest, unimpeded by international preoccupations, and of a national investment programme directed to an optimum level of domestic employment which is twice blessed in the sense that it helps ourselves and our neighbours at the same time. And it is the simultaneous pursuit of these policies by all countries together which is capable of restoring economic health and strength internationally, whether we measure it by the level of domestic employment or by the volume of international trade (CW 7: 349).

Yet this could be an option for debtor countries only if the new system got rid of international rentiers. In *The General Theory*, Keynes underlines the necessity of "reasonable creditors" which "secure for [them]sel[ves] no larger a share of the stock of the precious metals than is fair and reasonable" (338), so as to "leave room for the international division of labour and for international lending in appropriate conditions" (382). As Keynes observed in a 1932 article on Inter-Allied indebtedness, there are limits to the cogency of the "sanctity of contract" (CW 18: 384), which cannot be preserved "except by the reasonableness of the creditor" (*ibid.*). It is a specific "duty of the creditor not to frustrate payment": debtors cannot be asked to sacrifice their "self-respect and self-interest" in favour of "narrow calculations of financial self-interest" on the part of the creditor (385).

Prior to the reform plans for Bretton Woods, Keynes's proposals for international reform were mostly directed to helping deficit countries alleviate their short-term balance-of-payments problems, even through exchange rate changes, "in the hope that surplus countries would allow the adjustment mechanism to operate" (Moggridge 1986: 71). The proposal, made in *Indian Currency and Finance* (see Carabelli and Cedrini 2010-11), of transforming the pre-war regime into a cheaper and more stable gold exchange standard was Keynes's first attempt to free national economies from rigid rules imposed from the outside. The plan rested on a substantially positive appreciation of the Britain-led pre-war gold standard. The system was a sterling, more than a gold standard, and relied, on the one hand, on Britain's ability to make the Empire finance its deficit with Europe and the United States, and on the other, on the use of the discount rate as a means to attract gold from the continent to match the "new" countries' rapid development. Nevertheless, it enabled reserve countries to finance their short-term balance-of-payments deficits while making long-term investments in peripheral countries. Thus, multilateralism and dynamism characterized the pre-war order (De Cecco 1979). It was Keynes himself, in the first draft of the project for an International Clearing Union (ICU), who recalled the regime's historical merits in terms of both the prosperity it had helped to create and the pattern of peaceful international relations intrinsic to the classical adjustment mechanisms.

Keynes's global reform plans aimed at multilateralising international imbalances. The prospected new international institution, the ICU, would issue a newly-created bank money (bancor) as the new international unit of account intended to serve as the system's ultimate reserve asset. Bancor could be held only by the central banks of participating member states and be exchanged between central banks and the ICU itself (so that individuals could not hoard it as a store of value). Member countries therefore kept their national currencies domestically, but were assigned a current account denominated in the new standard, without having to previously subscribe capital to the institution. The idea behind the plan was to apply to the international level the essential banking principle of "the necessary equality of credits and debits, of assets and liabilities. If no credits are removed outside the banking system but only transferred within it, the Bank itself can never be in difficulties" (CW 25: 44). Each nation could draw up to its own bancor quota, equal to half the average value of its total trade for the last five pre-war years. Deficits and surpluses were settled through centralized clearing accounts: the ICU granted credit in the form of overdraft facilities that financed trade deficits and thereby helped global trade to expand on multilateral bases. The ICU could thus create reserves of an amount such as to accommodate the needs of international trade from surplus to deficit countries.

The plan aimed not only at multilateralising imbalances but also at reabsorbing them. Creditors should therefore share the adjustment burden with debtor countries, as the only possibility to "make unnecessary those methods of restriction and discrimination which countries have adopted hitherto, not on their merits, but as measures of self-protection from disruptive outside forces" (CW 25: 449). Therefore, the scheme allowed and even, if necessary, *required* creditor countries to revalue their currencies and unblock foreign investments. Credits exceeding a quarter of their quota were charged rising interest rates; those exceeding the quota itself at the end of a year would be directly transferred to the ICU. Symmetrically, debtor countries were allowed or asked to devalue their currencies, to sell gold, and to prohibit capital exports; their excessive debts were charged interests, though lower than those applied to creditors' excessive balances. The proposal therefore envisaged fixed but adjustable exchange rates.

As Keynes himself observed, everything in his plan was ancillary to the re-establishment of multilateralism. To secure this result, he believed it necessary to prevent rentier-like forms of behaviour by making the possession of capital of little, if any, importance. Creditors were asked to use, or make available to deficit countries for purposes of adjustment, those resources that they might otherwise leave idle. But they would be free to choose how to employ surpluses – expansion of credit and domestic demand, wages increase, abatement of trade restrictions or foreign lending for development – and would gain access to wider markets. Interwar creditors, the United States and France, had exercised "deflationary pressure on the rest of the world by having a net creditor position" (44) in a world where self-liquidating loans between creditors and debtors were the exception rather than the rule. Foreign lending, Keynes argued in his 1929 lectures in Geneva, was the process "by which rich countries spread the proceeds of their wealth over the world, and thus is internationally desirable" (reported in Fleming 2000: 142). But in the post-war decade, growing speculative funds flowing from creditor to debtor countries, and then the reversal in the flow direction, made it impossible to support the practice "on nationalist grounds" any longer (*ibid*.). Thus, the ICU would replace the problematic need for a responsible leader with a system of rules of "general and collective responsibility, applying to all countries alike" (CW 25: 47) with a "built-in expansionary bias", a "free lunch for all", to use Davidson's (2009) words. By encouraging creditors to exert "an expansionist, in place of a contractionist, pressure on world trade" (74), Keynes got rid of the functionless international rentier. He wrote:

> The substitution of a credit mechanism in place of hoarding would have repeated in the international field the same miracle already performed in the domestic field of turning a stone into bread (114).

But the plan's aims were strictly associated with those of *The General Theory* also at a deeper level, that of the social philosophy to which Keynes refers in the concluding chapter of his masterpiece. As known, Keynes elaborated, with the approaching end of WWII, the proposal of an American gift to Britain to reduce the international imbalances dramatically exacerbated by the war. Global trade was in fact threatened by Britain's deficit position towards the sterling area, the only actor, itself indebted towards the US, that could stimulate American exports in the post-war period; and the new-born international institutions were left with scant resources to deal with the transition to the new order. In fact, Keynes revamped the approach that he had used when dealing with German reparations and the burden of Inter-Allied debts. The "generosity" of creditors towards European debtor countries at the end of WWI was intended to stimulate, to the general benefit, an attitude of "magnanimity" on the part of the European nations towards Germany, itself a necessary precondition for launching Keynes's "grand scheme" for the continent's rehabilitation (Carabelli and Cedrini 2010a). Likewise, Keynes insisted, in 1945, on the freedom-enhancing effects that a shared-responsibilities approach to the imbalances – requiring the strong involvement (and generosity) of the world creditor power – would have on deficit countries' policy space (see Carabelli and Cedrini 2010b). The proposal of an American gift was imbued with the spirit of the ICU plan. The "psychological atmosphere of the free gift" (CW 24: 340) on which the plan relied should have made it possible for Britain to approach the sterling area countries with an equally generous programme of debt restructuring, thus easing the advent of a new multilateral order for which they were financially unprepared. The crucial condition for the plan's success, however, was the Americans' willingness to use "their financial strength not as an instrument to force us to their will, but as a means of making it possible for us to participate in arrangements which we ourselves prefer on their merits if only they can be made practicable for us" (272). This required the transformation of the United States from the rentier country criticized by Keynes in the inter-war period into the "big spending creditor" (Newton 2006: 4) envisaged by the ICU plan.

Contemporary critics of the widespread nostalgia for Bretton Woods underestimate the structural difference of approach between Keynes's ICU plan and the Bretton Woods regime as finally negotiated. The former required the adoption of a fully social vision of creditor-debtor relationships, upon which to base a global order respecting "the proper liberty of each country over its own economic fortunes" (CW 25: 11). This aim stemmed directly from Keynes's fully anti-utilitarian but individualistic ethics, according to which the international economic problem was "a transitory and an unnecessary muddle" (CW 9: XVII) absurdly preventing countries from freeing themselves from economic pressures and anxieties. In coherence with this ethics, Keynes wanted to safeguard each country's right to design its own path to development and growth. He therefore argued that the new international institutions should be technical rather than political, and firmly opposed capital market liberalization, to defend heterogeneity and variety (see Kirshner 2009), which at the international level are synonyms with policy space. In Keynes's words, his was an attempt at "organizing international order out of the chaos of the war in a way which will not interfere with the diversity of national policy" (CW 24: 608). Keynes's proposals of global reform were therefore, in many senses, the ideal complement to the theoretical work of *The General Theory*. As Cairncross (1978: 46) put it, Keynes wanted a "framework of international institutions planned and managed for the common good" to protect each country's "freedom of action" in a fundamentally "anarchic" international environment. This freedom was a necessary condition for the success of the "twice-blessed" policy invoked in *The General Theory*, which expressly required the elimination of "international preoccupations". The ICU plan would have implemented the same vision lying behind Keynes's call for "central controls", in *The General Theory*, as means to attain full employment: the rules of the new order should protect the possibility of difference, or, in economic terminology, the freedom to choose implicit in the notion of policy space.

3. The modernity of an un-modern economist

Dictionaries define the term "modern" as relating or belonging to the present time; or as involving recent techniques, methods, or ideas. Philosophically speaking, we tend now to see modernity by adopting the postmodern perspective which views history as progressive emancipation in the name of rationalism, with humans growing more and more confident in their own faculties, and in their capacity to create more advanced forms of civilization. To the extent that, to borrow from Italian philosopher Gianni Vattimo (1992: 1), "modernity is the epoch in which simply being modern became a decisive value in itself".

The least one can say is that Keynes was not "modern" in this sense. Paradoxically, perhaps, we could say that Keynes is profoundly un-modern. Not in the sense of *démodé* or old-fashioned, as on the contrary mainstream economists has often portrayed him since the second half of the 1970s, when Keynes's *General Theory* was considered "bad social science" (Lucas 1976, Sargent and Sims 1977); rather, he is un-modern in the sense, it could be argued, in which Friedrich Nietzsche used the term in *Unmodern Observations* (*Unzeitgemässe Betrachtungen*, 1873-1876).[5] Nietzsche's observations were un-modern because they expressly conflicted with dominant values, they critically analyzed the present in the attempt to construct a new future. The term "un-modern", in the Nietzschean sense, is an entrance key to Keynes' world.

In truth, Keynes is un-modern today as he was un-modern in the 1930s; but it is precisely here that lies his profound modernity: at a time when the (Thatcherian) dictum "there is no alternative" is a leitmotiv, Keynes appears a man of alternatives, a "possibilitarian" (*Moglichkeitsmensch*), to borrow an expression from Robert Musil's *Man without Qualities* (*Der Mann ohne Eigenschaften*, 1930-1942); a man who possesses the sense of possibil-

[5] One of the Nietzsche's works most difficult to translate into other languages, *Unzeitgemässe Betrachtungen* has been rendered in English as *Untimely Meditations*, *Thoughts Out of Season*, *Untimely Reflections*, *Inopportune Speculations*, *Unfashionable Observations, Unconventional Observations* and, lastly, *Unmodern Observations* (the title of the 1990 translation edited by the American classicist William Arrowsmith).

ity, "the ability to conceive of everything there might be just as well, and to attach no more importance to what is than to what is not" (Musil 1995: 11). But Keynes continues to be un-modern: the crisis sparked new interest in his theoretical and practical contributions, but his vision, his method and social philosophy, and as corollaries his powerful ability to interpret his times and prefigure upcoming scenarios, remain issues of exclusive interest to historians of economic thought and economic methodologists.

More concretely, this paper has tried to throw new light on the radical "difference" of Keynes's thinking with respect to that of both scholars of his times and contemporary economists. The (not so) implicit suggestion made here is to delve deeply into how Keynes dealt with the complexity of the material which, in his own definition, constitutes the object of economics, at all levels (individual, social, international). On the one hand, Keynes is modern when he expresses the desire to transform economics into a discipline of complexity, one that perceives and seeks to interpret the contradictions of capitalist societies. But he is profoundly un-modern when he discusses the conditions that economics must meet in order to achieve this result, and above all when orienting his own work so as to implement this research programme on the theoretical tools suited to the study of the organicism of inter-individual, social and international relationships. In his youthful papers on aesthetics (see O'Donnell 1995; Dostaler 2010), Keynes discussed the relationship between science and art, arguing that they adopt similar procedures. He condemned the "supposed antagonism between the precise and verbal notions of philosophy and the organic, indivisible perceptions of beauty and feeling, between those things which we perceive piecemeal and those which we perceive as wholes", and stressed the need to combine the artist's "intuitive powers" with the scientist's intuitive ability (Keynes undated: 2), so that "knowledge and creation may advance together" (*ibid*.; see also Keynes 1909).

"The study of economics", Keynes wrote in the obituary of Marshall,

> does not seem to require any specialized gifts of an unusually high order. Is it not, intellectually regarded, a very easy subject compared with the higher branches of philosophy or pure science? An easy subject at which few excel! The paradox finds its explanation, perhaps, in that the master-economist must possess a rare combination of gifts. He must be mathematician, historian, statesman, philosopher – in some degree. He must understand symbols and speak in words. He must contemplate the particular in terms of the general and touch abstract and concrete in the same flight of thought. He must study the present in the light of the past for the purposes of the future. No part of man's nature or his institutions must lie entirely outside his regard. He must be purposeful and disinterested in a simultaneous mood; as aloof and incorruptible as an artist, yet sometimes as near to earth as a politician (CW 10: 173-174).

"Comment envisager la complexité de façon non-simplifiante?", wonders Edgar Morin [2005 (1990): 9] in his introduction to complex thinking. Explicitly posing and trying to address, the problem of how to make science with a complex world, Keynes's economics (with its philosophical foundations) provides an answer to Morin's question. Keynes knew that the necessity to restore order in a complex world, that is, a world characterized by uncertainty, ambiguity and folly, has often given rise to reductionisms of all sorts, which, with a view to promoting intelligibility, have made us blind, to borrow again from Morin, to many of the attributes of complexity that shape our life. Keynes wanted to protect complexity from reductionism: this is the philosophical-in-nature ambition of his economic-research and practical-policy programmes.

In all the domains or issues analysed here – pervasiveness of uncertainty, theoretical approach to the economic material, socio-political philosophy and quality of international economic relations – Keynes employs a line of reasoning somehow dictated by his own "method", which consists in tackling complexity while resisting any attempt to reduce it by using tacit simplifying assumptions or atomic (in the broadest sense) hypotheses. Rather, he always leaves room for a "second stage" of analysis, so as to bring to the fore the various tensions that complexity creates at all levels. But Keynes believes in the possibility of things, in the possibility of change. His constructivism, which may appear at odds with the proclaimed aim of coping with complexity, is in truth exactly a way of facing complexity without disavowing it. It is rather at the service of those "goods", also in the sense of ethical concerns, like the possibility of autonomous judgment and the need for variety, which can flourish in complex social contexts, but can be easy victim of the reductionism with which such contexts are usually dealt with. In this sense, to depict Keynes as an un-modern thinker, in the times of the crisis, is to assert his modernity.

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