Davidson, Non-Ergodicity and Individuals

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The distinctiveness of post Keynesian economic theory from both neoclassical and neoRicardian economic theory rests in large degree on the former's emphasis on fundamental uncertainty. Paul Davidson has emphasized this difference time and again, arguing that Keynes's own thinking was most revolutionary in its attention to uncertainty, especially in regard to the analysis of liquidity and the properties of a monetary production economy. Partly in response to this insight, a 'fundamentalist Keynesianism' has developed in recent years that traces Keynes's understanding of uncertainty to his early Treatise on Probability account of probability in terms of degrees of belief (for example, Carabelli, 1988; O'Donnell, 1989). However, Davidson's treatment of uncertainty is explicitly rooted in a rejection of the idea that reality is an ergodic system, that is, an immutable, unchanging set of processes that eternally replicate past patterns of events. In his view, the world is non-ergodic, because important aspects of the future are created by human action. Thus though there is an epistemological dimension to his discussions of uncertainty that is not incompatible with an explanation of expectations in terms of degrees of belief, it is important to recognize that the idea that economic reality is non-ergodic is not an epistemological one, but rather an ontological one. Even more important for Davidson's understanding of uncertainty is the priority of this ontological claim over any epistemological claims regarding limitations on human information processing. Simon's bounded rationality conception, for example, looked at in purely epistemological terms involves what appears to be a rather fundamental sort of uncertainty. However, in Davidson's view, that Simon supposes the world is ergodic makes his conception close kin to Savage's expected utility analysis, and separates it off entirely from Keynes's more radical understanding of uncertainty (Davidson, 1995, p. 109). Uncertainty, then, cannot be understood solely in epistemological terms, and depends in the first instance on a correct understanding of the nature of reality itself.

To elaborate on this ontological theme, and to develop further the characteristically post Keynesian conception of uncertainty, this chapter sets forth
an account of the functioning of a non-ergodic economic world in terms of the behaviour of individuals operating both within and upon conventions and institutions. In a non-ergodic world, according to Davidson, individual economic agents make choices on the assumption that the world is transmutable. They also, he emphasizes, rely upon conventions and institutions to stabilize and improve patterns of outcomes. Yet if the future is transformed in important respects as a result of human action, we must allow, first, that conventions and institutions may themselves be transformed — intentionally and unintentionally — by human action, and, second, that the transformation of conventions and institutions may in turn serve to transform the basis on which individuals themselves subsequently act as economic agents. In this non-ergodic picture of reciprocal influences of social structures and individual agency upon one another, post Keynesians have emphasized how conventions and institutions influence the behaviour of individuals, in part as a corrective to neoclassicism's atomistic individualism. Left largely unexamined, however, is how the theory of the individual economic agent needs to be re-developed, both to complete the picture of the economic process as non-ergodic, and to replace the static, ergodic view of individuals as atomistic agents in neoclassical economic theory.

Thus this chapter seeks to develop along Davidsonian lines Keynes's own General Theory account of the nature of individuals, linking it to Keynes's account of conventions, in order to better describe the nature of uncertainty in a non-ergodic world. The first section of the chapter begins with a brief summary of Davidson's recent thinking on non-ergodicity, in order to draw out the implications of his ontological view of uncertainty. An important aspect of this view is the idea that individuals operate both within and upon conventions and other institutional structures. The second section of the chapter then examines critically neoclassical thinking about the nature of individuals, in order to set the stage for discussion of the understanding of individuals to be found in Keynes's thinking. Though neoclassicism is methodologically individualist, ironically its account of the nature of the individual can be shown to be seriously flawed in two important respects. The third section of the chapter examines Keynes's views on the nature of individuals in two locations in The General Theory, and then turns to one post Keynesian interpretation of the nature of the relations between individuals. An important argument of the chapter that appears in this section is that Keynes did not reason in terms of organic connection. The fourth and final section of the chapter makes concluding remarks about Keynesian uncertainty in connection with individuals and conventions.
DAVIDSON ON NON-ERGODICITY

On an ergodic view of the world, reality is immutable and unchanging in the sense that the basic causal relations governing the world never change and always hold in all circumstances. Though we observe variation at the level of events, individuals, and particular practices, the principal cause-and-effect relationships underlying their variety and flux are themselves understood to be constant and unchanging. That is, just as in natural science the law of gravity always holds, so in economics and social science behaviour is always explained in terms of essentially the same causal relationships, irrespective of changing social conditions and historical development. Thus economics is the study of a single set of underlying relationships. And, as there can never be new relationships and new cause-and-effect patterns generated by changing historical circumstances, economists are able to continually refine and build upon earlier insights, so that economic knowledge may be represented as always involving cumulative advance and progress.

Davidson identifies one such purported advance as twentieth-century methods for modelling of economic agents' informational capacities (1995). Whereas nineteenth-century classical economists effectively assumed that individuals operated in a world of perfect certainty, contemporary orthodox economists assume that individuals predict future outcomes by estimating their probabilities based on past and present market data. There are a variety of such probabilistic approaches, ranging from new classical theories that postulate rational expectations in the short run to New Keynesian, expected utility, bounded rationality, and Austrian views that suppose that the future is not completely known in the short run due to limitations in human cognitive ability. However, all these views share what Davidson terms the ‘Darwinian story’ that economic agents who fail to adapt their subjective probabilities to the world’s immutable objective probabilities do not survive (p. 107). Thus contemporary orthodox thinkers still share with the classical economists the idea that there is a single, determinate, unchanging economic reality. Their ‘progress’ on classical economics is merely to add that economic agents may fail in the pursuit of their objectives not only because they may make poor economic decisions (as the classicals allowed), but also because they may fail to forecast future conditions successfully however good their economic decision-making.

For Keynes, on the other hand, the world is transmutable or non-ergodic in the sense that the principles underlying the phenomena we observe are historically specific and may change with development in the economy’s structure. The passing of the age of entrepreneurship and owner-led firms was an important change in the economy’s structure of organization. Consequently, as he stressed in his critique of Tinbergen’s econometric methodology,
economic time series may often not be stationary, because the underlying economic environment can be ‘non-homogeneous through time’ (Keynes, XIV, p. 285). This is not, however, what all commentators emphasize when discussing Keynes on uncertainty. Rather they often point to statements such as Keynes made in 1937 in his Quarterly Journal of Economics response to his critics that regarding much of what will take place in the future, ‘We simply do not know’ (Keynes, XIV, p. 113). It is true, of course, that in situations of true uncertainty decision-makers do not know enough to form reliable probability judgements regarding future events. But that they do not is first and foremost a matter of the fact that the future will not sufficiently resemble the past so as to permit such judgements. Were, contrary to fact, the future to closely resemble the past, and were there still significant limitations in our capacity to process information (as clearly there are), uncertainty could then be modelled as behaviour under risk. What is required for radical uncertainty, then, is merely the fact that the future will not be like the past in important respects, that is, that historical data do not provide a reliable statistical basis for drawing inferences about future outcomes (Davidson, 1991; also cf. Hicks, 1979 and Davidson, 1994). When Keynes said that we cannot even begin to know what the future may hold, he simply meant to indicate that the future would be different in more ways than he or anyone else could imagine.

This emphasis may strike some as unnecessary, but saying that Keynesian uncertainty rests on the ontological proposition that the world is non-ergodic serves an important purpose. Namely, it encourages us to ask why cause-and-effect relations underlying the phenomena we observe should be thought to be historically specific. For Davidson, the answer is straightforward. Saying that the world is non-ergodic is equivalent to saying that it is transmutable, where this means the economic world may be transformed in fundamental ways as a consequence of human agency. That is, human beings are free to change not just the course of events (as orthodox thinkers allow), but are also free to change the very principles governing the economic process. It is this that produces radical Keynesian uncertainty regarding the future. We generally do not – cannot – know what the future will hold, because the future is yet to be determined, or better, will be determined in large degree by our actions. Uncertainty consequently cannot be treated as risk in all but the most trivial situations, because human action continually re-determines the frequency distributions of phenomena in which we are interested.

This does not imply, Davidson emphasizes, that economic policy is powerless. True, if economic policy is conceived of as designing specific courses of action that rely on accurate forecasts about what path the economy is likely to take, policy is unlikely to be successful. However, if economic policy is rather thought to have the design of institutional arrangements that tend to mitigate the undesirable effects of human action as its chief objective, then its
prospects are more promising. Keynes's insight was that laissez-faire economies lack endogenous forces to drive them to full employment equilibria. Essentially the behaviour of individuals and the framework of free market institutions within which they operate permits series of mutually reinforcing contractions of demand that ultimately expire below full employment equilibria. However, different sorts of institutions may be devised that lack this character, and which rather tend to raise demand and employment. Keynes's call for 'a somewhat comprehensive socialisation of investment' (VIII, p. 378) was meant as just the sort of institutional reform that might accomplish this. Economic policy for Keynes and Davidson, then, aims at institutional change designed to improve patterns of interaction between individuals and the institutions within which they operate to achieve goals such as low unemployment.

At the same time, however, when individuals operate upon institutions in an effort to bring about policy goals, on a non-ergodic view of the world and economic policy we must also suppose that their actions will be influenced and conditioned by both the institutions they modify as well as new institutions that emerge. That is, a non-ergodic view of the world also tells us that social structure and individual agency have reciprocal effects on one another, so that individuals and institutions are continually evolving in relation to one another. In contrast, neoclassical economists suppose that the underlying principles operating in economic life are stable and unchanging, and thus generally also suppose that the nature of individuals and institutions in which they operate is set and unchanging. New Institutionalists do allow that institutions evolve, but still maintain that individuals are unchanging in nature, so that the institutional environment adapts to human action, but not the reverse. This suggests that on a non-ergodic view of individuals and institutions we ought to be able to demonstrate that in an historical economic process individuals are transformed along with institutions. Demonstrating this requires developing a new understanding of the individual alternative to that employed in neoclassicism – the subject taken up in section three below. Before turning to that task, the following section accordingly attempts to diagnose the problems inherent in the neoclassical conception of the individual to create guidelines for a better account.

THE NEOCLASSICAL CONCEPTION OF THE INDIVIDUAL

Two problems are diagnosed here: one concerning the standard characterization of individuals as collections of preferences, and the other concerning how individuals relate to social context.
(i) Neoclassical economic theory assumes individuals are unchanging in nature. This implies that across any set of changes in an individual’s environment, the theory must successfully demonstrate that any given individual remains in essence the selfsame individual. Alternatively, central to any conception of individuals as unchanging in nature is an account of what makes any individual consistently distinct from all other individuals. On the neoclassical view, of course, individuals are distinguished as distinct collections of preferences. But can this conception of the individual successfully distinguish individuals as distinct beings? In Davis (1995), I argued that for neoclassicism the idea of individuals having distinct collections of preferences is equivalent to saying that individuals have their own sets of preferences. In effect, since preferences themselves are defined entirely subjectively or only in terms of the individuals to whom they belong, they must always be some individual’s own preferences. But using individuals’ own preferences to distinguish individuals through change is question-begging in that it presupposes the very individuals those preferences are meant to distinguish. If a set of own preferences picks out some individual, they must naturally be that particular individual’s preferences and not someone else’s preferences. But if we have already picked out the individual to whom a set of preferences belongs in order to call these preferences that particular individual’s own preferences, we cannot then turn around, and use those preferences as a criterion for distinguishing individuals from one another.

In short, neoclassical theory’s criterion for distinguishing and defining individuals is circular and question-begging. The general problem with conceptualizing the individual as a collection of subjective preferences can be seen from a different perspective if we ask how the view holds up when we consider the possibility that individuals’ preferences may change. Stigler and Becker (1977), in what has become the accepted position on the subject, sought specifically to rule out this case, insisting that preferences do not change. Their professed reason for doing so was entirely ad hoc in that they simply wished to explain choice solely in terms of changes in prices and incomes. But perhaps they were also aware that were an individual to be distinguished in terms of one set of preferences at one point in time, and then distinguished according to another set of preferences at another point in time, continuity of individual identity would require there to be something more to being an individual than just having preferences, thus demonstrating that individuals could not be explained solely in terms of preferences. Note that one common sense view of why preferences change is that individuals are influenced by their environment. Adults do not have the same preferences they had as infants, because of their subsequent experience. But this sort of answer is incompatible with characterizing individuals solely in terms of their subjective preferences. The Stigler–Becker strategy can thus be seen as
a means of closing off investigation of the inadequacy of the neoclassical conception of the individual.

(ii) Another manifestation of the problems involved in the neoclassical approach to explaining individuals concerns the way that the call for microfoundations for macroeconomics tends to be addressed. For most proponents of microfoundations, the basic rationale behind the claim that macroeconomic relationships need to be grounded in microeconomic ones is that the latter concern the behaviour of individuals, whereas the former concern aggregative relationships based on the behaviour of groups of individuals. Individuals are ostensibly real entities, but groups of individuals are claimed to be mere conceptual constructions, and thus one step removed from the real. New classical and new Keynesian economists consequently favour what may be termed individualist-reductionist type explanations of macroeconomic relationships, supposing that good explanation is always explanation in terms of really existing things.

However, it is doubtful that individualist-reductionist microfoundational accounts of macroeconomic relationships can ever be successful. Not only do such accounts require that macroeconomic relationships be explained in terms of the behaviour of households and firms but they also require that the choices of households and firms ultimately be explained in terms of the choices of individuals within households and firms. This latter condition involves an analysis of individuals' strategic interaction, the province of game theory, where research has shown that determinate results are either available in only the most trivial situations or depend upon our assuming that conventions and institutions create a framework for individual interaction (Hargreaves-Heap and Varoufakis, 1995, pp. 204ff.). In the latter case, as we must presuppose conventions and institutions in order to explain individual choice, conventions and institutions cannot be said to be mere conceptual constructions, but must be, like individuals, real constituents of the world. Thus as individuals are not the only real things that exist, there is no reason to think that groups of individuals are not real as well, and consequently no special reason for an individualist-reductionism.

An alternative conception of the microfoundations project aims at reducing macroeconomic relationships to accounts of rational optimizing behaviour not associated with the choices of particular individuals. Representative agent models assume that the choices of any number of diverse individuals in a single sector of the economy can be treated as the choices of one 'representative' rational optimizing agent. What proponents of this approach might be said to assume is that microeconomics has a better developed structure than macroeconomics, and thus on unity of science grounds we should strive to make the latter conform to the former (Janssen, 1993). Of course in the face of such difficulties as the Sonnenschein–Mantel–Debreu results it is hard to
believe that microeconomics either has a very well developed analytical structure or one obviously superior to macroeconomics. Moreover, it is hardly clear that the choices of representative agents coincide with aggregate choices of heterogeneous individuals (Kirman, 1992). And finally, the unity of science goal, while commendable in the abstract, may simply not apply to sub-disciplines of a subject that are fundamentally different in nature.

But more interesting for purposes of the discussion here is that proponents of this approach to microfoundations believe that rational optimizing behaviour need not be associated with actual individuals at all. Though the analysis was originally developed with actual individuals in mind, that the analysis can be used without reference to individuals suggests that it is not very closely tied to the task of characterizing real world individuals. In effect, then, rational optimizing could be said to not be a means of distinguishing actual individuals. This conclusion recalls the problem with individualist-reductionist microfoundational explanations. There the microfoundations project obscures the role of conventions and institutions that help to structure bargaining between individuals. In rational optimizing-reductionist explanations, on the other hand, whether conventions and institutions underlie rational optimizing is ultimately irrelevant, because that analysis need not even be about distinct individuals.

(iii) The two sorts of problems with the neoclassical conception of the individual described in (i) and (ii) above may be said to be associated with two different types of considerations involved in developing an adequate conception of individuals. In (i), the issue is how we account for the subjectivity or subjective side of individuals. The neoclassical strategy of tying this aspect of individuals to own preferences clearly represents an unsuccessful way of getting at individuals’ distinctiveness from one another. In (ii), the issue is how we account for the social embeddedness of individuals, or alternatively the issue is how we position individuals in social settings. This might be termed the objective side of individuals. Neoclassical theory was found wanting in this regard, in that its highly atomistic view of individuals either compels it to ignore individuals’ social context or treat choice as disembodied.

A post Keynesian conception of individuals consequently needs to explain both what distinguishes individuals from one another – individuals’ subjective side – and how individuals are positioned with respect to one another in social frameworks – individuals’ social embeddedness or objective side. Moreover, it needs to do this in an account of a non-ergodic world in which individuals operate within and upon conventions and institutions. In the following section we first look at two locations in *The General Theory* in which Keynes addressed each of the two sorts of considerations involved here, and then turn to analysis of one post Keynesian approach to explaining individuals.
KEYNES AND POST KEYNESIANS ON INDIVIDUALS

(i) Keynes devoted the generally overlooked, ninth chapter of The General Theory, 'The propensity of consume: II. The subjective factors', to discussion of the subjective side of individuals. That the chief focus of the chapter is those 'motives or objects of a subjective character which lead individuals to refrain from spending out of their incomes' (VII, p. 107; emphasis added) demonstrates that Keynes was not looking upon individuals only in their capacity as consumers. Rather, since he was on the whole concerned with whether the economy's lower consumption was made up by higher investment, he was interested in the full range of motivations involved in individual economic behaviour from the perspective of their possible impact upon the propensity to consume. Indeed, following the list of eight motives that lead individuals involved in consumption to refrain from spending Keynes then appended four 'motives largely analogous to, but not identical with, those actuating individuals' on the part of those in 'Central and Local Government ... Institutions and ... Business Corporations' to refrain from spending. The first eight motives are precaution, foresight, calculation, improvement, independence, enterprise, pride and avarice. The added four motives are enterprise, liquidity, improvement, and financial prudence (pp. 107-9). Besides compiling the list, Keynes briefly describes each motive. For example, improvement is characterized as the motive:

To enjoy a gradually increasing expenditure, since it gratifies a common instinct to look forward to a gradually improving standard of life rather than the contrary, even though the capacity for enjoyment may be diminishing.

Independence is characterized as the motive:

To enjoy a sense of independence and the power to do things, though without a clear idea or definite intention of specific action.

The four motives in the second list, in contrast, pertain directly to individuals' own appreciation or sense of the financial concerns of government and business in which they are employed.

One reason few readers of The General Theory have paid much attention to the book's ninth chapter is that what Keynes treats as objective factors determining the propensity to consume in the previous chapter are central to his 'fundamental psychological law' that individuals are disposed to increase their consumption as their income increases, but by not as much. Indeed in a comment upon how his subjective factors influence the propensity to consume, Keynes notes that, on account of slow change in society's organization, habits, capital, and distribution of wealth that form the 'main background' to
these subjective factors, attention can be focused upon ‘short-period changes in consumption [that] largely depend on changes in the rate at which income ... is being earned and not on changes in the propensity to consume out of a given income’ (pp. 109, 110). But of chief interest here is how Keynes understands individuals’ subjective side.

In contrast to the neoclassical conception, Keynes’s motives are not treated as tastes entirely specific to particular individuals – thus as necessarily own preferences – but as types of motivations all individuals possess that may be observed in different combinations in particular individuals. To signal as much Keynes capitalizes the name of each motive (‘Precaution ... Pride ... Extravagance’), as if to imply he is referring to widely observed character traits of individuals. The effect of this is to root the subjective side of individuals in the language of a highly familiar psychology, while yet particularizing individuals in terms of the specific combinations of motives they exercise. The circularity of the neoclassical account is avoided, because the language of motivation employed is not solely a matter of the isolated individual’s mental contents. Precaution, Pride, and so on represent psychological orientations tied to types of circumstances in which individuals may find themselves. This implies that individuals are distinct from one another not just according to the combinations of motives they exhibit, but also according to the particular social–historical settings they occupy in which these various motives are exhibited. Two layers of content additional to what is found in the neoclassical conception of the individual thus individuate Keynes’s economic actors: that they react in ways others may not according to the combination of motives they each exhibit, and that their doing so is occasioned by their own particular circumstances, where that includes the ‘main background’ to subjective motives in the form of social organization, habits, distribution of wealth, and so on.

(ii) Turning from the issue of individuals’ subjective side to the issue of their social embeddedness, or how individuals are positioned with respect to one another, we come to passages in The General Theory more familiar and more often quoted. In Chapter Thirteen Keynes explains uncertainty as to the future rate of interest as a foundation of liquidity preference. Recalling his Treatise on Money he notes that ‘different people’ – bulls and bears – ‘will estimate the prospects differently’ (p. 169), and:

the individual, who believes that future rates of interest will be above the rates assumed by the market, has reason for keeping actual liquid cash ... whilst the individual who differs from the market in the other direction will have a motive for borrowing money for short periods in order to purchase debts of longer term. (p. 170)

That is, explaining liquidity preference, an attitude towards the importance of holding money in an uncertain environment, requires that we understand how
individuals differentiate themselves with respect to others and the prevailing state of affairs, namely, market-determined interest rates. Relatedly, in the preceding twelfth chapter on investment and long-term expectation, Keynes states that speculators focus on the state of 'average expectation' (p. 151) regarding the worth of various investments, in order to figure out how to 'outwit the crowd' (p. 155), and do better than 'what average opinion believes average opinion to be' (p. 159). That is, individuals again position themselves with respect to established ways of seeing things, in order to mark out their own course of action.

In these passages and elsewhere in *The General Theory* Keynes addresses how individuals particularize themselves in institutional contexts. The contrast with neoclassical reductionist arguments is instructive. The latter aim to fully translate social–institutional economic settings into the choices of individuals, but either end up presupposing those settings (individualist-reductionism), or fail to account for the activity of individuals altogether (rational optimizing reductionism). Keynes's approach, on the other hand, situates individuals in conventional and institutional frameworks from the outset, and uses these frameworks to explain how individuals act differently from one another. This treatment of individual action as embodied in a social environment – rather than obscuring the place of individuals in the economic process, as might be claimed from a neoclassical perspective – serves to identify the specific impact and roles individuals have in concrete settings. It constitutes a non-reductionist form of explanation that acquires explanatory power by juxtaposing agents and institutions.

(iii) For Keynes, then, individuals both possess a subjective side that exhibits shared human traits, and operate in social settings that distinguish them from one another in terms of their separate courses of action. How do these aspects of his thinking about individuals play into our conception of the economy as non-ergodic? Davidson characterizes a non-ergodic economy as one in which human action may transform basic cause-and-effect relationships, yet one in which individuals operate within and upon conventions and institutions. Relatedly, Lawson, in discussing the relationship between human agency and social structure in an uncertain world, emphasizes that 'human agency and social structure each presuppose the other, although neither can be reduced to the other, or identified with, or explained completely in terms of, it' (1995, p. 83). For both Davidson and Lawson, it thus seems fair to say, individuals and institutions maintain a relative autonomy which is central to our accounting for their reciprocal effects on one other. My argument regarding Keynes's thinking about individuals is that he places a similar emphasis on the relative autonomy of individuals (and institutions) to explain uncertainty in the economy. In the balance of the discussion in this section, then, I elaborate further on what
relative autonomy implies, and how it operates in Keynes’s characterization of individuals.

To further explain relative autonomy, it is best to contrast it with a stronger type of relationship between individuals and institutions that one school of post Keynesianism has recently advocated, namely, organic connection. The characterization of Keynes as an organicist dates to Brown-Collier (1985) and has more recently been defended in a 1995 collection of papers on Keynes and uncertainty by Carabelli, Dow, Hillard, Rotheim and Winslow, with Hillard asserting that it is ‘now generally accepted among Post Keynesians that Keynes denied the atomistic ontology of classical economics and adopted an organicist mode of analysis’ (1995, p. 257). Clearly post Keynesians agree that Keynes did reject a classical atomist ontology of economic agents. The passages above and their discussion indicate as much. But did he believe that individuals and social structures were organically related – a philosophical conception associated with the turn of the century British neoHegelian idealist thought of Bradley, Bosanquet and McTaggart, which Keynes’s philosophical mentors Moore and Russell explicitly rejected? And is this proposition widely accepted among post Keynesians? Let us consider the nature of organicist thinking and its implications.

Organicism, or organic connection, is an ontological thesis concerning the nature of relations between things. Specifically, things are organically or internally related if their very natures depend upon or may be reduced to their relations to one another. More accurately, relations are real and exist, while the things they relate, their relata, are aspects of relations. In contrast, external relations exist between things if the latter are not reducible to their relations to other things. On this view, relations may be thought of as aspects of the things they relate, but they may also be thought of as real phenomena alongside real things, the latter sometimes distinguished as particulars (Strawson, 1959). A view sometimes taken for organicism is holism, a multi-level whole-part form of analysis that focuses on principles that apply only to the whole of some set of things, or are emergent at the level of the whole. However, holist arguments are typically not organicist, as the idea of principles emergent at the level of the whole, as for example when we say human thought is something over and above physico-chemical brain states, normally precludes our reducing talk about parts to talk about the whole, or that we translate our understanding of brain states into talk about human thought.

This difference between holist and organicist reasoning helps to isolate one of the chief characteristics of the latter. Like atomist reasoning, though in precisely the opposite sense, organicist views are reductionist. As things that are internally related to one another are only aspects of the relations that connect them, good organicist explanation is devoted to translating or reducing seemingly self-subsistent things into relata so as to explain the world as
pure relation. Just as atomism has it that only individuals exist, the doctrine of organismism is that only relations exist. In contrast, holist argument involves a multi-level form of explanation. That human thought inheres in brain states, but is at the same time so unlike them, helps account for thought as a distinct principle over and above the collection of brain states which support it. Human thought, that is, involves a distinctive principle of the whole, just because it is closely associated with and also fundamentally different from the physico-chemical processes which underlie it. Thus holist argument operates on two levels, neither of which is reducible to the other, and both of which are required to explain the phenomenon in question.

A good case can be made for saying that Keynes used this holistic form of reasoning in important ways in *The General Theory*. Consider the paradox of savings as a multi-level explanation. The force of the paradox derives from the fact that individual savings behaviour produces contrary movements in aggregate savings. Thus two different concepts of savings are juxtaposed in the analysis. Now organicists might claim that the proper meaning of savings is that associated with the aggregate savings-income relationship, and that the concept of individual savings is derivative and ultimately reducible in some way to the aggregate notion. This claim does have a certain plausibility to it, but only when we stress linguistic meanings and interpretation as the appropriate level of analysis. Keynes, however, was not interested in debates over the linguistic interpretation of savings. Rather he believed one could isolate a real mechanism operating in the economy whereby increases in individual savings produced decreases in aggregate savings. Moreover, the mechanism he modelled depended upon individual and aggregate savings being irreducibly distinct phenomena. His paradox had force, that is, just because individuals could really do one thing, and something else really happened in the aggregate.

A number of the proponents of the organicist interpretation of Keynes represent organic connection as interdependence. Interdependence between two things might be said to exist when each has effects on the other, which then change the behaviour of each, so that they then have different effects on one another, which then again changes the behaviour of each, and so on. If we expand this picture to $n$ number of things, it might be argued that the system of interdependent effects becomes so complicated that we may or must ignore detailed connections, and simply focus on a principle that describes the whole process. In effect, the parts reduce to the whole, because the parts have no real significance relative to the significance of the process of the whole. Interdependence on such a view collapses into organic relation.

This is a perfectly coherent and reasonable argument in regard to some processes. The question at hand, however, is whether Keynes employed it in *The General Theory*. Did Keynes regard all interdependent processes as
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collapsing into organic ones? Hillard (1995) argues that Keynes showed the flaws in classical economics when he demonstrated that investment and savings were (organically) interdependent via the latter’s dependence on income. Rotheim (1995) argues that Keynes’s entrepreneurs form expectations based on social factors rather than just information internal to the firm, and that this indicates the organically interdependent nature of the investment decision. But note that in both cases what Keynes does is give a better explanation of the mechanisms and the system of interdependence involved. Savings depend on income. Entrepreneurs attend to interdependence. In neither case does Keynes reduce or translate concepts pertaining to the economy’s parts into concepts pertaining to the economy as a whole. Rather he explains the economy as a whole specifically by exhibiting it as a particular system of interdependencies. This is a holist, not organicist, form of argument, and to call it the latter seems only to obscure the meaning of interdependence.

Returning, then, to the characterization of a non-ergodic economy offered by Davidson and Lawson as a process of reciprocal effects between agents and conventions, we need to ask whether this particular conception of interdependency ought to be taken as an example of organic connection. Clearly what bothers proponents of the organicist interpretation the most is the notion that the only alternative to their view is that Keynes held to a traditional atomist methodology (e.g. Carabelli, 1995, p. 141; Hillard, 1995, p. 257). Then, re-casting interdependence as organic connection, they conclude that individuals cannot be understood atomistically, because on the organic view things related are but aspects of the relations that involve them. But the premise of this argument – that without organic connection individuals must be conceived atomistically – is false, and not one entertained by Keynes.

As the discussion at the beginning of this section shows, in The General Theory Keynes not only used an understanding of individuals different from the one we find in neoclassical theory, but his conception has advantages over the neoclassical one in the way he frames individuals’ subjective side and in the way he accounts for their social embeddedness. Indeed these strategies permit him to avoid the problems neoclassical theory encounters in its view of individuals as atomistic agents. Essentially, on Keynes’s view individuals may be transformed in important respects according to change in the contexts in which they operate. On the neoclassical understanding, on the other hand, atomistic individuals are unchanging and uninfluenced in their basic nature by the contexts in which they operate.

This difference is significant for an understanding of the economy as non-ergodic. It means that we can analyse the historical evolution of the economy in terms of series of reciprocal effects that individuals and conventions/institutions have upon one another. In particular, policies aimed at conventions and institutions can be designed to change individuals’ interaction in
ways that improve social well-being. At the same time, that individuals have effects on the way conventions and institutions operate tells us that policy design always involves unintended consequences. Basically, then, our grasp of the economy as an evolutionary process depends upon our grasping that there are two distinct poles or levels involved in the economy: agency and structure. Saying that the economy is non-ergodic means we need to trace how these evolve together in terms of their mutual impacts upon one another. On the other hand, saying that individuals and conventions/institutions are organically connected removes from view the project of sorting out this system of reciprocal effects.

KEYNESIAN UNCERTAINTY: CONCLUDING REMARKS

The project of explaining the economy as non-ergodic places thinking about historical process in the foreground. But an historical process is susceptible of analysis even when uncertainty and animal spirits are regularly observed. The charge of nihilism advanced by Coddington (1982) only applies if we do not have methods for explaining the state of uncertainty and animal spirits at different historical junctures. Runde (1991) has shown that for Keynes the impact of uncertainty varies according to different decision-making contexts, and thus that uncertainty need not imply unstable beliefs. On the view here, we may begin to understand variation in decision-making contexts and the consequent state of uncertainty at different points in time in terms of the evolution of interaction between individuals and the economic structures within and upon which they operate. More attention on my part to Keynes’s thinking about expectations and the interaction between individuals and conventions appears in Davis (1994). Here attention is focused upon the nature of individuals as relatively autonomous agents on account of the importance of developing a post Keynesian analysis of agency.

Post Keynesians have emphasized the importance of conventions and institutions in the economy, but have given less attention to how to characterize the activity of individuals within this framework. Davidson’s treatment of uncertainty in ontological terms suggests a way to develop this analysis. A non-ergodic economy is one in which individuals possess a relative autonomy that is exhibited in the system of reciprocal effects individuals and conventions/institutions have upon one another. To trace such a system of reciprocal effects, both the influence of agents upon economic structure and the reverse need to be explained. This chapter draws on Keynes to identify elements of a theory of the nature of the individual for this purpose.
REFERENCES


