

## INTRODUCTION

# The Socio-economics of Institutions and Evolution

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Evolutionary economics has two different identities — negative and positive — though we may find them interrelated when we study them more deeply. What objections evolutionary economics has raised to orthodox Neo-classical economics determine its negative identities. More specifically, they are formed as counterarguments against two principles of Neo-classical economics: strong rationality of agency in the form of maximisation of any functions of utility or profit at the micro level, and the perfect coordination of aggregate demand and supply in all markets or the compatibility of strategies of agents in the form of various types of equilibria at the macro level. In the Neo-classical ‘micro foundation of macro economics’ perspective, pre-determined micro-level behaviors exclusively decide macro-level states. However, there are different alternatives to these two principles and the micro-macro relation. Behaviors of the agent with the various types of context-related/situated rationality or non-rational social preferences, as well as non-equilibrium or process-oriented coordination in various institutional contexts, can be considered from the viewpoint of evolutionary economics. Micro-level factors affect macro-level states, but the latter also affect the former. This is not a one-way but a two-way causal relation between micro and macro levels, which might be called the ‘micro-macro loop.’ In this regard, the opinions of the authors in this special issue are not exactly the same, but they all take the view of a two-way causal relation.

On the other hand, the positive identities of evolutionary economics are formed as answers to the questions when we ask its originalities distinct not only from Neo-classical economics but also from other heterodox economics. There are three fundamental questions to tackle: what institutions mean, what evolution means, and how

we can understand the evolution of institutions and socio-economies. To answer these questions, we need to review the concepts of institutions and evolution and their significance in light of not only economics or economic theory proper, but the history of economics, methodology and such other social sciences as philosophy, political science and sociology. And we should re-examine the relationship between the interactions of behaviors, the complementary interdependence of various institutions, and the evolution of institutional architectures in the collaboration with other evolutionary social sciences.

Tony Lawson, in his paper 'The Nature of Institutional Economics', raises concerns about Hodgson & Mayhew's view of the nature of the old institutionalism, and proposes his alternative conception of an institution based on the ontological framework developed in his books *Economics and Reality* (Routledge, 1997) and *Reorienting Economics* (Routledge, 2003). According to Hodgson & Mayhew individuals are not fixed, but are shaped by institutional and cultural situations via something referred to as 'reconstitutive downward causation.' And it is this feature, according to Hodgson & Mayhew, that distinguishes old institutionalism from new institutionalism associated with Neo-classicalism. Lawson criticizes their view because this feature is also accepted in the other modern heterodox traditions, including post-Keynesian, Feminist, Marxian and even Austrian economists. In setting out his alternative assessment Lawson develops several theses: 1) the heterodox traditions are to be distinguished from the mainstream according to ontological commitments (and not according to substantive or policy claims); specifically, unlike the mainstream the heterodox traditions all presuppose the ontological conception of openness, structure, process, and internal-relationality; 2) the separate heterodox traditions are distinguished from each other not on ontological, substantive or policy grounds, but according to individual concerns or questions of interest, and they are best conceived as divisions of labour within economics. In Lawson's view, old institutionalism is best viewed as a project concerned with the analysis of economic (especially evolutionary) change and stability. Though recognising that institutions have the capacity of 'reconstitutive downward causation', Lawson argues that what differentiates institutions from other social phenomena (most of which carry this potential) is that they (though always changing) are relatively enduring, and so are a major source of stability in social life. Lawson criticises the standard assessment in which Veblen defined an institution as "settled habits of thought common to the generality of men," and offers a counter-interpretation in order to justify his definition of an institution. He also shows that his alternative definition conforms to the one embedded in the Veblenian Dichotomy, the idea that social life or culture is essentially

decomposable into two aspects: technology as the source of change and institutions as the source of stability and continuity.

We can also see the new theoretical development of institutional and evolutionary economics among researchers who were engaged in the analysis of the institutional arrangements of post-war capitalism in both US and Europe in the 1980s and 90s. Above all, Samuel Bowles and Herbert Gintis develop their theoretical analysis of reciprocity and cooperative behavior on the basis of the micro-modelling in evolutionary social science. For example, Herbert Gintis published his advanced-level text book of game theory, *Game Theory Evolving: A Problem-Centered Introduction to Modeling Strategic Interaction* (Princeton University Press, 2000), and Samuel Bowles also published his inspiring book, *Microeconomics: Behavior, Institutions and Evolution*, (Princeton University Press, 2004). In these recent books, we can see the highly theoretical development of evolutionary social science with its deeper understanding of behavior and institutions, especially based on such analytical techniques as evolutionary game theory and agent-based models. In Europe, there is another remarkable development of institutional analysis, especially that in the *régulation* theory. Many inspiring books on institutions and evolution have been published in the research program. In particular, Robert Boyer published a book, *Une Théorie du Capitalisme Est-elle Possible?* (Odile Jacob, 2004), which analysed the diversity of capitalism and institutional change from the viewpoint of the *régulation* theory, empathising with ‘the macro-institutional foundations of micro behaviors’. In this context, “institutional complementarity” is one of the most important research topics in the various kinds of comparative institutional analysis in both Europe and Japan. In this special issue, we are fortunate to have two original papers written by those authors.

Samuel Bowles and Herbert Gintis, in their paper ‘Can Self-interest Explain Cooperation?’, introduce a theoretical discussion on conditions for cooperation. In particular, they examine a number of models of cooperation by self-interested, or ‘self-regarding’ individuals, that is, kin-based altruism, reciprocal altruism, indirect reciprocity, positive assortment, and show why the confidence of economists and biologists that these models can explain human cooperation is really misplaced. For example, reciprocal altruism, which is sometimes expressed by repeated game theory, does not provide a plausible account of cooperation in larger groups. Indirect reciprocity, with entirely self-regarding preferences, can support evolutionary stable cooperative outcomes only with very stringent informational requirements. In the model of positive assortment with its deliberate choices of association with others, it is sometime assumed,

quite implausibly, that one could refuse to associate with another member of one's group at no cost to oneself. Therefore, the authors argue that many forms of cooperation can be sustained not by self-interest, but by social preferences, including a concern for the well-being of others and a willingness to punish others who violate social norms even when this is costly to oneself, and emphasise that both punishment of those who transgress norms and the willingness to incur costs to associate preferentially with members of one's own group depend critically on 'other-regarding preferences'.

Robert Boyer, in his paper 'Coherence, Diversity and the Evolution of Capitalisms: The Institutional Complementarity Hypothesis', analyses the forces that make relatively and transitorily coherent the institutional configuration of capitalism, based on the recent development of the *régulation* theory. In particular, in response to the literature on the variety of capitalism approach (VOC), the author investigates the relative explanatory power of various hypotheses: institutional complementarity, institutional hierarchy, co-evolution, compatibility and isomorphism. Complementarity is one of the main forces that stick institutional forms one with another and produce the significant varieties of capitalism. Nevertheless, the institutional complementarity hypothesis is not sufficient to bridge the gap between micro and macro analysis of institutions. The notions of isomorphism and institutional hierarchy provide some cohesive factors between firms, organisational configuration and the overall institutional architecture. Uncertainty and the existence of some slack in the coupling of various institutions are key features that call for the mixing of various methodologies to detect institutional complementarities. Furthermore, both hybridization and endometabolism are driving forces in the transformation of institutional configurations. Therefore, the author argues that together with a comparative analysis of institutional change, the institutional complementarity hypothesis opens a promising program that could help in understanding the diversities and evolution of capitalisms.

Related to our interests of this special issue, we introduce two other interesting papers submitted to our journal. Carlos M. Parra, in his paper 'Rules and Knowledge', adopts Dopfer's view of 'economic evolution as a growth of knowledge process,' and examines the functionality of the concepts of rules and knowledge using an evolutionary neuro-phenomenological perspective coupled with Peircian semiotics and Sen's capabilities approaches. He focuses on the inherent unpredictability of rule and knowledge creation in order to show the need for a methodological shift, and proposes a merger of evolutionary economics and welfare approach in terms of human development and knowledge growth.

Bernard Lietaer and Stefan Brunnhuber, in their paper 'Economics as an Evolutionary System,' explains that consciousness changes occur in a sequence of pre-modern, modern, and post-modern that are clearly identifiable by emotional/cognitive characteristics, behavior patterns and interactions with nature and community, and that evolution of economic systems and money as its key organizing institution is observed in the same sequence. They thus insist on a two-way causal relation between an economic system with money and human psychology and behavior, and show that the possibility of the emergence of such post-modern currencies as electronic, barter and complementary currencies can affect the time horizon of investment and the behavioral pattern of people, which will result in transforming '*Homo Economicus*' into '*Homo Universalis*.'

These two papers challenge the conventional methodology of economics in order to establish a new framework of human knowledge and psychology, and seek to present practical/policy implications of evolutionary and institutional socio-economics, which will clarify the positive identities of evolutionary economics.

We believe that all the contributions in this special issue are so fruitful and valuable as to make our understanding of institutions and evolution of socio-economies deeper and wider than ever before. But there still remain a number of such open questions as how two-way causality between micro-level behaviors and macro-level dynamics in a particular institutional context can be analysed in collaboration with cognitive and behavioural sciences and how the factors that determine institutional change can be analysed from the broader perspective of evolutionary social science. There may still be a long way to go before we can construct a fully-fledged theory of evolutionary and institutional socio-economics in line with what we proposed at the beginning. It is vital for evolutionary economics to continue to identify not only its negative but also its positive aspects.