Institutions Meet Mind: The Way out of an Impasse

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Abstract. The crucial importance of institutional analysis in economics and the social sciences in general is well understood. Yet, institutional economists have only a limited understanding of individual behavior in institutional settings, the emergence and spread of innovative behavior, and of how individual behavior influences the creation of norms, and vice versa. This paper elaborates on the work of Douglas North, who emphasized the importance of the connection between the evolution of the mind and the evolution of institutions, and highlights the need to investigate the cognitive mechanisms of individuals. We focus, therefore, on the field of modern cognitive science and discuss some of its findings. This approach should be given priority in the development of institutional analysis. Research results in the cognitive sciences, and in particular cognitivism and connectionism, are of vital interest here. In this context, the work of the Austrian school, especially Hayek’s *The Sensory Order*, is extremely relevant and seems to foreshadow future developments. It thus deserves reappraisal.

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1. Introduction

In recent years the institutional tradition has been taken up again by various theoretical approaches, not only in economics but also in the political science, and the social sciences in general. Scholars and experts from such wide-ranging fields and disciplines as economics, law, organizational studies, and political science have found a common ground of discourse in the analysis of transaction costs, contractual forms, the rules of politics, institutional forms, laws, but also in the study of the role of culture, of beliefs and values. In short, there is a new awareness that both formal and informal institutions affect the development of markets and society, and that those institutions must be studied scientifically, using the full range of analytical tools made available by the various disciplines.

The objective of institutional analysis is to develop the knowledge of institutional arrangements at various levels: at the macro-level of the institutional environment (the rules of the game) as well as at the micro-level, that of the mechanisms governing transactions. Basic questions regarding the emergence of systems of rules, their evolution, the possibility of changing them, the interaction between rules, and between rules and players need to be answered. The question ‘How do individuals behave?’ has only very summarily been answered by the new institutional economics (NIE), since it tends to consider only a few behavioral assumptions about players and their motivations. In particular, it assumes limited rationality and opportunist behavior (Williamson, 1996), making it possible to describe action as taking place in a complex yet static framework of rules, and allowing to disregard the nature, genesis, and evolution of institutional behavior. A paradigmatic change in the
new institutional research program is needed, beginning with the description and understanding of nature and the working properties of the rules that govern the mind, and their feedback relation with institutions and organizations. Our initial hypothesis is that there exists a feedback relationship between the mental processes that govern choice mechanisms and institutions. North (1994:348) explicitly points to the link between mental processes and the nature and the role of institutions:

The relationship between mental models and institutions is an intimate one. Mental models are the internal representations that individual cognitive systems create to interpret the environment; institutions are the external (to the mind) mechanisms individuals create to structure and order the environment (North, 1994:348).

The issues that are raised by this claim shall be discussed in section 2 of this article.

The study of the evolution of the mind is closely linked to an understanding of human learning processes—a highly controversial subject in the literature. On the one hand, economists are at long last showing a growing awareness of the central role of learning processes in understanding economic affairs and the evolution of institutions, on the other hand, many relevant theoretical debates about mental processes in psychology, neurobiology, and artificial intelligence—not to mention philosophy—are barely taken into account in the economics literature. Yet, these debates are of crucial importance, and shall be explored in some detail in section 3. The approach suggested by North (and partly also by Williamson) is based on the findings in cognitive science (cf. Herbert Simon and his approach). However, other approaches must be considered as well, especially connectionism, whose analytical focus is the interaction processes between the micro (cerebral) level and the macro (socio-institutional) level.

There is thus a need to examine research that deals with learning processes and the way in which they affect and define the production of knowledge at the individual and the social level. Here the Austrian school and particularly Friedrich Hayek’s contribution to the understanding of the mind-institutions nexus is relevant and shall be discussed in section 4. Hayek acknowledges the key importance of cognition in economic behavior and claims that economic theory must necessarily involve an explanation of how individuals acquire and use knowledge. He highlights the twofold nature of knowledge with its idiosyncratic personal dimension and social and cultural dimension (Hayek, 1937, 1942, and 1945). Hayek thus explicitly points to the mind-institution link, adopting a mental model that is close to the connectionist approach (Dempsey, 1996). From this point of view, institutions serve the individuals’ cognitive capacity which develops in interaction with the institutions, determines their nature and genesis, and their path-dependent character.

We summarize and conclude this paper (section 5) by pointing out the necessity of further improving our understanding of the mind-institutions nexus. Only by focusing more closely on the behavioral foundations and by working in stronger connection with modern cognitive science—we argue—will it be possible to get out of the impasse in which institutional economics finds itself when tackling the problem of institutional change and reform.