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FROM NEURO-HAYEKIANS TO SUBJECTIVIST HAYEKIANS: A REPLY TO HORWITZ AND KOPPL

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ABSTRACT

Purpose – To recognize the comments made by Horwitz (2010) and Koppl (2010) in their attempts to reply to D'Amico and Boettke (forthcoming), "Making Sense out of The Sensory Order." Furthermore, this paper hopes to explain what role D'Amico and Boettke do see for cognitive neuroscience in the study of Austrian economics.

Methodology/approach – Some brief summary comments are presented about Horwitz (2010) and Koppl (2010). Then a general framework of individual learning and its effects upon social institutions and economic processes is described by referring to Cowan and Rizzo (1996) and Denzau and North (1994).

Findings – Hayek was a political economist first and foremost. Whatever the status of his research in theoretical psychology attains, it does not change the fact that we as economists would do well (especially young economists) to focus on his substantive contributions to economics and political economy.

Research limitations/implications – Though space and time constraints did not afford this at present, further research would benefit from an

The Social Science of Hayek's 'The Sensory Order'

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intensive survey of the empirical findings available in the neuroscience and neuroeconomics literatures. How do such findings map onto the proposed frameworks of Hayekian economics provided by Koppl compared to D'Amico and Boettke.

Originality/value of paper – *This paper takes notice of the historical linkage between Cowan and Rizzo's (1996) cognitive model of individual learning within the broader tradition of subjectivist/Hayekian/Austrian economics.*

Rather than specifically responding to all the points made by Horwitz (2010) and Koppl (2010) in their replies to our critique of Neuro-Hayekianism, we would rather take advantage of this opportunity to make explicit what role we *do* see for neuroscience and cognitive psychology in pursuing Austrian economics. While this may seem like evasion on our part, we feel justified in our original endeavor – commenting on how Hayek's *The Sensory Order* should be interpreted by Austrian economists – if only because our original essay succeeded in generating oppositional perspectives from Horwitz and Koppl themselves. Secondly, we feel justified in this follow up to explain our vision as to the role of neuroscience in Austrian economics because we hope to inspire (if only mildly) a forward momentum for understanding the links between cognition and Austrian economics. We are not critics of neuro and cognitive sciences, let alone efforts to learn from these disciplines for the purposes of improving our understanding of human choice and social interaction. Boettke, for example, is one of the editors of *Cambridge Studies in Economics, Cognition and Society* (along with Timur Kuran) and has attempted to relate the work on philosophy of mind to the underlying philosophy of the market found in Hayek (Boettke & Subrick, 2002). What we are trying to emphasize is that Hayek was a political economist first and foremost, and that whatever the status of his research in theoretical psychology attains, it does not change the fact that we as economists would do well (especially young economists) to focus on his substantive contributions to economics and political economy. We deny that *The Sensory Order* is the key to unlocking Hayek's contributions; we do not deny that *The Sensory Order* is a compelling work, and important for Hayek's development.

Now we will proceed to explain particularly what we see as the role of neuroscience and cognitive psychology in advancing Austrian economics. Rather than create an entirely original framework to explain the processes

of perception – we admit to the benefits of a division of labor – all we hope to do is point to those conceptual frameworks that we see as being most compatible with the Austrian research program pursued by Hayek. Conveniently enough, these selections are also particularly attuned to the functional properties of spontaneous orders. More specifically, they fit within a body of research that pays particular attention to the role of subjectivism in generating spontaneous orders. Cowan and Rizzo's (1996) "The Genetic-Causal Tradition and Modern Economic Theory," and Denzau and North's (1994) "Shared Mental Models: Ideologies and Institutions," well explain cognitive and perceptual learning processes at the individual and social levels.

Biographer Bruce Caldwell (2004) has explained Hayek's research project as a rejection of, and a progression away from, physiological theories of economics – where values, actions, exchange rates, and economic growth were explained by referencing the physical and objective qualities of capital resources and individual's skill sets. Hayek's work emphasized human choosers who are sometimes smart, other times dull, most often bumbling and erring. Yet his work also emphasized the institutions within which choice and exchange takes place and it is the institutional environment that either directs behavior in a direction to realize the mutual gains from cooperation, or steers human actors into situations mired in conflict and frustration. Hayekian scholars have fleshed out a variety of implications stemming from this emphasis on the subjective and humane foundations to the patterns of economic and social phenomena. This list certainly does not need to be repeated for scholars like Koppl and Horwitz as they are, no doubt, thoroughly familiar with its insights. The following comments are offered for the interested reader and to make a minor point about history of thought.

Lachmann (1956) applied the notion of radical subjectivism and recognized the heterogeneous and particularistic qualities of the capital structure. Physiological goods and services throughout the economy take on the shapes and distributive patterns that they do because they are continuously being *purposefully* reshaped according to the tastes and preferences of sovereign consumers. Capital goods are interchangeable with one another to the extent that they are acceptable substitutes from the subjective perspectives of human agents attempting to accomplish specific plans and expectations. O'Driscoll and Rizzo (1985) offer a framework for rational decision making. Theirs is a contextual environment that relaxes the unrealistic assumptions of perfect information and instantaneous choice often found in neoclassical models. Instead, they favor more realistic presumptions of individual ignorance and the passage of time. For example,

individuals cannot be expected to quantify probability estimates for events if they are completely ignorant that the event has any possibility of occurring. Much like an American colonialist in the late 1700s was ignorant that physical resources could be arranged in such a way to produce cellular telephone technologies, individuals in everyday economic affairs do not know what they do not know (Boettke, 2002). Perhaps most significantly, Kirzner (1973) emphasizes the nonphysiological when he distinguished between the role of owning capital resources and the purely knowledge driven and discovery role of the entrepreneur. We argue that Cowan and Rizzo (1996) should be recognized as a useful and accurate extension of this Austrian/Hayekian research project, hence they write “[p]urposive behavior, then is behavior caused by *desires and beliefs*, and economics is about the individual and social implications of such behavior” (p. 3, italics are ours).

Cowan and Rizzo explain human decision making as an evolutionary process. Agents in their model learn over time, but rather than characterizing this as a neural process, Cowan and Rizzo emphasize the inevitable accumulation of information *ex post action*. With the benefit of more information, cause and effect relationships are easier for individuals to recognize. Denzau and North (1994) similarly avoid discussing the neurological component of learning. Instead, they focus upon the similarities and differences of beliefs across groups. It is no surprise to admit that different people in different times and places view the world differently. While this may relate to certain neurological differences across these groups the causations versus correlations between the two remains ambiguous. For the purposes of economics – understanding the patterns of exchange, production, and distribution throughout society – the physiological processes of neurocognition are not essential. Economists begin by making simplifying presumptions as to the meaning, intentionality and beliefs that motivate human actions. This methodological practice leads to understanding the division of labor and the spontaneous emergence of functional social institutions.

While we admit that cognitive science can contribute to understanding these social processes, we do not think that neurological processes are the driving force behind the bulk of human cooperation. In fact, we are inclined to believe the opposite. To repeat, though Hayek offered an explanation for cognitive learning in *The Sensory Order*, the remainder of his research in political economy was particularly unique and successful because he operated under the presumption that his agents were ill informed, ignorant, and erring. Institutions function where human perceptions fail. They have been recognized to proxy for trust, reputation, risk, uncertainty, etc. It is perhaps important to note that in Hayek’s philosophical anthropology,

we have reason because we followed rules, not that we used our reason to design the appropriate rules. Hayek's (1945) major contribution is worth repeating here, economic knowledge conveyed through social institutions, such as market prices, is more crucial to maintaining an advanced system of exchange and production than is the accurate digestions of stimuli by any individual human mind. This is what we have wanted to say in a nutshell for good or bad. Hayek was a political economist who had a fascination with the workings of the human mind, not a neuroscientist who had an interest in the economy and public policy. For the vast majority of work-a-day economists and political economists who want to use Hayek's ideas in developing their own arguments in economics, politics, and history, it would be more productive to place relatively more weight on his contributions to those areas of research than to his efforts in philosophical/theoretical psychology (however, profound and important they may be).

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