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SYMPOSIUM ON KNOWLEDGE AND INFORMATION IN ECONOMICS

Information, the Tip of the Tacit Iceberg

BRUCE CALDWELL*

“IS THERE A DIFFERENCE BETWEEN KNOWLEDGE AND information?” is the question that participants in this symposium were asked to address. I come to the question as an historian of economic thought who has studied the Austrian tradition, and in particular the contributions of F.A. Hayek, who is remembered among information theorists for his early writings on “the knowledge problem.” An analysis of his work may be helpful in grappling with the question of this symposium. In an earlier paper I looked at differing interpretations of the socialist calculation debate and the current prospects for market socialism, and linked to issues of information and knowledge (Caldwell 1997). My remarks here draw in part on that paper.

In recent years, in works by Bardhan and Roemer, (1993), Stiglitz (1994), Roemer (1995) and others, a new stylized history of the socialist calculation debate that highlights the contributions of the economics of information has emerged. According to this account, the original debate between market advocates like Mises, Hayek, and Robbins on the one hand, and market socialists like Lange and Lerner on the other, ended in a draw. Mises’ “impossibility arguments” regarding rational calculation under socialism were rejected as unproven, and Lange’s proposal of a “trial and error” method that would mimic the workings of a market was taken to mean that socialism was indeed possible, with its feasibility deemed to be an empirical matter. Renewed interest in the debate was sparked by the poor

* Department of Economics, University of North Carolina, Greensboro.

performance of post-war communist regimes, the details of which suggested that the chief problems they faced had to do with information asymmetries and related incentive problems. In the new account the Paretian general equilibrium model (or its more recent counterpart, the Arrow-Debreu model) became the villain because of its implication that a purely competitive system will yield efficient outcomes, albeit once a stringent set of marginal conditions is met. Because both the early proponents of market socialism and their market oriented critics supposedly relied on the full information general equilibrium framework, both were misled about the viability of their favored systems. The economics of information provides a powerful set of tools for identifying and analyzing the problems of both socialist and market economies and therefore greatly improves on the older models. In this very Whiggish account, information theory revealed the key issues in the debate.

The account acknowledges Hayek for the early work on how a competitive price system is a mechanism for low-cost aggregation and transmittal of information. Later theorists formalized these insights, but as the economics of information developed it became clear that Hayek (like his opponents) failed to grasp a second problem, that of opportunistic behavior in situations of asymmetric information. Though he talked about “knowledge,” Hayek failed to see the importance of incentives, and of the necessity of developing mechanisms to overcome the problems associated with asymmetric information. He was thus unable to move the field forward.

In my 1997 paper I challenge this reading. The Austrians actually did write about incentives, but they did not develop their ideas systematically because, in the 1930s and 1940s, the question of “motivation” was thought to be one of psychology, or even of ethics, but not of economics. In writing about “knowledge,” Hayek was thus thinking about something different from what later economists were when they wrote about “information.”

What are some of the differences? For Hayek, knowledge is dispersed, as later mechanism design theorists picked up on. But some knowledge, especially that which inheres in the day to day experience over time among participants in the specific situations that constitute markets is also tacit. By definition, tacit knowledge is not directly communicable. Theories that treat information as contained in little packets that can be “elicited” once the appropriate mechanism is “designed” misunderstand the fundamental fact that no mechanism can elicit tacit knowledge. Yet tacit knowledge is important—it affects and guides the decisions of millions of entrepreneurs and ultimately gets reflected in the prices and options that

emerge in a free enterprise system. In systems lacking these characteristics, much of this knowledge gets lost. One may still have markets, but their ability to absorb, reflect, dig up, and use knowledge is inferior.

Tacit knowledge resides in the practices and experiences of people living their lives. It is out of this untold realm of living knowledge that particular articulate schemes of understanding emerge, schemes within which one may speak of having or not having this or that bit of information. Recognition of tacit knowledge reminds us, then, that any such scheme or interpretation is but one way of thinking of things. It reminds us that new and better knowledge is as much about new and better interpretations as about adding informational bits within the interpretation that is customary (or, formally, “common knowledge”).

Information theorists focus on how prices “convey information.” Though Hayek considered this role important, he was concerned additionally with the creation, discovery, and conservation of knowledge. Furthermore, the Austrian notion of “discovery” is quite different from the economist’s idea of “search.” An information economist like Joseph Stiglitz (1994, 8) can ask: Are “the expenditures on information acquisition too little, too much, or just right?” To answer this question, one must be able to compare the expected costs of additional search against expected benefits. Contrast this with Israel Kirzner’s characterization of entrepreneurial discovery: “For the Austrian approach imperfect information is seen as involving an element which cannot be fitted at all into neoclassical models, that of “sheer” (i.e., unknown) ignorance. ...the discovery which reduces sheer ignorance is necessarily accompanied by the element of *surprise*” (Kirzner 1997, 62). Here, Kirzner means the dawning of a new interpretation. Brian Loasby provides a humorous example of the difference between search and discovery when he notes that “requiring applicants for research funds to specify the outcomes marks the triumph of auditing over innovation” (Loasby 2004, 126).

Concern with knowledge questions led Hayek and many “Hayekians” away from theoretical questions of optimal mechanism design and towards the examination of how various real world social institutions facilitate the use of knowledge. (I suspect that this is the main reason why advocates of a New Institutional Economics find his work so congenial.) Hayek believed that certain social institutions, namely a system of free markets protected by a strong constitution that upholds the rule of law, a system with well-established, enforced, and transferable property rights, offered the best hope for the discovery, coordination, preservation, and use of knowledge.

Hayek also recognized that the conscious construction or imposition of social institutions was fraught with dangers. Social institutions are themselves the product of a long process of evolutionary development; they are examples of complex adaptive orders. They have histories and perform functions that are often not well-understood by outside observers, or, for that matter, by those who participate in them. Attempts to alter such institutions may generate unintended and unwelcome consequences. Hayek and the Austrians tend to be much less optimistic about what social architects can accomplish with their tools, and more impressed by what spontaneous social orders have been able to accomplish.

The Austrian emphasis on entrepreneurial alertness may also reveal a difference between information and knowledge. For Austrians, the ability to make use of knowledge varies over individuals. Alert entrepreneurs are able to profit from their assiduousness. Within certain institutional/organizational frameworks this promotes innovation and better uses of resources; within others it reduces coordination and provides a basis for opportunism and depredation. Common knowledge assumptions typically ignore the possibility of differential ability to use knowledge.

It may well be that more recent developments in the economics of information have some promise for closing whatever gap might exist between the concepts of “information” and “knowledge.” If Hayek was right, though, in the end we may conclude that economists can do much less than we hope to be able to do. This is sobering news, but perceiving the limits of our knowledge is itself an addition to knowledge, and one that may help us avoid repeating the hubristic mistakes that were made in less sober eras.

REFERENCES

- Bardhan, Pranab and Roemer, John, eds.** 1993. *Market Socialism*. New York and Oxford: Oxford University Press.
- Caldwell, Bruce.** 1997. Hayek and Socialism. *Journal of Economic Literature*, 35(4): 1856-90.
- Kirzner, Israel.** 1997. Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach. *Journal of Economic Literature*, 35(1): 60-85.

- Loasby, Brian.** 2004. Hayek's Theory of the Mind. *Advances in Austrian Economics: Evolutionary Psychology and Economic Theory*, 7: 101-34.
- Roemer, John.** 1995. An Anti-Hayek Manifesto. *New Left Review*. May-June: 112-29.
- Stiglitz, Joseph.** 1994. *Whither Socialism?* Cambridge, MA and London: MIT Press.

ABOUT THE AUTHOR