SYMPOSIUM ON INFORMATION AND KNOWLEDGE IN ECONOMICS

Why Distinguish Between Information and Knowledge?

LELAND B. YEAGER*

This note may seem, oddly, to discuss a distinction judged not worth discussing. I am responding, however, to the invitation to take part in a symposium on the topic. The symposium-prompting materials suggest a defect found in much of the literature. It is useful to classify types of error—and, I'll add, unsatisfactory styles of argument—so that each may be readily recognized when encountered. I wonder, though, whether the error under discussion here is best described as confusion between the meanings of two words.

“Knowledge” and “information” are ordinary English words, not primarily technical terms. For clear thinking and communication, therefore, economists should use them as nearly as possible in their ordinary senses. A distinction—if and when intended—should conform to ordinary usage as reported in dictionaries unless an exception is necessary and is clearly explained.

The American Heritage Dictionary of the English Language (3d ed., 1992, s.v. “knowledge”) says that of several synonyms, “Knowledge is the broadest: it includes facts and ideas, understanding, and the totality of what is known. . . . Information is usually construed as being narrower in scope than knowledge; it often implies a collection of facts and data . . . .” The same dictionary’s first edition (1969) says that knowledge includes both empirical

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* Ludwig von Mises Distinguished Professor Emeritus of Economics at Auburn University.
material and the results of inference or interpretation, while *information* often implies a random collection of material rather than orderly synthesis.

The *Random House Dictionary of the English Language* (2d ed., unabridged, 1987, s.v. “information”) says: “INFORMATION applies to facts told, read, or communicated that may be unorganized and even unrelated . . . . KNOWLEDGE is an organized body of information, or the comprehension and understanding consequent on having acquired and organized a body of facts . . . .”

Several other languages make roughly the same distinction as English does. Sharpened up a bit, it is reported facts versus the results of systematically integrating what one has learned or experienced. Information is prerequisite to knowledge, which is its integration or systematization.

After a long paragraph containing miscellaneous economic statistics, financier Bruce Bent (2003) continues: “All of these are true statements, lifted verbatim from major national periodicals, and all refer to the period ending September 2003. The significance of all these numbers is probably best gauged by the stories they generate that proffer totally contradictory conclusions using exactly the same data.” Bent’s point, translated into the language of our symposium, seems to be that information pertaining to the state of the economy does not necessarily add up to knowledge or understanding.

The compendium of quotations for the Symposium has reminded me of Donald Wittman’s 1989 article and 1995 book on democracy, which fail to make the distinction where it is essential. Wittman’s point is that voters are not as ignorant (“rationally ignorant”) as is commonly suggested in the public-choice literature; for they are constantly exposed, even without effort on their part, to all sorts of facts and figures and arguments pertaining to policies, proposals, and candidates. Yes; but miscellaneous bits of information, casually acquired and mis-acquired, do not add up to knowledge, or, better expressed, surely do not add up to understanding. They are not enough to support Wittman’s contention about the efficiency of democracy. Wittman appears to be taking the smart-alecky George Stigler/Earl Thompson line that whatever exists must be efficient; for if it could have been advantageously and cost-effectively replaced, it already would have been. The proper reply is to point out his specific error, not to embark on a general disquisition about information and knowledge.

Bruce Caldwell is one economist who seems at first glance to distinguish explicitly between the two words: “economists working in information theory have not always adequately understood the nature of the Austrian contribution. One common source of misunderstanding is the
assumption that knowledge is the same thing as information. Indeed, the Austrian description of market participants as purposeful but fallible agents whose decisions reflect their subjective beliefs concerning market conditions, beliefs that are based on local and often tacitly held knowledge, has little in common with the agents hypothesized in standard economic models” (2004, 338).

If Caldwell means to distinguish the meanings of the two words, he appears to reverse the dictionaries’ distinction. Evidently, however, his point is different. He distinguishes between Austrian and mainstream assumptions (or observations) about what it is of which market participants have information or knowledge (whichever word one might care to use). He does not, after all, distinguish between the two mere words.

Caldwell seems to allude to what I take to be the main point behind the symposium. In too many neoclassical models the actors are assumed to possess common knowledge at least of the structure of the economy and of economic principles. In some models they are assumed to share even more specific knowledge, as of relevant parameters or at least of their probability distributions. Such models and assumptions trivialize solving the economic problem into making an engineering-style calculation of a maximum. James Buchanan, for one, has made such a diagnosis. Actually, a large part of the economic problem, beyond the overriding fact of scarcity, is that of using temporary, local, scattered, incomplete, in part contradictory, and in part unarticulated and even unarticulable knowledge (or information or whatever one wants to call it), as well as expectations, and coordinating decisions and actions taken on that basis. F. A. Hayek and later Austrians have insisted on this crucial point.

In some contexts, one word does seem more appropriate or idiomatic than the other. Interested in how the vote count is going in California, I might ask for the latest information or, more probably, for the latest numbers, but hardly for the latest knowledge. If one were writing about the “economics of information”—which expression does seem to have become entrenched—it might seem slightly odd to write “knowledge” instead.

In many contexts no contrast is intended, and the choice between the two words hardly matters. Asked what I know of Jones’s recent activities, I might reply either that I have no knowledge of them or that I have no information about them—or simply that I don’t know. When Hayek wrote about “The Use of Knowledge in Society” and “knowledge of the particular circumstances of time and place”, it would not have sounded stylistically strange to use the word “information” instead in those
expressions. Frequent citation of his 1945 article, however, probably does make his choice of words now sound slightly more natural. Strictly speaking, “information” might even have been the more exact word; for the bits and pieces of local and temporary facts, figures, techniques, unarticulated know-how, and clues underpinning hunches that are put to use in myriads of decentralized decisions coordinated through the price system are nowhere deliberately integrated and systematized. Nor need nor could they be; that is the point of his article.

Throughout, Hayek appears to use “information” and “knowledge” interchangeably, and without causing confusion. Considerations of style or rhythm may have affected the word chosen in each passage. Not those words in isolation but the sentences and paragraphs in which they occur make Hayek’s meaning clear. One might object to citing his article as an example on the grounds that much has occurred in information theory in the sixty years since he wrote. Yes, but the article remains both a landmark and a compendium of passages in which the knowledge/information distinction is not crucial.

Karl Popper rightly condemned essentialism, interpreted as the attempt to gain knowledge (one would hardly say “information”) by brooding over words and what they label (1982, 18-31). As Jeremy Bentham said, meaning lies in sentences, in propositions, not in isolated words. It is a mistake to suppose that sentences are compounded out of words that simply label independent elements of reality. It is false that whenever a word has a meaning, some existent thing must be related to it in some simple uniform way appropriate to simple atoms of language. We clarify the notion of “right” or “duty”, for example, by focusing not on the single word but on typical sentences employing it, such as “X has a duty to pay Y £100.” Bentham’s was the method that twentieth-century logicians call “definition in use” (Hart 1982, 10 and 43; Hart 1983, 26 and 272, discussing Bentham’s “Essay on Language”).

A related kind of essentialist error is to pack considerations into the definition of a word so as, apparently, to enhance the nobility of the concept labeled. Lord Acton is quoted on the fund-raising envelope of the Acton Institute for the Study of Religion and Liberty as writing: “Liberty is not the power of doing what we like, but the right of being able to do what we ought.” Thus from the celebrated historian of liberty! (Attempts are sometimes made—to no good effect, as far as I can tell—to distinguish between “liberty” and “freedom”. Choice between those words is usually just a matter of style.) Democracy is often conceived of not merely as a particular method of choosing, replacing, and influencing government
officials but as also embracing all sorts of good things, some in tension with others, like liberty, equality, fraternity, rights, majority rule, general welfare, and easy social relations among people of different backgrounds and classes. True, definitions of words are not naturally graven in stone, of course; but writers should beware of clouding thought and communication by blanketing distinct concepts under a single label.

An economist may sometimes go astray by what might be interpreted as confusing information and knowledge, as Wittman apparently did. His error was worse than merely a poor choice of words. In such a case the remedy is to point out the specific error. Beyond this, I agree with Karl Popper that brooding over words out of context—brooding over the essence of what a word stands for—is an activity ranging from futile to depraved. “[T]he quest for precision, in words or concepts or meanings, is a wild goose chase” (Popper 1982, 28).

REFERENCES


**ABOUT THE AUTOR**

Leland B. Yeager, professor emeritus of economics at both the University of Virginia and Auburn University, has specialized in international economics, monetary theory, and political economy. His most recent book is *Ethics as Social Science* (Elgar, 2001).