

SYMPOSIUM ON INFORMATION AND KNOWLEDGE IN ECONOMICS

Information-Knowledge and Action-Knowledge

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THE DISTINCTION BETWEEN INFORMATION AND KNOWLEDGE, as these words are commonly used, is fairly clear and quite important. We wish to point out, however, that the importance of this distinction becomes very substantially greater when we understand it as pointing to a different distinction—that between two levels of knowledge itself. The purpose of this note is to develop this insight and remark on whether modern economics accommodates these matters.

INFORMATION AND KNOWLEDGE

Imagine a professor employed at an urban university visiting a university in the suburbs to participate in a seminar. He travels by train, the trip taking about an hour. From the suburban train station it is a short walk to the host university campus. After the conclusion of the seminar, our visiting professor tries to converse with old acquaintances at the host university until he realizes that, unless he leaves immediately for the train station, he is likely to miss the 3:30 train, the next train being 30 minutes hence. The prospect of missing the train spurs him to take leave of his old

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colleagues and to head for the station. In his pocket he has a detailed set of instructions telling how to get to the train station from the host campus. However, our professor does not consult these instructions, feeling sure that he knows the way to the station—after all, it is only a few hours since he walked successfully *from* the station to campus. Unfortunately this conviction of his is not quite valid, and he takes a wrong turn, walking for several minutes in a wrong direction. By the time he discovers his mistake, and finds his way to the station, he has missed the 3:30 train. Frustrated, he has no choice but to take out his reading materials and recline the best he can on the benches at the train station until the next train to town. He realizes that this cost is due to his not having known the way to the station; his possession of the information (in the form of the set of instructions in his pocket) was not sufficient to avoid this cost.

Our professor may or may not regret his failure to consult his instructions. He *may* be regretful, in the sense that he may, in retrospect, value making the 3:30 train as being worth the disutility and inconvenience of having to stop, open his coat, extract and read the instructions. Or, he may *not* be regretful: in the light of what he thought he knew, he may judge his decision to have been efficient. In fact, if the value he places on the inconvenience of extracting and reading the instructions is more than the inconvenience of missing the 3:30 train, he may be even more convinced of the wisdom and efficiency of his decision; he may tell himself that it was not worth his while to have consulted his instructions even if he *knew* that he would, by not consulting them, miss his train.

Most of us (and this writer) would say that our scholar suffered the dreariness of waiting because, although he possessed the *information* on how to get to the station in the shortest possible time, he did not possess the *knowledge* of that information. His possession of the needed information means that he had it within his power—by consulting his set of instructions—to gain knowledge of the most direct way from the campus to the train station. Information is an input that may be used in a process of “production” (= of learning) that results in the possession of knowledge. This difference between information and knowledge is straight-forward, and conforms to everyday use of language.

What we wish to point out in this paper, however, is that the *distinction* between information and knowledge goes much further than this, and can be seen to be much more important (in a *different* context) than the difference between input and (intermediate) output.

INFORMATION-KNOWLEDGE AND ACTION-KNOWLEDGE

Imagine now a mother at home with a teething child. The child is suffering from pain, and loudly and aggressively proclaims his unhappiness. The mother has tried just about everything, but nothing in her toy chest or refrigerator seems able to soothe, pacify, or distract the child. At that very moment, an itinerant vendor knocks at her door, hawking a colorful toy priced at five dollars. At her wits' end, the mother buys the toy and, presto, the child is delighted with it—peace and harmony are restored. Imagine, however, that while the mother was indeed more than willing to pay five dollars to soothe and pacify her child, she suddenly ruefully realizes that the toy—nothing more than a clear plastic container containing colored marbles—could easily have been put together in seconds, in her own kitchen, for less than a dollar. She could kick herself for not having done so. (Of course, at the same time that she could now kick herself for the earlier mistake, she may *congratulate* herself for, and feel overjoyed by, her “costly” learning process that has taught her how to save money and soothe bawling babies, in the future. And, of course, *given her earlier errors*, she is, as we have already noted, unquestionably *happy* to pay \$5 for the toy that she needs *now*.) She could kick herself because there was nothing that had prevented her from securing peace and harmony for as little as a dollar—instead of the five dollars which she “stupidly” paid. The extra four dollars which she has paid, has been paid *for nothing*—and has given her nothing that was not within her grasp *without* paying those four dollars. She will explain her mistake by saying that, “stupidly,” she did not realize that what she was about to purchase from the vendor was available to her almost instantly in her kitchen for no more than one dollar. She did not, at the moment of purchase, “know” what she now knows. But surely she did *not* lack the *knowledge* needed to have avoided the overpayment. It was simply that that knowledge she indeed *had*, did not inspire her to action. The knowledge she *had was like the set of walking instructions in the pocket of the visiting college professor*—that is, it was not “known” in a manner which shapes action.

In other words, we have here a distinction between knowledge-as-information and action-knowledge—the latter referring to the knowledge which actually spurs and shapes action. Not all one's possessed knowledge, in fact, shapes action. What the mother knew at the moment she purchased the toy for five dollars (instead of creating it herself in her kitchen for less than a dollar) was information-knowledge. But this information-knowledge,

just like the instructions possessed by our college professor when he went astray on his way to the station, failed to shape the mother's action. Had she fully realized what was within her grasp, she would under no circumstances have paid five dollars for what was available to her for one dollar. *Action often does unalertly ignore facts, which, in the usual sense of the word, one "knows."* This difference between knowledge-as-information and what we have called action-knowledge is, of course, (a) extremely important, and (b) often, unfortunately, ignored in economic theorizing.

INFORMATION-KNOWLEDGE AND ACTION-KNOWLEDGE: AMBIGUITIES AND SUBTLETIES

Our story of the distraught mother, and the insights we have drawn from that story, abstract, for example, from the "problem-solving costs" facing a busy mother in her kitchen, who has other things on her mind *besides* ensuring the lowest-cost manner of securing toys for her child. We simply assumed that *nothing* prevented her from *realizing* what she *already knew*, viz. how to construct a toy from the materials ready to hand in her kitchen. Our assertion that she "already knew" how to construct the toy, follows everyday language. In this everyday use of language, the itinerant vendor taught her nothing she did not already "know." Such use of language, however, does not, we have wished to emphasize, deny that *in a different sense* she had *not* "known" how to construct the toy; she had not *realized* that her information-knowledge could have been *instantly* applied—without any further costly "learning" process—to practical action. This has given us *two equally* valid possible senses of the term "knowledge": (i) information-knowledge and (ii) action-knowledge.

We do not wish to depart from everyday use of language by reserving the term "knowledge" for action-knowledge only. John Doe is attending a large family wedding. Suddenly he realizes that his checkbook is no longer in his pocket. He is not particularly worried; his name is printed on the checks. He does not think anyone would bother to steal the checkbook, but he would very much want to have it back. He says to himself: "perhaps someone will find the checkbook, and it will be announced on the microphone." About an hour later, when John Doe is deeply engaged in stimulating conversation with fellow-guests at his table, someone at the microphone indeed calls out John Doe's name, asking him to come to the

microphone. John Doe's first reaction is one of alarm; he fears that perhaps there has been an emergency that has befallen a member of his family (one of his children has been seriously ill). It is only after several seconds have passed that he realizes, of course, that his name has been called only because someone has found his checkbook. *During* those several seconds it would be surely incorrect to say, in everyday language, that John Doe "did not know" that his name was on his checks, or that it was likely that his name would be called when his checkbook was found. He *did* "know" all this; but the full *realization* of what all this meant was prevented by an initial misinterpretation in terms of a possible family emergency. That is, although he certainly did "know" that his name was likely to be called if the checkbook was found—that knowledge was *not foremost* on his mind at the moment of the microphone announcement.

It must be emphasized that while it is an act of deliberate production (the act of "learning") which ordinarily converts information into knowledge, what determines whether knowledge-as-information becomes action-knowledge is not, in general, the result of any deliberate decision. While the relation between information and knowledge can, in general, be analyzed using the economist's standard calculus of benefits and costs, the relation between knowledge-as-information and action-knowledge *cannot* be so analyzed. The college professor who failed to consult his walking instructions may, as we have noted, "justify" his failure to convert the information in his instructions into actual knowledge of that information, by referring to the costs of consulting his instructions. It may have been *inefficient* for him to have sought to confirm his belief (that he knew the way to the train station) by stopping, opening his coat in bitter cold weather, extracting his instructions, and reading them on a busy street. But the distraught mother, given our assumptions, has no such "justification" for not having realized that the five dollars she pays for the toy is more than what is necessary to acquire such a toy. She could kick herself for her "stupidity"; that is, she could kick herself for not having been alert to the information-knowledge which she in fact possessed.

Two individuals may "know" the same facts; one of them grasps the opportunity which these facts represent, the second fails to do so. We may say that the first individual was more entrepreneurial, more alert to opportunities. The second individual has simply been unalert. Our discussion suggests that another way of expressing the difference between these individuals is to say that, although they both "know" the same facts, their knowledge is not the same. The one who failed to grasp the opportunity expressed in these known facts had "information-knowledge"

of them, but not “action-knowledge.” The one who grasped the opportunity was, presumably through his alertness, somehow able to turn his information-knowledge into “action-knowledge.” Here we find a difference between (a) the distinction between information and knowledge, and (b) the distinction between information-knowledge and action-knowledge.

Turning information into knowledge calls for the *learning* of that information, and for such learning “alertness,” while perhaps necessary, is certainly not sufficient. But in turning information-knowledge into action-knowledge, alertness is necessary and sufficient. Alertness is the crucial bridge between the two kinds of knowledge.

Despite this important difference between the two distinctions, we have in our discussion emphasized the *parallelism* between (a) the relation of knowledge to information, and (b) the relation of action-knowledge to information-knowledge. This emphasis is justified because standard economic theorizing tends to take *no notice whatever* of the difference between information-knowledge and action-knowledge. The economics of information, for example, in the economics of advertising, almost invariably assumes that once information has been deployed in a process of learning to create “knowledge,” utilization of that knowledge follows inexorably. So that much of the significance of advertising activity, which goes so far beyond the mere provision of information, is completely lost sight of. The truth surely is that to inspire the consumer to *act* in a manner which correctly mirrors his preferences and resources calls for more than the provision of information. It calls for him to be *alert* to that information and to its significance. In evoking this alertness, advertising plays an important economic role. But this role is invisible to theorists who treat information-knowledge as *identical* with action-knowledge.

Economic theory surely should explore those aspects of economic processes wherein human beings traverse the gulf that otherwise separates the two kinds of knowledge.

ABOUT THE AUTHOR



Israel M. Kirzner was born in London, UK in 1930, spending the years 1940-48 in Cape Town, South Africa. Graduating from Brooklyn College, NY in 1954, he went on to complete his Ph.D. in economics at New York University, after which he joined the faculty of economics at that institution, becoming full professor in 1969. A student of Ludwig von Mises, his research career focused on “Austrian economics,” especially on the theory of entrepreneurship; he has contributed 17 books and monographs (including five edited volumes). Retiring in January 2002, Kirzner is now Professor Emeritus of Economics, New York University.

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