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ABSTRACT

Four questions are posed: (1) Is knowledge utilization a rhetorical evocation? (2) Is the conjunction of knowledge with utility part of a cultural system of common sense? (3) Is utility a normative or a descriptive concept? and (4) How does the concept of knowledge utilization figure in the specialized discourse of social scientists? This paper analyzes the concept of knowledge utilization from the perspective of philosophy of language and philosophy of science. Knowledge utilization is a rhetorical evocation that implies concepts of action and knowledge. It is supported by two conceptual fusions. The fusion of value and utility draws on common sense, but does not exhaust colloquial understandings about knowledge and action. The conceptual fusion of knowledge and truth is consistent with common sense but disregards scientific criticism. Both conceptual fusions are thus problematic. But empirical conditions associated with the concept of knowledge utilization mask and reinforce the problematic aspects of this concept. (Author/JD)

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THE USE OF KNOWLEDGE: CONCEPTUAL PROBLEMS AND EMPIRICAL CONFUSIONS

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Abstract

This paper analyzes the concept of knowledge utilization from the perspective of philosophy of language and philosophy of science. Knowledge utilization is a rhetorical evocation that implies concepts of action and knowledge. It is supported by two conceptual fusions. The fusion of *value and utility* draws on common sense, but does not exhaust colloquial understandings about knowledge and action. The conceptual fusion of *knowledge and truth* is consistent with common sense but disregards scientific criticism. Both conceptual fusions are thus problematic. But empirical conditions associated with the concept of knowledge utilization mask and reinforce the problematic aspects of this concept.

THE USE OF KNOWLEDGE: CONCEPTUAL PROBLEMS AND EMPIRICAL CONFUSIONS[1]

Margret Buchmann[2]

> The higher generalities rarely receive any accurate verbal expression. They are hinted at through their special forms appropriate to the age in question. Also, the emotional accompaniments are partly due to the vague feeling of importance derived from the superior generality, and partly due to the special interest of special forms in which generalities make their appearance. (Whitehead, 1933, p.5)

In 1835, Alexis de Tocqueville (cited in Rich, 1981) observed that Americans "have all a lively faith in the perfectability of man, they judge that the diffusion of knowledge must necessarily be advantageous and the consequences of ignorance fatal." This observation remains telling, as statements of contemporary social scientists show. Bell (1980) declares that the "axial principle of the postindustrial society . . . is the centrality of theoretical knowledge and its new role, when codified, as the director of social change" (p. 501). Tocqueville intimates that he sees the American faith in knowledge and the advancement of mankind as engagingly naive. But in a recent book on knowledge utilization, Tocqueville's dry comments are cited as evidence of his belief "that the possession and diffusion of knowledge is central to the advancement of mankind" (Rich, 1981, p. 37). This interpretive slip is none too subtle. In its complacency, it holds a key to the problem of knowledge utilization; it attests to the power of rhetorical evocations that presuppose assumptions people are ordinarily not conscious of.

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[1]An earlier version of this paper was presented under the title of "Pragmatic Intellectual Space and Knowledge Utilization" at the annual convention of the American Educational Research Association, New York City, March, 1982.

[2]Margret Buchmann is the coordinator of IRT's Conceptual-Analytic Project and an assistant professor of teacher education. The author is grateful for the comments that David Boersma, Jere Brophy, Cleo Cherryholmes, Sharon Feiman, Robert Floden, Philip Jackson, Rolf Lehming, John Schwille, and Ian Westbury made on earlier versions of this paper. She also appreciates the care with which Mary Mowry prepared these different manuscripts.

In Paradoxes of Education in a Repub[illegible] escribes the roots in thought and time of the con[illegible]ion of [illegible]owl[illegible]ge and utility in the American republic. The modern c[illegible]on of [illegible]ige as useful is associated with the rise of the idea [illegible] uti[illegible] is the measure of the good. In a republic, "congenitall[illegible] in trumental activity" (p. 20), secular in origin and scient[illegible] [illegible]tion, the understanding of knowledge in terms of utili[illegible] vision of commendable action with "an emphasis on pursuing, p[illegible]ing procuring, producing, and on manufacturing, declaring, demonstrating, projecting" (p. 25). One may well wonder just how crucial assumptions about knowledge and its usefulness are to the American ethos, if faith persists in view of an educational reality that Brann (1979) depicts as,

> an enormous, compacted complex of cherished vestiges, trashed experiments, recovered truisms, partial reformations, occasional explosions, compromising accomodations, paths of least resistance, hopeful engraftings, institutional inertia. The educational main is a shoal of wrecked reports, of reports widely disseminated and minimally implemented. (p. 4)

It is possible that the problem of knowledge use in education and elsewhere is not a problem of knowledge creation, diffusion and dissemination, implementation, and evaluation, but a *conceptual* problem. Thus I ask, what are people who pair off knowledge with utility doing? Why do they choose to pair off knowledge with utilization? What practical or conceptual problems does the conjunction of knowledge with utility appear to solve? What assumptions and beliefs does it imply? What kinds of imagination does it appeal to? What other concepts denoting processes could be paired off with knowledge (e.g., contemplation and critique)?[3]

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[3]This approach was inspired by Schwab's (1958) article, "Inquiry and the Reading Process."

To explore the concept of knowledge utilization, I pose four questions. Is knowledge utilization a rhetorical evocation? Is utility a normative or a descriptive concept? Is the conjunction of knowledge with utility part of a cultural system of common sense? And how does the concept of knowledge utilization figure in the specialized discourse of social scientists?

Knowledge Utilization as a Rhetorical Evocation: First Round

In his essay, "The Two Cultures," Snow (1964) quotes a scientist "who, when asked what books he read replied firmly and confidently: 'Books? I prefer to use my books as tools.'" Snow comments, "It was very hard not to let the mind wander--what sort of tool would a book make? Perhaps a hammer? A primitive digging instrument?" (p. 13). There is something odd about the conjunction of knowledge with utility, which this anecdote brings out. What sort of utility could knowledge have? And why consider knowledge as a tool in the first place? To think of knowledge as a tool is to think by analogue, hence metaphorically.

Metaphors are theory-laden. In fact, it is difficult to make a distinction between metaphors and theories (Scheffler, 1960, 1979; Simon & Newell, 1956). Discourse that is metaphorically structured by expressions that are part of common parlance has an in-built persuasive force (Perelman & Olbrechts-Tyteca, 1971). The analogical material is often not seen as metaphorical any more; the metaphor has become dormant. Its assumptions and entailments have been assimilated into the communal stock of reason and social practices. Thus the "exploratory crossing of categories" may take on the appearance of a "report on isomorphisms" (see Scheffler, 1979, p. 129), which can rely

to some extent on matters of fact--created under the guidance of metaphors.

The concept of knowledge utilization construes knowledge in terms of utility and draws on the metaphor of knowledge as a tool; thus; the discourse about knowledge utilization is metaphorically structured. This is not an intellectual issue only. If, to use an example from Lakoff and Johnson (1980), in a culture different from ours an argument is metaphorically viewed as a dance, participants in arguments would experience them differently and conduct them in different ways. While their goal "is to perform in a balanced and aesthetically pleasing way" (p. 5), *our* goal is to win. The point is that we do not only think and talk under the guidance of metaphors, but live and act, guided by metaphors and other rhetorical evocations.

Metaphors we live by imply rules, standards, and criteria for what is desirable and fitting. The metaphor of argument as war could prompt statements like, "You shouldn't have taken this lying down," or, "You should have tripped him up there," signifying that aggressiveness and cunning are appropriate in argument, but meekness and simplicity are not. As a rhetorical evocation, knowledge utilization likewise has prescriptive elements.

Knowledge Utilization as a Mixed Concept

According to the Oxford Universal Dictionary, utility is the "fact, quality, or character of being useful; fitness for a purpose; usefulness, serviceableness." If someone were to make a speech, say, in Congress, arguing that a legislative proposal had a lot of utility, and meant thereby to criticize the proposal, people would ordinarily not understand what she was talking about. Utility is a measure of the

good; in some ways of thinking, *the* measure of the good. More specifically, utility has to do with personal convenience or profit and is attributed to objects that satisfy one's needs. To utilize means to make useful, turn to account; utilization signifies related processes or their results.

Utility has an evaluative meaning that is also carried by "to utilize" and "utilization." These mixed concepts (Wilson, 1963) signify more than the description of a course of action: They connote conduct that typically is approved of. Although it looks like a neutral term, descriptive of what people do or might do, the concept of knowledge utilization is evocative of what people *should* be doing and what knowledge *should* be like.

People should use knowledge and, by implication, knowledge should be useful. They ought to put knowledge into practice and operation, hence, knowledge should be constituted so that it can be turned to account. The concept of knowledge utilization involves a normative theory of the relation of knowledge to action in which knowledge serves the purposes of action. On the other hand, action is seen as appropriately tied to knowledge and its use.

As I have shown for knowledge utilization, concepts that appear to carry straight factual meaning while also having implications of value are tricky. They seem to commit one to matters of fact only, but can bind one unwittingly to visions of action. There is nothing wrong with entertaining such visions, but it is a good thing to know when and where one does so. Forms of speech often contain significant choices of value. If these go unrecognized, the fact of choice and, with this, of alternative possibilities is liable to disappear. The mobility of conceptions, even more than their clarity or distinctness,

is a safeguard of thought that is free to honor commitments as well as facts. Mixed concepts with a descriptive appearance hold a particular authority, that of the taken-for-granted. If a term is descriptive, it only says what is the case--and who can argue with facts? It is much easier to pick a quarrel with what ought to be, or with what clearly are *conceptions* of commendable action.

The claims of colloquial reason depend on the taken-for-granted world of common sense. They refer to reality as both their author and the authority that confers truth. Commonsense tenets surrounding the conjunction of knowledge and utility do, however, not exhaust what colloquial reason has to say about knowledge and utility as concepts in their own right, or in relation to action.

Knowledge Utilization and Common Sense

Wittgenstein's (1958) parable about ordinary language and formal symbolic systems provides the framework in which Geertz (1975) locates the cultural system of common sense. In Wittgenstein's words,

> Our language can be seen as an old city: A maze of little streets and squares, of old and new houses with additions from various periods; and this surrounded by a multitude of modern sections with straight regular streets and uniform houses.[4] (p. 8)

Poetry, ideology, epistemology, and quantum mechanics are in the suburbs of language. Common sense is somewhere between the suburbs of language and the maze of the old city where, on turning around a corner, one may find oneself at a place one never expected to be. As Geertz (1975) argues, common sense is "a relatively organized body of considered thought, rather than what anyone clothed and in his right mind knows"

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[4] I quote Geertz's rendering which slightly alters the standard translation by Anscombe.

(p. 7). The emphasis is on "relatively organized" and "considered thought," as opposed to, on the one hand, the tight integration of formal systems and, on the other hand, the putative deliverances of direct experience. Common sense is an *interpretation* of collective experience; it is an historical system of thought.

But people do not see common sense this way. They take pride in affirming that the tenets of colloquial reason "are immediate deliverances of experience, not deliberated reflections upon it" (Geertz, 1975, p. 7). That people learn about the way things are by taking experience to be the best teacher, learning the lessons of experience, and going to the school of hard knocks is, of course, a theory of learning, of the relationship of mind to reality, and of social adaptation (see Buchmann & Schwille, Note 1). It represents the commonsense account of learning about the real world--a theoretical account offered imperiously as the plain truth. Fallability does not come into the picture at all. To cite Geertz (1975) again, the tenets of common sense,

> are conflated into comprising one large realm of the given and undeniable, a catalog of in-the-grain-of nature realities so peremptory as to force themselves upon any mind sufficiently unclouded to receive them. Yet this is clearly not so. (p. 7)

At issue is not the adequacy or inadequacy of common sense, the degree to which its tenets are worthy or unworthy of belief. Rather, it is the style and general pretensions with which commonsense assertions are put forth. Common sense objectifies judgment; it takes collective and historical accomplishments in language to be the real thing. Adequate or inadequate, common sense is in a state of entrenchment.[5]

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[5]After completing the first draft of this paper, I was reminded that Goodman (1965) uses "entrenchment" as a central term in a theory of projection that appeals to past recurrences and is tied to the use of language. For a discussion, see for example, Gottlieb (1975) and Creath (1978).

Common sense is entrenched, but not in *terra firma*. Though this is not apparent at close range, the ground is shifting over time. At different times and places, it can be different to begin with. Planning and achieving may be the behavioral modes of utility. But the practicalness of common sense in tribal cultures gives a place to knowledge that can be contemplated and enjoyed.

The practicalness of common sense. Anthropologists have been puzzled by the taxonomic achievements of "primitives." American Indians know a lot about reptiles that they do not use for purposes of cooking, nor for show and display. Pueblans have an elaborate taxonomy of coniferous trees of no discernible use to them, and Pygmies can distinguish the leaf-eating habits of many species of bats. Reviewing this body of work, Geertz (1975) maintains that,

> 'In an environment populated with conifers, or snakes, or leaf-eating bats it is practical to know a good deal about conifers, snakes, or leaf-eating bats, whether or not what one knows is in any strict sense materially useful, becaus it is of such knowledge that "practicalness" is there composed. . . . the "practicalness" of common sense is a quality it bestows upon things, not one that things bestow on it. (pp. 19-20)

These so-called primitives are neither impelled by theoretical passions, nor driven by material interests. They explore the world around them to make it intelligible. The variations of life and form in the natural world give people a sense of wonder that feeds on the capacity to name and order things. One never knows, such knowledge may come in handy. Meanwhile, it is a source of pleasure to the individual and part of the traditional lore that gets passed on to the next generation.

Common sense is a system of deliberated thought that grows out of the variety of ends conceived by people. It accomodates ideal as well as material interests, and many things besides. The capacity for

containing qualifications within its compass and even for housing contradictory principles is a distinctive characteristic of common sense. Take, for instance, the utilitarian fascination with planning and achieving and the phenomenon that Leites (1969) describes as "the horror of completion."

The elasticity and vital disorganization of common sense. Grown-ups oppose what they see as a tendency of children not to bring their undertakings to a conclusion. This opposition gives rise to commands and complaints that involve a good deal of repetition, tedious to both sides. The "rule of completion" applies to work and play alike; its burden is "determination," a fixed or settled purpose and the process of arriving at resolute intentions. But, everyone knows that there is many a slip between the cup and the lip. And when plans work out as planned, or someone follows through on something, people are surprised and somewhat awed. Sympathy is accorded more readily to the waverer, the one who flinches, than to the person who follows through on things to the bitter end. Leites (1969) evokes the relation in which the impulse for action stands to its consummation or cancellation through the following interior monologue:

> Even though I am not sure of not wishing to complete an undertaking, I may feel that it is impossible for me to predict just how far I may wish to go before I actually undertake it. It may be only during the actual course of the enterprise that it will become clear to me whether I intend to complete it or ensure that it miscarries. (p. 144)

In the system of common sense, the rule of completion and the horror of completion exist in close and comfortable vicinity to each other. They are loosely connected by the understanding that intentions may bind one to ends that turn out to be ill-conceived, and that reasonable decisions

often involve undoing.[6] These insights do not conflict with the rule of completion, but balance it. For, plans of any moment ought not to be abandoned capriciously or lightly.

Similarly, the word "exploitation" and its connotations delimit and balance what is affirmed in the evaluative aspects of utility and utilization. "To exploit" is defined as "to achieve," "to turn to account," and "to utilize for selfish purposes." The concept of exploitation presupposes an idea of conduct that is dominated neither by self-regard nor by utility, and the term "selfish" signals disapproval. Exploitation thus is a mixed concept with connotations that indicate qualifications are in order. The single-minded pursuit of utility and private satisfactions leads to conduct that ceases to be commendable.

From the perspective of common sense, the very state of single-mindedness is wrongheaded. Enthusiasm and artless simplicity are equally removed from common sense. Purposes that govern thought and action to the exclusion of other concerns are liable to be unwise in conception and harmful in their execution.[7] Given the great many errors people are likely to make, unwavering intentions are not adaptive.

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[6] In a recent book on the processes of creating, Perkins (1981) stresses the importance of undoing: "Such acts . . . open up possibilities again, after we thought things were suitably narrowed down. At first thought, this seems only a regrettable consequence of human error, but not so. Often there simply is no reasonable way to detect difficulties other than by working through a situation until they appear" (p. 281).

[7] Honoré de Balzac's work is a study of the havoc wrought by monomanias of all kinds: love, avarice, ambition. Where, for example, in Old Goriot the blind love of a father for his daughters brings endless harm to him and others, Balzac analyzes in Eugénie Grandet a man's desire for gold to the exclusion of all other concerns, including those fathers are expected to have for their daughters. The harm brought on by monomania is not simply a measure of inutility. Regardless of the extent to which individual needs and interests might have been satisfied, monomania implies warped and limited perceptions, harmful in themselves for the balance of mind.

To have common sense means to be "of more than one mind" about things: about doing and undoing, exploring and exploiting the world, using knowledge--or contemplating a world in conceptual order.

The case for knowledge utilization in the system of common sense is thus complicated and elastic, with inbuilt features that impose limits and connote fallability. And when people meditate action, the scope of their concerns encompasses more than knowledge and utility. What is liable to happen when the conceptual conjunction of knowledge and utility is stripped of its casual features, straightened out and (apparently) neutralized is at issue in what follows.

Knowledge Utilization as a Rhetorical Evocation: Second Round

> All our forms of speech are taken from ordinary . . . language and cannot be used in epistemology or phenomenology without casting a distorting light on their objects. (Wittgenstein, 1975, p. 88)

As the conjunction of knowledge and utility enters into the discourse of social scientists, it is interpreted with a bias toward means-ends rationality and a view of action based on calculation rather than judgment (see Weizenbaum, 1976). The shift in discourse context results in a reduction of the scope of concerns inherent to colloquial reason, and of their openness and vital disorganization as well.

Reducing the scope of concerns inherent to common sense while focusing on knowledge and utility is tantamount to a misleading reduction of practical judgment to exercises in using what we know. This summary reduction is not neutral. It downplays the importance of acting *in spite of* what counts as the evidence, or inspired by what cannot be realized in full. And it assumes more than is justified about knowledge and its contribution to commendable action. Thus the shift in discourse context results in errors of ommission and commission.

Knowledge and Practical Wisdom

The truth of scientific theories--where it can be assumed--enters into practical judgment along with known facts as one set of items to be considered. The Aristotelian view is that the person of highest practical wisdom brings to bear on a situation the largest number of pertinent concerns. Such concerns are a matter of both reason and passion.

The deliberative search is not, in the first place, a search for means, but a search for truly pertinent concerns and the best specification of practical ends. Ordinarily, this search is not driven by the principle of maximization. As Wiggins (1978) points out,

> A man usually asks himself "what shall I do?" not with a view to maximizing anything, but only in response to some historically determinate circumstance. This will make particular and contingent demands on his moral or practical perception, but the relevant features of the situation may not all jump to the eye. . . . The weight of the claims represented by these concerns is not necessarily fixed in advance. Nor need the concerns be hierarchically ordered. A man's reflection on a new situation which confronts him may disrupt such ordering and fixity as had previously existed and bring a change in his evolving conception of the point . . . or the several or many points of living or acting. (pp. 144-145)

Gaining in practical wisdom means to gain in the ability to specify ends for action in a value structure that is to some extent indeterminate and open.[8] Truth claims may have to be subordinated to other concerns. On occasion, it is admirable to forge ahead, in spite of the evidence; knowledge is not virtue.

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[8]Here it is important to guard against what Dunn (1982) calls the "fallacy of misplaced reflexivity." It is a mistake to treat "claims about the emancipatory role of self-reflection and reasoned discourse as if they refer to concrete contexts of practice when, instead, they are unrelated to ongoing practices" (p. 321). What people ordinarily do tends to be a matter of habit; if there is reflection as an occasion for entertaining alternative notions of the points of action, it comes after the fact. Then there is time for taking thought, although the need to think may not necessarily be felt. Excellent examples on both counts can be found in Lampert (Note 2). Through a discussion of puzzling student questions with other teachers and researchers, teachers came to see the point of their work in a new light.

Take the example of the warrior. Courage, not foolhardiness, requires that the evil intent of an adversary, the likelihood of being wounded, and past experience of pain shall count for nothing (see McDowell, 1978). It is impossible to give an account of a deliberate failure to reckon with facts as *rational* without reference to virtue, here the virtue of courage.

Teaching sometimes requires that what is known for a fact shall also count for nothing. The activities of teaching are predicated upon the belief that a change for the better can be effected in some way through what a teacher does. An equivalent to the Hippocratic Oath for teachers is a commitment to teaching, whatever the prognosis. It is logically and psychologically impossible to take on this moral obligation without some belief that students can learn. Faith in the possibility of student learning needs to be upheld whatever test scores, talk in the teacher lounge, or the opinions of parents may imply to the contrary.

In the eyes of Ms. Allen, one of the teachers that Carew and Lightfoot (1979) report on in Beyond Bias, "None of the children in her class were intellectually deficient" (p. 239)--despite the test scores or the results of psychological assessments. Honoring facts can stand in the way of honoring commitments.[9] Of course, honoring commitments creates

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[9]Living by commitment increases the likelihood of both right and predictable action; it delivers guarantees on conduct where we are resolved to act rightly and might be tempted to do otherwise. The sociologist Becker (1960), however, explains the concept of commitment not in terms of values but in terms of economic facts and calculations. To exemplify his theory of commitment, he offers the following hypothetical case: "Suppose that you are bargaining to buy a house, you *offer* sixteen thousand dollars, but the seller insists on twenty thousand. Now suppose that you offer your antagonist in the bargaining certified proof that you have bet a third party five thousand dollars that you will not pay more than sixteen thousand dollars for the house. Your opponent must admit defeat because you would lose money by raising

(footnote continued on next page)

new facts, such as learning in students taught not to expect it. What people do with knowledge held to be relevant to their work needs to be judged in light of values beyond truth. Knowledge may appear useful, given certain ends, but it does not necessarily follow that it should be used or even acknowledged. The use of knowledge can conflict with other ends, in this example, with maintaining a belief in children's capacity to learn.

To give another example, Tribe (1971) discusses in a substantial article the utility of mathematical methods for the actual conduct of trials and for the design of procedures for the entire trial system. He concludes that even if mathematical techniques were to increase the accuracy of trial outcomes, a change of procedural rules resulting in a "trial by mathematics" would create an inherent conflict with social ideals that are part of the trial process.

> Procedure can serve a vital role as conventionalized communication among a trial's participants, and as something like a reminder to the community of the principles it holds important. The presumption of innocence, the rights to counsel . . . the privilege against self-incrimination . . . matter not only as devices for achieving or avoiding certain kinds of trial outcomes, but also as affirmations of respect for the accused as a human being--affirmations that remind them and the public about the sort of society we want to become and, indeed, about the sort of society we are. (Tribe, 1971, pp. 1391-1392)

(footnote 9 continued)

your bid; you have committed yourself to pay no more than you originally offered. This commitment has been achieved by making a *side bet*. . . . The consequence of inconsistency will be so expensive that inconsistency in his bargaining stance is no longer a feasible alternative" (p. 35). Stressing at first that his account is a selective theoretical construction of the commonsense concept of commitment, Becker concludes that the "major elements of commitment present themselves in this example" (p. 35). I cite this as an example of the bias toward means-ends rationality and the interpretation of action in economic terms that tend to characterize the interpretation of commonsense terms in the discourse of social scientists.

The process of law is inspired by ends that we *know* cannot be realized; that is, we will never experience the ideals of, for example, fairness and equality of respect in their fullness. They influence the actual conduct of participants to variable and often unsatisfactory degrees. But this does not make these ideals less valid as transcendental guidelines for conduct. Institutionalization and habit are safeguards for ends that are essentially out of reach.

The maximization of outcome accuracy that may be advanced through a trial by mathematics cannot provide an occasion for enacting these principles in the community. It presupposes seeing the trial process as a means with ends that are given and outside of the process. However, as Tribe (1971) stresses, the trial process itself incorporates social ends, and changes in the trial process represent changes in the specification of these ends.

The concept of knowledge utilization yields a severely and misleadingly edited account of the sources of commendable action. The search for tenable specifications of practical ends cannot be reduced to the calculation of outcomes. But the conjunction of knowledge and utility in the specialized discourse of social scientists not only evokes an incomplete and distorted account of practical wisdom, but a conservative and misleading account of knowledge.

Knowledge and Truth

In the theory of knowledge, knowledge claims can be associated with "good reasons" or, alternatively, with the notions of truth and certainty. Where good reasons are advanced on behalf of knowledge claims--with the understanding that these are fallible--there is no hierarchy of knowledge claims based on an ultimate epistemological authority, be it sense experience or rational intuition. The identifi-

cation of knowledge and truth is, however, an epistemological convention with a long and illustrious past. Its proponents in philosophy include Plato, Locke, and Descartes. But interestingly, the belief in an ultimate epistemological authority is also engrained in the system of common sense.

The commonsense theory of knowledge is straightforward. In the words of Popper (1975), "If you or I wish to know something . . . we have to open our eyes to look around. And we have to raise our ears and listen to noises, and especially those made by other people" (p. 60). Sense experience is the central term in the commonsense theory of knowledge. The mind is visualized as a container to be filled by input from the various sense organs. This is what Popper calls "the bucket theory of the mind," although it sounds more impressive as Locke's "tabula rasa," or the empty slate theory of mind. In this view, what comes to mind through the senses can be relied on as certainly true.

Common sense speaks to most things that matter, hence also about knowledge and the mind. But while it is reasonable to take common sense as a starting point for philosophical and scientific inquiry, it does not follow that common sense is equally sound on all questions, or that it cannot be wrongheaded.[10] One would predict that critical

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[10]Acts that break social rules are seen as qualitatively distinct by ordinary people and social scientists alike; these acts are seen as "deviant." However, colloquial or mundane versions of the theory of deviance are significantly different from certain scientific versions that Pollner (1978) characterizes as "constitutive." His clarification of the different versions of deviance--colloquial versus scientific--bears quoting at length: "In the mundane version, a community's 'reaction,' 'response,' or 'labeling' activities consist essentially of its judgments about the deviant or nondeviant character of acts and persons. The community is conceived as an umpire whose task is to call balls and strikes. The relevant questions about the community's judgments focus on the extent to which they correspond to *the act's 'real' properties*. . . . To pursue a somewhat misleading analogy a bit further, the community is [in the constitutive version]

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reflection on the grounds of belief and on the adequacy of knowledge claims is not an activity at which colloquial reason is likely to excel. In fact, the identification of knowledge and truth does not look sound from the perspective of science at its most advanced. And philosophers of science such as Popper, Quine, Kuhn, and Feyerabend have criticized the quest for authoritative knowledge. These philosophers argue that the identification of knowledge with (certain) truth assumes more than is justified about the knowledge we possess and are likely to gain. In principle, all knowledge claims are fallible--no matter how good the reasons appear on which they are advanced. It follows that the requirements for openness to new data and systematic criticism supplant a simple identification of knowledge and truth.

Epistemologically speaking, ordinary people and scientists are not differently situated as long as all knowledge is considered as "indirect, presumptive, obliquely, and incompletely corroborated at best" (Campbell, 1975, p. 112). Nisbett and Ross (1980) warn scientists--especially in their role of social advocates--and laypersons against the fallacy of misplaced certainty:

> An important step in reducing people's overconfidence would be taken by leading them to recognize that their interpretations of events, rather than being simple read-outs of data, are inferences that make heavy use of theory. Once one recognizes that the same data would look quite different, and could easily support different beliefs, if those data were viewed from the vantage point of alternative theories, the groundwork for a humbler epistemic stance has been laid. (p. 293)

(footnote 10 continued)

not merely of interest as an umpire and for the ways in which it arrives at correct or incorrect decisions. Rather, the community is understood as the *inventor of the game* in which deviants, umpires, and their worries are made possible. If the mundane version leads to a remedial concern with the techniques for detecting witches, the constitutive version leads to a concern with the methodolo[illegible] through which witches are constituted as detectable entities in the first place" (pp. 270-271; emphasis added). Here, one might say, common sense is well left behind.

When scientists succumb to the fallacy of misplaced certainty, they draw on the commonsense theory of knowledge. However, while the certitude of common sense is provokingly simple, science has an element of self-conscious certainty. Objectivity and disinterestedness, as well as abstract generality, are invoked and function to strengthen scientific credibility. Rhetorically speaking, this is strong, though rather disembodied stuff. When scientists speak as if their own metaphorical and parochial language was the language of reality, they fortify themselves with an additional authority borrowed from common sense, but best returned to it forthwith. Ironically, this very authority gets turned against common sense in its complicated and elastic understanding of knowledge, rationality, and the well springs of action.

A restrictive identification of knowledge with scientifically proven assertions relegates to the irrational most everything by which people determine and decide problems of life: value assumptions, standards, criteria, ends, and commitments. Nothing has changed since John Locke (1690/1959) wrote in 1690,

> Who almost is there that hath the leisure, patience, and means to collect all the proofs concerning most of the opinions he has, so as safely to conclude that he hath a clear and full view; and that there is no more to be alleged for his better information! And yet we are forced to determine ourselves on one side or the other. The conduct of our lives, and the management of our great concerns, will not bear delay: for those depend, for the most part, on the determination of our judgment in points wherein we are not capable of certain and demonstrative knowledge. (p. 371)

Furthermore, what drops out of consideration as rational by the fusion of knowledge and scientific truth is almost all knowledge possessed by ordinary people. As Weizenbaum (1980) comments, "People know a great many things that are neither products of research nor materials in textbooks and archives, for example. They know what pleases people they see every-

day and what offends them. They know their way about their cities and what detours to take when the usual paths are blocked" (p. 55). When taxi-drivers, mathematicians, and cooks are good at what they are doing, this derives from skills specific to their domains and from an involvement in the concrete activities of finding their way about in cities, fashioning proofs, and making pies. Particular activities may resolve themselves into general principles, but action is not "derived" from propositional knowledge (see Oakeshott, 1950).

As an epistemological convention, the fusion of knowledge and truth does not only confer authority to scientists, but drives the concerns of ordinary people to the periphery of social science. To the extent that social science influences policy, the identification of knowledge and truth pushes what people live and think by to the periphery of political and bureaucratic concerns. What we do with concepts can thus affect social life in startling, and one would assume, unpremeditated ways. A conceptual distinction between knowledge and truth (as proven assertions) can dispel the notion of scientific authority lodged in the putative access to ultimate reality and transferred to the social realm. It broadens the scope of concerns that are considered pertinent as well as rational and allows for a more differentiated understanding of knowledge. But this distinction can only be made if scientists as well as laypersons distance themselves from the commonsense theory of knowledge with its mundane and scientific versions of certainty.

There are, however, unexpected difficulties with this. For on the one hand, it is almost impossible to go ahead with an undertaking while maintaining that one's grounds for action are weak and uncertain. Thus action requires faith, among other things, in relevant knowledge (see

Freidson, 1970). On the other hand, pretensions to the usefulness and applicability of knowledge (of any kind) can themselves be a source of authority, even if--in the pursuit of utility--the ties of knowledge ledge to truth are loosened or altogether disposed of.[11]

Conjectures and Conclusions

> Intellectual intuition and imagination are most important, but they are not reliable: they may show us things very clearly, and yet they may mislead us. They are indispensible as the main sources of our theories: but most of our theories are false anyway. (Popper, 1965, p. 28)

It is my conclusion that social scientists tend to speak with authority where they should lean on common sense and lean on common sense were caution would be indicated. There is an odd symmetry in this, and a two-fold potential for error. For, if social science is to make good its claim as *social* science, it can ill afford to cut itself off from common sense as a reliable, though not infallible, guide to what is important and valid for individual and social life. The commonsense theory of knowledge, however, "may be said to form the weakest part of common sense" (Popper, 1975, p. 104). Thus, if social

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[11]This may strand us in the position that knowledge is whatever works for someone, even if we know that it is false. As Lindblom and Cohen (1979) state for both scientific and ordinary knowledge, "whether it is true or false, knowledge is knowledge to anyone who takes it as a basis for some commitment to action" (p. 12). This point of view is troublesome. For, while knowledge is not virtue, neither is whatever one takes "as a basis for some commitment to action," therefore, knowledge. In fact, it does not make sense to call something knowledge without a concern for its truth, however fallible. As Campbell (1982) comments, the critical message of relativism "is a matter of becoming self-critically aware of our profoundly relativistic epistemologic predicament and using this awareness in the service of a more competent effort to achieve objectivity, rather than employing it to justify giving up the goal of truth" (p. 336).

science is to make good its claim as social *science*, it can ill afford to rely on colloquial epistemology--either explicitly, or implicitly through the presentation and interpretation of data or in the rhetoric of recommendations.[12]

The place of knowledge in the scientific ethos explains why the concept of knowledge utilization is particularly compelling to scientists. People whose life is tied up with knowledge are likely to regard knowledge as important; if they live in a culture that sees utility as the end toward which everything gravitates, they may claim that their knowledge is useful, irrespective of the degree to which it actually is. In other words, to the extent that value and utility are identified, cathected knowledge is liable to be perceived and presented as useful. To the extent, furthermore, that data presentation and interpretation are rhetorically authoritative, mundane beliefs in certainty are reinforced even when scientific versions have suffered erosion.

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[12]In, "The Literary Rhetoric of Science: Comedy and Pathos in Drinking Driver Research," Gusfield (1976) concludes that the scientific interpretation of data "involves a performance and a presentation which contains an element of choice and both enlists and generates a context, a set of meanings which give content and imagery to . . . data" (p. 32). Gusfield's (1981) concept of "problem ownership" is useful in clarifying knowledge utilization as a putative social problem. In the cognitive aspects of such a problem certain facts are posited; in the case of knowledge utilization, these relate to knowledge, rationality, and the well springs of action. The moral side of a social problem consists of judgments about states of affairs that are seen as deplorable and as alterable as well.

What I am suggesting is that the "social problem" of knowledge utilization is neither as deplorable nor as alterable as social scientists may assume, and that the world of facts relating to knowledge and action, separately and in conjunction, implicitly posited in the concept of knowledge is incomplete and distorted.

The conceptual fusion of value and utility draws on common sense. But it does not exhaust colloquial understandings about the well springs of action, knowledge, and rationality. The conceptual fusion of knowledge and truth is consistent with common sense, but disregards scientific criticism. The two conceptual fusions thus exemplify the tendencies to error, odd in their symmetry, with which this analysis has been concerned. Recourse to common sense and philosophy of science at the appropriate junctures can show them both to be problematic. But the overarching conjunction of knowledge and utility creates a set of empirical conditions with strong reinforcing and masking effects. These empirical conditions, together with the rhetoric of science, make the political function of discourse about knowledge utilization to some degree independent of the epistemological convention that joins knowledge to certain truth.

Empirical Conditions and Confusions

The concept of knowledge utilization downplays the fallibility of knowledge. Who would offer or accept knowledge as "ready for use" that comes labeled as, "Our best attempt, provisional and limited; deteriorates fast, please treat with caution"? It is all but impossible to give advice while scrupulously stressing the fact that you offer it on slight grounds. As George Eliot (1860/1967) observes with a good deal of shrewdness, once you are asked for an opinion,

> It is always chilling . . . to say that you have no opinion to give. And if you deliver an opinion at all, it is mere stupidity not to do it with an air of conviction and well-founded knowledge. You make it your own in uttering it, and naturally get fond of it. (p. 23)

It does not seem that scientists have been overly cautious. According to Frankel (1973), "Considerable damage . . . has been done by scientists,

among whom social scientists are perhaps the most notable, who exaggerate the amount of sound and applicable knowledge they have and who offer confident solutions to social problems--solutions that, when tried, turn out to be only a mixture of pious hope and insular moral judgments" (p. 391). Social expectations and the pursuit of utility can undercut epistemological wariness and tempt people to say more than they know--with the style and general pretensions of common sense, but without its substance.

However, the knowledge utilization market is an unlikely place for appraising the grounds of knowledge claims. Once concepts and the practices they engender have come into circulation, they may persist, regardless of the degree to which they are worthy of adherence. The push for application under the guidance of the concept of knowledge utilization thus can turn innocuous theorizing into folly that lasts. And it creates empirical conditions in which the "language of inquiry" and the "language of authority" are confounded with each other. In its consequences, this confusion cements the notion of a hierarchy of knowledge claims. It draws on the faith in knowledge prevalent in the American culture and masks the inappropriateness and inefficacy of policies. In the words of Murray Edelman (Note 3),

> Each form of language performs a distinctive function that an analyst can recognize. But their empirical confusion serves an even more crucial political function. It clouds perception of which policies can be efficacious in achieving desired objectives; for premises, reasons, conclusions, and the affect engendered by widespread fears and hopes are confounded with each other. In this confusion lies a large part of the explanation for a frequent political phenomenon . . . the continuation indefinitely of public support for policies that do not produce the benefits they promise and that are sometimes counterproductive. (pp. 21-22)

The problematic concept of knowledge utilization thus encourages the establishment and continued existence of a set of empirical conditions that may defeat not only the scientific purposes of knowing, but the purposes of intelligent action as well.

Many people look upon the distinction between theory and practice as invidious; it is almost bad form to uphold it. However, practitioners may be good at what they are doing, and their success can derive from faith, vision, habit, or imitation. Further improvement of practice that does not depend on knowledge and theory is improvement nevertheless. On the other hand, one can agree with Marx that the point is to change the world--not only to interpret it. But it does not follow that the people who are good at the pursuit of knowledge should influence the course of social change. In fact, this belief can be challenged as a fantasy, an expression of thinking that does not obey the reality principle. A protagonist in Anthony Powell's (1955) book, A Question of Upbringing, reflects on this propensity as follows:

> Indeed, the illusion that anyone can escape from the marks of his vocation is an aspect of romanticism common to every profession; those occupied with the world of action claiming their true interests to lie in the pleasure of imagination or reflection, while persons principally concerned with reflective or imaginative pursuits are forever asserting their inalienable right to participation in an active sphere.[13] (p. 38)

Tentativeness in knowledge is a safety catch that a pretension to usefulness tends to remove. One wonders whether the relationship of theory to practice--if it is to be for better and not for worse--should be cast in terms of application. Perhaps we should look instead to theory for better theory and the criticism of knowledge claims, whatever their source

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[13] In a future paper, I will discuss how the ancient juxtaposition of people of thought and people of action (de Madariaga, 1949) bears on the conceptualization of knowledge use and social reform as *critical discourse* (see, e.g., Dunn, 1982), and how this very conception of reform exemplifies a reversion to the type of "people of thought" in its proponents.

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