ETHICAL REASONING, EPISTEMOLOGY, AND ADMINISTRATIVE INQUIRY

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ABSTRACT

Theories of knowledge are critical to practical reasoning. Nevertheless, most students of management pay little or no attention to the disciplines that deal most directly with questions about knowledge, its origins, and its nature: epistemology primarily, but the philosophy of science and other related disciplines as well. Even where underlying philosophical assumptions influence their thinking and writing, students of practical reasoning often fail to acknowledge these influences. That is a great pity. By looking to epistemology, a richer and more coherent development of practical reasoning and its contribution to administrative inquiry as a field of intellectual endeavor may be possible. Moreover, the relationship between our understanding of knowledge and our understanding of practical reasoning is potentially reciprocal. A fuller exploration of this relationship may help us better understand social epistemology as well as promote conceptual development in the fields of practical reasoning and administrative inquiry.

1 Administrative inquiry and argumentation is inherently ethical inquiry. Its
3 focus is on taking good actions and avoiding bad ones. Of course, the
5 process of crafting appropriate and effective responses to administrative
7 situations also implies concern about their workability, practicality, and
9 freedom from greater evils. However, to identify the best available alter-
11 native, it is first necessary to comprehend social value, the desirability of
ends sought. Lacking this knowledge, we cannot engage with others in
effective argumentative exchange about the shape and content of admin-
istrative interventions or make sense of our intellectual performances re-
spectively and, thereby, mature into genuinely reflective practitioners.
Ethical reasoning is, therefore, eminently practical.

One conclusion we reach from this line of reasoning is that part of the
educational process in management should include straightforward discus-
sion of the intellectual performances involved in ethical reasoning. We must
provide our students with the tools needed to engage in effective argumen-
tative exchange: shared cognitive models of practical reasoning and com-
munication (Gaskins, 1992; Walton, 1994; Simons, 2001) and of social
mechanisms and processes (Hedstrom & Swedberg, 1996; Tilly, 2000).

The other, perhaps more controversial, conclusion we reach is that ad-
ministrative argumentation/learning/knowledge creation is a social process
and that administrative inquiry ought to be firmly grounded in an appropri-
ate social epistemology. The purpose of this essay is the exploration of
this conclusion. What we find is a fundamental, unresolved tension at the
heart of all theories of social inquiry. While this approach still seems far
more useful for understanding and advancing a collectivity's capacity to
create value by doing things cooperatively than traditional moral reasoning,
with its emphasis on individual decisions, it too is ultimately inconclusive.

Creating, sustaining, and using knowledge to create value – what we call
administrative inquiry – is the gist of managing the 21st century organi-
zation. This simple claim raises a rather basic question, however: What is
knowledge? It is easy to define the term: Knowledge is justified true belief,
individual and social, tacit and explicit, drawn from experience and infor-
mation, dialog and debate. But, defining the term does not really answer the
question. To do that, we must say what we can know and how we know
what we know. These are hard questions, which have long preoccupied
philosophers. They have no definitive, indisputable answers to these ques-
tions and we will offer none here. Nevertheless, philosophers have sharp-
ened various approaches to resolving them, thereby providing us with a set
of well-reasoned, logically appealing, internally coherent answers to the
fundamental problems of knowing.¹ At a minimum, this should help us

1 understand what people who write about administrative inquiry are trying
2 to say, and save us time and energy in evaluating their conclusions. More-
3 over, we know where to look for critiques of most theories of knowledge
4 (e.g., coherence theories are criticized by other idealists, and at another level
5 by both correspondence theorists and consequentialists). Finally, if writers
6 about administrative inquiry made their underlying theories of knowledge
7 explicit, we believe they could explain their beliefs and the evidentiary basis
8 for those beliefs more clearly and coherently.

9 Fortunately, we need not investigate every epistemology to figure out
10 what philosophers can teach us about organizational inquiry. It follows
11 from our topic that we are concerned only with practical or instrumental
12 knowledge, which simplifies our task considerably. We may dispense with
13 epistemologies of pure reason as well as those that deny human agency.
14 Given our topic, it follows also that our main concern is social knowledge,
15 which suggests that we should start with epistemological formulations that
16 have social construction as a feature. We may ignore consideration of purely
17 individual philosophies (existentialism, say). Instead, we will discuss briefly
18 three theories of knowledge that emphasize practical, social reasoning, one
19 from each of the main approaches to warranting truth – coherence, cor-
20 respondence, and consequence:

- 21 • Absolute idealism, which understands the world of man to be a creation
22 of man – in effect, a creation of the human mind, that can be made or
23 unmade through acts of will;
- 24 • Zen Buddhism, which presumes that reality is a flow and knowledge a
25 socially mediated harmony with the world; and
- 26 • Pragmatism, which presumes that knowing is a social process and cre-
27 ativity a flow.

33 **COMPETING FOR THE FUTURE**

35 In philosophy, idealism is any theory positing the primacy of spirit, mind, or
36 language. German or absolute idealism was a philosophical movement of
37 the late 18th and early 19th centuries, which developed out of the work of
38 Immanuel Kant and had affinities to romanticism and revolutionary pol-
39 itics. Its champions were Johann Gottlieb Fichte (1762–1814), Friedrich
Schelling, and Georg Wilhelm Friedrich Hegel.

1 According to Fichte,² German idealism stresses the ability of the perceiver
 2 to remake the world. People are free agents with self-determining activity as
 3 their primary and supreme characteristic.

4 The ego, or will, for Fichte, is the source, the creator of the world we know.

5 Man can understand only that which he has created. (Frost, 1962, p. 168).

6 Fichte believed that our very existence is predicated upon the principle of
 7 freedom, and that this principle allows us to transcend causal necessity. This
 8 means that neither human actions nor the consequences of those actions are
 9 predetermined. Hence, each individual has the potential to fulfill his highest
 10 nature – making the world over in his own image.

11 As S. E. Frost explains:

12 Fundamental to Fichte's point of view [is] the belief in freedom, the idea that the will, or
 13 as he called it "the ego" (meaning the "I"), is not a link in the scientific chain of cause
 14 and effect, but is free, self-determining activity. This will is, for him, the only real thing in
 15 the universe. The ego, being pure activity, creates the world that it knows. My world is
 16 not something given to me from the outside, but is a creation of the pure, active, free ego,
 17 of which I am a part. (Frost, 1962, p. 148)

18 Individual freedom sets the stage for the recreation of the world, therefore, –
 19 if leaders can free themselves of preconceived methodologies and world
 20 views, allowing new perspectives to develop and flourish.

21 Fichte further argued that the mind, or ego, is everything. Even the mater-
 22 ial world is a creation of mind. According to Frost (1962, pp. 242–243),
 23 the material world is a projection into space of objects that exist only in the
 24 mind. It is emphatically not made up of dead things, arranged in a spatial-
 25 temporal causal order; freedom means that causal relationships are products
 26 of human consciousness. Consequently, for Fichte, reality is what one
 27 makes of it. The only reason for positing anything as real beyond immediate
 28 impressions is a practical one. According to Henry Aiken, one must go
 29 beyond immediate impressions in order to set goals and to move toward
 30 those goals:

31 Properly understood, all thought is an anticipation of experience, the 'correctness' of
 32 which is finally established by its capacity to serve our needs. The highest achievement of
 33 the intellect, therefore, is not 'contemplation' but practical problem solving. The 'real,'
 34 so to say, is not an object contemplated, but that which we finally accept as the sat-
 35 isfactory solution to our problems. (Aiken, 1984, p. 59)

36 For all his egoism, Fichte is profoundly aware of the social and even in-
 37 stitutional character of all human activity:

1 We don't think of ourselves, in practice, as working alone, nor do we regard our stand-
 3 ards as peculiar to ourselves. In short, any enterprise in which we engage whether it be
 5 something we call moral action or scientific inquiry, we think of ourselves as bound by
 7 'objective' or interpersonal criteria, to which others, like ourselves, are also committed.
 If we did not presuppose that others, like ourselves, exist, there would be no point in
 talking about objective criteria at all. And if we did not presuppose that there is a
 community of beings like ourselves who are willing to live by them there would be no
 point to the claim that any rational being ought to acknowledge them. (Fichte, 1869, p.
 43)

9 The social problem for the creative ego is that of raising the mass of ordi-
 11 nary humans to his or her level (Fichte, 1889, (I), 214–217). Unfortunately,
 13 “most of the rank and file cannot embrace freedom ... to make anew the
 15 world” (p. 214). Fichte (p. 216) emphasizes that the best way to transmit
 17 reality-altering ideas to rational beings is by means of Platonic discussion
 19 and dialog – “strenuous intellectual communion and intimate personal inter-
 21 course.” Nevertheless, he wistfully concludes, “The inertia of mankind
 in the mass has never in fact been overcome by the exclusive use of the Platonic
 method.” To draw the inert majority along in the creative minority's train, it
 is necessary to reinforce the preferred method of debate and dialog with the
 expedient method of social drill – “the realization of human potentialities
 requires leaders who will take command and issue new orders.”³

21 Ultimately, Fichte (1869) concludes; “There is nothing, finally, but the
 23 seriousness of our own commitments and our loyalty to our own ends to
 25 guarantee any procedure or rule as a standard of validity or justification” (p.
 343). Or, as he elsewhere explains:

27 Just as no moral law can bind me unless I myself elect to be bound by it, so no
 29 supposedly impersonal laws of the human understanding can legislate how I must play
 the game of knowledge unless I am prepared to make those laws my own. Any ‘reason’
 to which I am to be held responsible must be my reason. (Tsanoff, 1967, pp. 194–195)

31 Gary Hamel and C. K. Prahalad echo Fichte's metaphysics in their highly
 33 successful book about administrative inquiry, *Competing for the Future*
 35 (Hamel and Prahalad, 1989). Hamel and Prahalad take the position that visionary leadership at
 37 the top of the organization is the key to organizational success. They insist
 39 that administrative inquiry is not about foreseeing the future, but creating it.
 The visionary leader's “goal is not to predict the future, but to imagine a
 future made possible by changes in technology, life style, work style, reg-
 ulation, global geopolitics, and the like” (p. 11). “In business, as in art, what
 distinguishes leaders from laggards, and greatness from mediocrity, is the
 ability to uniquely imagine what could be” (p. 27). Without a belief in “the
 opportunity for change – for revolution – a company is more likely to forfeit

1 the future than own it” (p. 26). Hence, Hamel and Prahalad’s purpose in
writing *Competing for the Future* is to “help managers imagine the future
3 and, having imagined it, create it” (ibid.). They conclude that “only those
who can imagine and preemptively create the future will be around to enjoy
5 it” (p. 12).

In other words, Hamel and Prahalad see the world as pliable and market
7 success as the ultimate organizational goal. Knowledge is the mechanism
through which the organization’s leaders direct the organization to obtain
9 this goal. Hamel and Prahalad further argue that “anybody who really
believes ‘that’s the way it is,’ anybody who is too lazy to ask, ‘why couldn’t
11 it be different?’ will never see the future” (1994, p. 97). “Nothing,” they say,
“is more liberating than becoming the author of one’s own destiny” (p. 12).
13 To paraphrase Fichte, if managers will not embrace freedom, they will fail
to make the world anew. To Hamel and Prahalad the future is there for the
15 making, and the way to get there is via force of will exerted by leaders
striving to accomplish their vision of the future.

17 It is important to note that we are not saying that Hamel and Prahalad
are idealists. While they express strong opinions about knowing and the
19 knowable, how organizations create knowledge is not the primary focus of
Competing for the Future. Rather, Hamel and Prahalad are mainly con-
21 cerned with knowledge use. Their key contribution lies in the notion of core
competencies – knowledge assets – and the contribution core competencies
23 make to the growth of the organization – how those assets are sustained,
diffused, and transformed. Nevertheless, so far as they go, Hamel and
25 Prahalad’s epistemological premises appear to have much in common with
idealism. It seems reasonable, therefore, that management theorists could
27 use idealism’s set of well-reasoned, internally coherent answers to the fun-
damental problems of knowing and the knowable to gain a deeper under-
29 standing of Hamel and Prahalad’s position. Moreover, because
philosophers have thoroughly evaluated idealism, management theorists
31 could avail themselves of these evaluations to assess critically Hamel and
Prahalad’s conclusions, as well.

33 For example, analytic epistemologists insist that genuine knowledge must
be true. As Aarons explains:

35
37 Something cannot be knowledge without it having some strong connection with the real
facts of the world. How can you genuinely know something without that knowledge
being true and accurate? You can’t know that aliens live amongst us if there are in fact
39 no aliens. (Aarons, 2004, p. 8)

1 Hamel and Prahalad's conception of knowledge seems to lack this specific
2 connection with the idea of truth. Indeed, what they describe sounds more
3 like belief than knowledge. Of course, beliefs matter. The relationship be-
4 tween circumstances or situations and beliefs is almost necessarily recip-
5 cal. Situations shape beliefs and beliefs shape situations. Even so, Aarons
6 argues persuasively that:

7 Knowledge must be grounded in real world properties and processes, even though our
8 conceptions of these may be socially constructed in some sense ... The reason that an
9 appeal to realism and truth is compatible with a social conception of knowledge is that it
10 does not deny the fact that social factors are real ... There is a sense in which money is
11 purely a social construct – the concept only acquires its significance through social
12 convention and agreement. There is no money in nature. Yet money is also quite real,
13 and all our talk of interest rates, budgets, financial markets, etc. is clearly about real
14 entities as opposed to purely fictional entities ... The overall point here is that there need
15 not be any conflict between social constructivism and knowledge as truth – indeed, a
16 connection to the truth seems an essential part of even a social account of knowledge.
17 (Aarons, 2004, p. 8)⁴

19 THE KNOWLEDGE-CREATING COMPANY

21 Western students of epistemology usually ignore Zen Buddhism. This is
22 probably the case, at least in part, because Buddhist thought is relentlessly
23 practical – focused upon human beings, their needs, and their actions. It
24 largely ignores the abstruse metaphysical matters that preoccupy Western
25 epistemologists. According to Nakamura, “metaphysical speculation concern-
26 ing problems not related to human activities and the attainment of
27 Enlightenment is discouraged – e.g., problems such as whether the world is
28 infinite or finite, whether the soul and the body are identical with, or differ-
29 ent from, each other” (1973, p. 250). This is one of the main contrasts
30 between Buddhism and most formal Western epistemological systems.

31 Given our topic, practicality is a virtue, of course. But that virtue would
32 have been insufficient to capture our attention, had not two of the most
33 insightful students of administrative inquiry, Ikujiro Nonaka and Hirotaka
34 Takeuchi, declared in *The Knowledge Creating Company* (1996) that their
35 conclusions reflected the epistemological premises of Zen Buddhism.⁵

36 Zen Buddhism is a philosophical system premised on the postulate of
37 organic unity and the pertinence of sound reasoning as a guide to human
38 action. Like Fichte, Zen Buddhists presume human agency. They also pre-
39 sume that thought and action are purposeful and practical, but where ide-
40 alists worship reason, Buddhists seek harmony. This difference follows from

1 the Buddhist understanding of the nature of reality, which is a process or
 3 flow rather than a state or even a sequence of evolutionary, revolutionary,
 5 or emergent states. Given that they understand reality as flow and construe
 7 reality as an almost infinitely complex set of currents and eddies, it is
 9 somewhat remarkable that Buddhists are also, in the main, materialists.
 11 Most Western philosophers who have made use of this trope have been
 13 idealists of one stripe or another. Buddhists' philosophical materialism
 15 seems even more remarkable from a Western perspective (popular as well as
 17 philosophical) when one takes account of their mysticism, their adherence to
 19 the Hegelian view⁶ that opposites are relational and, therefore, fundamen-
 21 tally harmonious, and their efforts to liberate themselves from their own
 23 material drives, desires, and wants.

13 Alan Watts explains their philosophical materialism, noting that "Tao-
 15 ism, Confucianism, and Zen are expressions of a mentality which feels
 17 completely at home in the universe, and which sees man as an integral part
 19 of this environment" (1957, p. 170). This sense of fitness does not just
 21 happen; it results from individual struggles to understand the nature of the
 23 universe and the self. Buddhism, or, perhaps, more correctly, the Buddhist
 25 experience, is a means of self-liberation. Self-liberation comes through wis-
 27 dom and insight. As Hajime Nakamura explains:

21 Buddhism has asserted the following: life is suffering; the struggle to maintain individ-
 23 uality is painful. It asks: Why do we suffer? The answer is, because of the transience, the
 25 impermanence of human existence. There is no substance that abides forever. Suffering
 27 is caused by desire, since what we desire is impermanent, changing, and perishing. These
 29 desires are caused by ignorance. We are ignorant concerning our true nature and the
 nature of the universe in which we live. And we may be freed from our ignorance by
 following the Path. Through the wisdom, which comes from reflection on the transi-
 toriness of life, by following the Path taught by the Buddha, everyone can attain En-
 lightenment, which characterizes Nirvana, the ideal state. (Nakamura, 1973, p. 250)

31 Preoccupation with individual spiritual enlightenment often promotes a
 33 kind of insensitivity to worldly considerations. Buddhist notions about the
 35 good life, together with Zen's concrete, matter-of-fact perspective, offset this
 37 propensity somewhat. "The way of the Buddha is called the Middle Path
 39 because it avoids the extremes of the pursuit of worldly desires or the prac-
 tice of several asceticisms" (Nakamura, 1973, p. 252). The ideal person or
 organization, presumably, is one whose actions reflect wisdom in under-
 standing not only the oneness of humanity and nature and the oneness of
 mind and body, but also the oneness of self and others. The emphasis on
 living with others in harmonious unity is reflected in Zen Buddhism's fun-

1 damental virtues: (1) generosity, (2) benevolence, (3) cooperation, and (4)
2 service. Courtesy, sympathy, and honesty, etc., are also encouraged.

3 Furthermore, according to mura:

5 Buddhism presupposes universal laws called *dharma*s, which govern human existence
6 and may be known by reason. ... Personal relations should be brought into harmony
7 with the universal norms, the universal laws that apply to all existence, regardless of time
8 and space. (Nakamura, 1973, p. 249)

9 In other words, there is a reality out there; it is a flow; it comprehends our
10 social relationships; and, to bring ourselves into harmony with it, we must
11 (and by reason may) understand it. Buddhists in general, and Zen Buddhists
12 in particular, tend to believe that reality can be truly appreciated or un-
13 derstood only through experience – participating in the process, learning by
14 doing, going with the flow. Experience, then, is the source of real knowledge
15 and, through enlightenment (which requires acts of will), wisdom.

16 Any information that abstracts from experience, that codifies it, una-
17 voidably distorts the nature of reality. This, too, turns Western conventions
18 upside down. We tend to rank codified knowledge over mere experience. As
19 Watts explains:

21 The reason Taoism and Zen present, at first sight, such a puzzle to the Western mind is
22 that we have taken a restricted view of human knowledge. For us, almost all knowledge
23 is what the Taoist would call conventional knowledge, because we do not feel that we
24 really know anything unless we can represent it to ourselves in words, or in some other
25 system of conventional signs such as the notions of mathematics or music. Such knowl-
26 edge is called conventional because it is a matter of social agreement as to the codes of
27 communication. Just as people speaking the same language have tacit agreements as to
28 what words shall stand for what things, so the members of every society and every
29 culture are united by bonds of communication resting upon all kinds of agreement as to
30 the classification and valuation of actions and things. (Watts, 1957, p. 18)

31 Watts illustrates the distinction between experiential and conventional
32 knowledge with the following analogy:

34 We have two types of vision – central and peripheral, not unlike the spotlight and the
35 floodlight. Central vision is used for accurate work like reading, in which our eyes are
36 focused on one small area after another like spotlights. Peripheral vision is less con-
37 scious, less bright than the intense ray of the spotlight. We use it for seeing at night, and
38 for taking ‘subconscious’ notice of objects and movements not in the direct line of
39 central vision. Unlike the spotlight, it can take in very many things at a time. (Watts,
40 1957, p. 21)

41 Watts further asserts that:

1 By far the greater part of our important decisions depend upon 'hunch' – in other words
upon our 'peripheral vision' of the mind. The reliability of our decisions rests ultimately
3 upon our ability to 'see' the situation, upon the degree to which this 'peripheral vision'
has been developed. (Watts, 1957, p. 27)

5 As Nonaka and Takeuchi explain: "This orientation has provided a basis
7 for valuing personal and physical experience over indirect, intellectual ab-
straction" (1996, p. 29). Nonaka and Takeuchi refer to experiential knowl-
9 edge as tacit knowledge and conventional or codified knowledge as explicit
knowledge. In their view, tacit knowledge has two dimensions: a technical
11 dimension that "encompasses the kind of informal and hard-to-pin-down
skills of crafts captured in the term 'know-how' [and a cognitive dimension
13 that] reflects our image of reality (what is) and our vision for the future
(what ought to be)" (Nonaka & Takeuchi, 1996, p. 8). In contrast, explicit
15 knowledge is systematic:

17 Explicit knowledge can be expressed in words and numbers, and easily communicated
and shared in the form of hard data, scientific formula, codified procedures, or universal
principles. Thus, knowledge is viewed synonymously with a computer code, a chemical
19 formula, codified procedures, or a set of general rules. (ibid.)

21 Nonaka and Takeuchi conclude that understanding the two types of knowl-
edge and bringing them into harmony with each other is what administrative
23 inquiry is all about. Knowledge managers are orderly brokers who bring
internal and external harmony to organizations. Nonaka and Takeuchi be-
25 lieve that knowledge and innovation exist naturally in organizations, as a
necessary consequence of experience, and will manifest themselves where
27 virtuous relationships can be established and maintained. To be fully pro-
ductive, however, these virtuous relationships must include all the members
29 of an organization – executives, middle managers, and workers – working in
harmony with its goals and possibilities. If the members of the organization
31 are in harmony, everything else will fall into place for the organization to be
successful.

33 The concept of duality brought into unity also runs throughout their text.
Administrative inquiry is primarily concerned with communication between
35 individuals. In this process, middle managers play a vital mediating role in
turning tacit into explicit knowledge, much like Zen masters or teachers: (a)
37 expressing the figurative and symbolic, (b) communicating personal knowl-
edge with others, and (c) allowing new understanding to develop from initial
39 ambiguity through repeated conversation (Nonaka & Takeuchi, 1996, pp.
13–14).

1 The recognition of tacit knowledge and its importance has a number of crucially relevant
implications. First, it gives rise to a whole different view of the organization – not as a
3 machine for processing information but as a living organism. Within this context, shar-
ing an understanding of what the company stands for, where it is going, what kind of a
5 world it wants to live in, and how to make that world a reality becomes much more
crucial than processing objective information. (Nonaka & Takeuchi, 1996, p. 9)

7 In understanding the importance of tacit knowledge in the context of the
organization and its affect on individual action, they note:

9 Once the importance of tacit knowledge is realized, then one begins to think about
innovation in a whole new way. It is not just about putting together diverse bits of data
11 and information. It is a highly individual process of personal and organizational re-
newal. The personal commitment of the employees and their identity with the company
13 and its mission become indispensable. ... To create new knowledge means quite literally
to re-create the company and everyone in it in an ongoing process of personal and
15 organizational self-renewal. It is not the responsibility of the selected few – specialists in
research and development, strategic planning, or marketing – but that of everyone in the
organization. (Nonaka & Takeuchi, 1996, p. 10)

17 This Zen Buddhist perspective rejects the notion that knowledge creation is
either the result of top-down initiative from the leadership in the organ-
19 ization or a bottom-up initiative from the workers, and substitutes in its
place a harmonious vision of the organization. Human potential in this
21 setting is understood as the perfection of a system of knowledge exchange.
By joining a team and by understanding and internalizing the goals and
23 world view of the organization, its members reach their full potential.

25 This philosophy plays itself out by seeing the world as one both inside and
outside the organization. The search for knowledge reflects a search for
27 truth and harmony. The knowledge capability within the organization re-
sults from (1) moving from idea to reality, (2) moving from personal
29 knowledge to organizational knowledge, and (3) moving from uncertainty
to depth in knowledge. These are all movements from disharmony to har-
31 mony.

Clearly, Zen Buddhism provided Nonaka and Takeuchi with a set of
33 internally coherent answers to the fundamental problems of knowing and
the knowable, which helped them formulate and explain their position.
35 Unfortunately, as we noted at the outset, Western philosophers have largely
ignored Zen Buddhism. Consequently, they have not subjected its episte-
37 mology to the kind of thorough critique that would allow us to assess
critically Nonaka and Takeuchi's conclusions. As will be seen in the next
39 section, however, many of the criticisms of pragmatism hold a fortiori where
Zen Buddhism is concerned.⁷

WELLSPRINGS OF KNOWLEDGE

The brainchild of Charles Sanders Peirce (1839–1914), William James (1842–1910) and John Dewey (1859–1952), pragmatism is basically a theory of knowledge.⁸ Pragmatists substitute an experimental, methodological conception of truth for the materialist/idealist and subject/object conundrums of traditional epistemology: Experience is the ultimate warrant of truth; knowledge is merely a predicate of effective action; and meaning is understood in terms of consequences. Indeed, Dewey prefers to talk about intelligence rather than knowledge or truth: “The function of intelligence is ... not that of copying the objects of the environment, but rather of taking account of the way in which more effective and more profitable relations with these objects may be established in the future” ([1925] 1984, p. 17).

Organized inquiry or experiment strengthens and deepens intelligence. Four presumptions are central to most versions of pragmatic inquiry:

- Consequentialism – beliefs are warranted by their practical consequences.
- Fallibilism – all warranties are limited; intelligence is always open to criticism and revision, so that nothing is ever finally or absolutely true (indeed, confidence in a belief is reflected in the readiness to put it to the test).
- Anti-skepticism – complete doubt, treating all beliefs as equally likely, is impossible, a mere philosophical pretension.
- Creative flow – problematic situations drive inquiry. Situations give inquiry focus and gauge the transformations that accompany it (learning). Problematic situations are not static, however. Experience gives rise to an endless sequence of problematic situations, which continuous, disciplined inquiry transforms, through virtuous spirals, into a creative flow of intelligence.

To these basic presumptions, Dewey adds several ideas about science and democracy. For our purposes, the most important of these is democratic social constructivism – pragmatism is an integrated process of social inquiry that is democratic to its core. This has the effect of converting pragmatism from a theory of knowledge to a theory of social inquiry. Of course, social knowledge is necessarily socially constructed. Dewey explains:

To represent things as they are is to represent them in ways that tend to maintain a common understanding; to misrepresent them is to injure – whether willfully or no – the conditions of common understanding. An understanding is an agreement; a misunderstanding a disagreement, and understanding is a social necessity because it is a prerequisite of all community of action. It is no accident that the terms communication and

community lie so near together; or that intercourse means equally speech and any mode of associated life. ([6]Dewey, [1911] 1978; p. 67).

However, the notion that democracy is a necessary part of a pragmatic theory of social inquiry is by no means obvious, and needs explication.

Dewey believed that social intelligence is practical and forward looking, aimed at helping people deal with real “tensions, needs, and troubles,” and that to be useful, in this sense, it is necessary to make “the widening and buttressing of knowledge a business” (1916, p. 76). This implies that, as a methodology or mode of inquiry, pragmatism is almost necessarily a social or collective enterprise, which in turn implies a community of inquirers.

But, why conflate pragmatism with democracy, especially an all-inclusive participatory democracy? The facile claim that face-to-face problem-solving conversation, the heart of pragmatic inquiry, is inherently egalitarian just does not cut it. Face-to-face conversation is as much honored in hierarchies as in democracies (Schudson, 1997). Dewey’s answer to this question is multifaceted. He begins with the pragmatist’s presumption that “intelligence is present most distinctively ... in the work a day practicality of the masses” (MacGilvray, 1999, p. 551). Next, he provides a model for a cooperative, problem-solving community, the scientific community,⁹ which is democratic with respect to membership and open to the participation of all. Science also provides Dewey with a set of conversational norms – open-mindedness, honesty, impartiality, and regard for empirical consequences – that communities of inquirers ought to use to design experiments and to communicate, interpret, and evaluate their results. The adherence to these norms allows for an all-inclusive collective search for shared meaning.

However, Dewey’s approach to practical reasoning stressed democratic accountability as much as democratic conversation. He argued that a community of inquirers must be inclusive because, if the consequences of conjoint activity are to be understood, they must not only be freely communicated to all the members of the community, but they must also be interpreted by all those who experience them. This, Dewey argued, required

(1) positive control of the resources necessary to carry purposes into effect ... and (2) mental equipment with the trained powers of initiative and reflection requisite for free preference and for circumspect and far-seeing desires. ... No government by experts in which the masses do not have the chance to inform the experts as to their needs can be anything but an oligarchy managed in the interests of a few. (Dewey, [1927] 1984, p. 364)

Finally, Dewey stressed the potential force of collective intelligence. He believed that direct participation in decision-making would foster a talent

1 for thoughtful deliberation in ordinary people. "We lie in the lap of an
immense intelligence," Dewey said ([1927] 1984, p. 17). The difficulty is to
3 unleash this intelligence, which remains dormant until "it possesses
[a] ... community as its medium" (ibid.). In *The Public and its Problems*,
5 he outlined an elaborate program of truly participatory democracy, one
built around face-to-face conversations in neighborly communities. In other
7 words, Dewey argued not only that ordinary people can always better un-
derstand and appreciate their own circumstances and interests than can
9 experts, they are collectively smarter, at least potentially.¹⁰ What ordinary
people need to achieve their potential is training in collective inquiry and the
11 motivation to participate in decision-making. As he explained, democracy,
rightly conceived, is a process. In Dewey's words, it is

13 a wider and fuller idea than can be exemplified in the state even at its best. To be realized
15 it must affect all modes of human association, the family, the school, industry, reli-
gion ... Democracy is not an alternative to other principles of associated life. It is the
17 idea of community life itself. (Dewey, [1927] 1984, p. 148).

19 One further point: despite his emphasis on participative and deliberative
norms, Dewey reserved an important place for leaders in his communities of
21 inquiry. Of course, Dewey's leaders are not Hamel and Prahalad's. Dewey
defined leadership in terms of its functions, not as an attribute of office.¹¹
23 Consequently, his leaders are more like teachers or guides than principals or
bosses. Their aim is the development of human potential. Their job is pre-
25 paring ordinary people to share effectively in social life, especially as mem-
bers of communities of inquirers. This means structuring experience and
27 activities so that people learn by doing and by publicly reflecting upon what
they have done.

29 As we have seen, both Hamel and Prahalad, and Nonaka and Takeuchi
ground their lines of reasoning on a theory of knowledge. Indeed, Nonaka
31 and Takeuchi take explicit account of formal epistemological theories and
premises. In contrast, Dorothy Leonard, in the *Wellsprings of Knowledge*
33 (1998), pays almost no attention to these concerns; she does not ask how we
know or what we can know; she does not even make a logical case for a
35 particular approach to knowing. Instead, her purpose is relentlessly empiri-
cal. She describes the attributes and processes of successful knowledge-
37 based organizations and compares them to conventional organizations.
Nevertheless, her knowledge-based organizations sound remarkably like
39 Dewey's communities of inquirers; her knowledge managers are Dewey's
guides or teachers.

1 Consider her governing metaphors: managers are nurturing farmers; they
grow abilities within the fertile confines of the organization. By planting the
3 seeds of knowledge, and nurturing them, the organization acquires increased
capabilities, which can be harvested in the marketplace. Leonard's leaders
5 are like Dewey's in that they recognize that they must

7 respect and encourage the accumulation of knowledge as a legitimate undertaking and
one for which they are responsible... [S]uch leaders [try] to foster an atmosphere in
which a thousand flowers could bloom" (Leonard, 1998, p. 116).

9 They further understand that

11 people who are knowingly engaged in building core technological capabilities are *cu-*
rious: they are information seekers... The only fundamentally important skill is the
13 ability to learn ... [T]echnologically talented employees could create whole new busi-
nesses for corporations, starting with an experimental project or process. (Leonard,
1998, pp. 261–262)

15 Experimenting and prototyping provide the energy behind a continuous
17 creative flow (Leonard, 1998, p. 30). As she explains:

19 Despite the Greek Myth about goddess of wisdom, Athena, who burst full-grown from
Zeus's forehead, knowledge does not appear all at once. Rather, knowledge accumulates
slowly, over time, is shaped and channeled into certain directions through the nudging of
21 hundreds of daily managerial decisions. Nor does knowledge occur only one time; it is
constantly aborning. ... Knowledge reservoirs in organizations are not static pools but
23 wellsprings, constantly replenished with streams of new ideas and constituting an ever-
flowing source of corporate renewal. Therefore, the development of core capabilities is
inextricably linked to learning; knowledge is both raw material and finished goods in
25 today's corporations. (Leonard, 1998, p. 3)

27 The Wellsprings of Knowledge metaphor reflects Leonard's concept of
knowledge as a flow and its practical application to the problems of the
29 collectivity. She describes wellsprings as

31 constant, reliable, and their waters pure ... (Their) flows ... feed the biological systems
around them, so in the same way, flows of appropriate knowledge into and within
companies enable them to develop competitively advantageous capabilities. (Leonard,
1998, p. 13).

33 Learning is the product of an ongoing flow of events that includes ideas,
35 claims, observations, processes and their measurement and experimental
testing: "experimentation creates what has been termed 'requisite variety' in
37 products and processes – i.e., a diverse portfolio of technological options"
(Leonard, 1998, p. 14).

39 In other words, knowledge flows from the lowest level of the organization
and grows to perfection, evolving over time by nourishing itself via inter-

1 action between its parts. These include: (a) people's skills; (b) knowledge
3 embodied in physical systems; (c) managerial systems that support and re-
inforce knowledge growth; and (d) values that support the accumulation of
5 knowledge, which necessarily involves teamwork and shared problem solv-
ing at the lowest level. Organizations that focus on nurturing capabilities at
7 the lowest level and growing them properly, succeed. Experimentation is
essential to building and sustaining this process or flow. Knowledge capa-
9 bility develops and ultimately manifests itself in the relationships between
people in the organization, the activities they perform, and their conse-
11 quences. Workers catch sight of innovations, become conscious of them,
and internalize them through experiment, use, and practice; at the same
13 time, current practices and yesterday's innovations fade from individual
memory and the operating procedures of the organization. To paraphrase
Leonard, this evolving flow reflects a view of human potential as improve-
15 ment over time – the gradual socialization of new knowledge, which grows
from the seeds of innovation, planted in the fertile ground of the organ-
17 ization and is fed by its wellsprings.

Leonard also cautions against allowing the dead ideas of the past – set
19 patterns, fixed outlooks, or notions about how things ought to be done – to
constrain the ability of the organization to learn and innovate. "Decisions
21 and events from the past intrude on the present and shape the future"
(Leonard, 1998, p. 35), resulting in solidified organizational outlooks and
23 routines. They interfere with learning because "experimentation is limited
when knowledge extension flows along well-worn paths rather than creating
25 new options" (Leonard, 1998, p. 39). Indeed, much of what Leonard has to
say about knowledge creation is concerned with overcoming obstacles to
27 collective learning – core rigidities and their ubiquitous companions, knowl-
edge-inhibiting activities.

29 Physical plant and equipment and its layout, managerial systems, skill
sets, and organizational culture and values are all potential sources of core
31 rigidities. Physical and structural rigidities are relatively easy to fix. Social
and intellectual rigidities – working relationships, communications patterns,
33 skill sets, and culture and values – are hard to change. Leonard observes
that reducing social and intellectual rigidities requires the active participa-
35 tion and engagement of nearly the whole organization, which in turn means
empowering workers to apply what they have learned to the problems at
37 hand. The key to successful organizational growth is,

39 continuous learning and knowledge accumulation [that] depend on the sense of own-
ership derived from special educational systems, on values embedded in policies and
managerial practices, as well as on specific technical skills ... If all employees conceive of

1 their organization as a knowledge institution and care about nurturing it, they will
continuously contribute to the capabilities that sustain it. (Leonard, 1998, pp. 266–267)

3
5 To Leonard, knowledge creation is not great leaps forward or startling
innovations that sweep the industry: it is participation in a community of
7 learners; it is collective intelligence; and it is excellence contributed by eve-
ryone in the organization. Consequently, the sources of a knowledge-based
9 organization's competitive advantage will be practically invisible to the
outsider. The example Leonard cites of such an organization is Chaparral
11 Steel, whose CEO brags that competitors can tour Chaparral's plant with
impunity because its competitive advantage lies in the skills of its employees
13 and the face-to-face relationships they have with one another, and not on
any technological innovation outside of the workers themselves. This reflects
15 Leonard's vision of innovation as knowledge development and growth tak-
en down to the lowest level of the organization, and of the manager as the
wellspring of support for this process.

17 Reductio ad absurdum, or reduction to self-contradiction, is one of the
more widely used tools of traditional philosophy. In the case of pragmatism,
19 reduction to self-contradiction means rebutting its epistemological claims on
consequentialist grounds, i.e., showing that they are neither useful nor
21 practical. Dewey's claims about the social processes through which knowl-
edge is broadened and strengthened, especially his conflation of pragmatism
23 with democracy, have often been dismissed as utopian (in the negative sense
of the term).

25 In fact, Dewey's version of participatory democracy does seem to fly in
the face of what we know about the limits of political engagement and
27 participation, which undermines the credibility of pragmatism as a philo-
sophical system and not merely as a political doctrine. Moreover, Dewey
29 acknowledges the problem: citizens have only a casual interest in the doings
of the polity. Most citizens do not see government as central to their lives
31 and, because participation in decision making is costly, they largely opt out
of the process. According to Robert Westbrook (1992), however, Dewey's
33 conclusions about all-inclusive communities of inquiry were shaped, not by
his ruminations on the polity (although that was the subject of *The Public*
35 *and its Problems*, where he laid out his notions of democracy as a process
integral to pragmatism as a mode of inquiry), but on organizations, espe-
37 cially the conflict between labor and management. Westbrook claims that
Dewey's aim was inspired by a vision of organizations as cooperative com-
39 monwealths – industrial democracies that would be more harmonious, more
productive, and more creative than the organizations he knew:

1 Plato defined a slave as one who accepts from another the purposes which control his
conduct. This condition obtains even where there is no slavery in the legal sense. It is
3 found wherever men are engaged in activity which is socially serviceable, but whose
service they do not understand and have no personal interest in. ... The chief oppor-
5 tunity for science is the discovery of the relations of a man to his work – including his
relations to others who take part – which will enlist his intelligent interest in what he is
7 doing. Efficiency in production often demands division of labor. But it is reduced to a
mechanical routine unless workers see the technical, intellectual, and social relationships
involved in what they do, and engage in their work because of the motivation furnished
9 by such perceptions. (Dewey, 1916, p. 85)

Work is central to people's lives. Nowhere, outside of the home, are the
11 consequences flowing from shared activities and institutions more exigent or
absorbing than at work. Because job-related decisions do impinge upon
13 their vital interests, ordinary people want to participate in making them,
when given the opportunity to do so. One of the most interesting things
15 about Leonard's work, at least from the perspective of a pragmatist, is that
it puts paid to the claim that Dewey's ideas about democratic communities
17 of inquiry are entirely useless or impractical – you can get there from here.

This raises a second question: How do we get from here to there? Nonaka
19 and Takeuchi do not answer that question. They simply assume a commu-
nity of interests and values. But, if you must first have a community to get a
21 community of inquirers, you have only answered part of the question, argu-
ably the easiest part. Leonard goes further. Like Nonaka and Takeuchi
23 she seems to presume that, if management will just get out of the way,
communities of interest will emerge spontaneously within the organization,
25 although she also argues that leaders are needed to shape the conversations
that take place within organizations to make them productive.

27 Dewey never satisfactorily answers the question, maybe because he was
aiming too high, or maybe because he had no conclusive answer to it.
29 Instead, he made the best bet he could: he put his money down on edu-
cation. His basic notions about education for democracy and learning by
31 doing are practically ubiquitous in American (and Japanese) schools of
education; they have shaped the content and the pedagogy of public ed-
33 ucation in both countries to a remarkable degree. It is possible that the kind
of organizational arrangements, processes, and mechanisms Leonard de-
35 scribes are now feasible at least in part because of groundwork laid in the
public schools: that participation in a community of inquirers is a matter of
37 readiness and, after decades of exposure to the tenets of progressive edu-
cation, workers are ready to participate fully in knowledge-based organi-
39 zations. Of course, this answer presumes a certain kind of leadership.
Interestingly, given Leonard's implicit claim that managers are the main

hindrance to knowledge creation (see also Brown & Duguid, 1991; Weick, 1991), professional schools are one place where Dewey's ideas about education for democracy¹² have seldom been influential (Shields, 1998, 2003).

Our point is that social harmony cannot simply be assumed. Dewey's pragmatism understates the pervasiveness of conflict, a problem it shares with approaches to administrative inquiry like Nonaka and Takeuchi's and Leonard's, which presume voluntary communities of interest. Of course, Dewey acknowledges that cooperative collective problem solving requires a great deal of the participants. At a minimum, they need the means to engage with others in reflective argumentative exchange – shared cognitive models of practical reasoning and communication – as well as shared conversational norms. Even when these conditions are met, however, some conflicts still have to be resolved, which implies a further need for mediating processes and arbitrating mechanisms.

Philip Evans and Thomas Wurster (pp. 70–71), for example, argue that, in the future, all knowledge-based productive relationships will be designed around fluid, team-based collaborative communities, either within organizations (deconstructed value chains), or collaborative alliances like the “amorphous and permeable corporate boundaries characteristic of companies in the Silicon Valley” (deconstructed supply chains). They assert that, in these relationships “everyone communicates richly with everyone else on the basis of shared standards” and that, like the Internet itself, the architectures of object-oriented software programming, and packet switching in telecommunications, they will eliminate the need to channel information, thereby eliminating the tradeoff between information bandwidth (richness) and connectivity (reach). “The possibility (or the threat) of random access and information symmetry,” they conclude, will destroy all hierarchies, whether of logic or power. Maybe. But, how exactly, will these relationships be governed?¹³

Value-creating collective interactions often give rise to substantial public or collective goods (in the technical sense of those terms) and thereby to myriad potential conflicts of interest – with customers, suppliers, shareholders and lenders, between employees and managers, departments, and functions – both in organizations and alliances. Sound governance mechanisms and institutions permit value-creating cooperation; bad ones lead to the exploitation of some by others (win/lose) or, worse, the exploitation of all by all (lose/lose). The design of governance mechanisms is something about which management theorists know all too little. Arguably, political scientists and political philosophers understand collective choice mechanisms and their pitfalls better than do others. Alas, even they do not un-

1 derstand them well. Until design solutions are found to collective-choice
3 problems that work better than either hierarchy or nose counting, the use-
fulness of Dewey's pragmatism remains open to question.

Finally, comparing, Hamel and Prahalad, Nonaka and Takeuchi, and
5 Leonard makes us think that people in different parts of the organization at
different times might, perhaps, need different theories of knowledge. Cer-
7 tainly, Hamel and Prahalad, Nonaka and Takeuchi, and Leonard put us in
mind of the Zen koan about the three blind sages and the elephant (it's a
9 rope/tail; it's a fan/ear; it's a tree/leg). Nevertheless, all three are talking
about the same elephant – large multiproduct, multifunctioned organiza-
11 tions.

SUMMING UP

17 Creating knowledge requires inquiry, and inquiry necessarily implies a
standard for warranting beliefs. An epistemology is merely a set of stand-
19 ards that people use (or should use) to justify their beliefs. Where organ-
izational knowledge is concerned, it is a set of standards the people in an
21 organization use (or should use) to justify shared beliefs (which, in turn,
provides the basis for a collectivity's capacity to create value by doing things
23 cooperatively). The standards that should guide administrative inquiry may
ultimately derive from coherence, correspondence, or consequence claims.

Unfortunately, where practical, social reasoning is concerned, these
25 different approaches to warranting truth all seem to raise a fundamental
problem of practical reasoning: the mismatch between processes of inquiry
27 and governance mechanisms. Fichte regretfully truncates the process of in-
quiry to solve the governance problem by deferring to the strongest will.
29 Buddhists rely on generosity, benevolence, cooperation, service, courtesy,
sympathy, and honesty to guide social inquiry along virtuous paths and
31 finesse the problem of governance by assuming harmonious unity. Prag-
matists offer a fully fledged theory of social inquiry that people in an or-
33 ganization could use to justify shared beliefs. However, pragmatists
acknowledge, often implicitly, that they do not have a solution to govern-
35 ance problems. That is, they cannot identify a set of governance mechanisms
or institutions that would make their approach to administrative inquiry
37 feasible.

That does not mean that there are no such mechanisms. Indeed, from this
39 perspective, the relationship between epistemology and administrative in-

1 quiry may very well be reciprocal. Aarons makes this point clearly and
elegantly:

3 Philosophers are still largely ... obsessed with understanding the origins and justification
5 of knowledge rather than the dynamics of knowledge as a process. Here we can actually
7 turn things around and look to [administrative inquiry] to provide some inspiration for
8 philosophy ... This will involve extending the accounts of collaborative knowledge pro-
9 duction, as provided by philosophy, to broader accounts of collaborative knowledge use.
10 This is where the practical dimension of [administrative inquiry] can actually help to
11 enrich our philosophical understanding of the nature of knowledge, and thereby lead to
12 stronger approaches to [administrative inquiry] grounded in coherent and sound phil-
13 osophical theory. (Aarons, 2004, p. 11)

13 reasonable to assume that students of administrative inquiry would:

- 15 • provide an account of who determines what information counts as evidence and of
16 who determines what is sufficiently justified to count as knowledge, and
- 17 • enumerate the ways in which people classify things, conditions, problems, and op-
18 portunities, and the ways in which people in organizations come to classify their
19 bodies of knowledge.

21 Understanding these relationships could help to identify the feasible set of
22 processes or mechanisms for creating and sustaining knowledge – those that
23 are thinkable, available or likely to be adopted in a particular situation – or
24 say how organizational characteristics and configurations should be trans-
25 formed to exploit the most effective processes and mechanisms of admin-
26 istrative inquiry and argumentation. This could be very useful knowledge; it
27 might even be critical to understanding social inquiry in general. We know
28 that in many if not most organizations senior managers determine what
29 information counts as evidence and what beliefs are sufficiently warranted
30 to count as knowledge. Much the same set of observations applies to func-
31 tional staff specialists and middle managers. It stands to reason that some
32 approaches to administrative inquiry may be wholly incompatible with
33 particular organizational arrangements. Changing these organizational
34 characteristics and configurations is almost certainly one of the keys to
35 the success of administrative inquiry efforts. Consequently, a reasonable
36 person ought to endorse the proposition that a good organizational soci-
37 ology of inquiry would be very useful. It might actually help to enrich our
38 philosophical understanding of the nature of knowledge itself.

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NOTES

1. Obviously – we got 70,000 hits when we Googled < knowledge-management (KM) and epistemology>. See, for example, Aarons (2004), Allix (2003), and Gourlay (2000). Nevertheless, Aarons is right on target when he observes:

It is almost impossible to read an introduction to Knowledge-Management (KM) without some mention of philosophy. Indeed, the KM literature is literally riddled with references to philosophers and philosophies. Yet surprisingly, despite the consistent mention of philosophical theory, it is rare to see any detailed connections made between the theory of knowledge *qua* philosophy and the practice of administrative inquiry. (Aarons, 2004, p. 1)

2. Hegel is, of course, the most prominent of the German idealists. One might expect that we would feature his ideas here. However, Hegel was much more concerned with understanding the world than with changing it. For that reason and given our purposes, Fichte, with his emphasis on moral reasoning and human agency, is better. Besides, he writes more clearly.

3. Nevertheless, Fichte (1846) asserted that reason would ultimately triumph over human instinct, in the full noontide of spiritual human fulfillment that would follow an age in which rational policies would be gradually recognized and adopted by society.

4. Frankly, although we have tried to present these ideas fairly and honestly, idealism seems like a strange, even exotic, growth to us – more like a carbuncle than a blossom. We simply cannot take hold of the notion that the material world is a creation of the mind. On the other hand, we can see why this view could be extremely appealing to readers of the *Harvard Business Review*. The heroic picture it paints of top management is flattering, if not now entirely credible. It reminds us of another German idealist, Karl von Clausewitz, who described Napoleon as a genius who could grasp the situation at a glance and whose iron will pulverized obstacles into dust.

5. Nonaka and Takeuchi (1996) also include an extended discussion of the history of Western philosophy. Even so, Aarons is largely correct in his claim that Nonaka and Takeuchi make almost no connections between the philosophical ideas of Plato, Aristotle, Descartes and Locke, Kant, Hegel and Marx, Husserl, Heidegger, Sartre, Merleau-Ponty, Wittgenstein, James and Dewey, which they discuss in chapter two,

1 and “their practical discussion on how one goes about the business of knowledge-
 3 management” (2004, p. 4). One could argue that Nonaka and Takeuchi’s discussion
 of epistemology helps to explain why some of its premises are relevant to admin-
 istrative inquiry and others are not, but they don’t explicitly make that argument, as
 Aarons does, for example.

5 6. Hence, conflict is always comparatively superficial, for there can be no ultimate
 conflict where opposites are mutually interdependent. Like Hegel, Zen Buddhists
 7 reject subject/predicate/object distinctions. Watts (1957, p. 19) attributes these dis-
 tinctions to language. In English, things and actions are distinguished from each
 other as nouns and verbs. In languages that use Chinese characters, words can be
 9 both nouns and verbs, which results in an ability to see things as events and entities
 as processes. In this respect, German seems closer to Japanese than to English. In
 11 any case, we should not be surprised to learn that Zen Buddhists do not distinguish
 the dancer from the dance.

13 7. We are struck by the many points of similarity between Nonaka and Takeuchi’s
 thinking and the ideas of Mary Parker Follett, as elaborated in *The New State*,
 originally published in 1918. Community Is a Process” in *Philosophical Review* in
 15 1919. Creative Experience in 1924 described by Keith Snider. Follett
 was a self-declared follower of both James and Dewey. That declaration led us to
 17 look into her work for this article. Indubitably, William James’ psychology (the
 stream of consciousness) and John Dewey’s democratic experimentalism influenced
 her thinking. However, her pursuit of harmony premised upon an organic social
 19 unity seems more important to us than her pragmatism. As Follett explained (all
 references are to *The New State* as cited by Snider [1998]), people relate psychically in
 21 such a way that their consciousnesses interpenetrate. Organizational consciousness
 emerges out of the encounter between individual consciousnesses. Each new activity
 23 and experience adds to the experience of the group. Further, the degree to which
 interpenetration occurs in an organization depends upon the genuineness and au-
 thenticity of the relations among its members. That is, interpenetration harmonizes
 25 differences. Members achieve this by recognizing the objective demands of the sit-
 uation and the needs and powers of their fellows. For Follett, reality is relating.

27
 29 The only reality is the relating of one to the other which creates both. Our sundering is as
 artificial ... an act as the sundering of consciousness into subject and object. The only
 reality is the interpenetrating of the two into experience. (1998, p. 61).

31 Facts emerge in relation, purposes emerge in relation, and relations create both
 33 personal and group identities.

35 I learn my duty to my friends not by reading essays on friendship, but by living my life
 with my friends and learning by experience the obligations friendship demands. ... Ideas
 unfold *within* human experience, not by their own momentum apart from experience.
 37 (1998, pp. 192–193)

39 Further, we know only in a tentative way because situations and relations are always
 interweaving, constantly creating new facts and purposes (1998, p. 210). Finally,
 “Life is the true revealer: I can never understand the whole by reason, only when the

heartbeat of the whole throbs through me as the pulse of my own being” (1998, p. 265).

8. We base most of our claims on the writings of Dewey while several pragmatists – Peirce, Charles Royce, and George Herbert Mead – made contributions to our understanding of how people order and maintain social relations based on language and our capacity to understand and respond to others, only Dewey built a formal theory of social knowledge. Unfortunately, Dewey’s meaning is often as obscure as Hegel’s.

9. In a very similar vein, Aarons (2004, pp. 10–11) argues that the philosophy of science would be a rewarding place to look for knowledge management insights. He claims that philosophers of science are now less concerned with developing general accounts of what science is (e.g., Karl Popper and Thomas Kuhn) than they are with building a picture of knowledge creation in a group context, what he calls “looking more closely at the fine detail of science.” These fine details have to do with how scientists work, reason, experiment, collaborate, etc., although he cautions,

current approaches in the philosophy of science ... are still somewhat lacking ... [T]hey provide a detailed account of knowledge *production*, but little or no account of knowledge *use*. ... [T]hey have little to say about the pragmatics of knowledge storage, knowledge sharing, and knowledge dispersal, all essential aspects of knowledge management projects.

10. Economists who accept the strong version of (financial) market efficiency go even further than Dewey does: they argue that collective intelligence always exceeds individual intelligence. James Surowiecki (2003) takes an intermediate position: he argues on empirical grounds that, if four basic conditions are met, collective intelligence will consistently outperform experts. He claims that the evidence supports his position even when members of the collectivity do not know all the facts or choose, individually, to act irrationally. The necessary and sufficient conditions identified by Surowiecki are (1) diversity of opinion, (2) independence of opinion, (3) decentralization to those with an interest (not necessarily a selfish interest) in the outcome, and (4) a good method for aggregating opinions. Diversity brings in different information; independence keeps people from being swayed by a single opinion leader; people’s errors balance each other out; and including all opinions guarantees that the results are smarter than if a single expert had been in charge.

11. Although, to be honest, that distinction is open to interpretation – it is not always clear when Dewey is talking about known institutions or organizations, democracy as a process, or migration paths from where we are to his ideal community of inquirers. The comments that follow reflect our reading of *Democracy and Education* (1916), probably Dewey’s best-known work.

12. Total quality management (TQM) is an exception to this generalization. Many schools of engineering, management, and public affairs teach TQM. There is evidence that Shewhart, Deming, and Juran were influenced by Dewey’s preoccupation with method and argument. How much is a matter of speculation, certainly, Deming, with his distaste for authoritarian, command-and-control hierarchies, often sounds like Dewey. However, most of the evidence for pragmatism’s influence on quality

management is circumstantial, e.g., TQM's and pragmatism's procedural and methodological affinities – the plan, do, check, act cycle, for instance.

13. Note that we are not saying that they cannot be governed, or that self-organization is infeasible, merely that voluntary collaborative relationships imply far worse collective goods problems than are encountered in organizations designed to carry out repetitive processes. Given that we lack the codified knowledge needed to master collective goods problems in traditional organizations (although in practice they are, nevertheless, frequently surmounted through some combination of social solidarity, personal charm, and organizational craftsmanship), it is not obvious that we will soon figure out how to govern voluntary collaborations – which suggests a surprising inference about management training and research. If the purpose of organizational scholarship is answering important questions and not merely codifying existing knowledge, political study and analysis are much more crucial to our efforts than has hitherto been recognized.

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It is as shown, Philadelphia