Tacit Knowledge and Discourse Analysis

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INTRODUCTION

Much of human experience is *below-view*, unattended to as we operate in the world, but integral to our performance as social creatures. The tacit knowledge involved in our practice allows us the experiential agility to be at once efficient and creative, to assimilate the novel and the familiar: in essence, to develop expertise. The possessors of skilful practice, the artisan, the witchdoctor or the physician, have occupied a position of both importance and mystery in most cultures since ancient times. Our interest over the ages in such hidden knowledge has caused us to mythologise expertise, placing it beyond the common by constructing it as unspeakable. Thus, in contemporary times it is not surprising that the dominant research perspective on tacit knowledge maintains that it is ineffable, that is, tacit knowledge cannot be understood by looking at what and how people communicate verbally. Indeed the word tacit has its origins in the Latin, *tacitus*, meaning silent.

As information technologies have begun to alter the way in which we think about our own processes while looking for ways to automate and retain our practices, we have been compelled to consider how the experience of the artisan mentioned above can engage with the constraints of the computational world. Capturing and sharing tacit knowledge has thus been a consistent problem in information systems and knowledge management research (Boisot, 1995; Nonaka & Takeuchi, 1995; Tsoukas, 2002; Wenger, 1998). Polanyi's Theory of Tacit Knowing (TTK) is the dominant theoretical perspective in this research. In this theory, Polanyi (1958) suggests that tacit knowledge is inherently personal, underlying our ability to perform tasks we find difficult to explain, such as facial recognition. Concepts in TTK have been made available to the information systems (IS) community largely through the work of Nonaka & Takeuchi (1995) who reinterpreted the theory, precipitating research directions in information systems that are misaligned with Polanyi's theses. A notable example is the movement in IS research to differentiate tacit and explicit knowledge (Johnson & Lundvall, 2001). In contradistinction, Polanyi asserts that explicit knowledge cannot be adequately separated from its tacit coefficient:

Now we see tacit knowledge opposed to explicit knowledge; but these two are not sharply divided. While tacit knowledge can be possessed by itself, explicit knowledge must rely on being tacitly understood and applied. Hence all knowledge is either tacit or rooted in tacit knowledge. A wholly explicit knowledge is unthinkable. (Polanyi, 1969, p. 144)

The emphasis in information systems research is typically on converting tacit knowledge into explicit knowledge (Hershel, Nemati, & Steiger, 2001). Attention is also given to setting up a dichotomy of tacit and explicit knowledge in terms of articulation (can it be carried in language?), codification (can it be turned into an artifact?) or judgment (is it objective or subjective?).

This article is structured to critique the dominant position in information systems research that tacit knowledge is ineffable. The background section provides an introduction to the extensive interdisciplinary literature on tacit knowledge, providing context for the subsequent section that deconstructs the assumptions that this literature makes about what it means to, in Polanyi's (1966, p. 4) terms, "know more than we can tell." To conclude, the role of linguistic and semiotic analysis in realising the growing trend toward theorising "community knowing," rather than knowledge as an artifact, is suggested in the final sections.

BACKGROUND: UNDERSTANDING TACIT KNOWLEDGE, AN INTERDISCIPLINARY PURSUIT

Both prior and adjacent to the popularisation of Polanyi's TTK, there has been extensive interdisciplinary research in tacit knowledge and a very large body of research looking at the implicit, situated nature of practice. These disciplines include philosophy, psychology, linguistics, semiotics, sociology, history, philosophy of science, and, most recently, knowledge management. A theme

running through all these domains is uncovering the below-view. For example, Freud's (1970) theory of psychoanalysis and his corresponding concept of the unconscious locates a significant aspect of human experience below the view of awareness. Similarly, a movement in psychology investigates implicit learning (Reber, 1993), that is, learning that is below-view in the sense that it occurs without the attention of the subject on the process of learning. Recently, there have been attempts by psychologists to create psychological metrics for tacit knowledge. Wagner & Sternberg (2000) develop a method for measuring tacit knowledge in psychology and business management. Their "Tacit Knowledge in Management" (TKIM) inventory seeks to "identify individuals whose 'street smarts' indicate the potential for excellent performance in managerial and executive careers" (Wagner & Sternberg, 1991, p. 1). Conceiving of tacit knowledge as a facet of *practical intelligence,* they construct a triadic view of tacit knowledge as "managing self," "managing tasks" and "managing others," and test subjects in each area through multiple-choice responses to scenarios.

In the social sciences, the focus has been on identifying the implicit subject positions which have been naturalised by culture (Bernstein, 1971; Bourdieu, 1990). This naturalisation means that these positions remain below scrutiny. This is part of a research program that suggests that our experience is constructed through implicit social processes and parallels a body of research in psychology that claims that social behaviours are encoded automatically and without intention (Bargh, 1999). Bourdieu (1990) suggests that the individual internalises the cultural habitat in which they reside, their *habitus*. This means that they form dispositions to behave and construe their experience in certain ways. The acquisition of these structural constraints is a process of acculturation into specific socially-established groups or classes (Bourdieu, 1990, p. 130) and is akin to Bernstein's (1971) notion of *code orientation*. This is a different conceptualisation to the structuralist position, which argues that we follow unconscious rules in enacting our practice. Instead, it is a view of socially constructed dispositions that are inscribed in the habitus but which may shift with changes in context: "Agents to some extent fall into the practice that is theirs rather than freely choosing it or being impelled into it by mechanical constraints" (Bourdieu, 1990, p. 90).

Research in the history and philosophy of science examines science as a discipline that operates to efface the tacit component of its practice in order to maintain an ideology of objectivity (Collins, 1974, 2001a; Kuhn, 1962; Ravetz, 1971; Turner, 2001). In their investigation of science as a social practice, theorists in this domain have sought to reveal the tacit nature of the methods scientists employ. In fact, Polanyi's model of tacit knowledge itself was directed at critiquing the scientific method and to providing "a stable alternative to…[science's] ideal of objectivity" (Polanyi, 1966, p. 25). It provided a conceptual basis for understanding scientific activity as the practice of a craft (Ravetz, 1971). This is part of a program which deconstructs what Schuster (1984) refers to as the mythic construction of method. Method discourses in science typically try to generate the idea that they are systematic, explicit and objective (Collins, 2001a, 2001b; Ravetz, 1971). As such, they present themselves as incommensurable with other practices such as astrology, which they claim to be pseudoscience. Here we have an example of an institutional discourse, science, operating to efface the role of tacit knowing in the production of knowledge.

IS TACIT KNOWLEDGE INEFFABLE?

The attribute most consistently ascribed to tacit knowledge across the disciplines is ineffability (Baumard, 1999; Collins, 2001a; Nonaka & Takeuchi, 1995; Reber, 1993). The strong position is that tacit knowledge cannot be articulated in any linguistic form, while the weak position holds that it is difficult to articulate. Polanyi's (1966:4) widely cited suggestion that "we know more than we can tell" asserts the epistemological significance of tacit knowing in terms of its ineffability. In assessing this proposal, it is important to consider what it means "to tell." If telling means making explicit, codified artifacts that are directly transferred to the mind of the listener, then this kind of telling is not a possible means of exposing tacit knowledge. However, if we allow that telling involves processes of which the speaker is not necessarily aware and which are, in turn, subject to both unconscious and conscious interpretation by the listener, linguistic structure is reinstated as relevant to understanding tacit knowledge. These below-view processes are akin to Peirce's notion of the interpretant in semiosis, introduced in the previous section.

Thus, it appears that Polanyi's statement needs to be refined. We know more than we can tell only if we think about telling as making explicit knowledge. Such an assumption utilises an impoverished model of communication. This model, referred to as the mathematical model of communication (Shannon & Weaver, 1949), presupposes that meaning in communication is absolute and, as such, may be seamlessly transferred from the mind of the speaker to that of the listener. It applies what Reddy (1979) terms the *conduit metaphor*, that is, the notion that words are boxes with meanings inside that are unpacked by the person to which they are directed. Reddy (1979:287) argues that the metalingual resources of English privilege this kind of view, as the following examples suggest:

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