

What is Tacit Knowledge?

Abstract

Tacit knowledge appears to be defined differently by different people. This paper will suggest that a single definition of tacit should be used, its selection process, and characteristics.

Introduction

In an effort to use Polanyi's personal/individual tacit and explicit knowledge theory to improve management practices, many authors modified Polanyi's tacit knowledge characteristics to provide a more meaningful application of their theories. Haldin-Herrgard (2004) in the paper Titled "Diving under the Surface of Tacit Knowledge" reviewed academic books and articles on knowledge and tacit knowledge during the period of 1956 to 2002. In her research, she included the concepts that were used to expand the explanation of tacit knowing. She reported finding 23 different definitions of tacit knowledge.

As you can see authors did not agree on how to modify Polanyi's theories to achieve the desired results in management practices. According to Haldin-Herrgard (2004), these authors seem to agree that tacit knowing is highly personal, difficult to express causing difficulty for diffusion. Experience is the main source of tacit knowledge creation, and mainly related to practically. Haldin-Herrgard (2004) did a review of scientific literature regarding tacit knowledge from 1958 – 2002. "The review resulted in 149 different epitomes of tacit knowledge used (concepts used to facilitate the understanding of tacit knowing). Some of these epitomes though were used with different meanings by different authors and with different epitomes used on same or similar topics by different authors." Haldin-Herrgard (2004) found the following: "

1. Differences can be found for the most part in the underlying assumptions (i.e. the need for externalization)
 - a. If the knowledge is impossible to express, then it does not exist according to Polanyi (1956), Nelson & Winter (1982), and Gustavsson (2000), while Wittgenstien, in Rolf 1991, claims it exists.
 - b. The ability to express knowledge depends on the various elements such as the language being used. There may be a gap between knowledge and the ability to use the language to articulate it. The gap is related to the individual doing the articulation and NOT general to the language.
 - c. Knowledge cannot be codified without losing some of its original qualities (Johnson, Lorenz, & Lundwall, 2002)
 - d. According to Mcaulay & Russell (1997) there would be unwillingness to articulate knowledge for various reasons, while Gustavsson (2000) believes that tacit knowledge is suppressed knowledge.
 - e. Polanyi (1958) asserts that tacit knowing can be diffuse without articulation, while, Nonaka and Takeuchi (1995) consider a form of articulation necessary for externalization.
 - f. Cook & Brown (1999) propose that explicit and tacit are two different types of knowledge and that neither can be made from the other nor changed to the other.
2. Differences can be found in the existence of knowledge as individual or collective knowledge

- a. Most authors agree that tacit knowing is individual, BUT there is discussion of organizational or collective tacit knowing (Madhavan & Grover, 1998; Athanassious & Nigh, 2000, and Baumard, 1996).
- b. Brockman & Anthony (1998) assert that culture is a collective form of tacit knowing. If culture is learned and not innate, then it must be explicit at the point of transfer.”

Based on the Haldin-Herrgard (2004) research paper there appears to be a need to provide closure on the definition of tacit knowledge. In the end, there can only be one!

Selection Process

One of the first things to be considered is whether or not an empirical proof of theory has been completed for any of the theories of tacit knowledge? The answer to this question is: Yes.

Morgan (2006) completed a dissertation that included an empirical proof of theory that Polanyi's tacit knowledge exists. A shorter version of the dissertation paper was accepted and presented at Polanyi Society Conference at Loyola University, Chicago, IL in June 2008. If there is a proof of theory for only one of the author's theories, then it should be accepted as the source for determining the true definition of tacit knowledge.

What is Polanyi's tacit knowledge?

In 1966, Michael Polanyi published a book titled the “The Tacit Dimension” He states that “My search has led me to a novel idea of human knowledge from which a harmonious view of thought and existence, rooted in the universe, seems to emerge.” His starting point is “I know

more than I can tell”. **Knowledge that cannot be put into words** is tacit knowledge to the person having it. (Page 4) “Our knowledge is a physiognomy, provided we are given adequate means for expressing ourselves.” **Tacit knowledge is time sensitive**, because information may become available that explains the tacit link. **Teaching tacit knowledge by practical exercise may be viable**, if the pupil’s intelligent cooperation catches the meaning of the demonstration. (page 5) “Gestalt psychology has demonstrated that we may know physiognomy by integrating our awareness of its particular without being able to identify these particulars, and my analysis of knowledge is closely linked to this discovery of Gestalt psychology.” “Gestalt psychology assumed that perception of an item takes place through the spontaneous equilibration of its particulars impressed on the retina or the brain.” **It is an outcome of an activity shaping experience performed in the pursuit of knowledge.**

The shaping and integrating is the indispensable **tacit power** by which all knowledge is discovered and once discovered is held to be true.”

- Tacit Power = tacitly shaping and integrating experiences
- All knowledge is discovered using tacit power
- All knowledge is discovered by tacitly shaping and integrating experiences

Polanyi covers Ryle’s knowing how and knowing what. He believes that you cannot have one without the other. Therefore, his knowing includes both knowing that and knowing what will cover both the practical and the theoretical knowledge. (page 7) A more detail discussion of the Polanyian view of “knowing how and knowing what” was provided by Richard Allen (2000).

The summary of page 8-11:

- **Tacit knowing is an individual process**
- **Tacit knowing = An unaware linkage between two kinds of things**
- **Tacit knowledge will become known to people at different times**
- **Tacit knowing combines the functional and phenomenal aspects.**

“Since tacit knowing establishes a meaningful relationship between two terms, we identify it with the comprehensive entity which these two terms jointly constitute. The proximal represents the particulars of the entity. We can comprehend the entity by relying on our awareness of the particulars for attending to their joint meaning.” (Page 13) In other words, we are attending from these internal processes to the qualities of things outside us. (Page 14) “We may venture, therefore, to extend the scope of tacit knowing to include neural traces in the cortex of the nervous system. This places events going on outside our brain on the same footing as subliminal events inside the body. This makes perception an instance of tacit knowing. By elucidating the way our bodily processes participate in our perceptions we will throw light on the bodily roots of all thought, including man’s highest creative powers. (Page 15) We attend to the world through our body. In this sense we can say that when we make a thing function as the proximal term of tacit knowing, we incorporate it in our body – or extend our body to include it – so that we come to dwell in it. (Page 16) Based on others use of the term indwelling Polanyi defines it for tacit knowing. “Indwelling, as derived from the structure of tacit knowing, is a far more precisely defined act than empathy, and it underlies all observations, including all those described previously as indwelling. (Previously, defined as dwelling in the mind) Indwelling has wide functions. One is *interiorization*. *Interiorization* is to identify ourselves with the teachings in

question, by making them function as the proximal term of a tacit moral knowledge, as applied in practice. This establishes the tacit framework for our moral acts and judgment. To rely on a theory for understanding nature is to interiorize it. This is why Mathematical theory can be learned only by practicing its application: **its true knowledge lies in our ability to use it.** The identification of tacit knowing with indwelling involves a shift in our conception of tacit knowing. “ (Page 17)

“We had envisaged tacit knowing in the first place as a way to know more than we can tell. We identified two terms of tacit knowing, the proximal and the distal, and recognized the way we attend from the first to the second, thus achieving an integration of particulars to a coherent entity to which we are attending. Since we are not attending to the particulars in themselves, we could not identify them: but if we now regard the integration of the particulars as an *interiorization*, it takes on a more positive character. It now becomes a means of making certain things function as the proximal terms of tacit knowing, so that instead of observing them in themselves, we may be aware of them in their bearing on the comprehensive entity which they constitute. It brings home to us that it is not by looking at things, but by dwelling in them, that we understand their joint meaning.” “We can see now how an unbridled lucidity can destroy our understanding of complex matters. Scrutinize closely the particulars of a comprehensive entity and their meaning is effaced, our conception of the entity is destroyed.”

“Admittedly, the destruction can be made good by interiorizing the particulars once more.” (Page 18) “But it is important to note that this recovery never brings back the original meaning. It may improve it.” “The meticulous dismembering of a text, which can kill its appreciation, can also supply material for a much deeper understanding of it. In these cases, the detailing of particulars,

which by it self would destroy meaning, serves as a guide to their subsequent integration and thus establishes a more secure and more accurate meaning of them. Of course tacit reintegration of particulars is not the only way to recover their meaning, destroyed by focusing our attention on them. The destructive analysis of a comprehensive entity can be countered in most cases by explicitly stating the relation between particulars. Where such explicit integration is feasible, it goes far beyond the range of tacit integration.” (Page 19)

The indwelling is a useful concept. On one hand, you can move tacit knowledge to explicit knowledge via indwelling. On the other hand, you can integrate items outside yourself into your being. Example: The use of a tennis racket gets integrated into an extension of your hand and you use it as if it was part of your body or the tacit integration of the act of driving a car into your being. The car becomes your integrated tool that moves you thru the environment instead of some other bodily function.

“An explicit integration cannot replace its tacit counterpart.” But suppose that **tacit thought forms an indispensable part of all knowledge**, then the ideal eliminating of all personal elements of knowledge would, in effect, aim at the destruction of all knowledge. I think that I can show that the process of formalizing all knowledge to the exclusion of any tacit knowing is self-defeating.” (Page 20) “To see a problem that will lead to a great discovery is not just to see something hidden, but to see something of which the rest of humanity cannot have even an inkling. For the Memo shows conclusively that if all knowledge is explicit, i.e., capable of being clearly stated, then we cannot know a problem or look for a solution. And the memo also shows, therefore, that if problems nevertheless exist, and discoveries can be made by solving them, we

can know things, and important things, that we cannot tell.” (Page 22) “It makes sense if we admit that we have tacit foreknowledge of yet undiscovered things. Since we have no explicit knowledge of these unknown things, there can also be no explicit justification of a scientific truth.” (Page 23)

“We have here reached our main conclusion. Tacit knowing is shown to account

1. for a valid knowledge of a problem,
2. for the scientist to pursue it, guided by his sense of approaching its solution, and
3. for a valid anticipation of the yet indeterminate implications of the discovery arrived at in the end.

The act of indwelling “relies on interiorizing particulars to which we are not attending and which, therefore, we may not be able to specify, and relies on our own further attending from these particulars to a comprehensive entity connecting them in a way we can not define. When the use of this faculty turns out to be an indispensable element of all knowing, we are forced to conclude that all knowledge is the same kind as the knowledge of the problem.” (Page 24) The difficulty is to find a stable alternative to the positivist movement in the philosophy of science’s ideal of objectivity. This is indeed the task for which the theory of tacit knowing should prepare us.” (Page 25)

Summary

The objective is to define 5 to 7 characteristics of tacit knowledge/knowing from the previous discussion.

Tacit knowledge/knowing:

1. **is an individual process**
2. **Is a link, which we are unaware of, between two kinds of things**
3. **Is time sensitive**
4. **Is knowledge that cannot be put into words**

The following is an attribute list of tacit knowledge:

Attributes	Tacit
Individual	X
Shared	
Unaware of	X
Time sensitive	X
Expressible in Words	
Expressible in Action	X
Scalable to Others	
Provides linkage	X

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