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ARTICLE

CONTEXT: The Shared Knowledge Enigma

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Abstract

Purpose—The purpose of this article is to present a systems perspective of context avenues that impact the knowledge sharing process.

Design/methodology/approach—Following a brief introduction of the meaning of context, an example of face-to-face interaction is used to explore the term context sensitive in terms of sharing knowledge in a one-way single exchange from a source to a perceiver. Eight different context avenues are presented, their relationship to the conscious and unconscious mind addressed, and their impact on the sharing of knowledge considered.

Findings—The authors posit that there are eight primary context avenues that potentially impact the creation of knowledge in terms of shared understanding and meaning, and that the higher the number of related patterns forwarded through content and context the greater the resonance of shared understanding. Further, that the unconscious mind plays a significant role in embedding context and creating meaning.

Originality/value—This paper provides a shift in perception from the transmission of information to the sharing and re-creation of knowledge in terms of shared understanding and meaning. It also presents a new model of context avenues impacting the sharing of knowledge.

Keywords Context, context sensitive, knowledge sharing, shared understanding, unconscious, communication, non-verbal communication

Paper type Researched conceptual paper

As the business world moved toward the new century a new understanding emerged of the importance of knowledge in accomplishing the mission of the organization. Along with this new frame of reference came the realization that knowledge is situation-dependent and context sensitive, and this realization began a shift in the way we share knowledge that contributes value built on an understanding of intent through content and context.

This paper explores the multiple and varied contexts involved in the movement of knowledge from a source to a perceiver. We begin with the definitions of information, knowledge and context before launching into the context avenues in our model. Throughout this paper the relationships of the conscious and unconscious mind to the different context avenues are addressed and their impact on the sharing of knowledge considered. We begin.

A Convenient Breakdown of Knowledge

There are many interpretations of the terms data, information and knowledge. For purposes of this discussion, data is taken to be sequences of numbers and letters, spoken words, pictures, even physical objects when presented *without context*. Information is data with some level of context and is usually descriptive, answering questions such as who, what, when and where. Information can be stored in computers and sent over communications lines. Knowledge—built on information—often addresses the how and why questions. Knowledge provides understanding, develops meaning, anticipates the results of actions and is created within the individual’s mind by selecting and organizing information in a manner to achieve these goals. In brief, *knowledge is the human capacity (both potential and actual) to take effective action in varied and uncertain situations.*

Knowledge is dependent on context. In fact, it represents an understanding of situations *and their context*, insights into the relationships within a system, and the ability to identify leverage points and weaknesses to recognize the meaning in a specific situation and to anticipate future implications of actions taken to resolve problems.

Shared understanding, the underlying purpose of most communication, is taken to mean the movement of knowledge from one person to the other, recognizing that what passes in the air when two people are having a conversation is information in the form of changes in air pressure. These patterns of change may be understood by the perceiver (if they know the language and its nuances), but the changes in air pressure do not represent understanding, meaning or the capacity to anticipate the consequences of actions. The perceiver must be able to take these patterns (information) and—interpreting them through context—re-create the knowledge that the source intended. In other words, content and context (information) originating at the source resonate with the perceiver such that the intended knowledge can be re-created by the perceiver. If the subject is simple and familiar to both participants, knowledge sharing (re-creation) may be easy. However, if the subject is complex and the parties do not have common contexts, sharing may be very challenging.

While at some level all knowledge is context-sensitive, pragmatic knowledge draws directly on the lessons of past experiences within specific circumstances to determine how things actually work. Pragmatic knowledge is knowledge focused toward action because it is continuously customized and improved by close observation of the action effectiveness in meeting expected results. This is earned knowledge, a “knowing” that individuals—and by extension the organizations within which they work—have built through experience and understanding how to interpret situations and what actions to take to achieve desired outcomes. This pragmatic way of knowing helps interpret relationships not easily recognizable, that is, the relationships that exist between how we see a situation (our frame of reference), what rules we use to determine our actions, the types of actions we take, and how well these actions achieve the desired results. It can be closely linked to the capacity of workers and teams to learn from their own experiences. From this perspective, knowledge arises through employees from their efforts in reflecting, experimenting, and identifying new ways of how things work in their jobs. Pragmatic knowledge creation then becomes primarily a matter of learning through action and day-to-day conversations with others, and secondarily through internal discovery and inquiry.

The Power of Context

The innate ability to evoke meaning through understanding—to evaluate, judge and decide—is what distinguishes the human mind from other life forms. This ability enables us to discriminate and discern—to see similarities and difference, form patterns from particulars, and create and store knowledge purposefully. In this human process to create meaning and understanding from external stimuli, *context shapes content*. We have heard this phrase so many times over the past few years that we have no idea who said it first, but it is another one of those thoughts that captures the imagination. While the content of the external stimuli may be constant, when you change the context the meaning can be entirely different! For example, the simple statement “Let’s get together” could *mean* “sometime,” or some specific time set earlier or later in a conversation or assumed because of the subject of the conversation, or could possibly be a nice thing to say without any real intent behind it. This brings us to the power of context to influence knowledge sharing.

In the opening paragraph we stated that knowledge was context sensitive. The word “context” comes from the Latin stem of *contexere* which translates as “weave together.” While it can loosely be defined as a set of circumstances, the *Oxford English Dictionary* also provides, “The part or parts immediately preceding or following a passage or word as determining or helping to reveal its meaning; the surrounding structure as determining the behavior of a grammatical item, speech, sound, etc.” (*Oxford English Dictionary*, 2002, p. 501) The greater the context, providing it is coherent and relevant, the greater the number of related patterns generated by the context that offer the potential to create shared understanding. In our example above, that could mean adding, “... before school tomorrow morning in the library” to “Let’s get together.” If this exchange was among members of the opposite sex accompanied by a wink and smile or a soft tone of speech, an even more significant context accompanies the words. If these same words were an exchange between a mentor and student who is having difficulty with a subject (where both individuals are aware of a major test the student has the following morning), and if the words are delivered firmly and with urgency, an entirely different shared understanding would occur. Given that context supports a specific meaning, the more relevant clues added to the content the higher the resonance of shared understanding.

Realizing that any model is an artificial construct, we propose eight primary avenues of context that may directly impact the content of a message. While we will focus on one part of a conversation between two individuals to explore these avenues, each context could be considered from the viewpoints of the source (S) and the perceiver (P) based on their perceptions of the interaction that is occurring. Each of these contexts could also be extrapolated across to written and virtual text. For example, the choice of words and sentence structure in a virtual resource, the tone of the writing, the impact of visual approaches in support of text, or the feelings present from past interactions with the originator of the text. Further, as represented by the well-known McLuhan-originated meme (*the medium is the message*) (McLuhan, 1964) and touched on below, the specific medium of communication directly affects the content, and each context will potentially relate differently to the various mediums of exchange. The key word here is “affect.” McLuhan did not seek to “isolate the concepts behind the words but to integrate them as perceptions.” (Gordon, 1997, p. 305) In other words, understanding the medium and the

perceiver's interaction with the medium provides a greater opportunity to interpret and integrate the intent of the message with the perceptions of the receiver (the perceiver).

Since the initial publication of McLuhan's ground-breaking work over 40 years ago, he has grown to be recognized as a principal contributor to the field of communications; volumes and volumes of explication of and argument about his work have been published, perhaps realizing the intent of McLuhan's efforts. As Gordon so eloquently states, "McLuhan's object is not to offer a theory of human communication, but to *probe the effects of anything and everything we use in dealing with the world around us, including language.*" (Gordon, 1997, p. 328) As we explore the avenues of the context model below, we adopt McLuhan's intent and—in this new century where we are beginning to understand the power of the mind/brain and the unconscious—would expand that intent to include: *and with the world within us.*

The Context Avenues

While we will focus on one side of an exchange from a source to a perceiver—the traditional hierarchal model of communication—there is nonetheless a feedback loop occurring during this exchange. The context avenues model explicated below captures the layers of context from the viewpoint of this single point of exchange, the shared understanding (the "what"), and does not include the full richness of the "why" that produces the exchange, which is beyond the scope of this paper. In other words, recognizing that feedback of some nature is always present (the perceiver cannot be completely passive), that conversations are social experiences, and that in a participative relationship an immediate reversal of roles will occur when the perceiver responds, we are limiting the focus of this paper to a direct, one-way event.

It is also recognized that in our face-to-face example there are the physical characteristics related to sound that influence what humans perceive as they listen. Specifically, these are the loudness or amplitude, the pitch or frequency and the tonal quality or wave-form. And since different people hear best at different frequencies, this might also contribute to *what* is heard, and *how* it is heard, with implications on the meaning transferred. That said, we now move into the eight avenues of context in our model as visualized in figure 1. By way of preparation (and review), figure 2 provides a brief description of the avenues.

Context 1 focuses on the content itself: the specific nouns and verbs selected, the adjectives and adverbs used in the primary expression, and the structure of the sentence that support this expression.

Context 2 is the setting or situation surrounding the content of information; that is, the words and structure of the words expressed before and after the primary expression that provide further explication of the intent of content.

Contexts 1 and 2 are informational in nature and directly tied to the use and rules of language. Syntax is the body of rules used by/in sources when combining words into sentences. Syntax is often taken for granted in those who have grown up with a native language (residing in the unconscious), but syntax will be different from region to region and must be learned by those coming from a different native language. There are also morphological rules (regulating the formation of words); semantic rules (determining interpretations of words and sentences); phonological rules (dealing with allowable patterns of sounds); and phonetic rules (determining pronunciation of words and

sentences) (Baker, 1989). These rules facilitate the ability of the perceiver to understand the words and structure of the words of the source. They are also sensitive to region and must be learned when acquiring the language in use (in our case English) as a second language. For native speakers these rules reside primarily in the unconscious.

In terms forwarded by Nonaka and Takeuchi (1995), contexts 1 and 2 are explicit, and the transfer process from the source to the perceiver is primarily that of internalization by the perceiver (from explicit to tacit). Internalization has served as a primary form of learning since the advent of the alphabet. Before development of the alphabet, the visual sense along with the tactile was primary in facilitating understanding and supporting the work process and tool formation crucial to human evolution. (Fekete, 1977, p. 214) McLuhan observed that the visual sense became “powerfully privileged by the alphabet. As a new technology, the alphabet required a new set of habits that carried over from reading to virtually every area of human thought and endeavor.” (Gordon, 1997, p. 303) McLuhan refers to language as “mankind’s first technology for *extending consciousness*.” (McLuhan, 1964, p. 57) The term technology is used in the anthropological sense, meaning “the body of knowledge available to a civilization that is of use in fashioning implements, practicing manual arts and skills, and extracting or collecting materials.” (*American Heritage Dictionary*, 1996, p. 1843)

Taking another perspective on structure—and noting that the most commonly used symbol in the written English language is the space between words—Stonier contends that “the absence of structure within a structure may carry information as real as the structure itself.” (Stonier, 1997, p. 23) He provides the following insight:

Holes and spaces within an organized structure may comprise a significant part of the organization of that structure, and hence contain information ... The information content of such holes or spaces is entirely dependent upon the organization and behavior of the structures or systems which surround them. This demands that there exists information which can exist only as long a there exists a context or structure—a form of information which appears to disappear the moment the structure disappears. (Stonier, 1997, p. 23)

This observation leads us to consideration of the absence of content.

Context 3 is that which is not expressed, not available, what we call *silent attention/presence*. Attention represents awareness and focus. Presence represents immediate proximity in terms of time or space. Recall the Post-Modernist query, does a tree really fall if no one is around to hear it? In Context 3, someone is there—present and aware—but no tree is falling. There is silence.

Presence without interaction objectifies, what has historically been defined (in a negative sense) as treating people like things. But even this objectification cannot be separated from language. In the presence of another, even in silence the perceiver is embedded in an unseen dialogue based on past and perceived future interactions. In fact, Hanks states that, “In the production of meaning, silence and the tacit dimension play as great a role as—if not an even greater role than—does articulate speech. (Hanks, 1996, p. 3) Silence can pull feelings and memories into conscious awareness.

Silence has language in terms of meaning, i.e., when somebody does *not* answer a question, they are communicating more than their non-words. Sometimes what is not

said can have more meaning than what is said. For example, in solving the Mystery of Silver Blaze, Sherlock Holmes says,

Before deciding that question I had grasped the significance of the silence of the dog, for one true inference invariably suggests others. The Simpson incident has shown me that a dog was kept in the stables, and yet, though some one had been in and had fetched out a horse, he had not barked enough to arouse the two lads in the loft. Obviously the mid-night visitor was some one whom the dog knew well.” (Doyle, 1994, p. 26)

Context 4 includes the non-verbal, non-voiced communications patterns that inevitably exist in conjunction with the content, whether (in our example) face-to-face interaction, hand written exchanges, or computer supported information. This is what could be termed associated information signals. In the convention used in nonverbal communication literature, this would be encoding (expression) from the source, and decoding (interpretation) of the perceiver. These are, of course, interdependent.

In our face-to-face example, this would include emphasis (stress) and tone as well as body expressions (facial, hand movements, eye activity, posture, etc.), physical appearance, and every way that attitude can be expressed non-verbally. Non-verbal gestures can provide a form of semantic representation in a visual mode. This can affect both integration and inference making (Nisbett & Ross, 1980). Visual cues such as nodding and eye and facial movements have been shown to improve comprehension (Rogers, 1978). In their recent work, Choi, Gray and Ambady (2004) explore non-verbals in terms of *unintended* communication and perception. They focus on the automaticity of communicating emotions, expectancies, social relations and personality from what they term the actor’s (source) and perceiver’s perspectives. They conclude that although people exert some control over social exchange, a great deal is accomplished automatically as they unknowingly and effortlessly express feelings, beliefs and desires through non-verbal means as they navigate their social worlds (Choi, Gray and Ambady, 2004). In other words, a great deal of the context provided by the source in a face-to-face encounter through non-verbals is absorbed by the unconscious mind of the perceiver based on feelings, beliefs and desires. Thus, non-verbals are a form of expression, closely linked to context 6 below, which can be viewed as an unconscious expression of internal beliefs, values, feelings and expectations of the source in a face-to-face exchange.

This area of context also includes sensory inputs via smell and possibly taste. For example, if the content of the message (the information sent to the perceiver) dealt with a local fire or gas spill, the sense of smell would increase attention to—and understanding of—what is being communicated, resulting in knowledge (and action). The sense of taste is closely related to the sense of smell. These senses can also be cross-activated by seeing or touching. One out of every 200 people experience blending of the senses, a condition known as synesthesia. While the cause is not fully understood, it appears to be caused by cross-activation of different sensory-processing regions in the brain. For example, specific words and sounds might produce recognizable tastes. “One synesthete reports that the spoken Lord’s Prayer ‘tastes’ mostly of bacon ... the name “Derek’ tastes

of earwax whereas the name ‘Tracy’ tastes like a flaky pastry.” (Ramachandran and Hubbard, 2006, pp. 79-80)

McLuhan judged participation in communication (engagement of the perceiver) by how the medium of communication *engaged our physical senses*. As Gordon explains, “When McLuhan speaks of the information that a medium transmits he does not refer to facts or knowledge but to how our physical senses respond to the medium.” Media are generally broken down as high-definition (providing a high level of information with little for the receiver to do) or low-definition (providing a low level of information with the receiver having to work to fill in that which is missing). McLuhan referred to high-definition media as *hot* (examples would be radio, print, photographs, movies and lectures) and low-definition media as *cold* (examples would be the telephone, speech, cartoons, television, and seminars). (McLuhan, 1964) While chapter 2 of the reference is actually titled “Media Hot and Cold,” in a later letter to Claude Bissell (National Archives of Canada, 28 January 1966) McLuhan used the term *cool*, defining it as a medium where the receiver shares in the creative process without merging in it. (Gordon, 1997, p. 403) While McLuhan was researching what was then thought of as information transfer, his work was very much focused on the transfer of content in terms of understanding, what we know today as knowledge sharing. The combined activities included as part of Context 4 are in response to the medium and can be valued in terms of a continuum ranging from hot to cold (full participation to little participation).

Context 5 is focused on the system within which interaction takes place, the mutually-shared, common information and patterns with meaning *within the system*. The context of the system would include an understanding, either consciously or unconsciously, of the boundaries, elements, relationships and forces within the system.

This is the domain of shared context, generally including factors related to a mutual past or current environment, and potentially including culture, organizational structure, and former and current social relationships. While most of this resides in the unconscious, since it is continuously massaged by day-to-day experiences and thoughts, it is near the surface of the mind and readily accessible. For example, if the actors have a past relationship and know each other’s personality, background, competency, and way of thinking, knowledge sharing may proceed easily and effectively. On the other hand, if the source is speaking to an audience of 200 conference attendees, unless they are all in the same profession or share some other common domain of interest and knowledge, the style, words and behavior need to be carefully planned to ensure widespread re-creation (sharing) of the speaker’s knowledge.

Context 6 is the personal context which includes beliefs, values, experiences and feelings that emerge into conscious awareness. Personal context includes positions that we take that are locked into our conscious mind, unconscious patterns that are made conscious by the emerging content of the message (what might be termed implicit knowledge), and the core values and beliefs that rise to our awareness by virtue of “feelings.” Contexts 6 and 7 work together, with context 6 being those aspects that surface in our thoughts and feelings and context 7 being those processes occurring of which we are not aware, i.e., in the unconscious.

When we hear information, we immediately compare it with what we already know and believe is true. We also interpret what we hear from our own frame of reference—our beliefs, values and objectives. We also connect what we hear with our recent

memories and past experiences. Very quickly, a judgment or feeling about the received information is generated and this feeling, modulated by our personal feeling about the individual speaking and our reaction to the overall environment and interpersonal history will play a strong (often unconscious, which moves us into context 7) role in how we react to, interpret and accept what is said. In fact, we may reject and not hear something that the speaker is saying if it conflicts with our own beliefs. If our feelings are strong, we may quit listening entirely while we internally prepare our rebuttal. We hear what we want to hear in a threatening or uncomfortable environment.

Personal context could also include elements of proxemics, haptics and chronemics, which relate to the formality or informality of the exchange. In a face-to-face exchange, proxemics deals with the distance between the source and the perceiver, with formality increasing along with conversational distance (Aiello & Cooper, 1972; Sundstrom & Altman, 1976). Batchelor and Goethals (1972) found that people engaged in task interaction have closer interpersonal distances than people not working together. Haptics refers to the sense of touch, with the absence of touch common in formal settings and increased frequency of touch denoting more informal and personal exchanges (Hall, 1974). Chronemics may also come into play in terms of timing and an emphasis on punctuality of response. “Adherence to schedules and a careful management of chronemic elements reflect formal situations, while a flexible and socially negotiated approach to chronemic elements reflects informality.” (Burgoon, Buller and Woodall, 1989, p. 207)

Context 7 is the impact of *unconscious processes*. These unconscious impacts can be thought of in terms of (1) the unconscious response to external stimuli (environment); (2) experiences and feelings (memories) not in conscious awareness; and (3) empathetic processes that can mirror behavior.

The unconscious response to external stimuli and experiences and feelings (memories) not in conscious awareness were discussed in depth in the “Learning as Associative Patterning” article appearing in the previous publication of VINE (Bennet and Bennet, 2006). In that article, the authors forwarded that the selection, interpretation and meaning of incoming patterns are very much a function of pre-existing patterns in the brain. In other words, learning and understanding are created in the mind when patterns already in the mind combine with incoming patterns from the external world or current situation, in our example the source.

In fact, recent experimental evidence coming out of social psychology (Dijksterhuis & Bargh, 2001), cognitive psychology (Knuf, Aschersleber & Prinz, 2001) and neuro-psychology (Frith, Blakemore & Wolpert, 2000) have reached the same conclusion that there is a “disassociation between conscious awareness and the mental processes responsible for one’s behavior ...” (Bargh, 2004, p. 38). This would purport that an individual’s behavior (the behavior of the source in our face-to-face example) would not necessarily be driven by conscious awareness and intentions.

Empathetic processes that mirror other’s behavior indicate a positive, receptive attitude on the part of the perceiver. Such mimicking as arms folded while standing and conversing frequently occur without either participant’s awareness. These are subliminal connections.

Context 8 is the overarching pattern context, higher levels of patterns of significance that emerge in the mind. These include: (1) the unconscious—and sometimes

conscious—connecting of contexts 1 through 7 to develop a pattern of understanding or behavior; and (2) the development and recognition of patterns of patterns among different interactions (over time). The connecting of multiple contexts would include comparing, manipulating and combining patterns. While generally only a “feeling” or “knowing” will be available in the conscious mind, underneath any interaction or sequence of interactions our unconscious may be busy recognizing, storing and integrating the patterns emerging out of contexts 1 through 7.

As noted above, the development and recognition of higher-level patterns among multiple and different interactions occurs over time. While this generally forms in the conscious mind as a feeling or sense of knowing (intuition), it may also be accompanied by a mental remembering of an emotional response from previous interactions. In our face-to-face example, the thought, knowing or feeling that emerges as a result of different or multiple interactions provides a guide or pattern for our response, knowledge that can be applied to the current situation in terms of response to the source.

There is significant power and opportunity offered by raising our awareness of patterns. For example, this overarching pattern context is what is so significant about best practices in an organization. Some consultants consider best practices as knowledge. In relatively stable environments with repetitive processes where best practices can be transferred successfully, they may significantly improve performance. However, best practices focus on rules of action and frequently omit the level of belief and understanding of how and why things actually work. Therefore, best practices themselves are often non-transferable or ineffective in *differing* situations and context. (Brown and Duguid, 2000) Building on the concepts introduced in Context 8, another way of thinking about using best practices is by thinking in terms of best patterning, where a number of best practices are compared in similar situations and similarities and differences surfaced to develop patterns of transfer that could potentially drive effective actions in similar situations. Conversely, different patterns could be developed by exploring similar practices in varied situations to develop general trends—a general or generic formula—of the *types* of things that might work in different situations to achieve specific desired outcomes or head an organization in a desired *direction* (Bennet & Bennet, 2004).

Whether promulgated by the conscious or unconscious mind, the higher the number of related patterns, the higher the possibility of resonance between the source and perceiver and the greater the level of shared understanding.

Contexts as Sources or Sinks?

Source as used repeatedly above refers to the individual who is promulgating the message (in our face-to-face example). The term “source” connotes the originator of the message and some context, as well as the protagonist of any interaction effects that are part of the contexts above. Shifting our perspective, in complexity language sources are the centers of energy, power and influence. Adversely, sinks absorb energy, information and knowledge and do not broadcast it, *draining* power and influence. In deep-diving to understand context in a larger way, the question becomes: Are these contexts facilitating understanding or impeding understanding of the message? In other words, are they serving as sources or sinks relative to the process of shared understanding?

If we limit our consideration of these questions to the *conscious intent* of the source in our face-to-face example, then context may well be serving as a sink. For example, a past emotion-laden experience (context 6 and/or 7) between the source and the perceiver may well be waylaying the power and influence of the intended message. However, since we have discovered that our unconscious mind plays a major role in contributing contexts, the sharing of understanding becomes one based on every aspect of each individual (values, feelings, education, experience), their relationship (historic, present and perceived future), and the environment within which they share understanding. This means that the shared understanding that occurs in our face-to-face example is *exactly as it should be* based on both the *conscious and unconscious intent* of the source and the *conscious and unconscious perception* of the perceiver and the state of the surrounding environment. To change the efficiency of the knowledge sharing situation, influential aspects within the eight context avenues need to be changed. This may quickly become a complex problem in that there are many factors that are interconnected and interweaved and therefore simple actions will often be non-productive (Bennet and Bennet, 2007)

This discussion of intent and perception pushes us to question whether our conscious or unconscious mind is in control. While the influence of the unconscious has been the subject of much recent research, this influence is largely downplayed, driven by a general concern over the implication of loss of control. In addressing the question of whether or not consciousness is in charge, Dijksterhuis, Aarts and Smith (2006) cite Jaynes (1976) in saying that conscious thought does not exist; that thought (defined as producing meaningful associative constructions) happens unconsciously. Dijksterhuis, Aarts and Smith conclude that without unconscious perception “we would not be able to accomplish much at all. If we assume ... that it takes the processing of roughly 6.6 billion bits to decide to buy a house, consciousness alone would need 4 years to make such a decision.” (Dijksterhuis, Aarts and Smith, 2006, p. 83)

Concluding Thoughts

In a 1942 semantics monograph titled *A Theory of Meaning Analyzed*, the foreward points out that the papers included in the document “elucidate some of the fundamental difficulties in building any theories of ‘meaning’ which would be adequate to cover the range of human significant reaction ...” John Gordon Spaulding, author of one of those papers, then goes on to present a documented critical analysis of the then current theory of meaning, citing the inadequacy of that theory based on “unconscious assumptions embedded in the Aristotelian system and structure of language.” (Pollock and Spaulding, 1942, p. vii) While we have made much progress in understanding ourselves over the past 65 years and have built on and moved beyond this early work, we still face fundamental difficulties in building theories of meaning in terms of shared knowledge. It is still an enigma. Exploring context offers a significant contribution.

Clearly the sharing of understanding is a complex iterative process, an autopoietic, self-referential system that is continuously recreating its boundaries as the conscious and unconscious mind extract patterns from multiple contexts and sequences of information. Since a great deal of this system is influenced by the unconscious, there appears to be an internal capability and objective to self organize relevant brain patterns to create the understanding and meaning that provides the ability to anticipate the results of an action—in other words the creation of knowledge. Stonier puts it his way:

Understanding goes beyond meaning. Meaning, as stated above involves the integration of a message into the internal information environment of the recipient. Such a process creates a new information unit: the combination of the external information complexed with the information provided by the internal information environment. This unit will be referred to from here on in as a 'semantic complex'. Such a semantic complex may be further information-processed as if it were a new message in its own right. By repeating this process, the original message becomes more and more meaningful as, at each recursive step, new semantic complexes are created. As these impinge on ever larger areas provided by the internal information environment, whole new and elaborative knowledge structures may be built up—a process which leads to understanding. (Stonier, 1997, p. 157)

Given this learning, how can our source create, mold or design information so that the perceiver has the highest chance of converting it to the knowledge that is the intent of the source? What can be done to encourage the resonance that can ensure shared understanding? As always, every exploration of knowledge and thought produces more questions. Alas, probing the answers to these questions will have to be another paper. What are your own thoughts?

References

- Aiello, J. R. & Cooper, R. E. (1972). Use of Personal Space as a Function of Social Affect. *Proceedings of the 80th Annual Convention of the American Psychological Association*, 7(1), 207-208.
- The American Heritage Dictionary of the English Language* (3rd Ed) (1992). Boston: Houghton Mifflin Company.
- Baker, C. L. (1989). *English Syntax*. Cambridge, MA: The MIT Press.
- Bargh, John A. (2004) Bypassing the Will: Toward Demystifying the Nonconscious Control of Social Behavior. Hassin, Ran R., Uleman, James S. & Bargh, John A. (Eds.) In *The New Unconscious*. New York: Oxford University Press, 37-60.
- Batchelor, J. P. & Goethals, G. R. (1972). Spatial Arrangements in Freely Formed Groups. *Sociometry*, 35, 270-279.
- Bennet, Alex & Bennet, David (2006). Learning as Associative Patterning. *VINE: The Journal of Information and Knowledge Management Systems*, Volume 36, Number 4.
- Brown, John Seely & Duguid, Paul. (2000). *The Social Life of Information*. Boston, MA: Harvard Business School Press.
- Burgoon, J. K., Buller, D. B., & Woodall, W. G. (1989). *Nonverbal Communication: The Unspoken Dialogue*. New York: HarperCollins.
- Choi, Y. Susan, Gray, Heather M. and Ambady, N. (2004) The Glimpsed World: Unintended Communication and Unintended Perception. In Hassin, Ran R., Uleman, James S. & Bargh, John A. (Eds.) *The New Unconscious*. New York: Oxford University Press, 309-333.
- Dijksterhuis, Ap, Aarts, Henk & Smith, Pamela K. (2004) The Power of the Subliminal: On Subliminal Persuasion and Other Potential Applications. In Hassin, Ran R.,

- Uleman, James S. & Bargh, John A. (Eds.) *The New Unconscious*. New York: Oxford University Press, 309-333.
- Dijksterhuis, A. & Bargh, J. A. (2001). The Perception-Behavior Expressway: Automatic Effects of Social Perception on Social Behavior. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 33, pp. 1-40). San Diego: Academic Press.
- Doyle, Sir Arthur Conan (1994). *Memoirs of Sherlock Holmes*. New York: Book of the Month Club.
- Fekete, John. (1977) *The Critical Twilight: Explorations in the Ideology of Anglo-American Literary Theory from Eliot to McLuhan*. London: Routledge.
- Frith, C. D., Blakemore, S. J., & Wolpert, D. M. (2000). Abnormalities in the Awareness and Control of Action. *Philosophical Transactions of the Royal Society of London*, 355, 1771-1788.
- Gordon, W. Terrence (1997). *Marshall McLuhan: Escape into Understanding*. New York: Basic Books.
- Hall, E. T. (1974). *Handbook for Proxemic Research*. Washington, D.C.: society for the Anthropology of Visual Communication.
- Hanks, William F. (1996). *Language & Communicative Practices*. Boulder, CO: Westview Press.
- Jaynes, J. (1976). *The Origin of Consciousness in the Breakdown of the Bicameral Mind*. Boston; Houghton Mifflin.
- Knuf, L., Aschersleben, G., & Prinz, W. (2001). An Analysis of Ideomotor Action. *Journal of Experimental Psychology: General*, 130, 779-798.
- McLuhan, Marshall (1964). *Understanding Media: The Extensions of Man*. New York: McGraw-Hill.
- Nisbett, R. & Ross, L. (1980). *Human Inference: Strategies and Shortcomings of Social Judgment*. Englewood Cliffs, NJ: Prentice-Hall.
- Nonaka, I. & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.
- The Oxford English Dictionary* (5th Ed) (2002). New York: Oxford University Press.
- Pollock, Thomas Clark & Spaulding, John Gordon (1942). *A Theory of Meaning Analyzed*. Two Papers from the Second American Congress on General Semantics. Lakeville, CN: Institute of General Semantics.
- Ramachandran, Vilayanur S. & Hubbard, Edward M. (2006). Hearing Colors, Tasting Shapes. *Scientific American* (Special Edition: Secrets of the Senses). December 12.
- Rogers, W. T. (1978). The Contribution of Kinesic Illustrators toward the Comprehension of Verbal Behavior within Utterances. *Human Communication Research*, 5, 54-62.
- Stonier, Tom (1997). *Information and Meaning: An Evolutionary Perspective*. New York: Springer-Verlag.
- Sunstrom, E. and Altman, I. (1976). Interpersonal Relationships and Personal Space: Research Review and Theoretical Model. *Human Ecology*, 4, 47-67.