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12-31-1994

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### Recommended Citation

Lee, Allen; Bourcier, Daniele; and Fargeas, Xavier, "The Hermeneutic Circle as a Source of Emergent Richness in the Managerial Use of Electronic Mail" (1994). *ICIS 1994 Proceedings*. 62.

<http://aisel.aisnet.org/icis1994/62>

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# THE HERMENEUTIC CIRCLE AS A SOURCE OF EMERGENT RICHNESS IN THE MANAGERIAL USE OF ELECTRONIC MAIL

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## ABSTRACT

Interpreting the managerial use of e-mail *as the managers themselves understand and experience it*, this study uses the concept of the hermeneutic circle to provide a thick description of three ways through which richness emerges in e-mail communication.

In this study, I attempt to further our theoretical understanding of communication richness. I do this by taking an interpretive approach. I examine empirical material that involves the use of electronic mail by managers.

Past studies have empirically established *that* e-mail can readily support communication richness and have proceeded to the next research task of accounting for *how* the communication richness occurs (Markus 1991, 1992; Lee 1993). My first purpose in this study is to continue in this task. Interpreting the managerial use of e-mail *as the managers themselves understand and experience it*, I provide a thick description of three ways through which richness emerges in e-mail communication. My second purpose is to highlight, for research on the managerial use of electronic communication systems, the value of an interpretive perspective — in particular, the interpretive perspective of the hermeneutic circle.

Compared to past studies on e-mail and communication richness, this study is different in two ways. First, I make no attempt in this study to provide yet another test of information richness theory (IRT) (Daft and Lengel 1986). The reason is that numerous recent studies have already identified serious conceptual and empirical weaknesses in IRT (Contractor and Eisenberg 1990; Fulk, Schmitz, and Steinfield 1990; Markus 1991, 1992; El-Shinnawy and Markus 1992; Kinney and Watson 1992; Rice 1992; Yates and Orlikowski 1992). In the words of the editor of a journal that is publishing one of my other studies on e-mail (Lee 1993), any further “damning of information richness theory” would not make for a strong or interesting argument. Therefore, instead of pursuing what, at this point, would be the negative and unconstructive task of establishing yet another line of attack against IRT, I will advance to

the positive and constructive task of building a new understanding that *can* adequately explain communication richness.

The second way in which this study is different is that, from a hermeneutic perspective, it will contribute a new definition of communication richness.

## 1. THE VALUE OF A HERMENEUTIC PERSPECTIVE

Interpretive research draws attention to the “subjective understanding” (how the observed human subjects understand themselves and the world around them) as an objectively existing entity in itself that is part of the overall subject matter that the researcher is observing (Lee 1991). Positivist research, which is the form of research that most information systems researchers consider traditional, does not draw attention to (if indeed it even acknowledges) the subjective understanding. Because the phenomenon of the managerial use of e-mail (including any richness that emerges in it) is inseparable from how the managers themselves experience and understand it, we can gain insights into this phenomenon from an interpretive perspective that we could not readily gain, if we could at all, from a positivist perspective alone.

Of the many different types of interpretive approaches available, I select hermeneutics. Information systems researchers have already established its value. For instance, Boland (1991) uses a hermeneutic perspective to examine how the research subjects in an experiment developed meanings for the numeric documents presented to them in the form of computer output. Lee (1993) explains how,

even though Boland conducted his study outside the research on electronic communication systems, Boland's study has ramifications for such research. In the next section of the paper, I explain the concept of the hermeneutic circle.

## 2. THE HERMENEUTIC CIRCLE

The concept of the hermeneutic circle is well known in hermeneutic scholarship (Gadamer 1993; Geertz 1983; Palmer 1969). In my earlier study (Lee 1993), I used five other hermeneutic concepts (distanciation, autonomization, social construction, appropriation, and enactment) to explain how meaning emerges in the reading of a text. In that study, I used them to consider the entity of a text as a whole. The concept of the hermeneutic circle is, in addition, useful for considering the parts of which a given text is made up. It draws attention to the contribution that the parts, in interaction with one another, make to each other's meanings and to the meaning of the whole. It also draws attention to the contribution that the whole makes to the meanings of the individual parts. The hermeneutic circle therefore supplements the other five hermeneutic concepts. Having already illustrated the other five concepts in the earlier study, I concentrate on the hermeneutic circle in the present study. In the following, I provide an explanation of the hermeneutic circle.

Consider the words that make up a sentence. How would a person reading the sentence come to know what it means? The dictionary definitions of the words alone would not be sufficient to establish the sentence's meaning. How the sentence relates the words to one another would also be an essential consideration.

The meaning of an individual word and the meaning of the sentence as a whole are mutually dependent and, for a reader, come into view simultaneously. Palmer states (1969, p. 87): "I understand the meaning of an individual word by seeing it in reference to the whole of the sentence; and reciprocally, the sentence's meaning as a whole is dependent on the meaning of individual words." Gadamer similarly states (1993, p. 190): "Fundamentally, understanding is always a movement in this kind of circle, which is why the repeated return from the whole to the parts, and vice versa, is essential." Geertz, in adopting this concept for use in anthropology, describes it as (1983, p. 69) "a continuous dialectical tacking between the most local of local detail and the most global of global structure in such a way as to bring them into simultaneous view." The system of interlocking relationships, from which meaning emerges in a person's reading of a text, is called the "hermeneutic circle."

The hermeneutic circle is not only in the text. It also extends to the organizational (or other socially constructed) world that the reader is a member of and that she brings to bear in her reading of the text (Lee 1993). Referring to what we are calling the reader's organizational world as the reader's "tradition," Gadamer states (1993, p. 293):

The circle... describes understanding as the interplay of the movement of tradition and the movement of the interpreter. The anticipation of meaning that governs my understanding of a text is not an act of subjectivity, but proceeds from the commonality that binds us to the tradition.

As a member of this organizational world, the reader carries "particular expectations" with which she develops or "projects" a meaning (Gadamer, p. 267):

A person who is trying to understand a text is always projecting. He projects a meaning for the text as a whole as soon as some initial meaning emerges in the text. Again, the initial meaning emerges only because he is reading the text with particular expectations in regard to a certain understanding. Working out this fore-projection, which is constantly revised in terms of what emerges as he penetrates into the meaning, is understanding what is there.

Before proceeding with an empirical investigation of how the hermeneutic circle supports richness in communication that uses e-mail, I will first provide a definition of what I mean by richness.

## 3. A HERMENEUTIC DEFINITION OF RICHNESS

My definition of communication richness follows from Ricoeur's discussion (1981) of three acts that he identifies in the communication between a speaker and listener or a writer and reader. They are the locutionary act, the illocutionary act, and the perlocutionary act.

The speaker or writer performs the *locutionary* act, in which she expresses the "propositional content" or cognitive component of the communication (Ricoeur 1981, p. 204). I think of it as the "what" of what is said or written.

The speaker or writer also performs the *illocutionary* act, in which she expresses the affective component of the communication. The speaker or writer expresses this meaning not in *what* she says or writes, but in *how* she says or writes it. In spoken communication, "the illocutionary

force can be identified by gestures and gesticulations as well as by properly linguistic features" (Ricoeur 1981, p. 135). In written communication, the style and the "grammatical paradigms (the moods: indicative, imperative, etc.)" (p. 135) contribute to the formation of the illocutionary meaning. Different literary genres (Yates and Orlikowski 1992), such as novels, poems, newspaper editorials, advertisements, polemics, and political slogans, illustrate the wide variety of ways through which illocutionary meanings can be expressed.

Compared to the locutionary and illocutionary acts, the *perlocutionary* act is not so much performed by the speaker or writer as it occurs with the involvement of the speaker or writer and the listener or reader. The perlocutionary act is "the least discursive aspect of discourse: it is discourse *qua* stimulus" (Ricoeur 1981, p. 135). In the perlocutionary act, the speaker's or writer's discourse behaves as a stimulus, eliciting responses — whether articulated words and publicly observable actions or latent thoughts and feelings — from the listener or reader. The responses include this person's production of the meaning with which he comes to understand the spoken or written discourse.

In Ricoeur's hermeneutics, meaning is not transported, like a physical object, from the speaker or writer to the listener or reader, but is created anew by the latter. This opens up the possibility for the reader to understand the author even better than the author had understood herself. Ricoeur states (1981, p. 191):

To understand an author better than he understood himself is to unfold the revelatory power implicit in his discourse, beyond the limited horizon of his own existential situation.

The notion that an interpreter can come to understand an author better than she had understood herself is well recognized in the hermeneutical school of thought known as "critical hermeneutics." For instance, in his discussion of critical hermeneutics, Bleicher states (1980, pp. 147-148):

Apel calls for a "normatively-methodologically relevant philosophical hermeneutic." Such a conception would reassert the possibility of progress in interpretation....At the same time, the interpreter may be in a position to understand the author better than he had understood himself; his task to judge critically cannot be avoided....

The possibility and necessity of a progress in interpretative understanding arises from the field of hermeneutics itself when, for example, communication is impeded....The "interpreter"...is here in a position from where he understands the author better than he had understood himself.

Appropriating and building on the tradition, from critical hermeneutics, that an interpreter can come to understand an author even better than she had understood herself, I offer the following definition of communication richness:

*In communication richness, the listener/reader/receiver produces meaning by unfolding the revelatory power implicit in the discourse. This involves going beyond the limited horizon of the mere words with which the speaker/writer/sender had expressed her own understanding and coming to understand her at least as well as she had understood herself.*

Making such an understanding possible for the listener/reader/receiver is the hermeneutic circle. It is through the dynamics of the hermeneutic circle that the reader can produce a meaning for the text in which he comes to understand the writer at least as well as she had understood herself.

In the following section, I proceed with an empirical investigation of how e-mail can readily support communication richness.

#### 4. THREE WAYS IN WHICH RICHNESS IN E-MAIL COMMUNICATION EMERGES FROM THE HERMENEUTIC CIRCLE

I draw my data from Markus' case study of a company she calls HCP (1992, p. 14). I ask the reader of this paper to examine Table 1. Whereas Markus used the data to investigate the merits of IRT, I will use her data to examine the hermeneutic circle as a source of richness that can emerge in communication that uses e-mail. As an introduction to three different ways in which the hermeneutic circle is a source of communication richness, first consider message 124 in Table 1. What does 124 mean?

Of course, Sheila and Mike have an enormous advantage over us in developing their understandings of 124. Unlike us, they know its context. First of all, Ted, Mike, and Sheila already know each other. Second, they have in common an organizational world ("HCP") that supplies much of the context to this message. To pursue an investigation of how a particular e-mail message comes to have meaning for a reader, I could use the concepts of distanciation, autonomization, social construction, appropriation, and enactment. I have already conducted such an investigation (1993). Rather than replicate the earlier study, I will cover some new ground by introducing the use of the hermeneutic circle to explain how richness can emerge in e-mail communication.

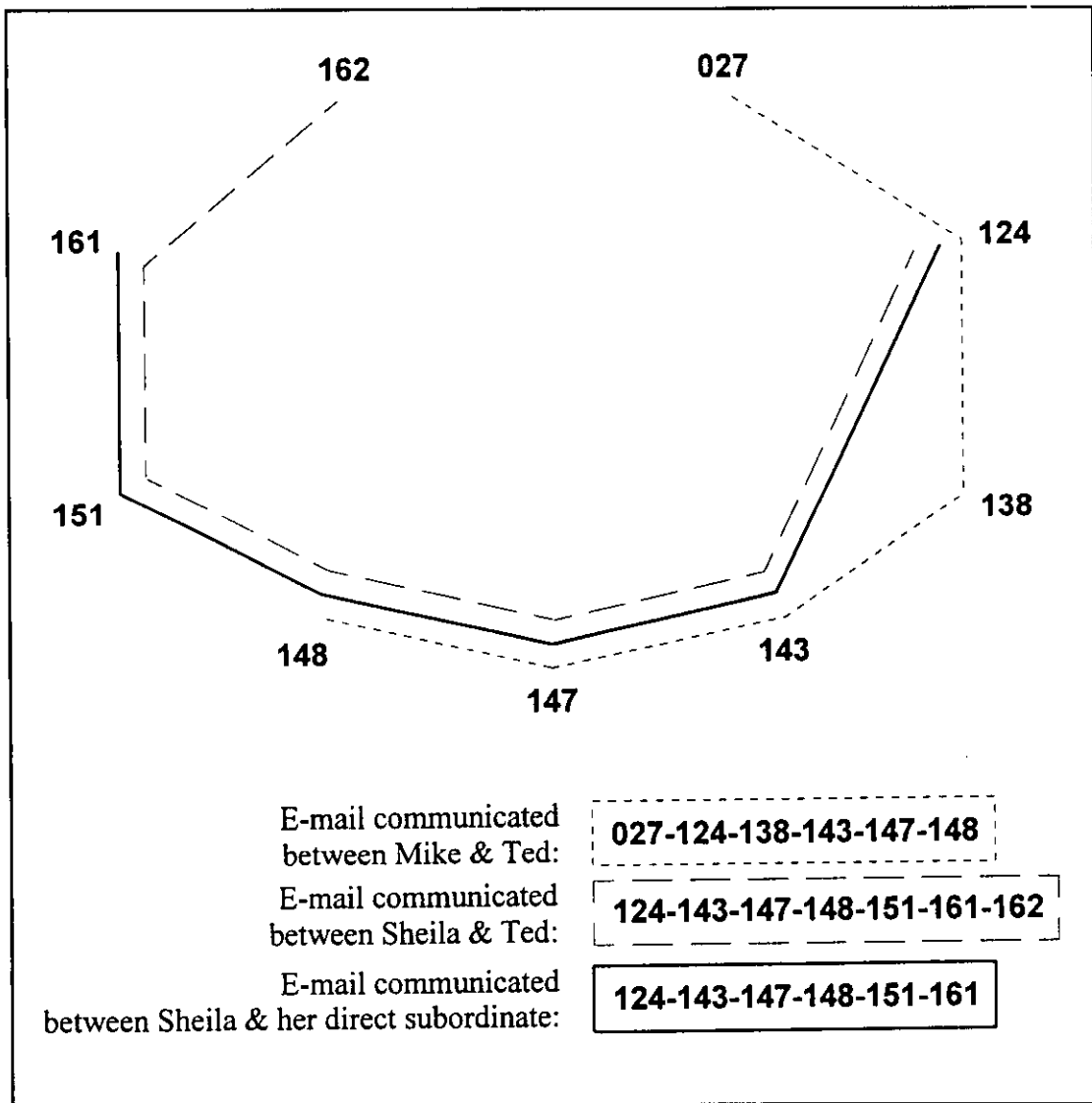
**Table 1. Data from HCP, Inc. (Markus 1992)\***

MESS. NO.	DATE/TIME	FROM	TO	TEXT
1027	7/31 16:30	Mike	Ted	We are not adhering to the state law that requires payment w/i [within] 30 days unless proper notification is given of valid delays.
124	8/6 16:23	Ted	Sheila, Mike	Sheila, I presume you are aware that the state of ... requires that we pay within thirty days. The [branch] is reporting that we are not adhering to this. Do you have a system in place to keep track of this? Is there any information you need from us? Please let me know? Thnaks! Ted
138	8/6 17:54	Mike	Ted	Thank you thank you thank you
143	8/6 20:03	Sheila	Ted, Mike	Ted, yes, we were aware of the 30 day requirement. We look at this everyweek to insure compliance. The only exceptions should be ... . Will give you an aging [accounting report] tomorrow. Sheila
147	8/6 20:13	Mike	Ted	Ted, something is wrong. I am not saying Sheila is not correct, all [all I] am saying is that you and I are signing a lot of second and third requests as priority processing and Kathy [one of Mike's subordinates] says ... and Kathy is usually not wrong about this type of thing. Could it be that the problem is that claims are just not getting loged [logged] in upoo [upon] receipt? In my auditing days ... we found this to be commonwhen reports showed "all ok"?
148	8/6 20:21	Mike	Ted	Ted, the more I think about this, the more it bothers me, just look at all of the recent 2nd & 3rd requests and all of the over 60days followups from Kathy. I am going to have Kathy summarise the last 60 days. I will not indicate toKathy the specifics of why I am requesting. This could be a serious company wide problem. Will you check (when ypur [you] receive your aging) with Sheila to see if they have claims in hourse that do/are not reflected in her aging. Thanks.
151	8/6 21:16	Ted	Sheila	Sheila, I dont agree [with Mike] that is [claims are being] received but not entered, although it couldbe, youwould know. i tend to think some of these are ap [accounts payable] problems, we will have to look at what they [Mike and Kathy] can send us for examples. the way i look at it we are lookoinga t a problem that might be there proactively. we will look and see if we can find a problem or at least come to agreement on status, will keep youpsoted [you posted].  [Note: Ted forwards copies of 147 and 148 when sending 151.]
161	8/6 21:49	Sheila	Direct Subor- dinate	FYI [with previous messages attached]  [Note: Shella forwards copies of 124, 143, 147, 148, and 151 when sending 161.]
162	8/6 22:20	Sheila	Ted	Ted, given the additional explanation....and the fact that I agree, Kathy is seldom wrong....I will see what I can see from this end. I[']m sure none of us want another \$14,000 interest charge! Sheila

\*Markus states: "The messages have been reproduced with only minor omissions and with actual spelling and typing errors. Proper names have been changed. Square braces [] contain author's additions." All omissions ("...") appear in Markus' own presentation of the messages. Markus offers the following descriptions of Ted, Mike, and Sheila:

Ted Josephs (a pseudonym) was one of eight Regional Vice Presidents (RVP) who reported directly to the CEO of HCP. Ted was responsible for approximately 400 employees in three remote districts located as far as 2500 miles from Headquarters. In this position, he had the authority and responsibility to understand the organization as a whole...Ted was one of the first occupants of the RVP position when it was established three years prior to data collection. According to those I interviewed at HCP, his superiors, peers, and subordinates regard him as an excellent manager. (Markus 1992, p. 18.)

In his weekly report for the week prior to the message sample, Mike, one of Ted's direct subordinates, reported that HCP appeared not to be in compliance with a state regulation in his jurisdiction. This obviously important issue fell within the organizational purview of HCP's VP of Customer Service (Sheila). Mike's position in the organization was such that he could not approach Sheila directly with his concerns, but had to rely on his superior to do it for him. After reading Mike's weekly report and directing his assistant to file it, Ted sent message #124 to the VP of Customer Service with a copy to Mike. (Markus 1992, p. 21.)



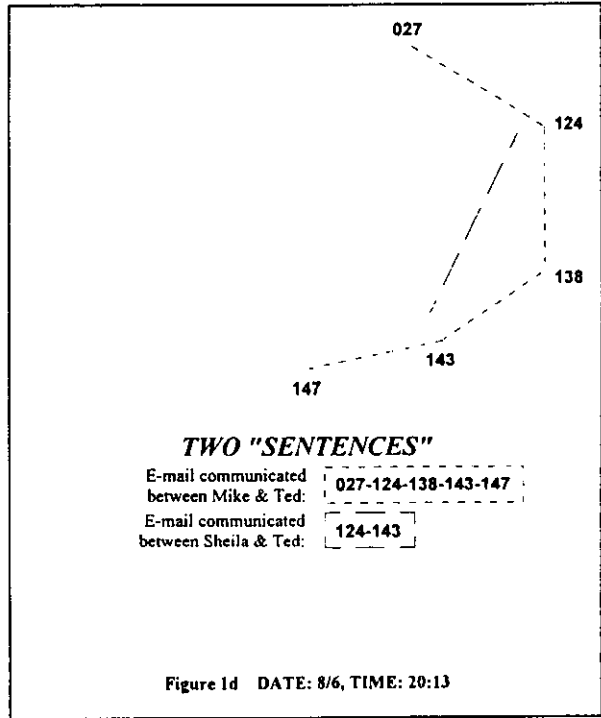
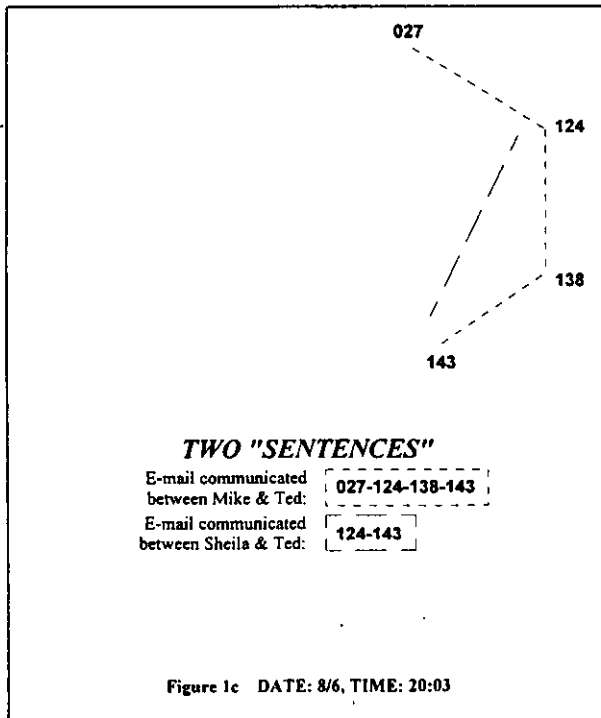
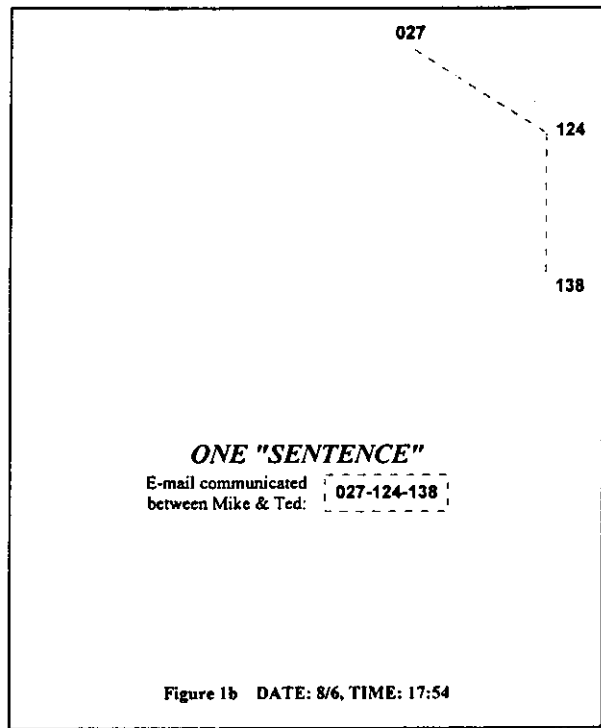
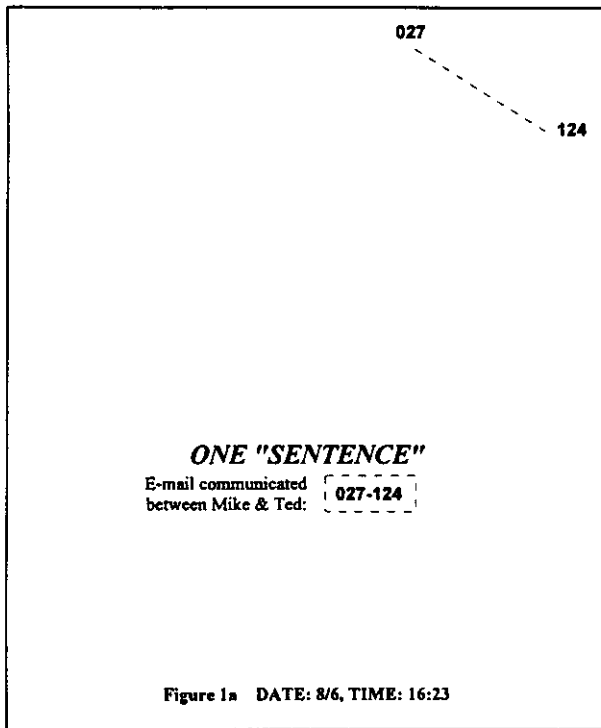
**Figure 1. Three Hermeneutic Circles, Three "Sentences"**

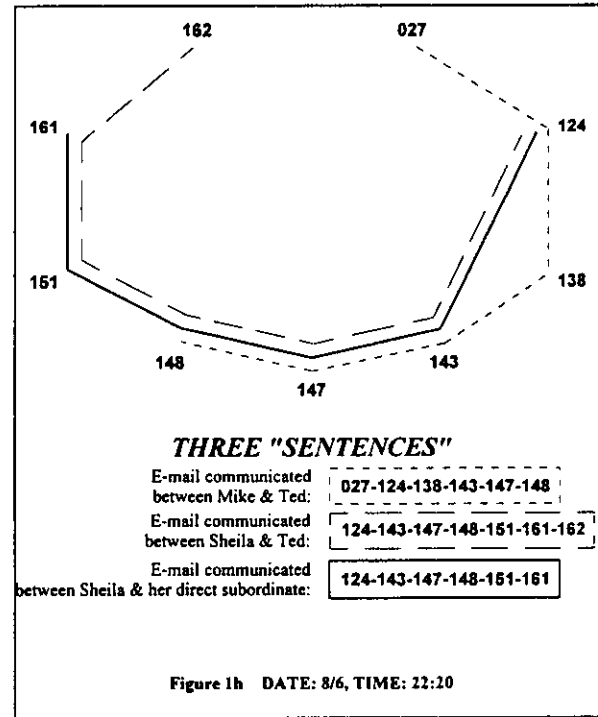
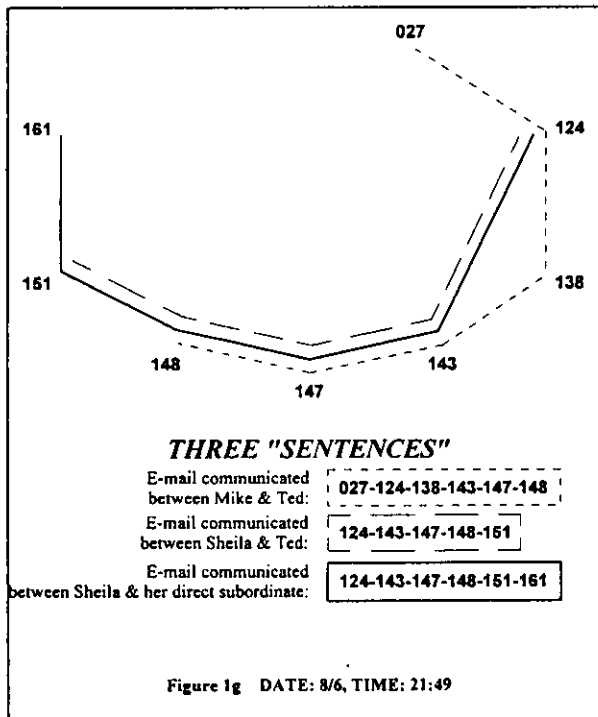
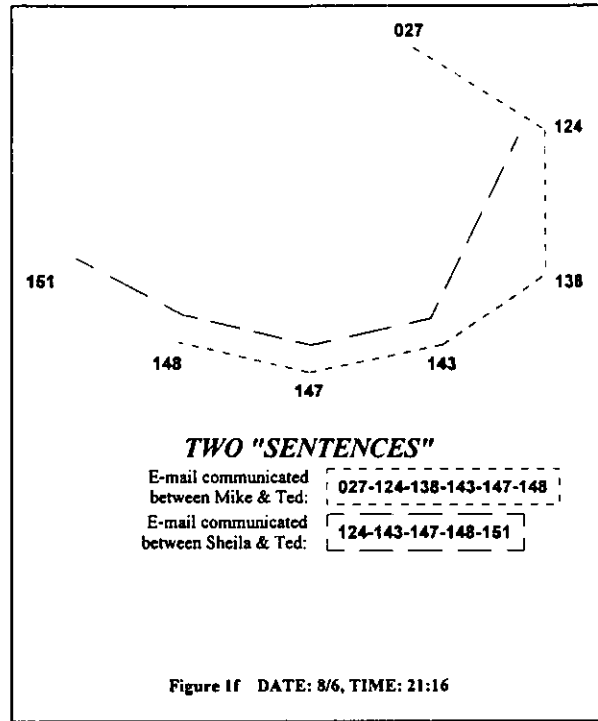
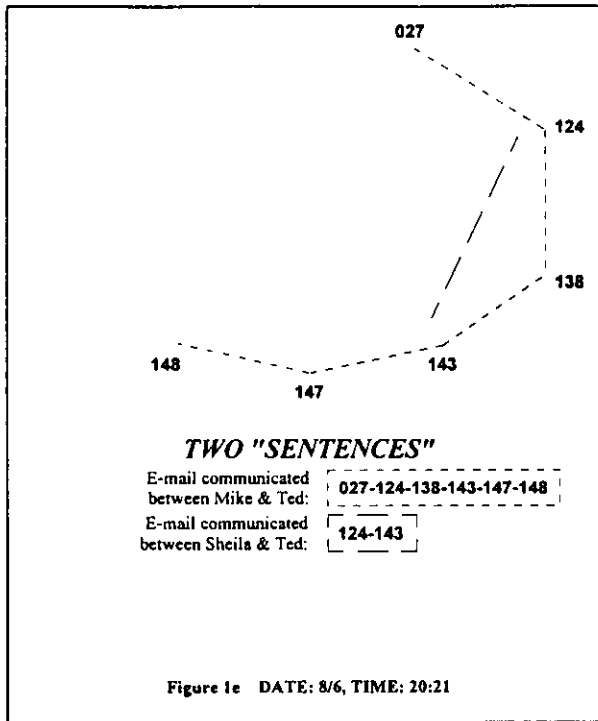
The meanings of the nine e-mail messages emerge, in part, from how they relate to and interact with one another. In the following paragraph, I model a hermeneutic circle involving the interactions of e-mail messages that share a context after a hermeneutic circle involving the interactions of words that share a sentence.

There are parallels between the individual words making up a sentence and the individual e-mail messages making up the communication in Figure 1. Just as the respective dictionary definitions of the individual words sharing a sentence are not sufficient in themselves to establish what the words mean in the sentence as a whole, the respective meanings of the individual e-mail messages sharing a context are not sufficient in themselves to establish what the e-mail messages mean as a whole. Just as the words

that share a sentence relate to and interact with one another in a way that helps to develop meaning for each individual word and for the sentence as a whole, e-mail messages that share a context relate to and interact with one another in a way that helps to develop meaning for each individual message and for the messages as a whole.

Consider 124. Mike develops his meaning for 124 in the context of his e-mail with Ted, 027-124-138-143-147-148 (the thin dotted line in Figure 1). Sheila develops her meaning for 124 in the context of her e-mail with Ted, 124-143-147-148-151-161-162 (the dashed line), and another meaning for it in the context of her e-mail with her direct subordinate, 124-143-147-148-151-161 (the heavy solid line). Because these contexts function as "sentences" in which 124 is a "word," I will henceforth refer to these







contexts as sentences (for instance, the Mike/Ted sentence). Each sentence in Figure 1 indicates a hermeneutic circle — a circle in which the reader engages in “a continuous dialectical tacking” back and forth among not only the many e-mail messages in the sentence, but also the reader himself and the organizational world (“HCP”) that he brings to bear in his reading of the e-mail, with the result that, for the reader, an understanding of the individual e-mail messages and their sentence as a whole come into view simultaneously.

Figure 1 presents only one cross-sectional view of three sentences. Cross-sectional views of the sentences at different times can also be drawn (Figures 1a to 1h).

If we were to look at any individual e-mail message in isolation, a misleadingly simple (perhaps, “lean”) meaning would emerge for it. However, in the following, we examine three ways in which communication richness emerges at HCP from the dynamics of the hermeneutic circle.

#### **4.1 Emergence of Communication Richness from the Relationship of an E-mail Message to Other E-mail Messages That Come to Join It in the Same Sentence Over Time**

To illustrate the first of three ways in which the hermeneutic circle can be a source of communication richness, I turn our attention to the meaning that 124 comes to have for Sheila.

The meaning of 124 is not “fixed” in the words constituting it, but emerges as its sentence is joined by additional e-mail messages. The Sheila/Ted sentence (the dashed line) grows from 124-143 at time 20:03 (Figure 1c) to 124-143-147-148-151 at time 21:16 (Figure 1f) which, at time 21:49, Sheila copies in its entirety and forwards along with 161 in 124-143-147-148-151-161 to her direct subordinate (the solid line in Figure 1g). As the sentence grows, the meaning that 124 has for Sheila emerges and continues to emerge.

In sentence 124-143 (Figure 1c), 124 begins with the meaning of a straightforward and routine information request that Ted makes to Sheila. For Sheila, 124 in sentence 124-143 apparently does not indicate any serious problem requiring more-than-routine attention (as the content of 124-143, displayed in Table 1, makes evident). However, at time 21:16 (Figure 1f), Sheila not only receives another message from Ted (151), but also receives copies of two e-mail messages (147, 148) that Mike had just sent to Ted and that Ted copies and forwards to Sheila

along with 151. At this point, the sentence grows to 124-143-147-148-151. For Sheila, even though the words making up 124 do not change at all from what they were in 124-143, they emerge with a different meaning. This is because the two forwarded messages, 147 and 148, place 124 in a new light: 124 is no longer a straightforward and routine information request, but emerges with the meaning of a diplomatically stated suggestion from a vice president (Ted) to look into a serious problem that requires more-than-routine attention. Finally, through her action of making copies of 147 and 148 and forwarding them along with a copy of 124 when she sends her new message 161 to her direct subordinate (sentence 124-143-147-148-151-161, the solid line in Figure 1g), Sheila herself is adding to the meaning of 124. In copying 124, forwarding it, and appending two other messages to it, Sheila is commandeering 124 to suit her own purposes and hence, in this way, joins Ted as its co-author. For Sheila, 124 in 124-143-147-148-151-161 emerges with the specific meanings that, first, there is definitely a serious problem requiring more-than-routine attention and, second, this is a serious problem that she accepts the responsibility for (as evidenced by her delegation of it to her direct subordinate).

In summary, with regard to Ted’s words in 124, Sheila proceeds “to unfold the revelatory power implicit in [Ted’s] discourse” (Ricoeur, quoted above). Helped by the dynamics of the hermeneutic circle, Sheila goes beyond the limited horizon of the mere words with which Ted had expressed his own understanding and comes to understand Ted at least as well as he had understood himself.

#### **4.2 Emergence of Communication Richness from the Commandeering of an Existing E-Mail Message and Its Insertion into a New Sentence Separate from Its Original One**

To illustrate the second way in which the hermeneutic circle can be a source of communication richness, I turn our attention to the meaning that 147 and 148 come to have for Sheila. In this discussion, I will treat 147 and 148 collectively. I consider them first in the Mike/Ted sentence 027-124-138-143-147-148 (the thin dotted line in Figure 1f) and then in the Sheila/Ted sentence 124-143-147-148-151 (the dashed line).

Mike composes 147 and 148 and privately sends them to his superior, Ted, in the context of 027-124-138-143-147-148 (Figure 1e), which I designate (for purposes of this examination) as 147’s and 148’s original sentence. For Mike, the cognitive component of 147 and 148 includes his own understanding that there is an underlying problem (“Ted, something is wrong”). The affective component is

that the underlying problem is a sensitive matter (as evidenced by his qualifying remarks, "I am not saying Sheila is not correct" and "all [all I] am saying is that..."). Mike is confiding in Ted. Mike is attempting to express these cognitive and affective meanings to Ted.

Ted then makes copies of 147 and 148 and forwards them to Sheila in the context of 124-143-147-148-151 (Figure 1f). Hence, 147 and 148 become a part of a new sentence. For Sheila, 147 and 148 come to have cognitive and affective meanings different from what they are for Mike. Mike, as Sheila knows, did not write 147 and 148 for her. However, because Ted copies and forwards them to Sheila, along with his message 151, we can say that Ted commandeers 147 and 148 to suit his own purposes.

For Sheila who, unlike Mike, has access to 151, the cognitive component of 147 and 148 is not so much about the definite presence of a problem in which claims are received and not entered, but about the possibility of a problem in the future (as Ted says to Sheila in 151, "the way i look at it we are lookoinga t a problem that might be there proactively"). Hence, for Sheila, 151 alters the cognitive component of 147 and 148 from being about an existing problem to being about symptoms or indicators of a potential problem in the future. For Sheila, the affective component of 147 and 148 refers to a relationship of safety and trust with her superior, even though they point to possible shortcomings in her own operations. The reason is that Ted, apparently in acknowledging Mike's concern that the underlying problem is a sensitive matter, prefaces his own message 151 and softens the impact of 147 and 148 with the opening remark, "Sheila, I dont agree [with Mike] that is [claims are being] received but not entered, although it couldbe..."

Although Mike composed 147 and 148, Ted commandeers them to suit his own purposes when he appends 151 to them and forwards them to Sheila. Consequently, in Sheila's eyes, 147 and 148, though written by Mike, emerge with the meaning of messages from Ted.

In summary, with regard to Mike's words in 147 and 148, Sheila proceeds "to unfold the revelatory power implicit in [Mike's] discourse" (Ricoeur, quoted above). Helped by the dynamics of the hermeneutic circle (which recognizes Ted's intervention in the form of 151), Sheila goes beyond the limited horizon of the mere words with which Mike had expressed his own understanding and comes to understand Mike at least as well as he had understood himself.

#### **4.3 Emergence of Meaning from the Relationship of an E-Mail Message to Past Sentences**

To illustrate the third way in which the hermeneutic circle can be a source of communication richness, I turn our

attention to the meaning that the last of the nine messages, 162 (see Table 1), comes to have for Ted.

To restore some distance to our examination of HCP's e-mail, I ask that we consider what 162 would mean to a person who has no familiarity with HCP or any of the preceding messages. For such a person, 162 would be completely out of context and hence completely meaningless. This person would have no way of knowing what the "additional explanation" is an explanation of, what this "Kathy" has to do with it, or what the "\$14,000 interest charge" would be an interest charge on. The words of 162 would be, in themselves, insufficient to allow answers to these questions.

Still, Ted, this message's recipient, would know the answers. Ted is privy to the history of the Mike/Ted sentences (for instance, beginning as 027-124 at time 16:23 and ending as 027-124-138-143-147-148 at 20:21) as well as the history of the Sheila/Ted sentences. Ted's personal experience with these past sentences would be a source of answers to what the "additional explanation" is an explanation of, what this "Kathy" has to do with it, and what the "\$14,000 interest charge" would be an interest charge on. Thus, although the words of 162 themselves do not define or otherwise explain these three phrases, there is a hermeneutic circle that relates 162 not only to other messages in the same sentence, but also to past sentences. Through the hermeneutic circle, the words of 162 are sufficient to signify, for Ted, what these phrases mean.

In summary, with regard to Sheila's words in 162, Ted proceeds "to unfold the revelatory power implicit in [Sheila's] discourse" (Ricoeur, quoted above). Helped by the dynamics of the hermeneutic circle, Ted goes beyond the limited horizon of the mere words with which Sheila had expressed her own understanding and comes to understand Sheila at least as well as she had understood herself.

## **5. DISCUSSION**

Our examination of e-mail at HCP raises two additional questions that require discussion. What does a hermeneutic perspective tell us about communication richness that the better known perspective of information richness theory (IRT) does not? How may we assess the plausibility of this paper's interpretation or interpretations in general?

### **5.1 What Hermeneutics Tells Us That Information Richness Theory Does Not**

According to IRT, richness or leanness is an invariant, objective property of the medium itself. When determining a medium's richness or leanness, IRT examines "the medium's capacity for immediate feedback, the number of

cues and channels utilized, personalization, and language variety” (Daft and Lengel 1986, p. 560). By these measures, IRT has rated face-to-face interactions as the richest medium and documents (including e-mail) as the leanest.

Contractor and Eisenberg (1990) use the “conduit” model to characterize IRT. In this model, a communication medium is a conduit that transports meaning from one person to another, as if the meaning were a physical object; any difference in the meaning received cannot be an improvement but only a loss, due to noise, interference, or other deterioration in the “signal” during the course of its transmission. Where the conduit takes the form of text (such as e-mail), deterioration in the signal would occur from the lack of immediate feedback (needed to correct errors in the transmission), the filtering out of cues, the confinement to a single channel, the lack of personalization, and the reduction in language variety.

However, as noted earlier, recent studies have identified serious conceptual and empirical weaknesses in IRT. These studies include reports of empirical findings in which e-mail readily supports the level of richness that IRT reserves for what it considers to be rich communication media. These are findings that IRT cannot easily explain, if it can explain them at all.<sup>1</sup> Therefore, if relying on IRT alone, information systems researchers would be left with a major gap in what their research on communication richness could explain. **The significance of hermeneutics is that it can fill this gap.**

In contrast to IRT, hermeneutics portrays a listener/reader/receiver not as a passive recipient of meaning delivered to him, but as an active producer of meaning. As demonstrated in this paper, the hermeneutic circle contributes to this production of meaning. Hence, the hermeneutic circle can explain something that IRT cannot: it can explain the communication richness observed in e-mail. The explanation is that even a lean stimulus (for instance, discourse in the form of an e-mail message) can succeed in eliciting a rich response (in this case, the e-mail reader’s production of meaning in which she unfolds the revelatory power implicit in the discourse, goes beyond the limited horizon of the mere words with which the speaker/writer/sender had expressed his own understanding, and comes to understand him at least as well as he had understood himself).

## 5.2 Assessing a Hermeneutic Interpretation

In this study, I developed my interpretation of the nine e-mail messages in Table 1 through the dynamics of the hermeneutic circle, similar to how Sheila, Mike, and Ted did. I followed an interplay of movement back and forth

among the messages, myself, and the academic research world that I am a member of and that I brought to bear in my reading of the messages. Initially bringing to bear my research world’s positivist IRT belief that e-mail cannot readily support communication richness, I found the richness in HCP’s managerial e-mail to be puzzling.

In an effort to resolve this puzzle, I extended my hermeneutic circle to include not just my research world’s positivist traditions, but also its interpretive traditions (such as social construction in my earlier study and the hermeneutic circle in this study). With the extended hermeneutic circle, I was able (in the preceding portion of this paper) to resolve the puzzle and thereby find the observed richness understandable. “A successful interpretation is one which makes clear the meaning originally present in a confused, fragmented, cloudy form...[W]hat is strange, mystifying, puzzling, contradictory [for the interpreter] is no longer so, is accounted for” (Taylor 1979, p. 27). By this measure, my hermeneutic interpretation of the communication richness in Sheila’s, Ted’s, and Mike’s e-mail is successful.<sup>2</sup>

Through continually extending the hermeneutic circle, I would be able to continually improve my interpretation. Improvements would likely come from, for instance, observing e-mail messages both preceding and following the original nine and observing a variety of the managers’ behaviors (not just their documentary artifacts). In this process, some of my initial inferences (e.g., “Mike is confiding in Ted,” in section 4.2) will remain consistent with the additional observations, but some of my other inferences will no longer appear reasonable and will need to be changed, thereby motivating an improvement in my interpretation or perhaps establishing the groundwork for its eventual replacement by an altogether different interpretation. This process is analogous to hypothesis testing in positivist science, in which a theory can never be conclusively proven to be true, but must always be subjected to additional experimental tests, the results of which typically contribute to improvements in the theory or sometimes to its eventual replacement by an altogether different theory.

## 6. CONCLUSION

With my point of departure having been the past finding that e-mail can readily support communication richness, I proceeded to give a thick description with which to satisfy my investigation’s purpose of accounting for *how* the communication richness occurs. It is a thick description of how, through the dynamics of the hermeneutic circle, richness emerged in e-mail communication at HCP. This investigation has lessons for information systems (IS) professionals, IS researchers, and general managers.

For IS professionals such as analysts and designers, the main recommendation is to regard general managers less as "end users" or "clients" and more as "processors" or "co-processors" to be incorporated into the system design. After all, through their use of the hermeneutic circle, general managers themselves process raw data (e.g., the words in an e-mail message) into information (e.g., a meaning going beyond the limited horizon of the mere definitions of the words with which the e-mail's sender had expressed her understanding and even coming to understand the e-mail's sender at least as well as she had understood herself). The managers themselves are the central processing units in electronic communication systems.

For IS researchers, the main recommendation is to supplement their predominantly positivist traditions with interpretive traditions. In addition to following positivist traditions in attempts to validate a scientific theory for general managers to apply, IS researchers could also follow interpretive traditions to discover already effective theories-in-use or procedures-in-use by some general managers (for instance, the HCP managers' use of the hermeneutic circle in e-mail communication). In documenting and publishing these findings, IS researchers could disseminate useful, practical research to other general managers.

For general managers, the main recommendation is to select and use a communication medium on the basis of more than just the medium's features alone (for instance, whether or not it allows immediate feedback). One additional factor is the extent to which the speaker/writer/sender and the listener/reader/receiver have lived in and come from the same organizational world so that, when interpreting each other, they can bring the same set of traditions to bear. Another factor is the extent to which the listener/reader/receiver is already experienced and skilled as a "processor" or "co-processor" for the medium being considered. For instance, at HCP, Ted's experience and skill in processing e-mail would increase the overall suitability of the e-mail medium for those colleagues who wish to communicate with him. In other words, no medium is inherently rich or lean; the level of communication richness that a medium can support will vary with the power of its human processors, which in turn will vary within and across organizations. Finally, perhaps the most important factor to consider in media selection is the hermeneutic circle. As we observed at HCP, communication is not a function of the communication medium, but a function of the interplay of movement back and forth among the speaker/writer/sender, the listener/reader/receiver, their organizational world, and the messages themselves.

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## 8. ENDNOTES

1. For an exhaustive critique of IRT, see Markus 1992.
2. For detailed discussions on assessing interpretations, see Bernstein (1983), Gadamer (1993), Lee (1991), Ricoeur (1981), and Taylor (1979).