

CHAPTER 2

Towards a cognitive model of interpreting

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1. Introduction

“If speaking *for* someone else seems to be a mysterious process that may be because speaking *to* someone does not seem mysterious enough.”

Stanley Cavell (Quoted in Geertz 1973)

Interpreting is, at its heart, about communicating. Although the interpreting situation is a unique communicative event, and the process of interpreting between two languages and two cultures places special constraints and demands on the interpreter, all acts of interpreting can ultimately be reduced to acts of communication. In this chapter, we propose that in order to understand the process of interpreting, it is necessary first to understand how we communicate with one another. Paraphrasing Cavell, we suggest that if *interpreting for someone* seems to be a mysterious process this is because *communicating with someone* does not seem mysterious enough.

Models of interpretation have developed over the years from an early view in which the interpreter was seen as a passive conveyor of information much like a telephone, to more modern conceptions such as communication-facilitator or bilingual-bicultural specialist in which interpreters are encouraged to acknowledge their active role. Although this development reflects a move away from conduit models in terms of how interpreters function in their role, conduit thinking often remains as an unquestioned assumption about how human communication works.

Here we suggest that interpreting is essentially communicating and that the cognitive processes required for communicating cannot be understood in terms of a passive, mechanistic conduit model. Rather, communication, and therefore interpreting, is an active process of constructing meaning based on evidence provided by speakers. Critical factors involved in this cognitive model are: (1) the nature of language, especially semantics (the nature of linguistic meaning); (2) production (how thoughts and meanings are expressed through linguistic messages); and 3) comprehension (the process by which we understand what another person means).

On the basis of a cognitively adequate model of language production and comprehension, we propose a cognitive model of interpreting. Further, we explore implications of this model for the preparation of interpreters and for how interpreters function in their daily work.

In Section 2 we review several models of interpreting that represent steps toward this shift in the paradigm of the interpreter's role. We pay special attention to how these models incorporate assumptions about the process of communicating. Our contention is that while interpreting scholars and educators have rejected conduit models of interpreting in favor of models that assume a more active role of the interpreter, they have nevertheless implicitly assumed conduit models of communication. Rejecting a conduit model of interpreting and replacing it with a more sophisticated model that still relies on conduit assumptions about how communication between people is achieved does little, we suggest, to further our understanding of how interpreters achieve success, how they should be trained, and how they should function.

In Section 3 we approach the understanding of communication from a perspective informed by recent findings in the field of cognitive science and cognitive linguistics. We find that concepts that play an important role in the interpreting models discussed in Section 2 reappear here. Finally, in Section 4 we offer some implications of our cognitive model for the field of interpreting and interpreter education.

2. Interpreting models

We might observe, only half jokingly, that progress in the field of signed language interpreting can be measured in terms of how many models we have seen come and go. Although a relatively young profession, we have witnessed a panoply of models: helper, conduit, sociolinguistic, interactive, communication-facilitator, bilingual-bicultural specialist, and so forth. One driving force that seems to lead to the replacement of one model with another is a desire to rid our models of the interpreter's function of all aspects of conduit thinking. Models that described interpreters as telephones, or that constrained interpreters to not get involved, were replaced with models that accepted, encouraged, and eventually demanded that interpreters become active participants, allies even, with their Deaf consumers. Most of these attempts to eliminate conduit thinking from interpreting models have focused primarily on role models (Frishberg 1986; Roy 1993, 2000). Little attention has been devoted, however, to questioning conduit assumptions that are also presupposed in process models of interpreting.

Our contention is that despite our best efforts to rid the field of it, the conduit model remains, driven underground as interpreting models have focused attention less on the cognitive act of communication and more on political and cultural behaviours of the interpreter. In moving away from conduit models of interpreting to those in which the interpreter takes a more active role, interpreter educators have gradually eliminated any discussion of the cognitive process of interpreting and, more importantly, any discussion of what it means to communicate. Until we once again

explicitly address how communication takes place, our models of interpreting run the risk of still being conduit in nature. Interpreters may no longer view themselves as neutral and uninvolved conduits of messages, but, we hope to demonstrate, their models of interpreting still implicitly assume that language relies on the neutral encoding and decoding of messages by means of the conduit of words and signs passed between communicative participants.

2.1 A helper model

The helper model is arguably the earliest model of signed language interpreting. As Frishberg (1986) notes, interpreting has always taken place, but interpreters were not compensated for their time, nor did they receive formal training in interpreting. “Often the interpreters were family members, neighbors, or friends who *obliged* a deaf relative or friend by ‘pitching in’ during a difficult communication situation (1986: 10; emphasis added). The helper model was the norm. It was how Deaf people accessed the hearing world. But, as Roy notes, helping out in this way, while appearing admirable, reflected attitudes that Deaf individuals were not able to take care of their own personal, social or professional business “without the intervention of the helper” (Roy 1993:139–140).

2.2 A conduit model

With the establishment of the Registry of Interpreters for the Deaf (RID) in 1964, people engaged in interpreting began to take a closer look at the process and at their role as interpreters. This increased awareness signaled the beginning of a shift in paradigm. “Helping out” was no longer always viewed as admirable, but instead as a potential intrusion. Deaf people, the new reasoning assumed, were capable of making their own decisions, and those providing access to communication should do nothing to interfere with that autonomy. Interpreters merely provided a professional service. Quigley and Youngs (1965: 52) note this when they state that “part of the interpreter’s training and experience should include some self-discipline so that the interpreter always makes a strong effort to remain detached, neutral, and as completely impersonal and objective as possible.” With this shift, the conduit model of interpreting had its beginnings. Solow (1981: ix) describes the interpreter’s role as communication conduit:

The sign language interpreter acts as a communication link between people, serving only in that capacity. An analogy is in the use of the telephone – the telephone is a link between people that does not exert a personal influence on either. It does, however, influence the ease of communication and speed of the process. If the interpreter can strive to maintain that parallel positive function without losing vital human attributes, then the interpreter renders a professional service.

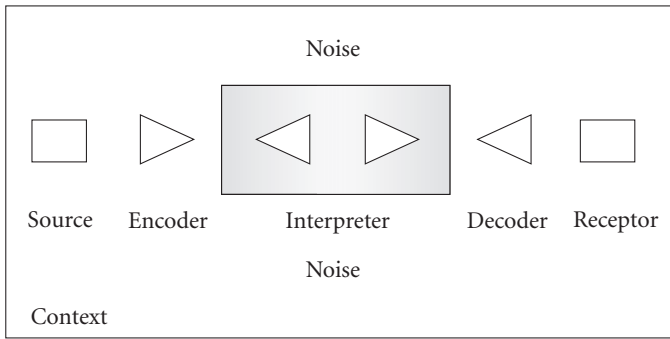


Figure 1. Ingram’s semiotic model. Figure adapted from Robert M. Ingram, “A communication model of the interpreting process”, *Journal of Rehabilitation of the Deaf*, 7(3), 3–9.

2.3 A semiotic model

While a step forward from the helper model, the conduit model did little to further our understanding of what an interpreter *does*, that is, how an interpreter interacts with language. Ingram (1974, 1978) took on this task with his semiotic model of interpreting.

In Ingram’s interpreting model, the interpreter is represented as a channel of communication in a communication-binding context with a source and a receptor (Figure 1). The interpreter “must decode, transfer, and re-encode not single, linguistic messages at a time but a multiplicity of messages in a multiplicity of interwoven codes with every single act of interpretation” (Ingram 1978: 111).

In describing Ingram’s model, Stewart, Schein and Cartwright (1998) state:

A message is first coded for transmission – a process called *encoding*. The *code* may be English, ASL, or nonlanguages such as gestures, facial expressions, or grunts. The message is then transmitted over a *channel* (e.g., speech or writing). When received, it is *decoded* (i.e., put into a form accessible to the receiver). Any signal that interferes with transmission of the message is labeled *noise*. . . . These are concepts familiar to engineers who develop and analyze communication systems. (1998: 45–46).

2.4 A sociolinguistic model

Cokely (1992) attempted to shift our attention even further away from the conduit model of interpreting with the publication of his sociolinguistic model of interpreting. Stewart, Schein and Cartwright (1998: 47) provide a concise summary of Cokely’s sociolinguistic model, noting that it “indirectly implies the presence of a sender and a receiver of the message. It also treats interpreting as linear, although it likely involves parallel processing, with some aspects occurring simultaneously rather than

sequentially.” As we will see in Section 4, these characteristics mark Cokely’s approach as still well within the conduit model of communication.

2.5 A pedagogical model

Colonomos (1992) relies extensively on the work of Seleskovitch (1978) in her model of the interpreting process (Figure 2). The notion of “message” is a critical part of the Colonomos model, and so it deserves our attention here.

According to Colonomos, message “refers to the meaning of the speaker’s message, represented through non-linguistic (ideally) means, which has been extracted by the interpreter during the analysis phase of the process. The absence of linguistic symbols frees the interpreter from the constraints of language meanings so that they [sic] may optimally recreate the message using target language forms that most appropriately convey message equivalence” (Colonomos 1992:4).

In other words, Colonomos believes that interpreters work with messages which *contain* the speaker’s meaning; interpreters *extract* this meaning and *discard* all of its linguistic trappings, leaving a *formless* meaning which is then used to *recreate* the message in a way that conveys message equivalence. We contend that the underlying metaphor by which Colonomos understands communication is in fact a conduit model.

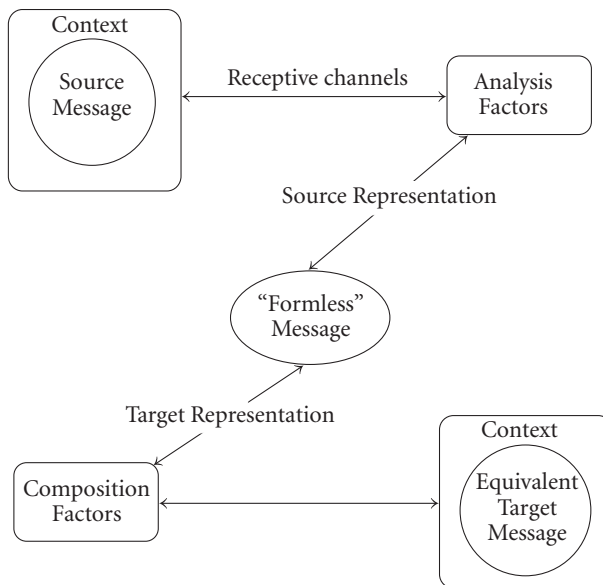


Figure 2. Colonomos’s pedagogical model. Figure adapted from Betty Colonomos, workshop handout, © 1992.

2.6 A proposed cognitive model of interpreting¹

Stewart et al. (1998) discuss what they refer to as “The Cognitive Model of Interpreting” in which the interpreting process is depicted linearly, moving from source language, through reception and comprehension, analysis and encoding, expression and evaluation, resulting in an interpreted message in the target language. Their model is similar to the pedagogical model proposed by Colonomos, “but further simplifies the process involved in interpreting. The first step of the model assumes that the interpreter understands the language in which the source message is presented. Once comprehension of the message occurs, the interpreter then analyzes the message to determine how the meaning will be encoded in the target language” (Stewart et al. 1998:31–32). Stewart and his colleagues side step the issue of how communication takes place by assuming that the interpreter comprehends.

2.7 The bilingual-bicultural model

Roy (1993) states that dissatisfaction with the conduit model led to the communication-facilitation model, which itself gave way in the 1990s to a model of the interpreter as a bilingual-bicultural specialist. This model was first proposed by Etilvia Arjona, a spoken language interpreter, and Ingram, who emphasize that language and culture are inseparable: “As such, the translation process is considered as taking place within a situational/cultural context that is, in itself, an integral part of the process and that must be considered in order to bridge, in a meaningful manner, this gap that separates both sender and receptor audiences” (Arjona, in Roy 1993:36).

Humphrey and Alcorn (2001: Chapter 8, p. 10) note that within this model the interpreter assumes responsibility for “cultural and linguistic mediation while accomplishing speaker goal and maintaining dynamic equivalence.” It is, they state, the preferred theoretical framework from which an interpreter should work.

2.8 Text analysis and discourse analysis models

Recent attempts to elaborate process models of interpreting have incorporated knowledge from text and discourse analysis. Gish (1987) proposes an approach that provides the interpreter with a set of guidelines, based on strategies for text analysis, for understanding the meaning of the message, the structure of the message, and for making predictions about the next utterances and the ultimate goals of the speaker.

For Roy (2000:122), “the *basic* and *fundamental* interpreting event occurs when two people who have particular intentions and expectations come together and talk through an interpreter.” This approach leads Roy to adopt a perspective that sees interpreting as a discourse process, and she suggests that interpreter educators need to re-examine the nature of communication. In the epilogue to her book, Roy touches on this topic by introducing the work of Reddy (1979) and suggesting that we consider the implications of his work for models of interpreting.

2.9 Summary of interpreting models

What we have seen over the last forty years is a slow but steady shift in conceptual paradigm – a shift in role from helper to passive, impartial conduit, and from conduit to active participant with some responsibility for the message.

During this evolution a body of terminology has developed. We now regularly use words such as “encoding” (what Stewart et al. call coding for transmission, as we saw in Section 2.3 above), “channel” (writing, speaking, signing), and “decoding” (what Stewart et al. refer to as putting the message into a form accessible to the receiver). A great deal of attention is given to what the interpreter does with the message, yet surprisingly little attention has been paid to the message itself. In this, interpreter educators have no clear foundation from which to teach.

2.10 The conduit model remains

What we have presented thus far is essentially a history of the field in an attempt to situate signed language interpreting within a contemporary context – one that has rejected the conduit model. While we acknowledge that the field has, indeed, moved away from conduit models of the interpreter role, our understanding of what is involved in interpreting messages remains largely unchanged. We continue to conceive of the interpreting process by means of a conduit model of communication.

In the following sections we suggest that the cognitive processes required for communicating cannot be understood in terms of a passive, mechanistic conduit model. Rather, communication, and therefore interpreting, is an active process of constructing meaning based on evidence provided by speakers. We begin by describing a cognitive model of communication, and then discuss how it informs our understanding of the nature of interpretation.

3. Cognitive models of communication

3.1 Language and communication

Our contention is that interpreting is communicating, and that unless our models of interpreting rest on a scientifically adequate foundation of what communication is and how it is achieved, our models will remain flawed.² The first order of business then is to ask: What is communication and how do humans communicate? One answer to that question is provided by Daniel Sperber and Deirdre Wilson in their book *Relevance*:

How do human beings communicate with one another? For verbal communication at least, there is a sort of folk answer, suggested by a variety of metaphors in everyday use: ‘putting one’s thoughts into words’, ‘getting one’s ideas across’, ‘putting one’s thoughts down on paper’, and so on. These make it sound as if verbal communication were a matter of packing a *content* (yet another metaphor)

into words and sending it off, to be unpacked by the recipient at the other end. The power of these figures of speech is such that one tends to forget that the answer they suggest cannot be true. In writing this book, we have not literally put our thoughts down on paper. What we have put down on paper are little dark marks, a copy of which you are now looking at. As for our thoughts, they remain where they always were, inside our brains. (Sperber & Wilson 1995:1)

The metaphors that Sperber and Wilson refer to are discussed at length under the rubric of the *conduit metaphor* (Reddy 1993).³ According to Reddy, our talk about communication reveals that we conceptualize the process of communication to be one in which: (1) language functions like a conduit, transferring thoughts from one person to another; (2) in writing and speaking, people insert their thoughts or feelings in the words; (3) words accomplish the transfer by containing the thoughts and feelings and conveying them to others; and (4) in listening and reading, people extract the thoughts and feelings once again from the words (Reddy 1993: 170).

In order to investigate the pernicious effects of the conduit metaphor on how we understand human communication to work, Reddy compares and contrasts the conduit metaphor of communication with what he calls the *toolmakers paradigm*. The *toolmakers paradigm* suggests that, in communicating with one another, we are “like people isolated in slightly different environments.”

Imagine, if you will, for sake of the story, a huge compound, shaped like a wagon wheel. Each pie-shaped sector of the wheel is an environment. . . At the hub of the wheel there is some machinery which can deliver small sheets of paper from one environment to another. Let us suppose that the people in these environments have learned how to use this machinery to exchange crude sets of instructions with one another – instructions for making things helpful in surviving, . . .

(Reddy 1993:171–172)

For understanding communication, the *toolmakers paradigm* suggests that each of us lives in our own world, and that ultimately no one can totally share in the experiences, thoughts, feelings, and perceptions of another. This Reddy calls “radical subjectivity” (1993:172). Interpreters are well aware of the need to work from a position of radical subjectivity. We cannot and do not assume that we know what is going on inside the heads of those for whom we interpret. Even though Seleskovitch (1978:32) says that interpreters are mind-readers, every interpreter knows that she was speaking metaphorically. We make assumptions about what people are meaning, but we do not *hear* their meanings and we cannot read their minds. Oddly, though, our interpreting models often incorporate assumptions about how language works that would make it seem that we do have direct access to people’s thoughts.

The *toolmakers paradigm* is Reddy’s model of how human communication *does* occur. In the toolmakers’ compound, people have reasons for communicating with others. Since they do not have direct access to those people due to the compound walls, their only means of sharing their thoughts is through the machinery in the hub. But notice how communication must occur. A person in one sector, wishing to share

something – for the purpose of the story we will call it some kind of tool, but recognize that it corresponds to a thought or intention – with a person in another sector, must make some marks on a piece of paper. The paper, but *not the tool itself* (that is, not the thought or meaning itself), is placed in the hub and transferred to another person.

What must the second person do in order to “understand” the first person – that is, in order to use the tool? The second person must first *construct the tool*. Notice what this means. The first person built her tool for certain purposes, with her particular intentions, and out of materials which were only available to her (recall the assumption of radical subjectivity). The second person, who must now make her own tool on the basis of instructions from the first person, does not share the first’s purposes or intentions, and does not have access to the same materials. She receives only instructions for constructing a tool, hence the name *toolmakers paradigm*.

So the second person goes about building a tool. When she is finished she is left with a tool that probably does not look exactly like the first person’s tool, and she has to figure out why and how this person used the tool, why she would want to share it with others. According to Reddy, this process is inherently active – the people involved are *actively constructing meaning*, quite literally *making sense*. The people involved in this process of communicating never actually share their tools with one another. All they share are the pieces of paper. It is on the basis of these metaphorical scraps of paper that people make sense of others, not through direct access to their thoughts but by means of “inference about each other and each other’s environments” (Reddy 1993:174). Seleskovitch’s metaphorical mind-reading is replaced with the cognitive ability of *making an inference based on perceptible evidence*.

At this point, we need to label two items in the story so that we can see how they are related to interpreting models. We must recognize first that the scraps of paper in Reddy’s story correspond to the perceptible signals, the forms that are sent when people communicate – the “evidence”. For spoken languages, these signals are the sounds that people utter, while for signed languages they are the optical signals that result from the movements of our hands and bodies.

We are often told as interpreting students, and we tell those who ask about the nature of the interpreting task, that interpreters deal not with words but with meanings. The task of the interpreter, Seleskovitch and Colonomos, among others, tell us, is to discard the form and retain the meaning. While it is true that interpreters work with meaning and not form, we cannot stop here. We must ask: how do interpreters gain access to meaning? How is meaning conveyed in form? We hope that our answer is now becoming clear: it is not. Meaning is not conveyed in form. Meaning is inferred from, constructed on the basis of, form.⁴

How is this different from the conduit understanding of how communication works? Returning to the toolmakers’ compound, Reddy examines the process of communication as the conduit metaphor would see it, suggesting that “what the conduit metaphor does is permit the exchange of materials from the environments, including the actual constructs themselves. In our story, we would have to imagine a marvelous technological duplicating machine located in the hub” (Reddy 1993:174).

Instead of sending instructions for the construction of meanings, the conduit metaphor tells us that communication is achieved by actually passing meanings from one person to another. How is this achieved? What is the marvelous technological duplicating machine? It is language – rather, it is our conduit-influenced understanding of what language is and how it works. According to the conduit metaphor, words contain meanings. In speaking or signing, we put our meanings into words and messages; in understanding, we extract the meaning.

The terms that are often used for this process of “putting meaning into words” and “extracting meaning from words” – terms which are commonly used but rarely critically questioned by interpreters and interpreter educators – are *encoding* and *decoding*. As we have seen in Section 1, and as we just pointed out, interpreters are also concerned with the distinction between *form* and *meaning* or *message*. We hope to have begun to make clear the need to question the assumption that meaning is conveyed in form, that words or signs contain or hold meaning. We now need to explore a bit further the notion of message.

The notion of “message” is rife with confusion in the interpreting literature. Many interpreting texts forgo a definition or description of message, instead beginning with a description of how it is encoded and decoded. Some explain the extra-linguistic components of a message, without stating what a message is. Others simply dive in and describe how an interpreter accesses a message.

Humphrey and Alcorn (2001) discuss what they intend with the word “meaning” in their introductory chapter:

Communicators must construct messages in a grammatically correct way in order to make sense. However, after the meaning being conveyed has been extracted from a sentence and understood by the listener, the specific grammatical structure no longer serves any purpose. This is because grammar is not needed to retain the information carried in an utterance. While interpreters must be fluent in their grammatical use of both languages they work in, *they work predominantly in the pragmatic realm to uncover the meaning of the message and the purpose intended by the sender.* (2001: Chapter 1, pp. 7–8)

Clearly this statement is laden with conduit assumptions. Meanings are “carried in” sentences, and listeners “extract” or “uncover” these meanings. Grammar plays only a minor role in conveying meaning, and it is categorically distinct from pragmatics – assumptions that we will reject in Section 4. Finally, it is assumed that interpreters have direct access to the purposes and intentions of the speaker (the sender). Nowhere are meanings constructed or intentions inferred. The meanings of messages and the intentions of speakers, it seems, are right there in the words waiting for the interpreter to uncover and extract.

Stewart, Schein and Cartwright also refer to the notion of “message” if somewhat indirectly. They state that messages can be divided into four parts: purpose, content, form and paralinguistics. “The content can include almost anything, although most

can be subsumed under (1) information and description, (2) imperatives, (3) emotional expressions, (4) questions, and (5) casual comments” (Stewart et al. 1998:38).

While little is said about message or meaning, much has been written about how an interpreter accesses it. Humphrey and Alcorn (2001) refer to this as “deriving meaning”. They state that if a person is “linguistically fluent” in the language they no longer need to “listen/watch each word/sign in a focused manner to determine meaning”. This allows the interpreter to “analyze the context in which the exchange is happening and the way it influences the communication dynamics; analyze the incoming message at a deeper (textual) level; and make a switch into the target language without losing meaning or speaker goals” (Humphrey & Alcorn 2001: Chapter 9, p. 5).

We have clearly bypassed the notion of message here and instead moved on to aspects of the communication that can only be conveyed accurately in the target language if comprehension of the message in the source language has occurred. Comprehension of the message is assumed. The notion of the “message” appears to be uncontroversial, barely worthy of mention.

What exactly do interpreters believe the message is, then, and how do we access it? The problem arises from the misapplication of *information theory* (Shannon & Weaver 1949) to the understanding of communication by means of natural language. Once again, Reddy demonstrates how a misconception of what the term “message” means, when combined with the conduit metaphor, can lead to a total breakdown in our understanding of how communication works.

In order to understand how interpreters and interpreting models get into trouble with the concept of message, we start with yet another example from Reddy. Consider the word “poem” in the following sentences (Reddy 1993:178):

- (1) The poem was almost illegible.
- (2) The poem has five lines and forty words.
- (3) The poem is unrhymed.

Clearly, in these uses, “poem” refers to an actual text token, a signal which is legible or not, with countable words having language specific forms which can rhyme with each other, and so forth. Now consider the next three sentences (Reddy 1993:178):

- (4) Donne’s poem is very logical.
- (5) That poem is so completely depressing.
- (6) You know his poem is too obscene for children.

Here, “poem” refers not to actual texts or signals, but to the “concepts and emotions assembled in the reading of a text” (Reddy 1993:178). In fact, the term “reading” here captures the point we are trying to make nicely. The word “poem” has multiple meanings in English: it can refer either to the signals of communication, or the meanings that people construct, their “reading” of a text.

The same problems arise in the use and understanding of “message” (Reddy 1993:183):

- (7) I got your message (MESSAGE₁), but had no time to read it.
- (8) Okay, John, I get the message (MESSAGE₂); let's leave him alone.

The confusion arises because interpreting theory, like information theory, does not clearly distinguish between a set of signals (MESSAGE₁) and the meaning that we assign to or construct from those signals (MESSAGE₂). As Reddy points out, “for conduit-metaphor thinking, in which we send and receive the MESSAGE₂ within the MESSAGE₁, the ambiguity is trivial. But for theory based totally on the notion that the ‘message’ (MESSAGE₂) is never *sent* anywhere, this choice of words leads to the collapse of the paradigm” (Reddy 1993:183).

For interpreters the problem is compounded even further because we are keenly aware that we must work not only with forms (MESSAGES₁) in two languages, but with meanings (MESSAGES₂). Rather than leading us to see the damaging effects of conduit-metaphor thinking in our understanding of language more clearly, however, it has most often led interpreters to even further confusion about the nature of language.

The confusion is brought about by the polysemy, or multiplicity of related meanings, of the term “message”. But polysemy is a natural condition of all language. In the case of “poem”, polysemy leads from POEM₁ “an actual text” to POEM₂ “the meaning of the poem”. This polysemy is based on metonymy. Metonymy is a type of meaning extension in which, when two entities frequently occur together in our experience, the name of one is used to refer to the other. The same metonymic process is surely what led from “message” being used to refer to the meaning of an utterance to also being used to refer to the signal that conveys that message. Notice, however, that this metonymic extension is intimately tied to the conduit metaphor. It is nearly impossible to explain the semantic extension without relying on the conduit metaphor, as we have illustrated in saying that the signal “conveys that message”. If we were to attempt to express this in a way that does not rely on the conduit metaphor, we would have to use an entirely unwieldy expression, such as “the signal which the person receives and then uses, along with her background knowledge, to construct a meaning which she then infers was intended by the speaker who produced the signal”.

We are not suggesting that such wording should be used in a zealous attempt to eradicate conduit metaphor expressions from everyday language. The use of conduit metaphor expressions in our natural language is perfectly acceptable. As interpreters, however, we must guard against believing that these expressions portray how language actually works. We will return to this point in Section 4, where we explore the ways in which the unquestioned acceptance of conduit metaphor thinking about language has pervaded interpreting models.

3.2 Cognitive science and communication

If human communication via language does not work as the conduit metaphor suggests, how does it work? How does modern linguistic theory explain the toolmakers paradigm? What do people do when they use and understand language?

To explore this, we turn to a body of research in the field of cognitive linguistics. The cognitive approach to language makes a number of assumptions about what language is and how language works that are radically different than those made in more commonly-known theories. For interpreters who are attempting to throw off the veil of the conduit metaphor and better understand what they do when working across languages and cultures, we believe that cognitive linguistics offers a far better framework.

Mark Turner, a cognitive linguist and professor of English, says this about how language works:

In order to understand, we must bring to bear elaborate and detailed conceptual knowledge not referred to in the expression. This is the common situation of all language. Expressions do not mean; they are prompts for us to construct meanings. In no sense is the meaning of an utterance “right there in the words”. When we understand an utterance, we in no sense are understanding “just what the words say”; the words themselves say nothing independent of the richly detailed knowledge and powerful cognitive processes we bring to bear.

(Turner 1991:206)

Clearly, the cognitive linguistic approach to language does not accept conduit-metaphor thinking: words and expressions do not contain meanings, but instead they serve as prompts, as cues, for the construction of meaning. In explaining the process of communicating via language, cognitive linguistics does not assume a *code model* in which communication is achieved by encoding and decoding messages. Rather, it works from an *inferential model* in which communication is achieved by producing and interpreting evidence. As Sperber and Wilson (1995:12–13) note, “inferential and decoding processes are quite different. An *inferential process* starts from a set of premises and results in a set of conclusions which follow logically from, or are at least warranted by, the premises. A *decoding process* starts from a signal and results in the recovery of a message which is associated to the signal by an underlying code.” Models of communication that rely on the conduit metaphor assume that language encodes meanings, and that understanding is the mechanical process of decoding. Models of communication that reject conduit thinking recognize instead that comprehending language is a process of constructing meaning, arriving at conclusions of what someone’s meaning and intentions might be on the basis of the perceptible evidence that they produce – the sounds or the signs that they make when they use language.

3.3 Cognitive linguistics and interpreting

Our central claim is that while the field of interpreting has moved to reject conduit models of how the interpreter should function, our models of interpreting continue to rely on an understanding of language that implicitly assumes a conduit model of communication. In Section 3.1 we offered a first look at what a cognitive model of communication, which explicitly rejects conduit thinking, would look like. Here, we

explore in a bit more depth what cognitive approaches to language have to offer the development of a cognitive model of interpreting.

A full exploration of the linguistic underpinnings of our proposed cognitive model of interpreting cannot be provided in this chapter. Readers interested in learning more about cognitive linguistics are referred to the work of Ronald Langacker (1987, 1991a, 1991b, 2000). For now, we want to address two questions that are essential to interpreting: what is meaning, and what is grammar.

The cognitive perspective is an alternative to the generative approach to language. Noam Chomsky, who pioneered the generative approach in his classic book *Syntactic Structures*, defined language in this way: “I will consider a *language* to be a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements” (1957: 13). Thus, generative grammar sees language as a device that *generates* grammatical sentences: “Assuming the set of grammatical sentences of English to be given, we now must ask what sort of device can produce this set” (Chomsky 1957: 18). For Chomsky, the answer was that the device must be some kind of mental organ, a language device that provided this grammatical ability, utterly distinct from other, more general cognitive abilities. On this point we will disagree with Chomsky. The difference in starting points – language as a grammar-generating device or language as a cognitive activity – is essential for interpreters.

Within the generative approach, meaning and grammar are absolutely distinct. Grammar does not in any way depend on meaning. As Chomsky put it, “the notion of ‘grammatical’ cannot be identified with ‘meaningful’ or ‘significant’ in any semantic sense. . . . any search for a semantically based definition of ‘grammaticalness’ will be futile” (1957: 15). Chomsky demonstrated the autonomy of meaning and grammar with his famous sentence “Colorless green ideas sleep furiously” which, he claimed, was grammatical and yet meaningless.

Although the linguistic research of Chomsky, his students, and the many scholars who now work in the generative grammar tradition has evolved in complex ways, we would suggest that these basic claims – that the unique mental ability of language is distinct from other cognitive abilities, that grammar and meaning are unrelated – have become firmly embedded in the subconscious of many language practitioners such as interpreters.

The cognitive linguistic approach considers language to have two basic functions, “a *semiological function* allowing thoughts to be symbolized by means of sounds, gestures, or writing, as well as an *interactive function*, embracing communication, expressiveness, manipulation, and social communion” (Langacker 1998: 1). Cognitive linguistics challenges both of the major assumptions of generative grammar. It does not assume that language is a unique mental organ; rather, it claims that language is “neither self-contained nor describable without essential reference to cognitive processing” (Langacker 1991a: 1). Further, in the cognitive approach grammar is not regarded as independent of meaning. All of language – the lexicon, morphology, and syntax – is seen as inherently symbolic, having both form and meaning. Even the

most abstract grammatical functions in language are regarded as pairings of form and meaning in cognitive linguistics.

Within the cognitive linguistic approach, meaning is equated with conceptualization. This *cognitive semantics* “posits a gradation between semantics and pragmatics, and also between linguistic and general knowledge. It views expressions as evoking (rather than containing) meanings, which emerge via an elaborate process of *meaning construction* drawing on all available resources – linguistic, psychological, and contextual” (Langacker 1998:3).

Already we begin to see how cognitive linguistics explicitly challenges the conduit model of communication. Within the generative approach the grammar of a language is seen as a device for generating the grammatical (regardless of whether they are meaningful) sentences of a language. Cognitive linguistics rejects this process metaphor and instead conceives of the grammar of a language as a **structured inventory of conventional linguistic units**. Each term in this definition is chosen carefully and must be understood in its precise technical sense: what is a linguistic unit, what makes a linguistic unit conventional or unconventional, what is an inventory, and how is it structured? This definition is important for interpreters because it views language as an inventory of symbolic resources shared by users of the language. Making use of these linguistic resources is what users of a language do when they express ideas, emotions, and feelings. This is a problem-solving activity on the part of the language user, who constructs expressions using the linguistic resources at her disposal, and on the part of the receiver, who constructs meanings on the basis of the cues provided by the speaker.

What does it mean to say that expressions evoke, rather than contain, meaning? We can demonstrate with a simple example. Consider the English expression *jar lid*. This is regarded in cognitive grammar as a minimal construction, an assembly of two component structures, *jar* and *lid*. Speakers of English know that there are many such noun-noun constructions, such as *garage door* or *table cloth*. This knowledge is reflected in speaker’s grammars by means of *schematized expressions*, which can be thought of as “templates abstracted from a set of complex expressions to embody whatever commonality is inherent in them” (Langacker 2000:110). That is, as we see specific expressions such as *pencil sharpener* or *letter carrier* used, we form generalizations that are then used to produce yet other expressions.

Speakers of English make use of their knowledge of these *constructional schemas* when they create a novel expression. The noun-noun constructional schema, for example, sanctions novel expressions such as *pencil sharpener*, *aqua farm*, *sewer pipe*, or *Pacific rim*.⁵ The constructional schema provides the template for the construction, specifying the component structures (two nouns) as well as a composite structure that integrates the meanings of the two component structures into a *compositional value*.

The critical fact emphasized in a cognitive approach is that the compositional value of such novel expressions is merely latent: neither the constructional schema nor the component structures provide sufficient information to understand the expression’s full contextual meaning. The constructional schema tells us only that a *pencil*

sharpener is something that sharpens pencils. But this tells us very little about how this expression is actually understood, its conventional meaning in English being a very particular type of device that mechanically sharpens pencils.

In fact, sometimes the compositional value tells us very little about the conventional, contextual meaning. How many English speakers, on first hearing the expression *aqua farm*, know what it means? In our experience, almost no native speakers of English do understand the term on first hearing it. Their linguistic competence allows them to derive all that the constructional schema and word meanings provide, and when pressed they offer such anomalous meanings as, “It’s a place where people grow water?” This is all that the language gives us. Meaning is clearly not encoded or contained in the words *aqua* and *farm*.

The implication for interpreters is that *what we are here describing is an essential fact about linguistic communication*. It is rare to find in any human language cases where knowledge of a constructional schema and the meaning of its component structures tells us everything we need in order to understand the conventional, fully contextualized meaning of an expression. Linguistic expressions are always vastly under-specified. This is in the very nature of language. And it is true whatever the size of the linguistic construction – multimorphemic words, simple expressions or phrases, sentences or utterances, and discourse. In the words of cognitive grammar, “novel expressions are not created by the linguistic system per se, but rather by the *speaker*, drawing on all available resources” (Langacker 2000: 111; emphasis added). Grammar is not constructive; speakers and hearers, or signers and watchers, are.

Notice that this conclusion derives from the cognitive view of language that we have been describing in this chapter. If we were to adopt, either implicitly or explicitly, a conduit model of language in which meaning is contained in words, then the full compositional value of an expression is simply the mechanical integration of the meanings of the component words. For example, Lawrence (1995) falls prey to a conduit model of language when she describes the differences between English and ASL and the importance of this difference in interpreting:

“Couching” or “nesting” is when background or contextual information is added to a concept to make it clear. A particular adjustment occurs by virtue of the differences between the two languages. English is considered a “low-context” language. This means that with only a limited amount of information, speakers of English understand one another. There is a lot of implied information and only a minimal amount of context is required for understanding. In contrast, ASL is considered a “high context” language. This means that information is not easily implied and in fact, must be explicit. If an idea is presented in English which is “low context” in nature and it must be presented in ASL which is “high context” in nature, the “couching” or “nesting” of background information must be added to make the idea equally clear in ASL. This is probably one of the hardest features to identify in an ASL text because the idea is presented in a way natural to ASL. It is only when one focuses on how that same concept would be presented in English that we can identify the discourse as “couched”. . . . English examples of the need

to use this feature abound. Some examples might include the ideas of *primitive cultures*, *aqua farms*, or *the Pacific rim*. (Lawrence 1995:212)

The terms “high-context” and “low-context” come from Edward T. Hall (e.g., Hall 1977), who uses them not to characterize entire languages and cultures as uniformly one or the other, but as tendencies which can vary according to situation, setting, participants, and so forth.⁶ Lawrence also mischaracterizes the notion of “information” in this passage. It is not the case that ASL only permits utterances which “explicitly” state meanings. ASL users certainly can imply, suggest, equivocate, and otherwise state meanings in subtle, ambiguous, obscure, and other non-explicit ways. High- and low-context simply were intended to suggest that in certain uses, meaning resided primarily in the linguistically-encoded utterance (low-context) and in other uses meanings depended much more on context (high-context).

What is going on in Lawrence’s example of “aqua farms” or “Pacific rim” is not a matter of whether English relies on “a lot of implied information” while in ASL information “is not easily implied.” The difficulty for interpreters posed by expressions such as these is best understood as a matter of compositionality. All languages vary in the degree to which expressions are fully compositional. Full compositionality, in which meanings depend only on knowledge of component words and a constructional schema, is quite uncharacteristic of normal language use. The full, contextualized meaning of aqua farm is not given in the words, but neither is the full, contextualized meaning of pencil sharpener. The difference between aqua farm and pencil sharpener is not a matter of English being a high or low context language. Rather, it is that pencil sharpener is a conventional expression, and its conventional meaning now includes pragmatic or contextual aspects not included in the meaning of pencil, in sharp, in the verbalizing affix *-en*, in the nominalizing suffix *-er*, or in the constructional schema itself. The reason native speakers cannot construct an acceptable meaning of aqua farm is not because English is low or high context, or because English is implicit or explicit. It is simply because the term aqua farm is not yet conventionally understood in all of its contextual fullness. Speakers have access only to the vastly under-specific meanings available in the component words and in the very general meaning of the constructional schema.

We might note that the same can be said of ASL. A construction in ASL such as FEEL-EMPTY, which sometimes translates as ‘oblivious-to’, and in other discourse contexts as ‘automatically, without conscious thought’, cannot be understood by reference only to the meanings of the component words and the constructional schema verb+adjective. Here too, explanations that rely on describing ASL, as Lawrence does, as a “high context language” in which “information is not easily implied and in fact must be explicit” miss the point. There is nothing “explicit” about the meaning of FEEL-EMPTY as compared with *aqua farm*; both are in fact normal linguistic expressions, in that their full contextual meaning depends greatly on knowledge of their conventional meaning and not just their component parts.

4. Implications

The problem is not interpreting. It is not that English is indirect and that ASL is direct as Humphrey and Alcorn (2001) and others would have us view it. It is not that translation equivalents are hard to find (indeed, they are, but that pales in comparison to the real problem). It is not that ASL is direct and elaborative and relies on expansion techniques while English is indirect and non-elaborative (Lawrence 1995; Humphrey & Alcorn 2001). The problem is that our models of interpreting simply do not do justice to the act of communicating. In trivializing the cognitive work that is done whenever we communicate with another we fail to prepare interpreters for the awesome and mysterious task that they perform: speaking for another.

As we have maintained throughout, the task of communicating is in constructing meaning, both in production and reception. The role of interpreter education programs now becomes clearer. Programs must address not only competency in two languages and the development of interpreting skills such as the use of memory and processing, they must also concern themselves with the general knowledge of their students. Interpreters should be encouraged to have at the very least a broad liberal arts background. Only with this broad background can they hope to understand and interpret the content with which they are faced. As Mark Turner so aptly puts it, mentioned earlier, “in order to understand, we must bring to bear elaborate and detailed conceptual knowledge not referred to in the expression” (1991: 206). Without a breadth and depth of knowledge, interpreters cannot construct meaning.

Another implication for both professional interpreters and interpreter educators concerns how we evaluate interpreting. The currently popular model relies on *error analysis* or *miscue analysis*. According to one proponent of miscue analysis, the process works like this:

For an interpretation to be considered accurate or appropriate, the meaning of the source language message must be determined by the interpreter and conveyed in such a way that that meaning is intelligible in the target language. The very nature of the interpreting process makes it possible to determine accuracy or appropriateness by comparing the interpreted tL [target language] text with the source language text it is supposed to convey. . . . Comparison of sL and tL texts will necessitate an accurate understanding of the meaning of the sL text and the syntactic devices used to convey that meaning, as well as an accurate understanding of the meaning of the tL text and the syntactic devices used to convey that meaning. Only then is it possible to determine the extent to which equivalence in meaning has been achieved in the tL text.

(Cokely 1992:73)

The process being described here is akin to what a chemist would do when determining the weight of a compound: place a known quantity of weight on one side of a scale, the compound on the other side, and remove or add the compound as necessary to make the scale come into balance. But meaning is not so neat; communication is not

chemistry. Meanings across languages cannot be weighed on a balance to determine objective equivalence.

The problem with this model for communication is that we do not have direct access to *the meaning* (as if there is only one!) of the source text and, if we are third-party evaluators of an interpreted text, neither do we have direct access to *the meaning* of the target text.

An even more profound problem lies in the basic premise of error analysis: it assumes successful communication and therefore requires only that failure to communicate be explained. A cognitive model approaches communication with the opposite assumption: if communication depends on the construction of meaning from cues, and if communicators do not have direct access to others' meanings or intentions, then what we should expect is partial communication. Successful communication requires our attention and explanation. In Reddy's words:

In terms of the conduit metaphor, what requires explanation is failure to communicate. Success appears to be automatic. But if we think in terms of the toolmakers paradigm, our expectation is precisely the opposite. Partial miscommunication, or divergence of readings from a single text, are not aberrations. They are tendencies inherent in the system, which can only be counteracted by continuous effort and by large amounts of verbal interaction. In this view, things will naturally be scattered unless we expend the energy to gather them. (1993: 175)

We see then that error analysis, by focusing on identifying and explaining failure, operates from a conduit model.⁷ We propose that a more appropriate model for the evaluation of interpreting would be one that examines successful interpreting, that is, *success analysis*. By problematizing interpreting as successful communicating, we will learn more about how the interpreting process works than we ever will by assuming success and focusing only on failure to communicate.

A curious situation has arisen in the field of interpreting. At the same time that interpreters are advocating for their active participation and against outdated role models that see them as mere conduits, our models of communication objectify meaning as something that exists "out there" in the external world and thus downplay the active labor that we all undertake when we *make sense* with others. Once again, Reddy eloquently recognizes the implications:

To the extent that the conduit metaphor does see communication as requiring some slight expenditure of energy, it localizes this expenditure almost totally in the speaker or writer. The function of the reader or listener is trivialized. The radical subjectivist paradigm, on the other hand, makes it clear that readers and listeners [and, we might add, interpreters] face a difficult and highly creative task of reconstruction and hypothesis testing. (1993: 186)

We contend that because interpreters have relied on inadequate models of language and meaning, they have fundamentally misunderstood the process of communication and of interpretation. In an effort to address the real problems of understanding a person in one language and expressing what (we think) she meant to a third person in

another language, interpreters have turned to models of the interpreter's role. It is as if interpreters, being highly sensitive to nuances of meaning, are aware that a problem faces them in their work to make sense across individuals and across languages. But when they turn to models of language, they are told that, if they will simply discard form and extract the internal meaning of messages, the problem does not exist. Faced with this predicament, interpreters develop new models of their role, hoping that this will resolve the problem. We suggest that the solution is for interpreters to discard the assumptions that we make about how language works. Only if we have an accurate understanding of how humans communicate through language, of how we understand each other, can interpreters approach their task fully aware of the essentially creative nature of what they are doing. In all cases, interpreters construct meanings, make sense, and hope that the sense they made somewhat captures the sense intended.

This does not mean that the interpreter's role is unimportant, and indeed we might ask what a cognitive model of interpreting suggests for the interpreter's role. If meaning is always constructed, if interpreters make meaning in the creative cognitive task we have been describing, then can the interpreter ever be neutral? Isn't all meaning construction necessarily coloured by our personal subjectivity?

The question is not new to the field of interpreting. Interpreter educators have written about the impossibility of achieving neutrality. Metzger (1999:23) writes, for example, that "[i]nterpreters have expressed the goal of not influencing the form, content, structure, and outcomes of interactive discourse, but the reality is that interpreters, by their very presence, influence the interaction".

Similarly, Baker-Shenk (1991), discussing the machine or conduit model that was for so many the prevailing approach to interpreting, points out that the model is "terribly naive. It is based on the false assumption that the interpreter can somehow avoid power, avoid taking a stand, and avoid influencing the outcome of the interaction" (1991:133).

We do not disagree in principle with any of these statements. It is unquestionably true that the interpreter is a significant presence in any interpreted discourse and that interpreters have access to tremendous power. We would only point out that what these and other authors appear to be addressing is more an issue of *social neutrality*: the impossibility of avoiding power, of taking a stand, and the fact that as parties to an interaction we influence that interaction.

What we have focused on is the issue of *communicative neutrality*, of whether there exists some meaning contained within words and expressions, which interpreters can somehow divine, extract, uncover, discover, or derive by "message analysis". We suggest that there is not an objective reality to socially communicated meaning, that all such communication operates in the face of radical subjectivity. If interpreters do engage in message analysis, the goal is not to extract meaning from words, it is to *put meaning into words*.

Notice, however, that it is entirely possible to advocate for the impossibility of social neutrality while still believing in a conduit model of meaning. It is here, we believe, that interpreters and interpreter educators have stopped mid-stream. The

danger is not in recognizing that social neutrality is a myth, it is rejecting the myth without a firm understanding of what human communication is.

Rejecting the conduit model of communication in favour of a cognitive model requires interpreters to acknowledge that social neutrality is an impossibility. Communication is fundamentally social. Whenever humans come together and communicate, they are always trying to accomplish *something*, and that something usually reflects their social status. In saying that meaning does not have an objective existence, that it is constructed, we are really saying that it is co-constructed in dynamic interplay with our interlocutors. The conduit model is not only wrong when it claims that words contain meaning, but also when it suggests that meanings are sent and received in a strict “I give you my meaning, you receive my meaning, and then you give me your meaning in return” fashion.

If interpreters do not understand the dual problem of social neutrality and communication neutrality, they are doomed to two destinies. In one, they remain unaware of their social presence in interpreted interaction and unconscious of their acts of meaning construction. They believe that they are indeed mere neutral conduits of meaning, and they are blind to their role in the communicative situation. Such interpreters function in an unconscious, machine-like manner. They are ineffective as interpreters and are probably not even aware of it.

In the second alternative, interpreters reject the myth of social neutrality, but they nevertheless remain unconscious of the fact that they are engaged in socially constructing meaning. Instead, they believe that they have direct access to meaning, that as interpreters they are able to analyze messages to uncover and extract meaning and thus know others’ intentions. These interpreters face the danger of even more egregiously abusing their power because they believe that if social neutrality is not possible, then they may become as involved as they like as omniscient allies. If this is taking place, and undoubtedly in some cases it is, how odd that our profession should have come full circle to such a paternalistic stance.

A third alternative is possible. Interpreters can become aware of their biases, aware of their power, and aware of their creative acts of meaning co-construction, and in so doing move towards an active and conscious neutrality. A cognitive model of interpreting helps interpreters to understand the true nature of how language works. In so doing, it also can guide the interpreter in charting a course through the pitfalls of maintaining social neutrality.

5. A conclusion

The picture that the cognitive model thus paints is of an active interpreter, not one with direct access to the meanings and intentions of others, but of a maker of meaning on the basis of the cues provided by others. But the meanings made are the interpreter’s own, not the product of an extractive process but of a creative, constructive meaning-making process. This requires a fully conscious, thinking interpreter. Further, because

the interpreter is not only actively constructing meaning (this is unavoidable—it is simply the way communication really works), and is fully aware that she is constructing meaning, she can be more sensitive to the problem of her own social status. In fact, we would go so far as to suggest that the cognitive model of interpreting permits interpreters to break through the impossibility of achieving neutrality. If we accept the position that the interpreter, by her very presence, influences an interaction, then neutrality is by definition impossible. But this precludes any possibility of interpreting. Interpreters can never *not* be a part of the communicative setting. A more reasonable goal of achieving neutrality is for interpreters to recognize their role in making meaning. Once interpreters accept that they are makers of their own meaning, and not conveyers of discovered meaning, the goal of achieving neutrality becomes one of constantly monitoring their own understanding and taking ownership of it. When interpreters adopt this model, the enormous task of interpreting becomes at once more daunting and more rewarding.

Notes

1. See also Russell, this volume, for further discussion of cognitive aspects of the interpreting process.
2. Setton (1999) takes much the same approach, adopting a cognitive-pragmatic model of interpreting that draws heavily from cognitive semantics, speech-act theory, and relevance theory.
3. The first edition of Reddy's article appeared in 1979.
4. See Janzen (this volume, Chapters 1 and 4) for additional discussion of the relationship between form and meaning in the interpreting context.
5. We are assuming here that *aqua* and *Pacific* function here as nouns.
6. To get a better sense of what Hall meant by high-context versus low-context, consider the following: "A high-context (HC) communication or message is one in which most of the information is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message. A low-context (LC) communication is just the opposite; i.e., the mass of information is vested in the explicit code. Twins who have grown up together can and do communicate more economically (HC) than two lawyers in a courtroom during a trial (LC)" (Hall 1977:91).
It seems to us that Lawrence has misunderstood the meaning of "explicit" in Hall's characterization of high-context and low-context. What this passage makes clear is that by "explicit" Hall is referring to the transmitted linguistic code. It is also obvious that Hall does not regard languages as HC or LC, as Lawrence seems to think. For example, it is entirely possible that the twins in their HC communication and the lawyers in their LC communication *are all speaking English*.
7. See Leeson (this volume, Chapter 3) for further, detailed discussion of error analysis versus meticulous strategizing on the part of the interpreter.

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