Chapter 3 - Communication theory

3.1 Introduction
The work of past researchers of communication theory has influenced both the development of my own theoretical model and my practical research. So before I elaborate on my own work, I shall introduce the origins and development of communication theory, demonstrating how we have arrived at some of the models that are considered important today. This account is my own, drawn from a variety of sources; the texts that I have drawn from most extensively include Cobley (1996), Silverman (2001) and Littlejohn (2002). My account is however a partial one, and does not seek to provide an exhaustive guide to the development of communication theory. Rather I have chosen to highlight those parts of communication theory that are, I feel, particularly relevant to my own research.

One particular aspect of communication that has played a significant role in my study is metaphor. While it forms part of the wider literature on communication, metaphor itself has been much studied, to the extent that is has developed into a subject in its own right. Consequently, and because it has played such an important role in my own work, metaphor will be dealt with in a separate chapter that follows this one on communication theory.

The way meaning is generated is one of the leading questions in communication theory; this will therefore be a central theme in my discussion. The development of models of communication, from the relatively simple, to those that are more complex, follows a more or less chronological sequence. So, I too shall present the models ordered roughly by the time that they were developed, beginning with a discussion of the work of the language specialists who introduced the subject of semiotics in the early 1900s.
3.2 Model 1 – meaning in the words: language and semiotics

3.2.1 The signs specialists: Saussure and Pierce

The early work on human communication theory began with a focus on language, and on how language is used to generate meaning; meaning is believed to be engendered by the words themselves. The first serious work in this field appeared in the early 1900s with the development of the field of Semiotics.

Ferdinand de Saussure, a French linguist working in the early 1900s, was one of the first to develop a semiotic theory (Saussure, 1916). Working in the same domain and at much the same time was Charles Sanders Peirce, an American philosopher/logician, who developed models that were related to, but somewhat different from those of Saussure (Peirce, cited by Littlejohn, 2002).

Saussure developed the idea that a language is a system of signs, where words are used to signify objects. The language itself is an abstract system, which can exist independently from real-life objects. It is through the spoken or written word (Saussure used parole) that language systems are applied to real-life situations (Saussure, 1916). Saussure argued that no actual link exists between the sign and the object; rather it is an interpretative, or arbitrary link. Saussure also argued that words (or signs) in a language become connected into large communicative units, such as sentences and paragraphs, according to relations between the words. The way that this is done is determined by a “sign system”, or set of grammatical rules (Cobley, 1996).
Peirce’s *semiotic* model was similar to, but more complex than Saussure’s. Peirce’s model also became more strongly associated with American thinking on semiology, while Saussure is more often represented in European works on the subject. According to Cobley, the principle distinction between Peirce and Saussure is that Peirce’s model is based on theories of logic, philosophy and mathematics, rather than on linguistics alone (Cobley, 1996). A key feature of Peirce’s semiotic theory is his creation of three semiotic categories, which he named: firstness, secondness and thirdness. The precise meanings of these categories are too complex to explain fully here, but in essence, Peirce described *semiosis* as a relationship between a *sign*, an *object* and an *interpretant* (or meaning) (Cobley, 1996; Littlejohn, 2002). Since there were three categories, which were each related to each other, they could be represented in a triangular fashion, as shown in Figure 3.1.

![Figure 3.1 Peirce’s notion of the triangular relationship between an object, what it is signified by, and how this is interpreted.](image-url)
So, concurrently, but independently of each other, Saussure and Peirce developed a line of thinking that treats languages as *sign systems*, which are governed by *rules*. For languages such as English, the rules take the form of grammar, syntax etc. Similarly in visual languages, such as signing for the deaf, the rules take the form of sequences of gestures/hand actions etc. each of which has specific meaning. The rules of each sign system form *coding* systems. In languages such as English we have grammar books and dictionaries that prescribe the coding schema. Cohan and Shires suggest that the relationship between sign system and code is analogous to that between driving and the Highway Code (Cohan and Shires, 1996).

Cohan and Shires also point out that the rules of a language system are only applied to real-life contexts through *discourse*. In discourse, the rules of the sign system may be broken, or adapted. So, if language is the *code*, discourse represents the real-life *application* of the code. Saussure was the originator of this line of thought, as he made a distinction between “language” (*langue*) and “speech” (*parole*) (Saussure, 1916). Cohan and Shires develop this idea to suggest that *meaning* is only developed through the application of language through discourse (Cohan and Shires, 1996). Discourse, they say, consists not only of the spoken words of a language, but also the nuances of verbal articulation, and of non-verbal communication such as body language.

Saussure recognized that one role of communication is to convey meaning between minds. Nevertheless, it does seem to me that his approach was deeply rooted in a classical analytical worldview. Both Saussure and Peirce treated language as being made up of distinct units - words, sentences and so on. These units, they argued, could be studied independently of their “real life” contexts, as systems in their own right. This view, I believe, reflects the reductionist approach to studying phenomena, where objects are removed and studied in isolation from their environments.
3.3 Model 2 – meaning in the transfer of information: systems and cybernetic theories of communication

3.3.1 Systems theories of communication
Although semiotics still exists as a field of linguistics today, many other approaches to human communication have been developed after Saussure and Peirce. Systems theory was one field of study that played a significant role in the development of communication theory. Up until the time that Bertalanffy, Wiener and others developed systems and cybernetics theories, much of the focus in human communication studies had been on language, linguistics and semiotics. With the advent of these new systems viewpoints however, communication systems were re-considered in a new light: as integrated systems. Significantly, human communication was no longer dealt with as entirely separate and distinct from other communicative processes. Systems theory treated human communication in the same manner as all other communicative processes, be they engineering systems (such as telephone systems), physical communication phenomena such as light or energy transfer processes, living biological systems, or entire social systems (Bertalanffy, 1968). These new systems theories made little distinction between the precise communication processes that were involved in these different kinds of system, rather they looked at the overlying principles of communicative transfer and the influence of communicative relationships within systems.

Bertalanffy argued that communication often concerns the flow of information within a system. He suggested that in many cases, although not always, the flow of information relates also to a flow of energy (Bertalanffy 1968). Bertalanffy also maintained that communication can be treated like any other system, containing features such as feedback processes and other aspects of control theory (Figure 3.2).
Wiener, one of the founding fathers of the field of Cybernetics, also regarded feedback processes as highly significant in communicative systems. Like Bertalanffy, Wiener argued that the fundamental principles of communication are the same regardless of whether one is dealing with man-made machines and systems, or living organic beings; indeed he argued that human society itself is bound together by the same kinds of communicative principles as any other system (Wiener, 1948). Weiner maintained that communication is one of the principle means by which systems are coupled to their external environments; and if a system communicates with its external environment, this is one of the features which identifies is as an open system, rather than closed.

3.3.2 Information theory
In 1949, Shannon and Weaver, inspired by developments in systems theory and cybernetics, introduced a new communicative model that they called “information theory” (Shannon and Weaver, 1949). In information theory, information is viewed as a measure of the entropy or uncertainty in a system. In the information theory model of communication, a source produces a message, this message is passed along a channel, to a receiver that interprets the message.

The channel has bandwidth that affects the level of information that can be transmitted; bandwidth is a measure of communicative capacity. For example, in modern terms, if we connect to the Internet via a modem, its bandwidth affects how fast we can download data. A channel’s bandwidth may also be limited by the form that the communication has. For example, when speaking on a telephone, the channel is limited to audio-only data; visual information isn’t communicated. Wiener points out that the effectiveness of communication in such a model is dependent on quality of channel. A high quality channel
transmits only the information that the sender communicates, whereas a poor quality channel may be contaminated by extraneous information, or what Wiener referred to as background noise (Wiener, 1948).

![Shannon and Weaver's information theory model of communication](diagram.png)

Figure 3.3 Shannon and Weaver’s information theory model of communication (diagram after Shannon and Weaver, 1949).

In the information theory model, meaning is in the message; this message transmits from point to point in a linear fashion, self-regulated via feedback loops between source and receiver. This concept of meaning was taken to an extreme level of analysis by Osgood, who developed a mathematical model for finding where meaning is located. Osgood created the concept of “semantic spaces”, which are effectively cognitive locations of meaning, and analysed the relationships between these spaces through a process of “factor analysis” (Osgood, 1957).

Shannon and Weaver’s information theory has had a significant influence on the development of communication theory. There are however a number of drawbacks to their model. Significantly, the information theory model disregards the influence of contexts and environments on communication. It assumes that all communication travels from point to point, either from one source to one receiver, or from many sources to many receivers. Rather than being viewed as contextual influences, extraneous information is considered to be noise, which the receiver must filter out in order to discern the meaning of the message. Essentially, Shannon and Weaver’s information theory reflects a cybernetic view of communication that is entirely focussed on “nodes” (speakers and hearers), which are connected only to each other and not with their contexts.
As I mentioned in Chapter 2, Shannon and Weaver’s model has been respecified in terms of biology by Atlan, (see Atlan and Cohen, 1998). Atlan argues that unlike in the engineering systems that Shannon and Weaver were originally working with, where they considered noise to be extraneous information that must be filtered out, in biological contexts the redundant information that creates noise is an essential feature. According to Atlan, in a biological system noise is an indication of background complexity, from which emergent features may arise. The background complexity essentially comprises redundant information, but without this redundancy in the system, the mutations which lead to evolution could not occur. Atlan has therefore adapted Shannon and Weaver’s original model so that some aspects of a natural system’s context has been accounted for.

Atlan’s model also subtly shifts the location of meaning in communication. In Shannon and Weaver’s original model, meaning was in the message alone. By contrast, as Atlan explains, in his model, meaning is “never intrinsic to the message; the meaning is in the relationship of the message to some reference point outside of the information borne by the message”. In other words, meaning arises not only from the information in the message itself, the also from the process of its transmission and the context in which the message is interpreted.

3.4 Model 3 - meaning emerges through dialogue between speakers and hearers

3.4.1 Conversation studies
Starting in the 1960s, and based in part on Information Theory concepts, a new approach to human communication began to be developed. In this new approach the focus is on what happens in conversational speech; it is based on the principle that meaning in communication is co-created between speakers and hearers through their dialogue. It is the interaction of the speakers and hearers that generates meaning in their communication. Since the models that apply this approach are concerned mostly with human dialogue, I shall refer to them as “dialogic models”.
A key feature of dialogic models of communication is their view that human communication is governed by conversational “rules”. The philosopher H. Paul Grice was a major proponent of this view, which he first presented in a series of lectures at Harvard University in 1967 (Taylor and Cameron, 1987). Grice argued that a conversation is a co-operative event, whose structure is organized by the speakers according to implicit and unspoken rules. Grice called these rules *conversational maxims*; he identified nine of these, organized into four general categories (Figure 3.4).

<table>
<thead>
<tr>
<th>Grice’s Conversational Maxims.</th>
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<tbody>
<tr>
<td>1. Quantity</td>
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<tr>
<td>i) Make your contribution as informative as is required (for the current purposes of the exchange)</td>
</tr>
<tr>
<td>ii) Do not make your contribution more informative than is required</td>
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<tr>
<td>2. Quality</td>
</tr>
<tr>
<td>i) Do not say what you believe to be false</td>
</tr>
<tr>
<td>ii) Do not say that for which you lack adequate evidence</td>
</tr>
<tr>
<td>3. Relation</td>
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<tr>
<td>i) Be relevant</td>
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<td>4. Manner</td>
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<tr>
<td>i) Avoid obscurity of expression</td>
</tr>
<tr>
<td>ii) Avoid ambiguity</td>
</tr>
<tr>
<td>iii) Be brief (avoid unnecessary prolixity)</td>
</tr>
<tr>
<td>iv) Be orderly</td>
</tr>
</tbody>
</table>

(Grice, 1975; as cited in Taylor and Cameron, 1987)
On first appearance these rules seem to be broken in practically any real life dialogue. This however seems to be the particular point that Grice was making, as he argued it is when the rules are not adhered to, or broken that we may learn most about how conversation works. For example, if someone says, “It’s raining cats and dogs”, they are apparently breaking the rule of “do not say what you believe to be false” (Littlejohn, 2002)\(^1\). When one understands, however, that the speaker has used a metaphor, the rule holds, and the conversation makes sense.

### 3.4.1.1 Turn taking

Turn taking is a feature of conversation that has had much attention from dialogue researchers. Sacks, Schlegoff and Jefferson identified a “turn-taking mechanism”, by which those engaged in conversation negotiate who takes the turn to speak (Sacks et al, cited in Taylor and Cameron, 1987). According to Sacks et al, in any conversation a “turn” is identified by who holds the floor (i.e. the person whoever is speaking at any given time). The speaker whose turn it is has the right to speak, and also the right to transfer the turn should they wish to do so. This transfer may be indicated by a “current speaker selects next” technique, for example a speaker may transfer a turn by asking a question, such as: “What do you think Bob?” Other ways a turn may be transferred are through a new speaker interrupting the current one, or if the current speaker simply ceases to speak, so that his turn ends. In both these latter turn-switching mechanisms, the next speaker self-selects by choosing to take the next turn themselves.

Sacks et al suggest that one of the main mechanisms by which turn-exchanges are negotiated is through “adjacency pairs”. An adjacency pair is a pair of utterances where the first utterance, spoken by one speaker, is naturally followed by the second, which is spoken by a different speaker. An example is the “greeting-greeting pair”, where the first speaker greets another, while simultaneously handing over the turn in the expectation that the second speaker will use his turn to return the greeting. Other common adjacency pairings include:

\(^1\) “Throwing the baby out with the bath water” might be a better example, as the origin of the phrase “raining cats and dogs” is not actually a metaphor, but of mythological derivation (Jack, 2004).
Another concept that is often referred to in dialogical models of communication is that of Common Ground (Clark and Brennan, 1991; Wardhaugh, 1985). To establish “common ground” in dialogue means to set the context for one’s communicated message. For example, if two people are meeting for the first time they will probably spend a proportion of their conversation time exchanging information about where they are from, what they are doing there, whether they have anything in common with the person they are talking to. Eventually they will resolve how much of what they have to say to each other they have in common, and how much they have to explain so that the message can be understood. This is known as “grounding”. Other examples include describing a situation that someone may or may not know about, by using grounding questions a speaker can establish how much the person they are talking to already knows about the topic, and how much they need to explain, as in the dialogue below:

Joe: You know Mary was at the party the other day?
Fred: What party?
Joe: Jane’s party, you know the one that you couldn’t go to.
Fred: Oh yes, what happened?
Joe: Well Mary got really drunk, you should have seen it…

When Joe asks whether Fred knew Mary was at the party, he is trying to establish how much Joe already knows, and how much he needs to explain. Fred asks “What party?”, so that he can work out what situation Joe is talking about, and his answer to Joe confirms that they have established the common ground in terms of talking about the same event. The message doesn’t appear until the last statement, when Joe passes on the information that Mary was drunk.
According to Wardhaugh (1985), it is hardly ever necessary for speakers to treat each and every conversation as if the speakers are starting from the beginning with no shared knowledge at all. Often it is assumed by speakers that a certain amount of ground is shared through what he terms “common knowledge”. The extent of this shared knowledge, says Wardhaugh, is affected by the circumstances of the speakers. For example, two physics researchers will assume a different level of common ground, to the knowledge they share with non-physicists. Nonetheless, even when we apparently share specialised knowledge with others, we do have to take care when referring to things outside of our shared specialised areas of knowledge. To quote Wardhaugh directly, “we cannot rely on others knowing what we know” (Wardhaugh, 1985).

For this reason, to establish what is shared knowledge and what is not, most conversations involve a degree of repetition and checking up that one has been understood. In dialogic models, these “checking” procedures are considered important not only for grounding purposes, but to check that one is being understood in general. One such method of checking is the “back channel”. A back channel refers to the way that people acknowledge the communication that they are receiving. Examples include interjected comments such as “oh I see”, “ah”, and “hmm?”, or body language or expression such as nods, grimaces and frowns. Back channels are classic means by which feedback occurs in communication. If a speaker receives a positive response from the hearer via a back channel, such as a nod, or a smile of acknowledgement, they will believe that their point has been understood, and continue with their utterance. If, however, they receive a negative response, such as a frown, or a verbal utterance such as “huh?”, they will know that they have not been understood and that there is a need to restate, or expand upon what they said.
3.4.2 Conversation analysis
So, dialogical models propose that human communication is based upon pre-determined rules. These models, suggest that communication could be analysed for adherence to the rules, and have therefore paved the way for the development of practical methodologies for communication research. One such methodology that has become widely established is “conversation analysis” (often referred to by the acronym CA). According to Silverman, conversation analysis is a way of describing “people’s methods for producing orderly social interaction” (Silverman, 2001).

Sacks, who with Schlegoff and Jefferson developed the concepts of turn-taking, and other conversational rules, gave a series of lectures in 1964 and 1965 that prepared the foundations for conversation analysis as it stands today (Bull, 2002). Significantly, in these lectures Sacks argued that talk could be studied as a system in its own right, independently of other processes. He also claimed that ordinary everyday talk is organized according to structural and social rules, and that no detail in conversation, no matter how small, should be overlooked.

Sacks et al were also influential in the development of CA methodologies (Taylor and Cameron, 1987). For example, they developed a method of transcribing recordings that was phonetic, and which took into account non-verbal utterances. Subsequently, transcription processes have been the focus of much attention, as there are many different ways it can be done, so today, transcription is considered to be an important part of the CA process.

According to Silverman (2001), one significant feature of conversation analysis is that it centres on talk as data. Moreover, only the data that are directly derived from talk are used for analysis. Assumptions are not made about the motivations, orientations or backgrounds of the speakers, unless they arise as a direct result of analysing the talk that has been recorded.
In terms of the practicalities of how CA is done, Silverman mentions the following features as some that conversation analysts may look for in their data:

1) Turn-taking and repair
2) Conversational openings and adjacency pairs
3) How “institutional talk” builds upon the structures of ordinary conversation

The final point, regarding institutional talk, highlights one of the ways that conversation analysts try to deal with contexts in their analyses. As Silverman points out, although CA is centred on the content of the data, it does appreciate that the context of the data may also play a role in communication (Silverman, 2001). The CA approach suggests that, while conversational structures are not necessarily entirely dependent upon context, it may have an influence. For example, certain situations are conversational “institutions” that guide and direct the kind of language and conversational forms that may be used. Examples include courtrooms, TV interviews, workplace situations etc. Silverman says that the communication in these “institutions” is shaped by certain constraints, and these situations are often associated with particular ways of reasoning.

3.4.3 A critique of dialogic models

Although dialogic models are no longer explicitly about the “transfer of information”, which is the way that Information Theory deals with communication, I would argue that they are similarly rooted in cybernetic models of communication. Through their searches for turn-taking rules, conversation-repair and so on, they are seeking cybernetic features such as “control factors” and “feedback loops”. This, however, means that some of the problems inherent in the cybernetic paradigm are also apparent in dialogic models. Most significantly, there is no implicit connection between the communicators and their environments, or contexts. A number of workers have explained that context is not excluded from dialogic models, for example the concept of “Institutional Talk” in conversation analysis explicitly seeks to connect communicators with their contexts (Littlejohn, 2002). However, the fact remains that for context to be a factor in these dialogic models, it has to be explicitly added or re-instanted, rather than being regarded as an inherent aspect of the system.
3.5 Model 4 - meaning emerges through co-relation between communicators and their social contexts

3.5.1 A holistic approach

Many communication researchers think that communicative meaning lies much deeper than in dialogue alone. Rather, they believe that meaning in communication arises from the relationships between communicators, their dialogue and their contexts; it emerges from the interactions between communicators, society, culture, history, environment, dialogue, and whole raft of other factors. I touched on this view earlier in my discussion of Atlan’s work. Others have expressed similar views, for example, Budd and Raber say that:

“Meaning […] has formative aspects that include the linguistic, the social, the political, and others.” (Budd and Raber, 1996)

The term that has been applied to this broader concept of communication is discourse. Discourse has been defined as a three-dimensional concept that encompasses language use, the communication of beliefs and social interaction (van Dijk, 1997). Van Dijk suggests that if we are to explain discourse, we need to look not only at the structure, production and effect of our language, but also at the relationships between our discourse and the society of which we form a part (van Dijk, 1997). Littlejohn meanwhile goes further than this; he says that anything that is created through human interaction could be studied from a communication perspective. Human endeavours such as architecture, clothing, literature and so on are all expressions of people functioning and communicating in a social world. These different forms of expression also vary according to the social context in which they have been created (Littlejohn, 2002).
3.5.2 Discourse analysis

Discourse then, could be understood to be a term for any socially situated communication. To study discourse from this perspective therefore, requires a more holistic approach than for other methods such as conversation analysis. The study of discourse requires consideration of contexts, whether they be social, cultural or temporal. This perspective has been developed into a methodology for the practical study of discourse, known as “discourse analysis”. According to van Dijk, who is a specialist in discourse analysis, “discourse studies are about talk and text in context” (van Dijk, 1997)

A key feature of discourse analysis is that it works with “texts”. A text may be a written piece of communication, such as a story, a journal entry, or a newspaper article, but it can also represent verbal communication, since the spoken word can be transcribed (as was mentioned earlier with regard to conversation analysis). Rather than being broken down into “utterances” as in conversation analysis, these texts are usually studied in their entirety, as whole units of communication. The analyst is looking for patterns in the data, such as what social functions the text achieves, or how an argument is structured.

At the core of discourse analysis is the concept of “versions”. According to discourse analysis, people create “versions” of their world through their discourse. These versions are distinguished by variations in language. For example, the courtroom record will form one analysable version of a case, the transcript of evidence given by a witness will form another, while the account of a member of the public in the audience will form another. All these versions will say something not only about the event itself, but also about the situation and perspective of the producer of the text.
The range of different materials that can be analysed through discourse analysis can be extremely diverse. While conversation analysis relies on talk as its data source, discourse analysis can be much more catholic with regards to analysable materials. Journal entries, or newspaper articles may become subjects for discourse analysis, as may transcripts of television programs, radio interviews, and even web page content. This means that discourse analysis could cover subjects such as the rhetorical structure of the media, or the patterns of communication in Web forums. So, while discourse analysis may not focus on the detail of conversational talk (such as pauses, “um’s” “uhuh’s” etc.) in the way that conversation analysis does, it has the potential to be far more broad ranging in scope.

3.5.3 A critique of discourse analysis
Unlike semiotics, which is concerned with reducing language to its components, or information theory and conversation analysis, which take a cybernetic view of communication, discourse analysis deals with whole systems. It treats language, society and cognition as irreducibly interrelated, and to study one aspect of discourse, one must take account of the others. What we are seeing in discourse analysis then, is a holistic view of communication.

The implications of the holistic viewpoint were introduced in the previous chapter, where it was pointed out that, while a holistic view obviates some of the problems associated with reductive analysis, it is not without its own limitations. In communication theory, discourse analysis is a holistic approach. With its focus on “versions” as irreducible whole accounts that are inseparable from their contexts, it is my view that discourse analysis severely limits the scope of applicability of one’s findings. Every “version” of a discourse exists as an irreducible, and unrepeatable account. This means that, in the extreme sense, the findings from the analysis of each and every version can only apply to that version; they cannot be extrapolated to other versions of events as these too are unique.
We may learn something by comparing analysis of different versions of the same event, for example, things may be learned by comparing the text produced in a judge’s discourse with that of the defendant. But even so, the results still apply only in a very specific sense to “courtroom” discourse, and more widely applicable patterns of communicative structure may not become apparent through this kind of analysis.

Another issue is that of validity of the analysis. There is a recognised risk that in qualitative analysis of the kind conducted in discourse analysis that researchers might “cherry pick” data to support their theorising, but which is not necessarily representative of the overall situation. Silverman (2001) discusses a number of ways in which the question of validity can be addressed. One method, suggests Silverman, would be to analyse the entire dataset, rather than selected excerpts. Yet often this is impractical because of the large volume of data involved in many discourse studies. Another method is to monitor the applicability of one’s findings about one part of the dataset to its wider context, through a process of back checking and cross-comparison throughout the analysis. This, says Silverman, is known as the “comparative method” and ensures that the researcher has assessed whether their assumptions about the data have wider application, or whether they are restricted to a particular instance in the dataset. Yet another method that Silverman describes is to actively seek out cases in the data that deviate from the pattern one is trying to describe. Comparison between the deviant and non-deviant cases can, suggests Silverman, strengthen the validity of the analysis.

In overall terms however, I feel that the discourse analytic approach is limited by the way it fails to distinguish boundaries within a communicative system. Only one boundary is identified, that of the entire system. Smaller units within the discourse system, such as choice of words, structuring of sentences and so on, are given less emphasis, indeed they are regarded as insignificant in comparison with the contextual influences on dialogue. While this may tell us much about the context of the dialogue, this information about context is perhaps gained at the expense of knowledge of structural detail of the dialogue, and indeed at the expense of detail on how structural relationships in dialogue emerge through the co-relation of speakers.
3.6 Conclusions – an Inclusional view of communication?

Earlier in this thesis (Chapter 2), I suggested that philosophy has provided us with a variety of contrasting models, or perspectives on how the world may be studied: these include the classical analytical view, the systems or cybernetic view, the Holistic view, and newly emerging approaches such as Inclusionality. In this chapter, I have demonstrated that models of human communication have followed similar patterns of development, from Semiotic models that represent classical analysis, to information theory and dialogical models, that are part of a cybernetic view, to discourse analytical views, which are holistic in approach. Perhaps notably however, an Inclusional view of communication has not been discussed here. This is because, until now, Inclusional models of communication have not been developed beyond a basic level. Developing a model of communication that was based on Inclusional principles has been one of the key goals of my research. Therefore, the model that I have developed, which is a fluid network-based approach, has been dealt with in depth in a chapter of its own (Chapter 6).

Before discussing Inclusional network models of communication however, it is necessary to introduce another topic, which has profoundly affected how I have developed this thesis. The subject I am referring to is *metaphor*. As I am about to explain, metaphor can be viewed both as a communicative tool, and as a model for communication itself. Although it could be encompassed within the wider domain of communication studies, in recent years metaphor has been the focus of much research attention in its own right. For this reason it also merits a chapter of its own, and is the topic I shall discuss next.