Towards a Theory of Mediated Interaction:
A Study of Mobile Phone Communication

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Submitted for the degree of Doctor of Philosophy
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September 2006

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Abstract

The last decade has seen a proliferation of interpersonal communication channels. These new forms of communication seem to shape interaction and create new ways of interacting. My research traces connections between the affordances of a communication channel and the social interaction that it facilitates, developing a typology of interactional channel characteristics. These characteristics shape communication in terms of meaning construction and interpretation, as well as content. Although users often take communication channels for granted, they are aware of their different interactional characteristics, and this is relevant to choice and usage.

The study focuses on mobile phones, because they combine two communication channels in a single device, facilitating a comparison of the interactional characteristics of these channels. However, the research includes users' perceptions of their whole communication repertoires, and the findings are relevant to other communication channels. I argue that text messages are a new form of interaction with unique interactional characteristics, and that mobile phone communication has positive effects on the development and maintenance of relationships.

The main contribution of my thesis is the development of a theoretical framework that facilitates analysis of the differences between mediated communication channels. The work has potential practical application, both in the design of new communication technologies and within organisations where recognition of the interactional characteristics of different channels could improve communication effectiveness. My work also contributes to the theory of communication, emphasising the two different paradigms that apply to traditional channels and showing how the specific characteristics of communication channels create a spectrum of different forms of interaction. In terms of social significance, the major findings of my work include the diversity of interaction afforded by different media, the discovery that for a number of people phone calls are problematic, and my identification of some of the mechanisms through which mobile phones affect relationships.
Acknowledgements

My major debt is to my main supervisor, Dr. Geoff Cooper, who created an environment in which I felt free to explore my ideas. He introduced me to sociology, reawakened my interest in philosophy, and painstakingly corrected my many drafts. I am also grateful to Dr. Nick Allum, my second supervisor, who guided my methodology and shared my enthusiasm for technology.

My decision to do a PhD was inspired by my mother’s training to be a teacher in her fifties and her subsequent forty year career as a brilliant teacher. My interest in mediated communication was initially stimulated by my elder daughter Jenni, as I watched her eagerly embracing text messages and instant messenger. I would like to thank my younger daughter Nikki for reading many early drafts and talking about my work; many of the insights here were inspired by her comments. I would also like to thank my husband George, for sustaining our home and family during the last three years, my mother and my friend Leslie, who edited the work, my brother Michael, who helped me to formulate my research question, and my brother Jonathan, who suggested the University of Surrey.
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1 Introduction

"We have to see that the development of new media communications does not consist simply in the establishing of new networks for the transmission of information between individuals whose basic social relationships remain intact. Rather, the development of communication media creates new kinds of social relationships — forms which are quite different from the kind of face-to-face interaction which has prevailed for most of human history. It also brings about complex reordering of patterns of human interaction across space and time" (Thompson, 1995, p. 81).

Communication is a fundamental aspect of social interaction. The last decade has seen an expansion of mediated communication and a proliferation of interpersonal communication channels. My research explores whether communication channels shape the interaction they enable, and whether these interactional effects are relevant to choice and usage. Although my research includes users' perceptions of their whole communication repertoires, it focuses on two mobile phone channels, calls and text messages. I explore the extent to which new channels create new ways of interacting and assess the implications of this for social relationships. My study contributes to the understanding of mediated interaction, and illuminates the relationship between the technical features of a medium and the interaction that occurs through the medium. This has potential application, both in the design of new media, and in the choice of appropriate channels for effective communication in social relationships, within organisations, and for research.

In this chapter I explain my approach and introduce my research problem and research questions. This is followed by a discussion of what constitutes mediated communication, a brief account of the historical development of mobile phones, and an introduction to the communication channels mentioned in the research. The chapter ends with an outline of my thesis, briefly describing the contents of each chapter.

1.1 Research Approach

My work is interdisciplinary because the communication literature spans many different disciplines. Although my approach is primarily sociological, I have been influenced by philosophy and have borrowed functionally-oriented communication
concepts from the Human Computer Interaction (HCI) literature. The scope of my study is limited by a focus on mobile phones. I chose mobile phone communication because of its relative recency, rapid growth, and the inclusion of different channels within one device. Mobile phones are comparatively new and usage is still growing, consequently users should still be relatively aware of their advantages and disadvantages. In addition, because mobile phones offer both phone calls and text messages, theoretically users have a choice, on any occasion, between the two channels. I thought that this would increase users' awareness of their interactional differences. I limited the scope of my research to social usage, to adults, and to the UK. This was partly in response to resource limitations and also to ensure a cohesive, homogeneous sample (Kuzel, 1999). Communication is culturally shaped because normative practices prescribe appropriate usage, and because technologies vary between countries.

1.2 Research Problem

My research problem can be summarized as, 'Do the characteristics of communication channels shape social interaction, and if so, in what ways?' This is a very broad question and I have therefore developed four research questions which clarify the scope of my inquiry.

I. To what extent can one identify inherent interactional characteristics of interpersonal communication channels? What are these characteristics?

My first question asks to what extent is it possible to trace connections between the inherent characteristics of a channel and the social interaction that the channel facilitates. The 'interactional characteristics' of a communication channel are the characteristic and differentiating features of interaction through that channel. For example, audibility is an interactional characteristic that arises from the ability of a channel to conduct sound. My approach implies that the characteristics of communication channels affect interaction, and that one can characterize communication channels by their interactional characteristics. The term 'inherent' aims to distinguish intrinsic characteristics from extrinsic features such as price and availability. However, because technology is interpretively flexible and socially shaped, I cannot assume that it is possible to distinguish technological and social
factors. Hence my research explores to what extent it is possible to separate these factors and identify inherent interactional characteristics. My study aims to develop a typology of interactional channel characteristics that will serve as a framework for the analysis of interaction through mediated channels.

**II. To what extent do people perceive differences in the interactional characteristics of different channels of communication? Is this relevant to choice and usage?**

My second question moves from a technical focus on the inherent characteristics of a channel to user perceptions. It explores the extent to which users conceive of communication channels in terms of what I have called their interactional characteristics. Within the context of my research site, I am interested in how users conceptualize the differences between mobile phone calls and text messages, and in particular, if they are aware of any differences in meaning construction and interpretation. Similarly, I am interested in users' perceptions of the differences between these two channels and other forms of interaction. This research question also includes the relationship, if any, between the interactional channel characteristics and choice and usage. I am interested in whether users are conscious of the interactional differences between channels and whether they deliberately choose communication channels for their specific interactional effects. For example, do the affective characteristics of text messages make them particularly useful in specific relationships or for particular stages in a relationship?

**III. In what sense can new mediated channels, and specifically mobile phones, create new forms of interaction?**

This question explores whether a new communication channel might affect interaction so radically that, rather than simply altering the style of interaction, it effectively creates, from the perspective of its users, a new way of interacting. In other words, the channel affords a form of interaction that could not occur through any other channel. In my research this question is specifically aimed at text messages, where new usages, such as goodnight texts, appear to offer new ways of communicating.
IV. What is the social significance of the interaction enabled by new mediated channels, particularly for social relationships?

My fourth question considers the social significance of changes in interaction, particularly for social relationships. Relating this question to the two mobile phone channels, I am interested in their impact, if any, on the development and maintenance of relationships.

1.3 Mediated Communication

My research is primarily concerned with mediated communication, although the theory I develop is also relevant to face-to-face communication. The distinction between mediated and unmediated communication is somewhat arbitrary. There is a sense in which all communication is mediated, in that it is conveyed by sound and light waves. In addition, we use tools to facilitate perception, but my use of glasses does not mean that all my visual perception is mediated. Even the boundaries of embodiment are imprecise (Haraway, 1991a). Thompson (1995) characterizes mediated interaction as the use of a technical medium with participants who are remote in place or time or both, but this simply raises the question of what is a technical medium. Goffman (1963, p. 14) notes, from usage, that direct experience “implies a restriction on boosting devices—mechanical, chemical or electrical—except as these raise the faulty sense of a particular individual to average unassisted strength: glasses, for example, but not binoculars; hearing aids but not microphones”. This suggests that indirect (and presumably therefore mediated) experience involves interception that extends it beyond the bounds of ordinary direct interaction. I use the term ‘mediated communication’ slightly differently. Mediated communication implies that there is an intervening or mediating communication system or channel; consequently I would not regard the use of binoculars as mediated communication, and I would treat microphones as a borderline example of mediated communication. However, I realize that my ‘definition’ relies on an intuitive understanding of ‘communication channel’. I usually contrast mediated communication with face-to-face communication, but recognize that mediation may occur when the participants are face-to-face: for example, text messages may be sent between copresent interactants.
Mediated communication is not a recent phenomenon. It includes letters, verbal messages passed on by intermediaries, and pre-electronic signalling such as drums, fire and smoke signals, optical telegraphy and carrier pigeons, etc. Earlier forms of mediated communication are often overlooked. For instance, Peters (1999, p. 6) writes “Communication as a person-to-person activity became thinkable only in the shadow of [electronically] mediated communication” (p. 6). Similarly, Giddens (1984, p. 123), overlooks earlier mediated communication, when he writes: “the most radical disjunction of relevance in modern history ... is the separation of media of communication, by the development of electronic signalling, from the media of transportations, the latter having always involved, by some means or other, the mobility of the human body”. Undoubtedly, nevertheless, the development of technological mediation escalated in the nineteenth century, enabling ‘disembodied’ communication, where cues typically associated with the body, like the voice, are dislocated from the speaker (Peters, 1999). Thus, the telephone allowed “the spirit of a person expressed in his own voice to carry its message directly without transporting his body” (Boettinger, 1977, p. 205).

1.4 Historical Perspective

In this section I briefly describe and compare the adoption of the telephone\(^1\) and mobile phone technologies, in order to provide some historical background to my study. The telephone was invented in 1876. Penetration growth was relatively slow; even in America where adoption was fastest, it took nearly 100 years to reach its peak of 96% (Solymar, 1999; FCC, 2000). Figure 1.1 charts the diffusion pattern of several different technologies in the U.S.A. and shows that the adoption of the telephone was relatively slow and erratic. In the UK, growth was restricted because the government preferred to promote postal services. Consequently, 40 years after the launch of the telephone in the UK, penetration was less than 2%, compared to 40% in America (Perry, 1977; FCC, 2000).

\(^1\) I use the term ‘phone’ for both fixed and mobile phones, and reserve the use of the term ‘telephone’ for fixed phones, except in direct quotations. Many of my respondents used the words ‘phone’ and ‘telephone’ interchangeably.
In comparison with the telephone, the adoption of mobile phones has been much quicker. Although the first cell phone call was made in 1969, portable phones, as opposed to car phones, were not available until 1984 (Brown, 2001; Agar, 2003). In the UK, mobile phone penetration reached 80% in 2005, in a market worth £13.6 billion (Ofcom, 2006). Globally, the number of mobile phones has overtaken telephones, although two thirds of calls are still made from fixed lines (Foggin, 2005). The first text message was sent in the UK in 1992. The technology was originally developed to enable operators to communicate with users, and was limited to intra-network communication until 1999 (BBC, 2002). The rapid growth of SMS was unexpected and user driven, reflecting the social shaping of the technology; 32 billion text messages were sent in the UK in 2005 (Text.it, 2006b). Although SMS is skewed towards younger users, 70% of all UK mobile phone users text at least once a week (Ofcom, 2006).

1.5 Communication Channels

As Brown (2001) points out, when studying technology we need to take the precise combination of technical features into account. The usage of mobile phone calls is affected not only by their mobility, but also by a particular combination of mobility with other features. Technology changes; the technologies researched here are situated in a specific time period (2005) and place (the UK). Consequently, the key
features of the communication channels referred to in this work are briefly described in this section.

**Mobile Phone Calls**
Key aspects of mobile phone calls are indication of caller identity (Caller ID), which enables the intended recipient to screen the call; notification of missed calls, including the identity of the caller and time of call; the inclusion of a phone book, which lists the owner's social network; and the ability to divert unanswered calls to voicemail. The inclusion of a clock/alarm feature is also relevant because this increases usage of the device and encourages users to look at their phones. Among my respondents, other mobile phone features, such as calendar, camera and Internet access were less important.

**Text Messages**
Text message communication is also referred to as SMS (Short Message Service). Key features of text messages are an audible signal, which notifies receipt of a message; a reply option, which enables recipients to reply quickly; and a limit of approximately 160 characters for individual messages. For text messages, the identity of the sender is not usually shown when the message arrives, but it is automatically shown when the message is opened, if the phone number from which it was sent is in the recipient's address book. The compressed keyboard of most mobile phones is also relevant. Typically, several letters share each key, so that a key may have to be tapped up to four times to enter the desired letter. Predictive text predicts the required word from the letter sequence, so that each key is only typed once. On occasion the key sequence is ambiguous, so that texters have to make corrections. All except one of my respondents' phones had a predictive text facility, but some found the technology difficult and did not use it. Many phones have a text message report function, which when enabled, advises the sender that a message has been delivered to the recipient's phone.

**Picture Messages**
Picture messages are photographs accompanied by text. My respondents rarely sent picture messages, although many used camera phones to take pictures.
Introduction

**Video Messages and Video Calls**

Video messages are short videos that are captured on a camera phone and sent to another phone. Although a number of my respondents had video messaging on their phones, and some used the video recording feature, they did not send video messages. Video calls are audio-visual calls in which the participants can see each other on the phone, in real time. Despite my attempt to recruit people who made video calls, none of my respondents used this function, although three had tried it and two had video call enabled phones.

**Email**

Like SMS, email facilitates replies with a single click option, but for email the size of the message is not constrained, and replies automatically include the thread of the whole conversation (on default settings). Although phone email was technically possible from a few of my respondents’ phones, only five used it, including three Blackberry users. A Blackberry is a mobile phone designed to facilitate email. Emails are sent directly from an Internet server to the Blackberry, without the recipient having to initiate the connection. Most Blackberries have QWERTY or modified QWERTY keyboards to facilitate typing. In some Blackberry phones, sending a text message and an email are the same, except that the address is a phone number rather than an email address.

**Instant Messenger**

I use the term ‘instant messenger’ to refer to IRC (Internet Relay Chat) style services. This term was understood by those of my respondents who used this channel, although they were more likely to use the proprietary names of particular systems such as ‘MSN’ (Microsoft’s service) or ‘AOL’. Most of these services are not technically compatible, so that people using different systems cannot communicate. Instant messenger is a computer to computer service that enables text chat between two or more people. Some services combine this with Internet phone and with webcam (Internet video camera). Instant messenger is technically nearly synchronous, but response time can be delayed by the participants’ other activities or by their simultaneous involvement in multiple text conversations.
Internet Phone

Internet Phone (or VOIP, Voice Over Internet Phone) is a phone service that is transmitted over the Internet. Both participants need to have downloaded the requisite software, and to have a microphone attached to their computers. Calls over the Internet are usually free, but calls can also be made to landlines and mobile phones. At the time of the research, Skype was the main player in this market in the UK. Skype combines a messenger style chat service, and ‘presence’ information with phone calls. Only one of my respondents used this service.

1.6 Thesis Outline

I conclude my introduction with a brief description of each chapter.

Chapter Two: Communication

I attempt to clarify the concept of communication, drawing on selected literature from several disciplines. The chapter begins with a critique of the transmission model of communication (Weaver & Shannon, 1949) which is unsatisfactory, particularly for verbal conversation. I review and evaluate various attempts to remedy the indexicality of communication, before turning to a more sociological interactionist perspective. The work of Goffman and Garfinkel is central to my analysis and I discuss their work in detail, identifying the key communication concepts and theoretical approaches that I use throughout this study.

Chapter Three: Mediated Interaction

This chapter develops the theory of mediated interaction that forms the basis of my work. I extend Goffman’s interaction order to mediated interaction by combining it with elements from Garfinkel’s work. For both Garfinkel and Goffman social situations play a key role in the production of social reality; for Goffman this is related to the presentation of self, but for Garfinkel the shared practice in a situation literally constitutes the social fact. I apply this to mediated channels, drawing a distinction between mediated interaction that constitutes a social situation, and mediated interaction that does not.
Chapter Four: Communication Using Mobile Phones
The mobile phone is the site of my research. In this chapter I review previous work in order to establish what is already known about mobile phone communication, focusing on mobile phone interaction, the transformation of place and social network effects. I identify a number of concepts and themes that inform the design and analysis of my empirical research, but conclude that, despite the large volume of work in this area, there is relatively little established theory.

Chapter Five: Interactional Characteristics of Communication Channels
In chapter five, I explain the concept of the interactional characteristics of communication channels, a term that I introduced in my first research question. I review various literatures on mediated communication, provisionally developing a typology of twelve interactional channel characteristics. These are used in the design and analysis of my empirical research.

Chapter Six: Methodology
This chapter includes a detailed description and evaluation of my research method. My primary research method is open-ended qualitative interviews, complemented by text messages collected from my respondents, and communication diaries.

Chapter Seven: The Characteristics of Mobile Phone Communication
In the first chapter on my findings, I address my first two research questions. I use the communication constructs elicited from my respondents to modify the list of interactional characteristics that I derived from the literature. In addition, I assess the relevance of these characteristics to my respondents' choice and usage of communication channels.

Chapter Eight: Normative Practices
My research shows that normative practices can be taken for granted and treated as an inherent aspect of a communication channel. This blurs the distinction between technological and socially shaped channel characteristics. In this chapter I explore normative practices in mobile phone communication, focusing particularly on text message practices.
Chapter Nine: Text Messages: A New Form of Interaction?
Chapter nine explores whether text messages constitute a new form of interaction. This chapter is based both on my analysis of the text messages I collected from my respondents, and on the discussion of text message interaction in the interviews.

Chapter Ten: Relationships
In this chapter, I focus on relationships and describe how my respondents use text messages and mobile phone calls in their relationships. My research explores the effect of mobile phone communication in a range of relationships, in different stages of development, and with various degrees of closeness.

Chapter Eleven: Conclusions
My final chapter highlights the most significant findings from my empirical research, putting my research into the context of previous work. I combine my theoretical analysis with the insights from the empirical research, and develop a theoretical framework for mediated interaction, showing how it can be applied to other mediated channels of communication.
2 Communication

2.1 Introduction

Communication is the foundational concept of my thesis, which focuses on mediated communication and social interaction. In this chapter I attempt to clarify the concept of communication, developing the conceptual approach that forms the basis of my work. There is a vast literature on communication, ranging across many disciplines including sociology, philosophy, linguistics, psychology, social psychology, communication studies and information systems. Although I have drawn on all of these, I have been selective, focusing on the nature of communication and meaning. The word ‘communication’ comes from the Latin ‘communicare’, meaning to impart, share or make common (Peters, 1999). This etymology includes two distinct themes found throughout the literature on communication: communication as information, something that is imparted, and communication as interaction, something that is shared. Underlying these themes is the idea of meaning; it is meaning that is imparted or shared.

The chapter begins with the transmission model of communication which, as Littlejohn (1999) notes, is cited in nearly all communication studies textbooks. Although the model has been widely criticized, I argue that it is appropriate for written messages, although it doesn’t explain the transmission of meaning. This leads to a discussion of the concept of meaning. I reject the construal of meanings as mental entities, and follow Wittgenstein’s understanding of meaning as situated in use.

The analysis of meaning in Western philosophy has traditionally been in terms of formal propositions, which are assumed to have fixed literal meanings. Semioticians such as Saussure (1959) have also studied formal rather than natural language. Both of these approaches avoid the problems of non-literal meaning by focusing on the structure of formal language. This is problematic, firstly, because it avoids dealing with situated natural language, and secondly, because it assumes that signs have a context free meaning. However, theories that try to deal with situated language by including non-literal meaning create further problems. I review various ingenious
attempts to define non-literal meaning in terms of the speaker's intentions, shared context and conversational rules, but conclude that they are all unsatisfactory, because they simply move the problem to another level. Identifying intentions or common context is just as difficult as establishing shared meaning. All these theories take an individualistic approach; it is assumed that the speaker means and the listener interprets.

The second part of the chapter moves to an interactional perspective of communication. The emphasis changes from the individual to the situation; meaning production and interpretation becomes a collaborative exercise. After a short discussion of social constructionism and symbolic interactionism, I focus on the work of Goffman and Garfinkel, who provide the focal theory for my study.

2.2 The Transmission Model

The model devised by Shannon and Weaver for Bell Telephone Laboratories (1948) is the archetype of the transmission or 'parcel-post' model of communication. The illustration in Figure 2.1 is taken from the original paper, where it is described as a 'schematic diagram of a general communication system'.

Figure 2.1 The Shannon Weaver Communication Model

![Shannon Weaver Communication Model](image)

Source: Shannon (1948, p. 381)

Applied to phone communication, the information source is the speaker, the transmitter is one phone, the receiver the second phone, and the destination is the listener. Noise includes interference such as static on the line. Messages are encoded,
transmitted and then decoded. In the original model, the encoding process relates not to meaning but to a physical conversion process; for example, for the telephone, sound pressure is converted into electrical current. Weaver states “The word information, in this theory, is used in a special sense that must not be confused with its ordinary usage. In particular information must not be confused with meaning” (Weaver & Shannon, 1949, p. 99). Despite his caution against confusing information with meaning, the Shannon Weaver model has been widely misconstrued and has generated a series of models that describe the encoding, decoding and transmission of meaning.

Schramm (1954) interpreted the encoding/decoding process in terms of symbols and meaning, and adapted the model, recognizing that communication is not a one-way linear system: each participant sends as well as receives in an iterative, circular process. He also argued that the meanings of symbols are shaped by experience. Consequently, the interpretation of the message is shaped by the recipient’s perspective, including their information needs, spatial references, social-category memberships, and linguistic capability. The sender infers the recipient’s perspective not only from prior knowledge and the situational context, but also from feedback during the interaction. These modifications suggested by Schramm do not eliminate indexicality; context can never be completely specified (Cooper, 1991).

Riva (2002, p. 587) writes “During the past 50 years, the most famous communication model, the ‘parcel-post’ model, which describes communication as the passage of information from one person to another, became obsolete”. In addition to the problem of context noted above, there are a number of problems with the transmission model of communication. Firstly, the model treats communication as information and neglects other forms of communication such as gestures, performance, art, touch, etc. (Finnegan, 2002); “Communicating of ideas marked by words is not the chief and only end of language, as is commonly supposed” (Berkeley, 1710, sect. 20). Secondly, the model does not accommodate the cooperative, interactional aspect of conversation, in which meaning is jointly negotiated and constructed. This is demonstrated by conversation analysis. Recorded conversations show that talk is not an exchange of self-contained messages; instead participants
interrupt, correct and talk over each other, using a combination of language, vocal tones, pauses and inflections to jointly create the resultant meaning.

Perhaps the main problem with the transmission model is that it doesn’t explain how communication is meaningful. In 1927, many years before Shannon and Weaver published their paper, Heidegger wrote “Communication (Mitteilung) is never anything like a transportation of experiences, such as opinions and wishes from the interior of one subject into the interior of another” (quoted by Peters, 1999, p. 17). Reddy (1979, p. 290) argues that the transmission model assumes that “(1) language functions like a conduit, transferring thoughts bodily 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 or feelings and conveying them to others; and (4) in listening or reading, people extract the thoughts and feelings once again from the words”. This reifies meanings as independent objects and raises the problem of how meanings get in and out of messages.

Despite these criticisms, I think that the transmission metaphor for communication is incomplete, but not completely mistaken, and that it applies more to asynchronous written communication than to verbal conversation. Latour’s (1990, p. 26) concept of inscription is helpful here. Inscriptions are “objects which have the properties of being mobile but also immutable, presentable, readable and combinable with one another”. These ‘immutable mobiles’ can move without being changed, and so can act at a distance. In written communication, discrete, stable inscriptions are sent from one party to the other, in line with the transmission model. This does not imply, however, that they have a fixed, determinant meaning (Derrida, 1982) or that the movement of the message entails the transfer of that meaning. In contrast, verbal conversation is a collaborative production with malleable rather than immutable messages¹, and does not fit the transmission model, because what is communicated is not produced by one party and sent to the other, but arises from a shared, interactive practice. This highlights the difference between written and verbal communication, a theme which recurs throughout my study.

¹ Verbal messages can also be inscribed, for example, when recorded in voicemail, but this is not how conversation proceeds.
The transmission model captures the intuitive notion of communication as a movement of information, an idea that is reflected in language, with terms such as 'the sender' and 'the recipient'. Much of the criticism of the model arises because it doesn't explain the relationship between the message and its meaning. This raises the question of what are meanings, a question that is central to the concept of communication.

2.3 What are Meanings?

As seen in the discussion above, some authors treat meanings as mental entities. For instance, Ogden and Richards (1923) define communication as "a use of symbols in such a way that acts of reference occur in a hearer which are similar in all relevant respects to those which are symbolized by them in the speaker" (quoted by Peters, 1999, p. 12). Much more recently, Sperber and Wilson give a rather similar definition: "A process involving two information-processing devices. One device modifies the physical environment of the other. As a result, the second device constructs representations similar to the representations already stored in the first device" (1986, p. 1). Although these two authors avoid the literal travel of meaning between minds, they both have dualist conceptions of meanings as representations occurring within the participants.

Writing nearly a century earlier, Frege (1892) argued that meanings could not be mental, because in that case we would all be concerned with the contents of our own consciousness; there would be no common meaning. I agree with this, because although we do conceive of ideas as being in our minds, causing our actions, these physical analogies are deceptive and cannot be interpreted literally. One cannot compare the mental representations of different people, except in terms of language and behaviour. Nor does it make sense to suppose there is a private language for our inner sensations (Wittgenstein, 1953). Meaning does not consist of a sensation or representation occurring at the time of speaking: "Meaning is as little an experience as intending. ... If God had looked into our minds, he would not have been able to see there whom we were speaking of ... Mere explanation of a word does not refer to an occurrence at the moment of speaking" (Wittgenstein, 1967, 217).
Theories of meaning make a category mistake (Ryle, 1949) if they assume that meanings have an independent mental existence, rather than being part of a ‘metalinguistic’ level of language, used to talk about language (Black, 1974). Meanings belong to words, that is, they are part of the public phenomenon of language, rather than private entities in our internal mental worlds. Wittgenstein recognized the role of language in creating metaphysical problems: “philosophical problems arise when language goes on holiday” (1953, §38). My question ‘What are meanings?’ is a good example; the grammar of the question prompts an invalid inference that there are entities such as meanings. Instead one should look at language and ask how we use the word ‘meaning’.

Strawson (1971) distinguishes two approaches to meaning: formal semanticists’ theories and communication-intention theories. The former explain meaning in terms of the structure of sentences and the conditions under which they are true. The latter focus on the use of sentences: how people use sentences to communicate meaning. The first approach is concerned with form and relates to a formal context-free literal meaning, while the second is concerned with function and the speaker’s intentions, and therefore includes non-literal meaning.

2.4 Formal Semanticists’ Theories

Analytical philosophers like Frege (1892) focused on literal meaning, and worked with formal propositions, rather than situated language. A proposition is what is said, believed, thought, etc. They are typically found in declarative statements and written communication, and are less relevant to other speech acts and to the incomplete sentences characteristic of natural conversation. Frege distinguished the sense of an expression from its reference, and explained propositions in terms of an object and a relation. Wittgenstein’s Tractatus (1922), also focuses on propositions, but he explains propositions in terms of pictures, which depict objects in relation to one another. Although Saussure (1959) did not write in terms of propositions, he focused on a formal spoken language ‘langue’, which he distinguished from ordinary communication or ‘parole’. For Saussure a sign consists of two elements, the ‘signifier’, for example, the sound pattern of the word ‘cat’ and the ‘signified’, the concept of a cat; these combine to form the sign and enable us to talk about a cat. This
contrasts with Frege’s view, in which the word ‘cat’ is a sign, which has a sense or meaning (the concept of a cat) and refers to an object (a cat). For Saussure signs are arbitrary conventions governed by cultural rules; they acquire meaning in relation to other signs. Harris (1990) compares Saussure to the later Wittgenstein; both recognized that language was relative, but Wittgenstein anchored his theory of language in actual use. Saussure’s focus on formal, as opposed to natural, language neglects the role of context in determining meaning. Both Bakhtin and Volosinov (cited by Riva & Galimberti, 1998) criticize his separation of language from use, arguing that language acquires meaning in interaction within a social context.

Formal semanticists treat situated language as secondary. I think that it is the other way round; formal language is a theoretical abstraction from situated use. In use language has a messy interpretive flexibility that is not incidental, but necessary for communication.

2.5 Communication-Intention Theories

Grice (1969) drew attention to the role of intentions in the interpretation of meaning. He distinguished between the speaker’s meaning and the conventional meaning of words, and argued that to understand communication, one needs to go beyond literal meaning. Grice (1975) claims that listeners expect speakers to adhere to a ‘Cooperative Principle’, which includes being as informative as required (and no more), not saying something for which one has no evidence, and being relevant. This principle enables the speaker to imply more than he says; applying the principle, the hearer can infer the speaker’s meaning. Grice treats the speaker’s intentions both as external to the conversation and as a criterion of the ‘correct’ interpretation. His work explains some of the indexicality of communication, but his use of intentions ties meanings to mental processes.

Austin (1962) developed the analysis of situated language with his speech act theory, which challenged the assumption that communication consists only of propositions. He recognized that communication is a form of action which may have, in addition to literal meaning, performative consequences. For example, the effect of saying ‘I promise’ may be a promise. This ‘illocutionary’ effect depends on ‘felicity
conditions' such as sincerity. Like Grice's Cooperative Principle, these facilitate interpretation, enabling one to distinguish normal usage from the parasitic usage that might occur, for example, in a play, where the words 'I promise' would not result in a promise. Following Austin's early death, Searle introduced his own typology of speech acts, intentions and felicity conditions (Searle, 1969; Smith, 2003). Although Searle's work clearly borrows from Grice's communicative intentions, his concept of 'intention-in-action' recognizes that intentions may be concurrent rather than prior to actions, but he still portrays them as distinct mental entities. More recently, Sperber and Wilson (1986) have developed Grice's work with relevance theory, which retains the role of the speaker's intentions, but explains the hearer's inferences in terms of a universal tendency to maximize cognitive relevance.

Clark's collaborative model (1993) combines an inferential approach with a limited interactional perspective: the participants collaborate to establish 'common ground'. "Everything we do is rooted in information we have about our surroundings, activities, perceptions, emotions, plans, interests. Everything we do jointly with others is also rooted in this information, but only in that part we think they share with us" (Clark, 1996, p. 92). A collaborative clarification process minimizes the collective effort required; without it, messages would have to include much more context. Communicants continually check on what has been communicated and work collaboratively to develop common ground; this enables them to infer what each speaker intends should be understood. Clark and Brennan (1991) claim that different communication channels have different 'grounding constraints', which affect the way that grounding is achieved; this is discussed in detail in chapter five. Grounding theory suggests that shared meaning is established through shared context, implying that context is something distinct from meaning. This simply moves the problem of shared meaning to another level. To establish shared meaning the participants have to establish shared context, but presumably each clarification of context needs to be clarified, ad infinitum. If the participants can establish shared context through inference and collaboration, they could presumably establish shared meaning in the same way.

Communication-intention theories adopt an individualistic focus, in which meaning is seen as originating with the sender and being transferred to the recipient. They assume
that there is a definitive meaning defined by the speaker’s intentions, which can be inferred from context, felicity conditions and cognitive rules. Although communication-intention theories recognize the indexicality of situated language, I think their attempts to remedy this with speakers’ intentions fail because, construed as private mental processes, they are not available. Moreover, in everyday conversation the participants do not experience intentions accompanying each utterance (cf. Wittgenstein, 1953 on expectations); there may be no explicit, intended, ‘correct’ interpretation.

In communication-intention theories meaning is explained in terms of a basic literal meaning, supplemented by a non-literal meaning that is intended by the speaker. These attempts to specify non-literal meaning and context through felicity conditions and speaker’s intentions have been effectively critiqued by sociologists. Goffman comments: “The short list of Austin-Searle conditions for the felicitous performance of a speech act and the shorter list of Gricean maxims are presented as culture and context free ... As an analysis of speech in context the whole approach might strike the sociologist as somewhat optimistic, if not silly” (1983a, p. 25-6). Similarly, Schegloff (1992, p. 125) writes, addressing himself to Searle, “There is, to my mind, no escaping the observation that context, which is most proximately and consequentially temporal and sequential, is not like some penthouse to be added after the structure of action has been built out of constitutive intentional, logical, syntactic, semantic and pragmatic/speech-act-theoretic bricks”. Context is not an additional layer that can simply be bolted on or derived from a list of conversational rules. Part of the problem is the assumption that there is a clear cut distinction between content and context. The distinction between context and meaning is artificial: “utterance and situation are bound up inextricably with each other and the context of situation is indispensable for the understanding of the words ... a word without linguistic context is a mere figment that stands for nothing by itself; so in the reality of a spoken living tongue, the utterance has no meaning except in the context of situation” (Malinowski, 1923, p. 307).

Strawson (1971) tentatively places the later Wittgenstein in the ‘communication-intention camp’, but I disagree. Wittgenstein lists different communication acts including giving orders, asking, thanking, and greeting, and introduces the concept of
'language-games': "Here the term 'language game' is meant to bring into prominence the fact that the 'speaking' of language is part of an activity, or form of life" (1953, §23). To understand words, we have to see how they are used in language-games (Kenny, 1973). Instead of asking about meanings, we should look at the use of language, because "only in the stream of thought and life do words have meaning" (Wittgenstein, 1967, §173). When Wittgenstein claims that meaning is use, he is repudiating the referential theory of meaning, and claiming that meaning is, literally, use, and that one therefore can't separate meaning from the language game. Rather than ask about the relationship between sense and reference (as Frege does) or between the sign, the signified and the object (as Saussure does) or between literal and speaker's meaning (as in communication-intention theories), Wittgenstein suggests we look at the game as a whole. This involves a move away from a focus on the individual participants, to a focus on the interaction itself; theories that adopt this approach are discussed in the next section.

2.6 Communication from an Interactionist Perspective

In the rest of this chapter the perspective moves from an individualist to an interactional approach, and from representation to the recognition that communication is an activity in its own right. At the same time, the focus moves from the instrumental, informational role of communication to its social function, and from imparted meaning to shared meaning and shared interaction. Whereas the authors reviewed above treat communication as an aspect of interaction, the theories discussed in this section conflate communication and interaction, and, to differing degrees, and in different ways, treat communication as the source of social reality. To introduce the interactionist perspective, I review a range of theories, before focusing on Goffman and Garfinkel, whose work is central to my research.

Dewey (1916/1966) linked communication to the creation of the social world: "Communication is a process of sharing experience till it becomes a common possession" (p. 14). Dewey used the term 'partaking' rather than interaction; communication meant taking part in a common world, and not a sharing of the objects of consciousness (Peters, 1999). For Dewey the mind emerges from linguistic communication rather than the other way round, "... soliloquy is the product and
reflex of converse with others; social communication not an effect of soliloquy” (Dewey, 1929/1958, quoted by Radford, 1994, sect. 44).

In their classic book on social construction, Berger and Luckman also stress the role of communication (1966, p. 68). “The common objectivations of everyday life are maintained primarily by linguistic signification. Everyday life is, above all, life with and by means of the language I share with my fellowmen”. The typifications or concepts that people use to classify one another are objectified and become part of reality. Berger and Luckman (1966, p. 52) also emphasize the role of communication in creating intersubjectivity: “The ongoing production of vocal signs in conversation can be sensitively synchronized with the ongoing subjective intentions of the conversants. I speak as I think; so does my partner in the conversation. Both of us hear what each says at virtually the same instant, which makes possible a continuous, synchronized, reciprocal access to our two subjectivities, an intersubjective closeness in the face-to-face situation that no other sign system can duplicate”.

The symbolic meanings associated with social concepts are taken further in symbolic interactionism. The term was invented by Blumer (1969), but Mead devised the theory. Mead was influenced by Dewey (Bulmer, 1984) and like him, rather than taking the mind as the starting point, which makes interaction between minds problematic, Mead puts the “social process of experience” first. “Mind arises through communication by a conversation of gestures in a social process or context of experience—not communication through mind” (1934/1967, p. 50). Symbolic interactionism focuses on meanings (the symbols) which arise out of the way people act with regard to objects (the interaction), and are modified through an interpretive process. Individuals create society as they interact, and develop their concept of self through interaction, not through introspection. Interaction thus plays a key role in determining both objects and inner selves. Humans have the unique facility to adopt the viewpoint of the other, and “interpret or define each other’s actions instead of merely reacting to each other’s actions. Their response is not made directly to the actions of one another but instead is based on the meaning which they attach to such actions” (Blumer, 1962, p. 180). In other words, human interaction is not direct, but mediated by meanings and interpretation. Despite its recognition of the social origin of meanings, in symbolic interactionism interpretation is conceived as an individual
rather than as a collaborative process. Although symbolic interactionism recognizes the social derivation of meanings, I feel that it exaggerates the role of symbolism in interaction.

There are similarities between symbolic interactionism and the work of Goffman and Garfinkel. The next two sections focus on these two authors, who both provided fundamental insights into the role and nature of communication. Their work underlies this thesis and is therefore discussed in detail.

2.6.1 Goffman

Goffman was influenced by Mead and held that social reality was shaped in interaction. Although some categorize him as a symbolic interactionist, he did not agree (Williams, 2001). Goffman's conception of the self, as located within the social situation, is rather different. In ‘The Presentation of Self in Everyday Life’ (1956b), Goffman introduced a dramaturgical metaphor: interaction is a ‘performance’ in which the self is presented to others. Goffman’s work is sometimes interpreted as cynical (e.g. Gouldner, 1971; Cuzzort, cited by Williams, 1986); his dramaturgical analogy is taken at face value, and he is seen as depicting humans as amoral manipulators. However, Goffman added a section, ‘Staging and the Self’ (p. 244-7), to the end of the second edition of the book, clarifying his position. Here he acknowledged that the stage metaphor is just that: “Now it should be admitted that this attempt to press a mere analogy so far was in part a rhetoric and a manoeuvre” (p. 246). Goffman concedes that the theatre is a contrived metaphor. “The language and mask of the stage will be dropped”; it is a mere “scaffold”. This new section clarifies Goffman’s concept of the self, which, far from being a manipulator behind the scenes, “is a product of a scene that comes off, and is not a cause of it” (p. 245, original emphasis).

I think that for Goffman performance is part of the structure of interaction and is not necessarily calculated. “When an individual appears before others, he knowingly and

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2 Garfinkel (1967, p. 165-184) also misinterprets what he calls Goffman’s ‘naughty’ view of society, as is clear when he contrasts Agnes’ passing with what he interprets as the calculated strategic impression management of Goffman’s characters.

3 Manning (1991) argues that these changes reflect Goffman’s move from a single manipulative self to a composite multiple self. My alternative reading is that Goffman clarified his work due to the misinterpretation of his readers.
unwittingly projects a definition of the situation, of which a conception of himself is an important part" (1959, p. 234-5, my emphasis). In interaction we inevitably create an impression of ourselves and of what we think is going on. The performance may be calculated, it may be calculated but unknowing, or it may be inadvertent. This is about how reality is perceived not about deception; one cannot choose not to create an impression. However, some of the text (1959) does suggest a less benign reading of self: "I assume that when an individual appears before others he will have many motives for trying to control the impression they receive of the situation" (p. 26) on the other hand he may be "... fully taken in by his own act" (p. 28). But even these excerpts can be interpreted in line with the situated self. If motives and plans are also treated as situated in the interaction (Wright Mills, 1940) then, by definition, they reflect the intentions of the situated self, but this does not mean that they belong to a calculating self. Part of the problem is linguistic, as Goffman says (1974, p. 293), “It is hardly possible to talk about the anchoring of doing in the world without seeming to support the notion that a person’s acts are in part an expression and outcome of his perduring self, and that this self will be present behind the particular roles he plays at any particular moment”.

In my view, Goffman’s major contribution to the understanding of communication is his appreciation of the role of implicit communication, and his consequent recognition that all interaction is communication. Goffman distinguishes between two different kinds of sign, radically extending the concept of communication. The distinction is drawn in the first edition of ‘The Presentation of Self in Everyday Life’ (1956b), but clarified in the second edition. “The expressiveness of the individual (and therefore his capacity to give impressions) appears to involve two radically different kinds of sign activity: the expression that he gives, and the expression that he gives off. The first involves verbal symbols or their substitutes which he uses admittedly and solely to convey the information that he and others are known to attach to these symbols. This is communication in the traditional and narrow sense. The second involves a wide range of action that others can treat as symptomatic of the actor, the expectation being that the action was performed for reasons other than the information conveyed this way”. Expressions given off are “the more theatrical and contextual, the non-verbal, presumably unintentional kind whether this communication be purposively engineered or not” (1959, p. 16, my emphasis). Although they can be used
intentionally to deceive, they “preserve the fiction that they are uncalculated, spontaneous and involuntary, as in some cases they are” (1963a, p. 14). Expressions given off are less controllable by the actor, and may leak out\(^4\); they are therefore treated as more veridical. The actor may be unaware of the expressions she gives off, and similarly, the recipient may be largely unaware of the cues she instinctively interprets. Expressions given off are less accountable, and are therefore allowed more license, introducing useful flexibility into normative rules. For instance, they facilitate the initiation and development of new relationships (Goffman, 1963a). However, the distinction between expressions given and given off is imprecise\(^5\); Goffman admits that it has “only initial validity” (1959, p. 14). Expressions given and given off are entwined: the choice and order of the words employed in what is given, together with their tone and emphasis, gives off further meaning, both intentional and unintentional.

Goffman (1955; 1963a) suggests that in interaction we follow various rituals that honour the self presented and maintain face. In addition to the exchange of greetings, he identifies several conversation specific rituals, for instance, “to decline a signal to open channels is something like declining an extended hand” (1981, p. 18), and it is expected “that our thoughts and concerns will have some relevance or interest or weight for others” (1981, p. 121). The latter relates to the felicity conditions discussed in the previous section, but Goffman’s approach is very different. Whereas communication-intention theorists treat the implicatures of conversation as logical inferences from what is given and felicity conditions, Goffman shows how what is inferred depends on expressions given off during the interaction. Rather than trying to specify the rules that make meaning intelligible, for Goffman expectations affect the interpretation of the interaction. Conversational constraints are not rules, but “something to honor, to invert, or to disregard, depending as the mood strikes” (1981, p. 74).

\(^4\) Empirical research in Interpersonal Deception Theory (Buller & Burgoon, 1996) indicates that communicators often attempt to deceive, and that this can result in leaks, usually of non-verbal behaviour.

\(^5\) Neurological evidence (Sacks, 1985) from mentally ill patients suggests that there are separate areas in the brain for the interpretation of expressions given and given off. Aphasic patients are incapable of understanding words (expressions given) but can understand extra-verbal cues, while those with Agnosia have difficulty with some aspects of expressions given off (e.g. tone) but can understand words. Those with Aphasia find it much easier to understand conversation than Agnosics, reflecting the greater importance of expressions given off.
In Forms of Talk (1981, p. 128-9), Goffman introduces a further aspect of conversation: footing. "A change in footing implies a change in the alignment we take up to ourselves and the others present as expressed in the way we manage the production or reception of an utterance". In conversation we take up many different roles, recounting our own experience and that of others; footing is used to indicate that consecutive remarks are addressed under different roles or to different audiences. For example, a speaker might use a change tone to indicate that he was quoting somebody; this example also shows how expressions given (the words he quotes) and given off (his tone of voice) are combined to produce meaning. Levinson (1988) claims that Goffman’s concept of footing helps to deal with indexicality by indicating the currently relevant role, and providing context for interpretation of the communication.

Communication plays a key role for Goffman. It engages the participants and changes an unfocused encounter into focused interaction: "But no resource is more effective as a basis for joint involvement than speaking. Words are the great device for fetching speaker and hearer into the same focus of attention and into the same interpretation schema" (1981, p. 70-71). Goffman’s conception of communication is sophisticated. He recognizes the role of backchannel feedback and that conversation is "interplay not dialogue" (op. cit. p. 73-4). Talk is "full of twists and turns" as speakers change frame and footing, effectively launching new conversation sequences, or sequences within sequences. Goffman also notes that when people are together and engaged in some activity, they may sustain a "state of open talk"6, making intermittent comments that do not follow a sequential pattern of turns. However, his conception of communication remains individualistic rather than collaborative. He ignores the co-production of meaning (Rawls, 1987) and uses terms such as ‘transmission’ and ‘messages’ (e.g. Goffman, 1981, p. 9-15).

Goffman distinguishes between the ‘front region’ and ‘back region’; the physical boundaries of different places help performers to manage their impressions in conflicting roles. Roles may be played out collusively as part of a team, but the actor

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6 Sacks and Schegloff (1973, cited in Schegloff, 2002) call this a "continuous state of incipient talk". It would typically occur during a long car journey or in a family living room. It is relevant to connected presence (Licoppe, 2004) which is discussed in chapter four.
and the audience are not a team. The audience and actor do not cooperate, this would destroy the impression, as it does for team members (Goffman, 1959, p. 88). The concept of performance distances the actor from the audience, and reduces the collaborative aspect of interaction; it is essentially an asymmetrical and not a reciprocal relationship. Schegloff (1988, p. 95) makes a similar point, when he complains that Goffman fails to deliver on his promise that his focus would be: "Not, then, men and their moments. Rather moments and their men" (Goffman, 1967, p. 3). Schegloff argues that Goffman’s “focus on ritual and face provides for the analytic pursuit of talk or action in the direction of an emphasis on individuals and their psychology”. Interaction is organized, but “organized to secure an individual’s ritual needs. It is in this sense that Goffman’s emphasis is persistently on the individual and the psychological” (1988, p. 95-6, original emphasis). Despite his promise, Goffman retains the ‘men and their moments’ perspective. Goffman’s emphasis is on how each person is individually presented in the situation, rather than on the co-production of the situation. This corresponds to the inherent subjectivity of our perception of the world, but Garfinkel takes a different approach.

Goffman’s recognition of expressions given off is a significant improvement on inferential theories. He removed the artificial boundary between communication and interaction, recognizing the role of non-verbal communication. In interaction, what is communicated is a myriad of intended and unintended expressions, verbal and non-verbal. Expressions given off supply context; indicating what is intended and whether it is sincere, or relevant, etc., thus avoiding the need to stipulate sincerity, relevance, etc. to infer meaning. Heritage (1998) claims that whereas Goffman’s major contribution was his recognition that social interaction is itself a social institution, mediating and enabling other social institutions, with its own ‘interaction order’; Garfinkel went further and described an even more fundamental order, which underlies social interaction itself, that is, the way in which we make sense of the social world.

2.6.2 Garfinkel
Garfinkel’s work addresses the question: “How do social actors come to know, and to know in common, what they are doing and the circumstances in which they are doing it?” (Heritage, 1984, p. 76); in other words: ‘How do they perceive a shared social
Garfinkel (1967) recognizes that communication is irreducibly indexical, but argues that understanding is achieved through an ongoing interpretive process, which he calls the documentary method of interpretation. Garfinkel credits his "documentary method of interpretation" to Mannheim, who identified "... an identical homologous pattern underlying a vast variety of totally different realizations of meaning" (quoted by Garfinkel, 1967, p. 78). Garfinkel describes an exercise (1967, p. 24-31, 38-42) in which his students were asked to report conversations by writing down both what was said and what was understood by themselves and their partners. Their reports demonstrated that much that was understood, was not mentioned, and that what was not said also contributed to what was understood. Understanding developed through a temporal sequence as comments were treated "as the document of" or as "pointing to" what was being understood, "Thus many expressions had the property of being progressively realized and realizable through the further course of the conversation" (p. 41). The exercise reveals the characteristics of conversation. During conversations participants progressively reach a common understanding: "Many matters are understood through a process of attending to the temporal series of utterances as documentary evidences of a developing conversation rather than as a string of terms" (p. 39, my emphasis). A shared process replaces the concept of agreed meaning: "The appropriate image of a common understanding is therefore an
operation rather than a common intersection of overlapping sets” (1967, p. 30). Garfinkel’s writing here relates directly to my discussion in the previous section and to Frege’s distinction between sense and reference. He argues that one should drop the “theory of signs, according to which a ‘sign’ and ‘referent’ are respectively properties of something said and something talked about, and which in this fashion proposes sign and referent to be related as corresponding contents” (op. cit. p. 28). Rather than try to distinguish “what was said and what was talked about”, the “recognized sense of what a person said consists only and entirely in recognizing the method of his speaking, of seeing how he spoke” (p. 29, original emphasis).

For Garfinkel, the interpretive flexibility of situated meaning is not a problem to be clarified, but an essential part of a shared progressive process of communication. An infinite regress of clarifications is avoided, because clarification is progressive and occurs within each turn (Rawls in Garfinkel, 1948/2006). Each turn directly displays what is being understood, making the interaction “reciprocally recognizable” (Button & Sharrock, 1998, p. 74). Conversation analysis demonstrates how the documentary method of interpretation works, revealing the ongoing process by which communication is simultaneously produced and clarified: “... by an adjacently produced second, a speaker can show that he understood what a prior aimed at, and that he is willing to go along with that. Also, by virtue of the occurrence of an adjacently produced second, the doer of the first can see that what he intended was indeed understood and that it was or was not accepted” (Schegloff & Sacks, 1973, p. 297-8). This process facilitates conversation analysis, “while understandings of other turns’ talk are displayed to co-participants, they are available as well to professional analysts, who are thereby provided a proof criterion” (Sacks, Schegloff, & Jefferson, 1974, p. 728-9).

In his later work Garfinkel rejected a theoretical or ‘Formal Analytic’ approach. However in ‘Seeing Sociologically’ (Garfinkel, 1948/2006), an earlier but only recently published work, Garfinkel presents what was intended as a Grand Sociology in its own right (Rawls in Garfinkel, 1948/2006). This work includes a theory of communication that contains a number of insights that I use in my study, and it is therefore discussed in detail here. In subsequent work Garfinkel rejects ‘Formal Analysis’ and focuses on practice, writing relatively little about communication per
In ‘Seeing Sociologically’, Garfinkel interprets communication very widely, including communication between people and objects, so that all perception is communication: “Communication is the process wherein the actor treats an array of signs . . . and in treating these signs generates further arrays of signs for treatment” (1948/2006, p. 179). Communication between a person and another person differs from that between a person and a chair in only one respect: “by virtue of his treatment of the signs generated by the ‘presence’ of the other, the actor generates an array of signs which are unique to every exchange, are far less predictable and constant than the signs of ‘material’ objects, do not depend upon the effort of the actor for their realization as signs, are constantly changing or being replaced by others without the intervention of the actor, and always afford the actor more than he ‘asks for’” (idem, p. 180). When the actor interprets the signs from the chair it is an individual process, but with two people the interpretive process is interactive, collaborative and sequential. The signs of each actor reveal their intentions and point to what is understood, affording more than is ‘asked’ for.

Garfinkel (1948/2006, p. 180-1) distinguishes two kinds of signs, the “ready made outcome of the other’s communicating acts, as, for example a signpost” and the signs “conveyed piecemeal, portion by portion, as within a framework of space and time. While the one actor conveys his thought through this sequential order of actions, the interpreter follows with interpreting actions”. As Rawls (p. 36) writes in her introduction, the signs of the first type “have some kind of independent existence and stand as artifacts of interactions that are already accomplished. They do not give back more meaning than the actor ‘asks for and hence, ironically, involve more ambiguity and subjectivity than conversation”. I think that Garfinkel’s recognition of these two different types of signs is an important insight, but he doesn’t develop this distinction. I believe that writing contains signs of the first type, whereas the signs in verbal conversation are of the second type. Most of the literature conflates these two forms of communication and assumes that all signs are of the first type.

Garfinkel rejects intentional theories of communication: interpretation is not confirmed by internal, private entities such as intentions, but within the conversation, with each next sequence confirming or disconfirming what has gone before. The communicators do not just experience what they themselves say; rather, different
elements of the conversation are connected and experienced together. "All the moments of a sequence form a unity as each next thing said conveys something about how the listener has understood the last thing said, and the next thing said is organized to display that understanding. The whole series goes into making up what the communication will finally have meant" (Rawls in Garfinkel, 1948/2006, p. 32).

The social reality that is produced in the interaction is situated in a common sequential time. The speaker experiences his sounds and gestures in his own inner sense of time or 'inner duree', but while the listener experiences these as occurring in the time framework of the outer world, he also experiences his interpretation of them in his own inner time. This creates a shared sense of time, a joint 'vivid present', and therefore (although Garfinkel doesn't say this), intersubjectivity. "The listener experiences the occurrences of the other's action as events occurring in outer time and space, while at the same time he experiences his interpretive actions as a series of retentions and anticipations happening in his inner time and connected by the intention to understand the other's 'message' as a meaningful unit. The communicator's speech, while it goes on, is an element common to his as well as the listener's vivid present. Both vivid presents occur simultaneously. A new time dimension is therefore established, namely, that of a common vivid present. Both can say later, 'We experienced this occurrence together'" (1948/2006, p. 116).

Garfinkel (1948/2006, p. 183) also recognizes the 'expressional aspects' of communication, "All that is meant by expressional aspects of behavior – tone, tics, posture, physical gesture, inflection, etc. – is meant by style. Our great need is for a vocabulary of style". Garfinkel claims that there is style\(^7\) in all communication and recognizes its complex relationship with the rest of the communication; style affords "perspective to the intentionalities apparently involved in the 'main action'" (p. 183, my emphasis). This is very similar to Goffman's expressions given off, and the role of these in the presentation of the self in the situation. In 'Seeing Sociologically' Garfinkel writes, "Style is an operating principle of the self-identified actor, as such it represents not a reading of the universe, but self expression without regard to the universe" (1948/2006, p. 183, my emphasis). I interpret this as excluding style from the documentary process of interpretation. This seems to me to be inaccurate; style as

\(^7\) This is not the same as his 'cognitive style' which he borrowed from Schutz and uses for the pattern of orderliness specific to an interaction.
defined by Garfinkel can include feedback on what has been said, but it is less explicitly available for collaborative interpretation. During a conversation the communicators establish an understanding of what they have said, but some ambiguity, relating to what was merely implicit, may have been left unresolved.

Garfinkel construes social reality in terms of situated identities performing situated practices, rather than in terms of relationships between persisting persons (Rawls in Garfinkel, 1948/2006). This avoids the employment of motives which, rather than driving action, are seen as situated explanations (cf. Wright Mills, 1940). This aspect of his theory, and its relationship to Goffman’s concept of self, is discussed in the next chapter. For Garfinkel, individuals and institutions are constructions, but are nonetheless real. In symbolic interactionism and social constructionism, social reality is ‘objectified’ through shared meaning. Garfinkel’s position is quite different: social order is a precondition of intelligibility and it is produced (not merely conceptualized) by members. Goffman’s position is less clear, for on the one hand he locates the self in the situation, but he also retains an individualist vocabulary of motivation. I discuss the concept of interaction in more detail in the next chapter, combining the work of Goffman and Garfinkel to develop a theory of mediated interaction.

2.7 Conclusions

Many of the theories reviewed in this chapter advance the understanding of meaning and communication, although unsurprisingly, none of them offer a wholly satisfactory account of meaning. My objective here is to briefly describe the ways in which key authors have contributed to my understanding of communication, and consequently have shaped my research.

Shannon and Weaver’s transmission model provides a feasible account of the movement of written messages. However, I noticed that the model seemed to be more appropriate for writing than for verbal conversation, and this drew my attention to the differences between these modes. Similarly, I found Frege’s analysis of propositions in terms of sense and reference more applicable to writing, because the stability and grammatical format of writing facilitate a representational analysis of meaning. The rigidity of representational theories helped me to appreciate the flexibility of
Garfinkel’s documentary approach to meaning, and its particular relevance to verbal conversation. Grice, Austin and Searle all emphasize the importance of analysing situated, natural language and highlight the indexicality of meaning and the role of normative practice (felicity conditions) in interpretation. In addition, Austin’s speech act theory acknowledges that communication is a part of social life, and not just a representation of it. However, although these theories ostensibly refer to speech, I think that their emphasis on intentions is more relevant to writing, because its asynchronicity and persistence foster intentionality. In these theories there is an assumption that meaning initially resides with the speaker and has to be transferred to the listener, and that meaning can be understood by analysing individual statements. These approaches overlook the cooperative aspect of communication. In contrast, in an interactional perspective, rather than meaning being conceived by one party and received by the other, it is jointly constructed in the interaction. Instead of starting with the literal, formal meaning of language and bolting on intentions and context, interpretation becomes a holistic, collaborative and situated process. Although verbal conversation can be analysed in terms of signs and intentions, this analysis is of little value, because a substantial part of the communication is neither representational nor intentional. Reflecting on these approaches, I realized that an interactional perspective is particularly relevant to verbal conversation, and therefore that meaning construction and interpretation varies between communication channels; this theme underlies my study. I also found Wittgenstein’s concept of language games helpful because it embeds meaning in the communication process.

Clark (1993) recognizes the cooperative aspect of verbal conversation, but retains an individualistic perspective towards meaning production. His work is included here, both because it is a move towards an interactionist perspective, and because I use his grounding theory as a source of possible interactional channel characteristics in chapter five.

Goffman’s key insight, from the perspective of my work, is his recognition of the role of expressions given off, and the consequent dissolution of the distinction between communication and interaction. Expressions given off show that intentions are not necessary for communication, and that there are different degrees of intentionality. While inferential theories use intentions to define what the participants mean,
Goffman turns this around, and uses the intentionality shown in the interaction to identify situated selves, with less intentional expressions presumed more revealing of self. Taking this further, I think that the interplay between explicit and implicit expressions reveal the situated self as an intentional, motivated entity. If we only had intentional expressions, all presentation of self would have to be taken at face value; we would have no evidence of an underlying self with different motives from the self produced in the interaction. My approach to communication is particularly influenced by Garfinkel and elements of his work that I use include: his recognition of the irredeemable indexicality of conversation; his rejection of a clear distinction between what is said and what is talked about; his documentary method of interpretation; his recognition that conversation creates a common time dimension for the participants; and his distinction between 'ready-made' communication and conversation.

The construction and interpretation of meaning works differently in traditional written and verbal communication, creating two different paradigms. Written communication is dissemination, whereas verbal conversation is dialogue (Peters, 1999). In written media such as letters, the transmission model is relevant, because the participants work independently, receiving what Garfinkel calls the "ready made outcome of the other's communicating acts" (1948/2006, p. 180-1). The letter, or inscription, is self contained and the sender is accountable for its contents. Written communication lends itself to representational accounts of meaning, because its stability and persistence means that it can easily be removed from its context and treated as a string of signs with a literal meaning. This is deceptive, because it suggests that the interpretation of written communication is unproblematic and determinate. In fact, because written communication can be removed from context, (cf. Derrida's iterability) it remains interpretively flexible, whereas in verbal conversation the participants work together to redress ambiguity and construct shared meaning.

Verbal conversation is collaborative, and here the transmission metaphor breaks down because the participants work together. It usually doesn't make sense to remove an individual turn from its conversational context and treat it as a string of signs. Garfinkel argues that what is said cannot be lifted out of context and separated from how it was said, because the understanding consists only in the collaborative process. His documentary method of interpretation highlights the way turns point both to some
underlying reality and to previous turns, progressively clarifying meaning. Talk is a practice that involves not only meaning, but the construction of social reality; it focuses attention, bringing the interactants "together in some sort of intersubjective mental world" (Goffman, 1981, p. 19). Verbal conversation creates a shared sense of time and intersubjectivity, in a way that reading a letter, however personal, does not.

The two communication modes identified in this chapter, written messages and verbal conversation, illustrate the effect of the communication channel on interaction. In my study, I compare written text messages with the verbal conversations of mobile phone calls. My research illuminates the differences between the two communication paradigms identified here, but also shows how the specific characteristics of communication channels create a spectrum of different forms of interaction. In the next chapter I focus on mediated communication, developing a theory of mediated interaction based on the work of both Goffman and Garfinkel.
3 Mediated Interaction

3.1 Introduction

Although the telephone has been used for over 100 years, sociologists have focused on face-to-face interaction and neglected mediated interaction as a distinct form of interaction. In addition, when mediated communication is discussed, it is treated as homogeneous, with little acknowledgement of the differences between channels. The last decade has seen a proliferation of new interpersonal communication channels that seem to create different ways of interacting. My research problem focuses on mediated interaction and the differences between channels. In this chapter I introduce the theory that will be used in my analysis, developing a theory of mediated interaction that acknowledges channel differences.

In the first part of this chapter, I discuss Goffman’s interaction order, comparing his concept of social situation with Garfinkel’s approach, and explain how Rawls (1987; 2003) uses Garfinkel’s work to substantiate Goffman’s interaction order. In the second part of the chapter, I develop this and extend it to mediated interaction, differentiating between two types of mediated communication. The first is focused communication with (mediated) copresence, such as phone calls, in which there is co-construction of a shared situation. This is essentially similar to a situation formed in face-to-face interaction. In addition, mediated communication includes asynchronous channels, such as text messages, which do not allow the co-construction of situations. I argue that shared practice is necessary for situation construction and that this is only possible in channels that afford copresence. Consequently, copresence is a differentiating characteristic of mediated interaction.

3.2 Face-to-Face Interaction

In this section I examine Goffman’s interaction order, including a detailed discussion of his theory of self, which I use later in my analysis of mobile phone communication.
3.2.1 Goffman’s Interaction Order

Goffman treats face-to-face interaction as an “analytically viable domain” (1983b, p. 2) defining the ‘interaction order’ as “that which uniquely transpires in social situations, that is, environments in which two or more individuals are physically in one another’s response presence”. For Goffman, the situation is a key element in interaction. It is delineated by the copresence of the participants, rather than by a physical setting: “situations begin when mutual monitoring occurs, and lapse when the second-last person has left” (1963a, p. 18). Goffman (1963a, p. 17) defines copresence: “persons must sense that they are close enough to be perceived in whatever they are doing, including their experiencing of others, and close enough to be perceived in this sensing of being perceived”. The situation is crucial to the presentation of self because the self is produced in the situation. The key factor in a social encounter “is the maintenance of a single definition of the situation, this definition having to be expressed, and this expression sustained in the face of a multitude of potential disruptions” (1959, p. 246). The shared definition of the situation identifies the relevant roles, rituals and normative practices.

The social self is presented, and thereby formed, in the situation. Goffman’s concept of the self is complex and probably not wholly consistent (Cahill, 1998). In ‘Stigma’ (1963b), Goffman ‘presents a three-fold typology of identity’: personal identity, which is an ‘identity peg’ that includes biography; ego identity, which he explains as the reflexive self, and social identity. Goffman focuses on the latter: “I assume that the proper study of interaction is not the individual and his psychology” (1967, p. 2). Social identity is further divided by his concept of role distance (1961). Role distance does not refer to the distance between the social self and the reflexive self, but between the social self within the role and the social self behind the role: “What is important is the sense he provides them through his dealings with them of what sort of person he is behind the role he is in” (1974, p. 298). Goffman’s focus is on the social self, in a role, produced in the situation. This social self gives rise to an individual’s image of his self, his ego identity: “[he] constructs an image of himself out of the same materials from which others first construct a social and personal identification, although he exercises important liberties in regard to what he fashions” (1963b, p. 130). Rather than a calculated manipulation from behind the scenes, the self presented is a product of the interaction ritual. Face-work, or maintenance of face, facilitates the
Mediated Interaction

presentation of self and interaction order. "Deference and demeanor practices must be institutionalized so that the individual will be able to project a viable, sacred self, and stay in the game on a proper ritual basis" (1967, p. 91). Normative practices are essential for the presentation of self and these create interaction order.

In Rawls' (1987) reading, Goffman's interaction order is a separate order, 'sui generis'. It governs social behaviour, and operates between the macro level of institutional structure and the micro level of individual agency. The interaction order provides the social rules and resources that enable the presentation of the self and the maintenance of social reality. The interaction order is separate from, but related to, a wider structure, there is a "nonexclusive linkage – a 'loose coupling' between interactional practices and social structures" (Goffman, 1983b, p. 11). Social constructs are "dependent on, and vulnerable to, what occurs in face-to-face contacts", but the interaction order is not "fundamental, or constitutive of the shape of macroscopic phenomena" (idem p. 8-9). The interaction order is not merely the result of routinization as described by Giddens (1984); it is an additional source of social constraint. I agree with Rawls' interpretation, which has implications for my research. The interaction order constrains face-to-face communication, for example, with norms about staring and practices such as 'civil inattention' (Goffman, 1963a). If interaction itself is a source of social order, one would expect different communication channels to impose different orders1. The interaction order helps to explains why the nature of interaction through a communication channel is shaped by both social and technical factors.

Giddens (1984) claims that Goffman does not explain an actor's motivation for maintaining social order. Rawls (2003) makes a similar point, claiming that Goffman fails to explain how constraint operates at the interactional level. However, I think that within Goffman's work there is an implicit explanation of why people obey interactional orders. For Goffman, situations only arise when there is copresence. Copresence "renders persons uniquely accessible, available and subject to one another" (1963a, p. 22). The physical aspect of copresence is important: "there are

1 Goffman (1974) claims that different forms of communication have associated 'doctrines'. He gives the example of informal talk, which he says, includes a 'normal honesty' rule, which means that involuntary cues to personal identity about the self are not to be suppressed.
enablements and risks inherent in co-bodily presence” (1983b, p. 3) this is because, “it is only in situations that individuals can be physically assaulted” (1963a, p. 197). People are physically vulnerable in situations, but interaction order protects everyone; this motivates compliance. In addition, to avoid embarrassment interactants protect each other’s face (1956a); this too maintains interaction order: “Motivated to preserve everyone’s face, they end up acting so as to preserve orderly communication” (1981, p. 19). Although Goffman does offer an explanation of commitment to the interaction order, I think that his account is unsatisfactory for two reasons. Firstly, the physical vulnerability of copresence is exaggerated and is less relevant in established relationships. Secondly, although Goffman frequently talks about the need to avoid embarrassment in order to save face, he fails to establish this as a basic human motive (Schudson, 1984).

A key difference between Goffman and Garfinkel is in their treatment of social situations. For both Garfinkel and Goffman social situations play a key role in the production of social reality, but they do this in different ways. For Goffman, the situation enables the presentation of self⁵, whereas for Garfinkel, the situation literally constitutes the social reality. Garfinkel’s situation is a shared social practice, and requires the ongoing work of its members, who produce its witnessable, recognizable coherence. Situations are produced by ‘population cohorts’; the situation persists even though the ‘staff’ in the population cohort changes (2002, p. 254). Whereas, “physical proximity is not a necessary and certainly is not a sufficient condition” of being part of what Garfinkel calls a ‘group’ (1948/2006, p. 189), Goffman’s situation requires physical copresence, and its coherence derives from the application of a shared frame.

Frames (Goffman, 1974) render “what would otherwise be a meaningless aspect of the scene into something that is meaningful” (p. 21). They shape experience: “observers actively project their frames of reference on the world immediately around them” (p. 39). Frames can break if the participants fail to sustain a shared definition of the situation; the constructed reality evaporates, “the individual’s situation can collapse, disintegrate, go up in smoke ...” (p. 302). Rawls (2003) criticizes frame analysis, arguing that conceptualization cannot explain coherence,

2 Goffman suggests that some presentation of self occurs in non-situational communication, but it is rather limited.
because the abstraction and application of concepts or frames assumes that situations have an initial coherence. Garfinkel, she argues, shows how interactional order is a situated achievement that explains coherence and intelligibility. I think one can equally argue that in order to work together members have to agree about what is going on, and therefore share the same frame or definition of the situation. Garfinkel's breaching experiments show how quickly situations break down if the participants are using different frames. I think that practices cannot be apprehended without frames, consequently frames are not second order inferred concepts as Rawls claims, but part of the schema (Bartlett, 1932; Bartlett, 1958), or scripts (Schank & Abelson, 1977), used in the perception of practices. My interpretation of Goffman is supported by his use of the word 'schemata' when he first introduces the concept of frames: "When an individual in our Western society recognizes a particular event, he tends, whatever else he does, to imply in this response (and in effect employ) one or more frameworks or schemata of interpretation" (1974, p. 21, my emphasis). I also think that Garfinkel's expectancies, which are taken for granted and used to produce and reproduce situations, are similar to Goffman’s frames: "The member of the society uses background expectancies as a scheme of interpretation" (Garfinkel, 1967, p. 36, my emphasis). However, from an ethnomethodological perspective, Goffman’s frame theory is unacceptable, because it is Formal Analysis.

I think the key difference between Goffman and Garfinkel is not the use of concepts, but their role in the coherence of situations. For Goffman, this coherence derives from the application of a shared conceptual frame, whereas for Garfinkel, the social situation is produced by members’ practice. For Goffman, a queue involves shared expectations, a ‘working consensus’ but this is merely a ‘veneer’ (1959, p. 21). In contrast, for Garfinkel, the reality of the queue is actually created by the orderly practice of queuing: "The witnessably recurrent details of ordinary everyday practices constitute their own reality" (1967, p. 97). For Garfinkel, a queue is not formed by imposing the frame ‘queue’ on experience that is already coherent, but by a practice that both produces the queue and makes it intelligible (2002, p. 253-5). Although the social order that can be observed at a road junction may be taken for granted by the varying ‘population cohort’ who produce it, its reality depends not on their sharing a conceptualisation of the situation as a ‘queue’, but on their knowing what to do. Social order is not simply framed but constituted by practice. As Rawls
notes, conceptual framing alone cannot create the coherence of experience, because there has to be some initial coherence in order to recognize that the frame applies, resulting in an infinite regress. Garfinkel's concept of a social situation is more robust, and offers a better explanation of the difference between social and natural reality, and of the source of social order, but I think that it is compatible with Goffman's frame theory. In my view, the coherence of situations derives both from frames (or expectancies) and from shared practices.

3.2.2 Combining Goffman and Garfinkel

Rawls (1987; 2003) argues that on its own Goffman's theory is inadequate, because it does not explain commitment to the interaction order, but she shows how it can be combined with the work of Garfinkel to explain social order. Garfinkel emphasizes the need for intelligibility; social reality must exhibit recognizable orderliness and this is produced by members (Rawls in Garfinkel, 2002, p. 23). Unless the participants work together, a situation becomes meaningless; this enforces social order. "In speaking of practices in the context of the question of intelligibility, the issue is not what motivates actors to conform to expectations, as Giddens assumes, but rather how they can so construct their sounds and movements that others will recognize them as 'conforming' to some set of expectations about the shape that action can take. ... The motivation for conformity is simple, one cannot be understood otherwise" (Rawls, 2003, p. 228). The terms 'commitment' and 'motives' are, I think, misleading because they suggest a motivated self outside the situation, but for Garfinkel motivation only makes sense within a situation. As Rawls states, "not everything is subject to conditions of justification or vocabularies of motive" (Rawls, 1989, p. 159). However, 'commitment' can also be interpreted in terms of an apparatus or machinery rather than as motivation; the point is that interactional order is the means of achieving the coherence required for intelligibility.

Sacks shows how this works in conversation (Rawls, 1989). Collaborative achievement of meaning requires a focus on the sequence of utterances and 'sequential relevancies'. Speakers relate or 'tie' what they say to previous turns (Sacks, 1995, e.g. p. 716-21). Sequential relevancies create an indexicality that forces the participants to listen to each other, securing interactional commitment. Garfinkel, Rawls argues, extends this beyond conversation; the intelligibility of any social
situation is produced by the shared practice of its participants, and this creates commitment to the interaction order.

Rawls (1987; 2003) shows how the work of Goffman and Garfinkel can be combined in an interaction order for face-to-face communication. In the rest of this chapter, I attempt to extend their work to mediated interaction.

3.3 Mediated Interaction

Meyrowitz (1985) adapted Goffman’s theory of interaction for mediated communication. I argue that his theory does not provide an adequate account of mediated interaction, before going on to develop an alternative theory.

3.3.1 Meyrowitz’ Theory of Mediated Communication

Meyrowitz (1985) developed a non-spatial concept of situation for mediated communication. Whereas Goffman defined situations in spatial terms, Meyrowitz argued that in mediated interaction the spatial elements of the situation are unimportant. What matters is the flow of communication and influence between the participants; consequently, situations can be defined more abstractly, as ‘information systems’.

“To include mediated encounters in the study of situations, we need to abandon the notion that social situations are only encounters that occur face-to-face in set times and places. We need to look at the larger, more inclusive notion of ‘patterns of access to information’” (1985, p. 37).

I think that Meyrowitz is right that mediated communication creates new kinds of social situations, but that his ‘information systems’ are too fluid and do not have the cohesiveness needed for the presentation of self or production of social order. In Goffman’s situations, the mutual monitoring of copresence creates involvement and a shared focus. The arrival of a letter is an ‘information flow’ but it isn’t a situation in the same sense as a sustained conversation. There is a need to distinguish between different types of information flow. For Meyrowitz, if two people are on the phone they are in a single situation, “which is only marginally related to their respective physical locations” (op. cit., p. 38). This implies that the phone call is a separate situation, and that people can be in several situations at once (or a part of several
different information systems). A person might receive many different letters at the same time, creating many information flows; to suggest that they are in numerous different situations at the same time considerably weakens the concept of ‘situation’. In addition, dividing a person’s encounters into separate situations obscures the relationships between them. Goffman (1971, p. 220-2) describes the predicament of someone who is interrupted by the phone during a face-to-face encounter, and who consequently has to simultaneously manage a mediated and a face-to-face interaction. If this is analysed as two situations, it helps to explain why the person on the phone seems to have conflicting claims on his attention, but one also needs to explain the intra-situational interactional dynamics.

Ito and Okabe (2005c) endorse Meyrowitz’ recognition that mediated communication can create social situations, but argue that in interpersonal communication it is important to retain a situational focus on setting and context. Mediated channels, they claim, can break down spatial social boundaries, but they can also construct new social boundaries or situations. They propose the term ‘technosocial situations’ for situations that “span a range of physical locations but still retain a coherent sense of location, social expectation, and role definition [as] exhibited in Goffman’s analyses and other practice-based studies” (p. 260). Ito and Okabe claim that these mediated situations create new social orders. Although I do not adopt their term ‘technosocial situation’, I explore the concept of mediated situations in the rest of this chapter.

3.3.2 Goffman’s Interaction Order and Mediated Interaction

Shilling (1999, p. 553) notes that a major limitation of Goffman’s interaction order is that it “marginalizes mediated interaction”; Meyrowitz (1985) and Giddens (1984) also comment on this deficiency. Goffman neglected the analysis of mediated communication despite intermittent references to the telephone; his approach indicates disinterest, rather than oversight. For instance, in his Presidential Address he defined the interaction order as “that which uniquely transpires in social situations, that is, environments in which two or more individuals are physically in one another’s response presence. (Presumably the telephone and the mails provide a reduced version of the primordial real thing)” (1983b, p. 2, my emphasis). Goffman included the telephone, telegraph, and mail contact in a list of “marginal and derived forms of
social contact" where people can be "in touch socially without touching". These are nevertheless subject to some "interpersonal ritual" (1971, p. 70-1).

An extension of Goffman's analysis to mediated communication faces several problems. Firstly, the basic unit of interaction for Goffman is the situation, which is defined in terms of the physical copresence of its participants, and secondly, Goffman emphasizes the communicative role of the body in the presentation of self, through expressions given off. The "conventionalized discourse" of body idiom (1963a, p. 33-35) communicates continuously in copresence, "although a person can stop talking, he cannot stop communicating through body idiom". However, most of these bodily cues, which are subtly conveyed by "costume, gesture and bodily alignment" (1983b, p. 9) are absent in mediated communication. Crossley claims that Goffman's interaction order is essentially an intercorporeal order, organized and constituted by body techniques (1995). For Goffman embodiment and communication are linked; he even refers to mediated communication as 'disembodied' (1963a, p. 14).

Goffman's interaction order does not include mediated interactions. They are not situations, but can occur within a situation, for example a phone call is in but not of the situation, and is therefore "merely situated" (1963a, p. 22). For Goffman, people who are talking on the phone do not share a situation. Goffman treats mediated interaction outside situations as a restricted version of face-to-face interaction, it is "situation-like" (1997, p. 211). Presentation of self occurs, but is limited: "Most of what has been said so far applies to encounters of both an immediate and mediated kind, although in the latter the interaction is likely to be more attenuated, with each participant's line being gleaned from such things as written statements and work records" (1955, p. 33).

In the next section I attempt to work out the details of a mediated interaction order. For this it is necessary to distinguish the conditions under which mediated interaction creates new situations, from those conditions where the mediated communication just impinges on existing situations. My approach is to start with Goffman’s interaction order and to complement it with Garfinkel’s less physical notion of a situation.
3.3.3 Development of a Mediated Interaction Order

A theory of mediated interaction needs to accommodate two different conditions: mediated interaction that seems to simply take place within existing situations, for example letters, and mediated interactions, such as phone calls, which seem to constitute situations in their own right. In addition, the theory needs to deal with the overlap between situations created by involvement of an individual in two or more concurrent situations.

In face-to-face situations, the participants may engage in unfocused or focused interaction. Unfocused interaction is mere copresence, but focused interaction (an encounter) “occurs when persons gather close together and openly cooperate to sustain a single focus of attention, typically by taking turns at talking” (1963a, p. 24). Extending this, mediated interaction can also be focused or unfocused, depending on the extent to which the interaction is engrossing. Underlying Goffman’s distinction between focused and unfocused encounters is his concept of involvement allocation. For Goffman, involvement is a scarce resource that is allocated between focused and unfocused encounters, daydreams, inner reveries, etc. (p. 243-4, op. cit.). Shared mediated practices such as phone calls are focused involvements and require a mediated form of copresence. This is an extension of the concept of copresence, which I define as concurrent, mutual awareness in mediated interaction. Copresence occurs, for example, in phone calls, but not during an exchange of letters. Phone conversations require focused attention, because the participants collaborate on the co-construction of meaning. In fact, the lack of a body increases the need for focus, because expressions given off are transformed (for example, turn changes are signalled by tone rather than eye gaze) and because there is a need to indicate continued presence.

Combining Goffman’s and Garfinkel’s theory, I suggest that focused, copresent mediated interactions are situations. Goffman’s concept of situation is firmly rooted in the physical, but if we move to Garfinkel’s concept of situation as shared practice, members’ cooperative work is relevant, rather than physical copresence. Copresence and focus of attention is necessary, so that members can work together, in real-time, in the shared practice of the interaction. This results in a shared sense of time, in Garfinkel’s terms, a ‘common vivid presence’. In mediated situations, such as phone
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calls, there is a sense of a common present, but this does not occur if someone receives a letter. Mediated situations are coherent, intelligible forms of social reality, with associated normative expectations and practices. Copresent focused mediated interactions have the sustained mutuality necessary for presentation of self and imputation of motives. In ‘disembodied’ phone calls, the role of body idiom in the presentation of self is performed by the voice, which (usually) enables classification in terms of age, gender, class and race.

Mediated communication without shared practice is not a situation. Thus, the arrival of a letter does not create a situation in the same way that a phone call does. Mediated situations can only occur in channels that afford copresence, but channels that afford copresence do not automatically create situations; the situation is formed by the ongoing shared practice. Consequently, a continuous visual channel such as webcam does not constitute a situation, unless the participants are engaged in the shared practice of a focused encounter. This analysis covers mediated interactions that take place within existing situations and those that form new situations.

Some mediated interactions create situations and these may conflict with a concurrent face-to-face situation. Within Goffman’s theory, conflicting demands on attention can be handled within the normal repertoire of direct involvements. Conflict, at the level of the individual, only arises if we expect a situation to be totally engrossing and exclusive. Goffman (1963a) describes how ‘involvement obligations’ prescribe different involvement allocations, while ‘situational proprieties’ always require a margin of disinvolvement; ‘conflicting’ interactions are not unusual.

When there are concurrent face-to-face and mediated situations, the self may be presented simultaneously to different audiences, perhaps playing different roles, raising the question of how consistency between the different selves presented is ensured. If, as Goffman claims, the self is a product of interaction, simultaneous involvements in mediated and unmediated interactions could create different, but concurrent, selves. The difficulty is that the social self is produced by the situation. The problem of continuity of the social self between situations arises not just in mediated interaction, but also in face-to-face interaction, raising the question of whether the self behind various roles is the same self. Even though "there is no
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reason to think that all these gleanings about himself that an individual makes available, all these pointings from his current situation to the way he is in his other occasions, have anything very much in common”, Goffman claims that we make the assumption that they belong to a single self, “And this continuity of character is not forced upon us by the continuity of material things but by our conceptions about the continuity of spiritual ones” (1974, p. 299-300, original emphasis). Goffman’s solution is that the self behind the various roles is defined as the same self. In fact, we do commonly accept that a person can act quite differently in different social situations, without concluding that their self is incoherent. This resolves the problem for mediated communication too; consistency between the selves in different situations is not necessary, and consistency in the self behind the roles is defined by the abstraction. Mediated communication enables one to play different roles simultaneously, but this is no different from the surgeon who meets his wife in a hospital (Goffman, 1961). Although a coherent performance of a specific role is essential for the maintenance of a particular situation, people are aware that they and others play roles. Role conflict is handled with role distance, which distinguishes the role from the self behind it. Goffman’s ingenious solution to the continuity of the social self is relevant to my study, for two reasons. Firstly, it has been suggested (see chapter four) that mobile phone communication increases role conflict, and secondly, mediated interactions enable the simultaneous performance of self in different situations. Goffman’s theory of self allows role conflict and the presentation of different ‘selves’; they are neither problematic nor unique to mediated communication.

Although Goffman uses the situation as the basic unit of analysis of interaction order, he distinguishes (1963) between the social occasion as a whole, social gatherings or social groups within these, and specific encounters. An individual may be “in a social situation which is itself lodged within a social occasion” (p. 243). This complexity is similar to that which is created by mediated communication. An individual may be in different simultaneous interactions, for example, where somebody takes a mobile phone call, while involved in a focused face-to-face interaction. In addition to

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3 Goffman quotes Park (1959, p. 30): “... everyone is always and everywhere, more or less continuously playing a role. ... It is in these roles that we know each other; it is in these roles that we know ourselves”.

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analysing this as two separate situations, it is sometimes useful to treat both mediated and face-to-face interaction as part of a single social reality. This is particularly relevant where several participants interact with one another in both mediated and face-to-face interactions, with conversation extending over mediated and face-to-face interfaces. For example, in mobile phone calls, it is not unusual for the copresent bystander to be heard by the other person on the phone, similarly the remote participant may make comments intended for the local bystander. In this case shared practice and the social dynamics extend over mediated and unmediated interfaces. This is not problematic, but is rather like a social occasion that includes separate gatherings and encounters that interact with one another. If situations are defined in terms of shared practice, then neither separate nor overlapping concurrent situations are problematic, because people can enact several practices at once.

I conclude that Goffman’s interaction order can be extended to mediated interaction if his definition of situation in terms of physical copresence is replaced by Garfinkel’s concept of situation as shared practice. My theory combines Goffman’s presentational self with Garfinkel’s performative concept of situation. If the theory is based on Garfinkel’s concept of an actor, rather than Goffman’s social self, the conflicting situations created by mediated interaction are more problematic, as I show in the next section.

3.3.4 Conflicting Situations and Garfinkel’s Concept of the Actor
Garfinkel calls the self in the situation the ‘actor’; this is somewhat similar to Goffman’s presentational self⁴, but the actor is specific to the situation. Garfinkel’s concept of the actor is discussed in detail in ‘Seeing Sociologically’ and I therefore concentrate on this text. Garfinkel’s actors enact situated identities, but “The term [actor] will not mean a ‘concrete entity’; it will not mean ‘the whole man’ or even the tiniest little part of the ‘part man’; it will not mean ‘person’” (1948/2006, p. 107). Garfinkel dismisses the idea of the actor “as a mosaic of roles” and categorically denies that an actor can enact two identities at once. “Within the ‘flow’ of the actor’s experience, at any given time he is acting with reference to one and only one system

⁴ Goffman read the unpublished manuscript of Garfinkel’s ‘Seeing Sociologically’ before he wrote ‘The Presentation of Self in Everyday Life’ and in turn, Garfinkel read Goffman’s manuscript several years before it was published. This helps to explain the connections between them (Rawls, 2003).
of action, and at any given time he is acting as a participant in one and only one group" (1948/2006, p. 192). For Garfinkel, the actor only performs a particular situated identity at any one time: "identities as meaningful objects do not exist; they are meant. This means, within the plan outlined here, that we as observers are not allowed to frame our questions with regard to the phenomenon of identity constancy by asking what there is about the 'real person' himself that remains constant, but rather must ask, early-gestalt-wise, what are the conditions under which the person's interpreter regards the person as the same" (op. cit. 151). Garfinkel is trying to get away from the concept of a person or a reified self because it raises questions of motivation and intent outside situations. "... identity is nothing else than a scheme employed by the actor for interpreting the signs generated by the other persons—a scheme whereby the question of the other person's intentions is answered" (p. 149). Identities are used to attribute motives; they are 'meant' and only have meaning within a particular group or situation. Conflicting identities are impossible in this schema, but it also makes it impossible to explain how one person can be in two situations at once.

For Garfinkel persons do not act; a group is made up of actors not persons (p. 193). Rawls (2005a, fn. 4, p. 187) relates this to Garfinkel's concept of time: "If we take seriously the time dimension of interaction then we can see that at each moment in time, or to be more precise, with each move that a person makes interactionally (all moves being ordered in a time dimension sequentially), they are enacting only one identity. A person does not enact two identities at once. They may at one moment enact one identity and at the next moment another. But each will be enacted through practices appropriate to that identity. Seeing a person as divided between multiple identities happens when you treat an actor as a whole person. If we treat the actor as only the identity being enacted at any given moment, the problem of competing roles, and of role distance disappears. There is only one identity in one bit of situated time". This assumes that people can only be involved in one practice and situation at a time, which I think is incorrect. For instance, someone in a car queuing at a junction might simultaneously be engaged in a conversation, she is enacting two identities at the

5 My terminology follows Rawls' use of person as that which enacts identity. Strictly speaking for Garfinkel, the actor enacts identities, and the 'actor' is specific to the group, so in my example there are two actors, and two actions which both correspond to a person who is merely reflective and does not
same time, albeit within different groups or situations. With mediated communication this is even more interesting. Goffman (1971, p. 220-2) describes the ‘precarious line’ adopted by someone in copresent interaction when he gets a call. “... the person in the middle can try to select his words so that the party on the other phone feels that the relationship is properly expressed in the talk, while at the same time the bystander feels that this is the sort of conversation that renders the presence of a bystander a matter of indifference”. In Goffman’s example, a single turn is skilfully crafted so that it is simultaneously addressed to two different audiences, and ‘meant’ differently. The speaker is engaged in two different situations (or groups) and is presenting two different identities at the same time. To explain this, I think one needs the concept of a social self in addition to the self that is specific to a particular situation; Goffman provides this with his self behind the role.

In a personal email to me about Garfinkel’s concept of the actor, Anne Rawls (2005b, quoted with permission) wrote “I like your example because it shows that what the person does in enacting the two different identities is quite different and distinct. They would not feel that they were torn between the two except in so far as having to juggle the two sorts of presentations would complicate the interaction. But, they would be clear about their own relationship to each identity that they enact”. Rawls acknowledged that people might have to juggle multiple identities, but observed that there is no identity conflict, the person will not be confused and will be clear “about the differences in practices that those identities entail”. Although this is true, Goffman’s concept of ‘role distance’ also avoids identity conflict within the individual. Moreover, her explanation shows how the use of the person as a unifying construct reintroduces intentionality and motivation beyond the situational level; it is this underlying person who knows which identity she means within each situation, and is therefore not confused. I think this is inevitable, because although we do ascribe motives and intentions on the basis of the performance of the actor or self in the situation, we also sometimes have direct knowledge of our own intentions in advance of the situation in which they are performed. The concept of intention used by the reflexive self is not situated and does not relate to a social actor in Garfinkel’s sense. Garfinkel also reintroduces the person behind the actor when he talks about

act. Consequently, in Garfinkel’s terminology, it is impossible to explain motives which are related, as in my example, to two different situations.
'inner time duree' and the establishment of a 'new' time dimension. I think that some continuity of the social self between situations is important, because otherwise it would be meaningless to compare the behaviour of an actor in different situations.

I conclude that 'Seeing Sociologically' does not offer a satisfactory account of an actor that is totally situated and independent of a unifying person. It was written in 1948; Garfinkel’s later work ignores its substantive theory and abhors this type of 'Formal Analysis', but adopts the same approach to the social actor, "persons are neither more nor less than the ways they are treated" (Sharrock and Button, 1991, p. 141). In my study, I adopt Garfinkel’s concept of situation as a practice, without accepting his view of the actor, preferring to adopt Goffman’s account of the self. However, I found Garfinkel’s comments in ‘Seeing Sociologically’ illuminating, particularly his description of how shared practice creates a vivid presence and common time dimension, and this has influenced my analysis of mediated interaction.

3.4 Conclusions

In the first part of this chapter I focused on face-to-face interaction, drawing on Rawls’ (1987; 2003; 1989) combination of the work of Goffman, Garfinkel and Sacks in an interaction order ‘sui generis’. Goffman’s performative self depends on the coherence of the social situation, and Garfinkel shows how this intelligibility is achieved by collaborative practices which, literally, produce social reality. The second half of the chapter focuses on mediated interaction. I argue that the analysis of mediated communication in terms of information flows is unsatisfactory, because it fails to distinguish between different types of mediated communication. The mediated interaction order presented here combines elements from the work of both Goffman and Garfinkel. I argue that there are two fundamentally different types of mediated communication: mediated communication that generates shared situations and mediated communication that is not situational, although it may occur within situations. Both of these are subject to interactional commitment, but it is stronger and more pervasive in mediated situations. Goffman defines situation in terms of physical copresence; instead I adopt Garfinkel’s interpretation of situation in terms of shared practice. I argue that shared practice requires a mediated form of copresence, and that mediated situations will not arise in channels which do not afford copresence.
Consequently, I expect phone calls, but not text messages, to be interactionally similar to face-to-face situations, and I explore this in my research.

Mediated situations are a source of social constraint, enable the presentation of self, and afford an intersubjective experience in a common time dimension; in contrast, non-situational mediated communication is only incidental to any situation that it interrupts. The two types of mediated interaction correspond to the two paradigms of communication discussed in the last chapter. The focused, copresent interaction of conversation requires an interactional perspective, whereas in the absence of a shared situation, the transmission model of communication is appropriate. My distinction between two types of mediated interaction reflects the influence of the communication channel on social interaction; mediated situations can only occur in channels that afford copresence. The interactional characteristics of mediated communication channels are discussed in more detail in chapter five. This chapter has been concerned with mediated interaction in general. In the next chapter I focus specifically on communication using mobile phones.
4 Communication using Mobile Phones

4.1 Introduction

In this chapter I focus on a specific site of mediated interaction, the mobile phone, and review previous work to ascertain what is known about mobile phone communication. From these studies I identify a number of concepts and themes that inform the design of my empirical research. My review is necessarily selective, drawing only on studies that relate to my own research. Although I focus on the mobile phone, I have included some literature on the telephone, where relevant, for comparison.

In contrast to the relative dearth of research on the telephone, there is a sizeable literature on mobile phone communication. However, despite this proliferation, many papers are descriptive and based on conjecture and generalizations, rather than on substantial primary research or theoretical analysis. Woolgar (2005) claims that new technologies are particularly subject to hyperbole. This seems to be true of mobile phones, which are subject to \textit{“market hype and utopian dreams”} (McGuigan, 2005). I attempt to redress this exaggeration, grounding theory, where possible, in research. I have summarized the research methods of each empirical paper that I discuss, and present these in appendix one (p. 259).

My discussion of the existing work on mobile phone communication is complicated by its multi-disciplinary nature. The literature includes papers undertaken from the diverse perspectives of sociology, psychology, anthropology, management, human computer interaction, and media and communication studies. Rather than each discipline focusing on its own literature, there is considerable cross-reference between authors from the different traditions, but often without recognition of the dangers of assuming than these literatures are commensurate. I think this lack of a common theoretical background has hindered the development of significant theory.

Whereas research on the telephone was usually conducted on a national basis with little cross-fertilisation of ideas, academic interest in mobile phone communication has been pursued on a more global basis, reflecting the development of another
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Communication technology, the Internet. Consequently, although my own research is confined to the UK, I discuss papers from many different countries. The research indicates that there are cultural similarities, but also cultural differences, between countries. However, because mobile phones are still at a relatively early stage of adoption and because countries vary in their length of usage, it is difficult to disentangle cultural and time-lag effects.

It is misleading to treat technology as universal and context-independent; technology is shaped by social, cultural and economic factors (Grint & Woolgar, 1997; MacKenzie & Wajcman, 1999). This variability is particularly pertinent, given the rate of development of mobile telephony and the broad cultural spectrum covered by the literature. The mobile phone described in the literature is not fixed, but varies between countries and time periods, making cross-reference and replication problematic. What the technology is, and how it works, depends on the specific circumstances of its design and implementation. For example, from a user’s perspective, an SMS service without cross-operator service is a very different technology from a standardized service; this seems to have affected the use of the medium in both America and Japan (Ling, 2004b; Ito, Matsuda, & Okabe, 2005). Similarly, the theoretical perpetual contact afforded by mobile phones is attenuated by the culturally specific normative practices associated with call screening. In telecommunications, technological variability is exacerbated by rapid innovation. Technological convergence erodes the differences between technologies, for instance, between land and mobile telephony, with the introduction of cordless telephones, dual-usage phones, and telephones with caller identity, SMS and email. In addition, the mobile phone, qua artefact, continues to change, as it subsumes the functions of watch, diary, music player, radio, voice recorder, camera, video-recorder, Internet browser, electronic wallet, TV and video player. These developments are not inconsequential; for instance, use as a watch enables users to monitor incoming communication discreetly.

I have restricted my review to those areas that are relevant to my study and focus on the following areas: the interactional characteristics of calls and text messages, transformation of place, and social network effects. These relate to my focus on interactional channel characteristics, my concern with mediated situations and my
interest in the relationship effects of mobile phone communication. I am interested in communication rather than the artefact itself, and I have therefore excluded the use of the mobile phone as an accessory in the presentation of self (Fortunati, 2002; Mante, 2002; Skog, 2002; Ling, 2004b; Lemish & Cohen, 2005b) and emotional attachment to the device itself (Vincent, 2005). My focus is social, so I do not cover work related use (Julsrud, 2005; Tamaru & Naoki, 2005) or the blurring of work and leisure boundaries (Gant & Kiesler, 2001). My research is confined to the UK, where mobile picture and video messaging is at an early stage of development, and I have therefore omitted the scant papers in this area (Ling, Julsrud, & Yttri, 2005; Rivière, 2005). My UK focus also explains why I have excluded mobile phone usage in developing countries (see Donner, 2005, for a review). In addition, a substantial part of the literature concentrates on aspects of teenage use, which seem to be specific to that age group (Ito & Okabe, 2005b). My emphasis is on adults, and I have therefore been circumspect in my use of research based on teenagers. Consequently, I have excluded evasion of parental control (Green, 2001; Ling & Yttri, 2002; Plant, 2002; Geser, 2004; Selian & Srivastava, 2004; Ito & Okabe, 2005b; Williams & Williams, 2005); the role of the mobile phone in the presentation of teenage identity (Weilenmann & Larsson, 2000; Oksman & Turtiainen, 2006); and gender effects among teenagers (Ling, 2000; Ling, 2001a; Ling, 2001b; Kasesniemi & Rautianen, 2002; Skog, 2002; Selian & Srivastava, 2004).

I have structured this chapter in three sections: mobile phone interaction, transformation of place, and social networks. This reflects a move from a micro to a macro perspective, but is inevitably somewhat artificial, with some overlap between sections. My study focuses on the interactional characteristics of communication channels, and consequently I begin with a review of the interactional characteristics of mobile phone communication. A central theme of mobile phone rhetoric is its effect on the concept of place, and this work is discussed in the second part of the chapter. This section also includes issues related to the use of mobile phones in public places; these normative practices emerged as an important aspect of my research and the literature in this section serves to place my analysis in context. The chapter concludes with an analysis of the impact of mobile phone communication on social networks. These relationship and social network effects relate directly to my fourth research question.
4.2 Mobile Phone Interaction

For comparison purposes, I begin with a brief overview of the characteristics of telephone interaction, before focusing on key aspects of mobile phone interaction: increased availability; increased connectedness; potential for connected presence; and role conflict. The section concludes with a discussion of the characteristics of text messages.

4.2.1 Telephone Interaction

Much of the research on the telephone compares it to face-to-face interaction. Themes include increased social distance (Short, Williams, & Christie, 1976; Rutter, 1987; Moyal, 1992); intrusiveness (Wurtzel & Turner, 1977; Singer, 1981; Marvin, 1988; Moyal, 1992; Haddon, 1994) and its perception as a summons (McLuhan, 1964; Singer, 1981; Noble, 1987; Schegloff, 2002; Hopper, 1992). The distance afforded by the telephone is thought to facilitate intimacy (Rutter, 1987; Hutchby, 2000), discussion of emotional and sensitive issues (Moyal, 1992), lying (Noble, 1987; Hancock, Thom-Santelli, & Ritchie, 2004) and the management of impressions (Connell, et al., 2001). These themes are also found in the mobile phone literature; in particular the distance in text messaging is thought to reduce vulnerability and embarrassment (Ito & Okabe, 2005b; Rivière & Licoppe, 2005; Licoppe & Smoreda, 2006).

Numerous studies show that telephone usage is gendered. Women make more phone calls and speak for longer; this has been found in the UK (Lacohée & Anderson, 2000), in France (Perin, Claisse, both cited by Haddon, 1997; Smoreda & Licoppe, 2000), in the e-Living European survey (Ling, 2004a), in America (Fischer, 1992), and in Japan (Nojiri, cited by Haddon, 1997). Women are also more likely than men to make intrinsic rather than instrumental telephone calls (Rakow, 1987; Livingstone, 1992; Gillard, Wale, & Bow, 1996; Haddon, 1997; Lacohée & Anderson, 2000). Mobile phone usage appears to be less gendered, with some evidence that men chat more on mobile phones than on land lines (Lemish & Cohen, 2005a; Plant, 2002). Unsurprisingly, there is some evidence that mobiles are used in line with gendered roles (Rakow & Navarro, 1993; Lemish & Cohen, 2005a; Dobashi, 2005).
4.2.2 Increased Availability

The mobile phone increases availability for interaction simply because it is mobile. Users can call, or be called, anytime, anywhere (Gant & Kiesler, 2001; Kopomaa, 2000). The mobile acts as a ‘Lazarus device’ (Perry et al. 2001, p. 14), resurrecting dead or unproductive time, such as travelling time. Mobile phones create new opportunities for communication, and research based on self-report suggests that time spent communicating is increasing (Gant & Kiesler, 2001; Ling, Haddon, & Klamer, 2001). Katz & Aakhus (2002) claim that increased availability enables ‘perpetual contact’, without the constraints on autonomy imposed by continuous face-to-face contact. Mobile phones increase privacy\(^1\), because the call is to a person rather than to a place, and the recipient can move away from copresent others (Mante-Meijer & Haddon, 2001; Haddon, 2005a). However, Cooper (2001) observes that although increased availability may be empowering, it can also be experienced as oppressive. Taking this further, Green (2001) considers the extent to which the mutual monitoring afforded by mobile phones constitutes surveillance. However, increased availability is more theoretical than actual. Srivastava (2005) claims that despite the proliferation of interpersonal communication channels, people are becoming harder to reach. They are, she claims, less inclined to answer mobile phone calls, because the caller's number is automatically recorded. Licoppe (2004) distinguishes technological from social availability, which is contingent and depends on the relationship and situation. Availability is managed by switching the phone off, not answering, screening calls, and negotiation. Whereas with the telephone availability for communication is assumed when the phone is answered, with mobile phones it is subject to negotiation when the call is answered; this changes the contact threshold. The concept of contact threshold is useful for understanding communication: contact threshold is the level of rationalization required to justify making the contact. Schegloff (2002) states that a telephone call is a summons, and therefore is ordinarily issued ‘for cause’. In other words, the call rationale needs to be sufficiently important to outweigh the interruption created by the summons. Schegloff claims that before phoning another, a caller is expected to have considered the validity of the interruption, conducting a ‘priority analysis’ which assesses “the relative claims of the current activities of the prospective target of a summons and the activity on whose behalf the summons is

\(^1\) Fischer (1992, p. 265) claims that one of the few identifiable social impacts of the telephone was an extension of privacy enabling, for example, women to conduct love affairs from within their homes.
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being done” (op. cit., p. 294). The contact threshold will depend on the circumstances of the recipient, and on normative expectations. Mobile calls are potentially more intrusive, because the call is likely to interrupt other activities (Plant, 2002). However, it is harder to calculate the contact threshold in advance, because the recipient’s location is not known. On the other hand, the recipient knows who is calling, and can ignore the call or, if he answers it, is entitled to negotiate availability. Humphreys (2005) claims that mobile phones reduce caller hegemony and the asymmetry in the caller-answerer relationship (Hopper, 1992), because the recipient can reject the call. Text messages have a lower contact threshold than voice calls, because they are asynchronous and less intrusive (Ling & Yttri, 1999; Geser, 2004; Licoppe & Smoreda, 2006; Ling, 2005b). This is potentially important for relationships, because it means that people can communicate more without having to have a good reason for the contact. Contact threshold seems to be culturally specific; Riviè re and Licoppe (2005) found interesting differences between Japanese and French contact thresholds for mobile phone communication.

It is suggested that the increased availability afforded by mobile phone communication can create a feeling of being in touch or being connected; this is explored in the next section.

4.2.3 Connectedness

Several authors comment on the connectedness of mobile phone communication. This concept is discussed in detail in section 5.2.5 of the next chapter, but is introduced here in relation to mobile phone communication. Green (2002, p. 288) notes the “theme of mobile technologies creating the subjective experience of being ‘in touch’ or connected when alone at specific times”. Townsend (2001, p. 70) suggests that a mobile is “a pacifier for adults – it makes you feel connected, that you are not alone in the world”. Mobile phones are frequently used to make ‘phatic calls’ (Haddon, 2000) or ‘social grooming calls’ (Ling & Haddon, 2001), where making the call is more important than what is said (Licoppe & Smoreda, 2006). De Gournay (2002, p. 201) takes this further, comparing the mobile phone with a teddy-bear, intended to reassure and compensate for all emotional wants.
Connectedness seems to be particularly relevant to text messages, because their unintrusiveness makes them ideal for ‘keeping in touch’ and maintaining connection (Fox, 2001). Ling and Yttri (2002, p. 158, my emphasis) write: “When one sends a message it refreshes the contact between the two [interactants]. The experience has a concrete content such as the joke, picture or other content. In addition, there is a meta-content, i.e. the receiver is in the thoughts of the sender”. Ito and Okabe (2005c, p. 265) observe that messages are becoming a “means of experiencing a sense of private contact and co-presence with a loved one”. In an analysis of 544 text messages collected from students, Thurlow (2003, Fig. 2) found that most were phatic, and 61% fell into his ‘high intimacy high relational’ category.

The connectedness enabled by mobile phones can develop into a continuous or ‘connected’ presence.

4.2.4 Connected Presence

In connected presence (Licoppe, 2004, p. 135) “the (physically) absent party renders himself or herself present by multiplying mediated communication gestures up to the point where copresent interactions and mediated communication seem woven in a seamless web”. The concept is based on a holistic analysis of the communication repertoire used within relationships, and was developed from substantial quantitative and qualitative research of telephones, mobile phones and SMS. Licoppe argues that there are two different types of phone call: long phone conversations, in which commitment is demonstrated by the duration of the call, and short, frequent calls, where the act of calling can be more important than the content of the call. The latter are unusual in telephone communication, but common in mobile phone calls, where a high proportion of calls are under 45 seconds. The frequency, rather than the content, of short calls and text messages expresses commitment to the relationship. In close relationships, Licoppe claims, the accumulation of different mediated and unmediated communication, can create a feeling of permanent connection, or connected presence. This ‘connected mode’ of relationship maintenance is made possible by new asynchronous media, which reduce the contact threshold. Text messages are

In Licoppe’s French research, the average length of telephone calls was five minutes, compared to only one and a half minutes for mobile calls. I analysed all the private calls made through the service provider O2 during the month of April 2004, and found that the average length of mobile phone calls, through this UK service provider, was 54 seconds.
particularly suitable for the connected management of relationships, because they are asynchronous and less intrusive. Although they do not use the term ‘connected presence’, Ito and Okabe (2005c, p. 264) describe the same phenomenon. Mobile messages can create “ambient virtual co-presence” because “these messages are predicated on a sense of ambient accessibility, a shared virtual space that is generally available between a few friends or with a loved one. They do not require a deliberate ‘opening’ of a channel of communication, but are based on the expectation that someone is in ‘earshot’”. The interactants assume that there is an open communication channel between them; each would advise the other if they were going to be unavailable, for example to take a bath, in a “kind of virtual locking of the door” (p. 266). Connected presence is a mediated version of ‘incipient talk’ (Schegloff & Sacks, 1973) or Goffman’s ‘state of open talk’ (1981). In connected presence the contact threshold is minimal, because the communication channel is already open.

In my empirical research I explore the relevance of connected presence to mobile phone usage in the UK (see chapter ten).

4.2.5 Role Conflict
Cooper suggests that the mobile phone should be thought of as an “indiscrete technology” because “it has the capacity to blur distinctions between ostensibly discrete domains and categories ... not only public and private, but remote and distant, work and leisure, to name but a few” (2001, p. 24). These domains are blurred, because the mobile phone increases availability; roles which are normally played out in one place become pertinent in other places, creating role conflict (Hulme & Truch, 2005). Geser (2004, sect. 3.4) asserts that “cell phones can become the bases of serious role conflicts and conflicting loyalties, whenever loyalties to two or more particularistic social settings exist: because these different social bonds can easily become salient at the same time and place”. People increasingly need to perform work and leisure roles from the same locations and therefore before inappropriate audiences. This conflict can be observed “... the face one presents on the phone is in contrast to the face assumed just before the phone call” (Palen, Salzman, & Youngs, 2001, p. 121). The mobile phone user is observed from different perspectives in a kind of “verbal cubism” (Ling, 1997, sect. 3.2.3.). Geser (2004)
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argues that mobile communication increases exposure to role changes, and that this increases awareness of role playing. He also claims that mobiles enable role performance from a distance, for instance, in remote mothering (Rakow & Navarro, 1993), making it easier to perform different roles, and making roles more pervasive.

In evaluating these claims, it is important to remember that role changes are not unique to mobile phone calls and also occur frequently in face-to-face interaction, for instance, when somebody meets someone from their workplace in the street. Roles sometimes slip, and we also sometimes deliberately distance ourselves from them, for example, when a broadcaster makes a personal comment (Goffman, 1981). People use footings to change roles: “the same individual can rapidly alter the social role in which he is active, even though his capacity as animator and author remains constant—what in committee meetings is called ‘changing hats’” (Goffman, 1981, p. 145). Conflicting roles can create embarrassment by discrediting the projection of self in a particular situation (Goffman, 1956a, p. 270) so that “the individual finds himself being torn apart, however gently”. This is because the maintenance of a situation depends on a shared definition, but the fact that people play roles is not problematic. People can deliberately assume roles, working in teams and using different regions or stages to maintain what is collusively recognized as performances. Rather than creating a crisis for self identity, conflicting roles can be understood in terms of role distance and the social self behind the self in the role (Goffman, 1961). One might expect role conflict within the same physical setting and situation, such as a headmaster who is also the father of one of his pupils, to be more problematic than the role conflict that occurs on the phone and is clearly signalled and bounded by the call. I think that people already know that they and others play different roles. Television documentaries and ‘reality shows’ emphasize role playing, and are more likely to have increased awareness of role enactment, than the brief exposures that occur on mobiles. However, I think that mobiles may affect roles in two ways. On the phone, roles have to be assumed without their physical props. For Goffman (1959) roles are defined by front, which includes the setting, appearance and manner. On the phone only manner is available, and this might make it more difficult to assume a role. For example, when on the phone, a judge has to play the role without the wig. This is even more difficult in lean media such as SMS, and could conceivably dilute
the roles we assume, reducing formality and social distance. I also agree with Geser that mobiles make it easier to combine roles and perform them from a distance.

Cooper (2001, p. 24) suggests that because the mobile allows people to be reached anywhere on the same number, it might "contribute to a kind of stasis of identity for practical purposes". In contrast, as Laurier (2001) notes, the telephone actually helps to segregate different social spheres, with different phone numbers for different locations, reinforcing normative expectations and role distinctions. There is some research evidence that people who have both land and mobile phones, control their communications by giving different numbers to different groups of contacts (de Gournay & Smoreda, 2005; Licoppe & Heurtin, 2001; Plant, 2002), apparently using their different numbers as an element of role front.

Gergen (2002, p. 238) suggests that mobile phone calls stabilize identity in a different way. He argues that the user communicates more with his closest contacts and that this constrains the presentation of different selves: "... one's communication time is increasingly spent in the presence of 'those who matter'. By the same token, brakes are placed on the concatenating tendency towards self-fragmentation and diffusion. With the cell phone, one's community of intimates more effectively sustains one's identity as a singular and coherent being". However, under Goffman's concept of self, the coherence or fragmentation of identity is not an issue, because it is a matter of definition rather than consistency (see chapter three).

There is some empirical research on the presentation of self in mobile phone calls, based on 200 hours of observation on trains and twenty interviews (Fortunati, 2005, p. 216). Some respondents reported noticing changes in the presentation of self occasioned by mobile phone calls, for example, one respondent had noticed that a friend took the role of doctor when answering the phone. The observation research revealed similar changes, "... elegant women speaking of their children's bowel movements, intellectuals describing steamy details of their partner's infidelities, parochial looking individuals who are suddenly revealed to master several languages ... In each case, the mask was revealed and the observer was given insight into a different, and unexpected, dimension of the person using the mobile phone". Fortunati analyses these exposures in terms of front and back stages: "... the dramatic effect of
this is the eruption of the back stage, with all its capacity and strength of information, into the unassuming picture of the front stage” (p. 205). Although Fortunati cites Goffman, her usage is rather different; Goffman’s front and back stages refer to settings not to the self; what is glimpsed is the self in another role, or perhaps the self behind the role (these are indirectly related to settings, different stages are used in impression management). Fortunati suggests that this changes public space, where people can now be seen “with all their relations, roles, identities and personalities” (p. 217) and argues that this threatens ‘civil inattention’ (Goffman, 1963a). I would argue that overheard face-to-face conversations on trains have always given unexpected glimpses of different selves in exactly the same way, without challenging the normative practices of behaviour in public.

4.2.6 Text Message Characteristics

In this last section on mobile interaction, I focus on text messaging. As described above, the key characteristics of SMS are its asynchronicity, unintrusiveness and low contact threshold. Teenagers have been the early adopters, but SMS is increasingly being adopted by mobile phone users in the UK. Patel (2004) found that over half of over 45’s used SMS and, more recently, in the Mobile Life (2006) survey, 51% of those over 60 claimed that they sent or received a text on a ‘typical’ day 3. Research has focused on teenage usage, with three themes emerging: text messages as gifts; text message reciprocation norms; and text message language.

Ling and Yttri (2002) describe the teenage practice of forwarding chain text messages, such as jokes, as a type of ‘gifting’. Taylor and Harper (2003) extend this metaphor, concluding that text messages are gifts that symbolize friendship and allegiance. Their analysis, based on research in a single school, claims that text messages embody meaning, demonstrate social ties and create obligations of reciprocity: elements that are typical of gift-exchange. However, these elements are also found in other forms of communication. Personal letters can be stored and saved, and arguably have exactly the same ‘gift-like’ characteristics as text messages. In my research I explore the relevance of the gift metaphor for adults.

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3 These figures may be exaggerated because these surveys were conducted online, which may have biased their samples towards those who were comfortable with technology.
Based on their extensive mixed method research among teenagers and children in Finland, Kasesniemi and Rautianen (2002, p. 186) claim there are strict reciprocation obligations: "Leaving an SMS unanswered is almost without exception regarded as rudeness". Ito and Okabe (2005b) also describe strong reciprocation expectations based on research in Japan. Laursen (2005) explores this normative practice in detail, using conversation style analysis. Her data, obtained from only one friendship group of six Danish teenagers, included both phone calls and text messages, so that she was able to identify cross-channel responses. Evidence of a reciprocation norm was demonstrated by messages that clearly interpreted non-response as meaningful; text messages that reminded the recipient that a response was due; and by the use of 'zero-phone' calls as replies. However, these examples only show that replies are sometimes subject to normative expectations, not that a reply is always expected. In fact, Laursen identifies some messages that do not require answers, including chain letters, goodnight messages and texts that follow a phone call. Replies on the phone, rather than by text, are not unusual. Licoppe and Smoreda (2006) also note that not all SMS messages require a reply, observing that they sanction a lack of 'civil attention'. Italian research among adults (Spagnolli & Gamberini, 2005) in which 173 text message conversations (as defined by respondents) were collected, found some evidence of reciprocation expectations, but these were less stringent than suggested by previous studies. They point out that strict reciprocation would imply an endless conversation; instead they found that 85% of conversations consisted of an even number of messages, the person who does not initiate the conversation tends to send one text that does not receive a reply. This shows that the normative expectation is of an alternation of turns, rather than that each message requires a reply. Goffman’s (1981) distinctions between conversational moves, replies and responses are also relevant. A reply is one form of response; a response message may be unrelated to the preceding message, but nevertheless fulfil expectations of turn or move alternation. Repositioning reciprocation from a replying norm, where each message needs a reply, to alternating turns, changes it from an obligation imposed by the text message per se, to an aspect of communication, and of relationships, in general. My interpretation is supported by small scale research of communication equity in relationships (Döring &

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4 These are calls which are disconnected immediately after connection; they are sometimes called 'drop' calls among teenagers in the UK.
5 Goodnight text messages have been observed in several studies (Grinter & Eldridge, 2001; Taylor & Harper, 2003; Ito et al., 2005a).
Dietmar, 2003). In my research I explore text message reciprocation among adults in the UK and I describe these findings in chapter eight.

There has been considerable focus on the language used in text messages (Grinter & Eldridge, 2001; Kasesniemi & Rautianen, 2002; Thurlow, 2003; Härd af Segerstad, 2005a; Ling, 2005b). Features identified in text message language include: lack of openings and closings; capitalisation, spacing and other punctuation irregularities; misspellings including homophones; and abbreviations. The extent of abbreviation is limited, with research estimates varying from 6% in Norway (Ling, 2005b), to 16% in Italy (Spagnolli & Gamberini, 2005), and 38% in Germany (Döring, 2002). Based on an analysis of text messages collected since 1997, Kasesniemi and Rautianen (2002) claim that over time text message style has changed, getting shorter, losing openings and closings, and becoming less like letters.

4.3 Transformation of Place

A central theme of the literature is the impact of the mobile phone on the concept of place. It is argued that mobile phones change communication from a place to place event, to a person to person event, reducing the place-centredness of interaction. Consequently, communication occurs within an unknown context, resulting in additional location work by both parties to establish their contexts and thus facilitate interpretation. Phone calls involve focused copresent interaction; this creates the impression that the phone call occurs in a place or space of its own, a virtual 'phonespace' (Townsend, 2000) that is separate from the location of each participant. A final thread of this literature concerns the invasion of public places and the consequent blurring of public and private domains.

Kern (quoted by Fischer, 1992, p. 10) claimed that the telephone, together with other 'space-transcending' technologies such as the car, 'eradicated' space and shrank time, creating 'the vast extended present of simultaneity'. There is a similar tendency in studies of mobile phone communication towards exaggeration, for instance, Wellman asserts that "mobile phones afford a fundamental liberation from place" (2001, para.

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6 In this research the messages were collected in a telephone survey and Ling suggests that some abbreviations may have been lost during the reporting/transcription process.
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37). As with other new technologies (Woolgar, 2005), hyperbole is prevalent, but I think it is important to remember that the average user makes only 2.8 calls a day (Mobile Life, 2006). Assuming that he receives the same number of calls, then talking on the mobile phone accounts typically for less than six minutes a day. People and their social activities continue to be firmly rooted in places, and I contend that mobile phones do not radically affect the concept of place.

4.3.1 Less Place-centred Communication

Geser (2004, sect. 1) claims that physical proximity has, in the past, been a prerequisite of interactive relationships. Although landline telephones enabled communication without physical proximity, the participants were tied to the physical places where they received calls. Mobile phones make communication compatible with mobility. This reduces the “place-centredness of schedules” (Palen et al., 2001, p. 121). In response to comments that mobile phone communication makes place less relevant, Cooper (2001) notes the amount of ‘situation-work’ done in mobile conversations, for example in the frequently overheard ‘I’m on the train’. These overheard comments are not UK specific, but are reported in countries as diverse as Korea, Israel and Finland (Kim, 2002; Schejter & Cohen, 2002; Kasesniemi & Rautianen, 2002). In addition, mobile phone conversations often include a locational question such as, ‘Where are you?’ in the opening sequence (Laurier, 2001). Barnett and Hutchby (2005) found locational information in 61% of the twenty UK mobile calls they analysed, whereas in Finnish research (Arminen, 2005), location was stated in 62 of 74 calls (83%). Schegloff (1971) claims that in telephone conversations participants have to deal with ‘where-we-know-we-are’ (cited by Weilenmann & Leuchovius, 2004). This becomes more important for mobile phone calls, because someone calling a mobile phone does not know where she has called. Although the question is ostensibly about location, it relates not just to place, but to activity and role (Hulme & Truch, 2005; Barnett & Hutchby, 2005). Sacks’ (1995, p. 461-7) observation about the use of ‘here’ is pertinent, ‘where’ asks not just about place, but also about activity and situation. Situation (not merely location) work helps to identify the other person’s context, which may be relevant to the interpretation of the communication (Laurier, 2001). Asking ‘Where are you?’ at beginning of the call also

\footnote{My calculation assumes that on average calls are less than one minute; see footnote 2, page 59 of this chapter.}
enables one to conduct a ‘priority analysis’ (Schegloff, 2002) and to negotiate availability (Licoppe, 2004), which will depend on the recipient’s situation.

4.3.2 Phone Calls as Virtual Places

Phone calls, both fixed and mobile, challenge conceptions of place, because a phone call seems to occur in a ‘virtual space’ (Kopomaa, 2000, p. 110). However, conceptualizing a mobile call as occurring in a space or place creates a paradox, with the mobile phone user in two spaces or places at one time. For example, Palen, Salzman and Youngs (2001, p. 121) comment, “When mobile phone users are on the phone, they are simultaneously in two spaces: the space they physically occupy, and the virtual space of the conversation (the conversational space)”. Similarly, Schegloff (2002, p. 286-7) repeats an anecdote where one train passenger clearly listens to the mobile phone conversation of another passenger, who protests, “Do you mind! This is a private conversation!” Schegloff writes: “She is almost literally in two places at the same time ... The other place that she is is ‘on the telephone’. And she may well understand that to be a private place. ... [she] is not in the same ‘there’ as the rest of us are; there are two ‘theres’ there”. Schegloff suggests that the mobile conversation is a private place, on which the eavesdropper intrudes; the mobile phone user is in two different places at one time. This is problematic because being in a place relates to the physical location of the body, which is treated, for live persons, as being in only one place at a time. Use of the word ‘virtual’ acknowledges the problem, but doesn’t solve it, simply raising the question of what we mean by ‘virtual’ presence. However, the paradox is avoided with the situational interpretation of mediated interaction which I introduced in chapter three. The participants are ‘on the phone’, the meeting is real and there is a social situation, but there is no meeting place or space. The situation is produced in the collaborative phone conversation and does not arise from physical copresence. The phone call enables the copresence of the participants, who share a common time dimension as they talk; this shared practice produces the situation. The common time dimension of the situation creates, I think, the feeling that they are together, and therefore ‘somewhere’.

4.3.3 Conflicting Places and Situations

Licoppe and Heurtin (2002, p. 96) note that “The mobile phone is therefore radical, it breaks apart the reference of synchronous vocal communications and the spatial
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contexts of the interlocutors”. As discussed in chapter three, this can create conflicting interactions. “The dual engagement in interpersonal interactions is a threat to the smooth development of ongoing, face-to-face interactions, and thus to the social order itself” (op. cit. p. 99). Involvement in concurrent situations affects social interaction, “as someone talks on the phone, one is in her or his own private space. Talking on the mobile phone in the presence of others lends itself to a certain social absence where there is little room for other social contacts. The speaker may be physically present, but his or her mental orientation is towards someone who is unseen” (Puro, 2002, p. 23). Similarly, Gergen (2002, p. 227) writes that in certain respects the mobile phone “extends the domain of absent presence”. Although mobile phones do extend the opportunity for involvements beyond the current interaction, this is only a matter of degree. Even within traditional face-to-face conversation, involvement is not complete; involvement is allocated between various self-involvements and different engagements in a gathering.

When a call interrupts copresent interaction the recipient has several alternatives: she can move away or ignore those who are copresent; she can treat those copresent as a collusive audience; she can inform the caller of the presence of third parties; she can even pass the phone to copresent third parties, so they all interact with one another in collaborative use (Ling, 1997; Weilenmann & Larsson, 2000; 2002; Plant, 2002). Ling follows Meyrowitz (1985) and uses Goffman’s (1959) ‘front region, back region’ metaphor to describe the juggling of concurrent interactions in mobile phone calls, suggesting that there are parallel front stages (1997; 2005a). In Ling’s analogy, someone who receives a call can choose to move out of the front stage of the copresent interaction, or she can allow those copresent into the back stage of the mobile phone conversation. This is similar to Goffman’s (1971, p. 220-1) treatment of telephone conversation, where copresent observers can become “a concealed audience” before whom the telephone user can “play out collusive gestures of impatience, derogation, and exasperation”. Parallel front stages are not specific to mobile phone interaction. Goffman’s point is that people deliberately maintain multiple front stages to segregate audiences; in fact the perceptual boundaries of mobile phone calls facilitate the separation of audiences. Gergen’s (2002, p. 238) analysis is similar: mobile phone conversation “typically establishes an ‘inside space’ (‘we who are conversing’) vs. an ‘outside space’ constituted by those within earshot
but prevented from participating”. This is similar to a gathering that includes participants in focused interaction as well as bystanders who can overhear. We are used to bracketing encounters within other encounters and can apply the relevant normative practices: “In order for the engagement to maintain its boundaries and integrity, and to avoid being engulfed by the gathering, both participant and bystander will have to regulate their conduct appropriately” (Goffman, 1963a, p. 155). I think that this also applies to concurrent mobile and face-to-face interactions; it is a simplification to treat them as separate interactions because, even when the phone is not shared, conversation is often overheard and exchanged between copresent and mediated participants. Humphreys (2005) claims that Goffman’s concept of cross-talk is relevant to these situations. Goffman’s concept depends on the notion of a ‘with’: “A with is a party of more than one whose members are perceived to be ‘together’” (1971, p. 19). If someone outside this party engages one member there is cross-talk: “Cross-talk occurs where one member of a with momentarily sustains exclusive talk with someone who is not in the with” (p. 25). Here the focused encounter overlaps with a concurrent focused encounter with someone else. Humphreys claims that a mobile phone call intrudes in a similar way, leaving the third person in an awkward position. I agree, and think this shows how ‘conflicts’ between interactions are not specific to mobile phone communication, but a familiar part of everyday social life.

Observation research shows how the interactants handle mobile phone calls within copresent situations, pulling “fictive curtains” (Ling, 1997, p. 7) in the “privatization of public space” (Puro, 2002, p. 23). Ethnographic research on trains by Murtagh (2001) suggests that boundaries are signalled by the aversion of gaze to the middle distance, and by turning the head and body away. Ling (2002, p. 13), reporting extensive observation research, describes a “closed stance posture, i.e. hand to ear, hunched over looking down if stationary, with one’s back to others”. Lasen (2002) notes that people create their own space by turning their backs, avoiding eye contact, and fixing their eye gaze. In outdoor spaces, users may walk in slow circles or back and forth (Puro, 2002; Lasen, 2002; Plant, 2002). In Goffman’s terms, these behaviours are markers used to lay claim to ‘territories of the self’ (1971). Generally

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8 Personal space is greater in front than at the back (Goffman, 1971, cited by Lasen, 2002).
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Researchers compare mobile phone users' behaviour with that of individuals who are not engaged in focused interaction, rather than with those in focused encounters. However, mobile phone users' behaviour is typical of those in focused interactions: gaze is averted from those not involved, bodies are turned to create personal space, and the 'visual notice' of civil inattention is suspended. These behaviours, and the apparently irrational use of body language, appropriate to the phone conversation, but unseen by the other caller (Ling, 2002; Lasen, 2002), suggest that when on the mobile phone people instinctively act as if they are in focused interaction in a shared situation. This supports my account, in chapter three, of phone calls as mediated situations.

4.3.4 Intrusion in Public Places

A frequent theme is antagonism to mobile phone use in public places (de Gournay, 2002; Licoppe & Heurtin, 2002; Mante, 2002; Fortunati, 2002; Höflich, 2005; Ling, 2004b; Plant, 2002; Ito, 2005). Geser (2004) comments that whereas fixed telephones brought public messages into private homes, the mobile phone reverses this aspect of modernity, bringing private conversations into public places. In the EURESCOM P903 survey of over 9,000 people in nine countries, about 60% of mobile phone users, and more than 76% of non-users, agreed that 'the mobile phone disturbs other people' (Mante-Meijer & Haddon, 2001, cited by Ling, 2004). However, these attitudes may have been prompted by the research question, and the statistic does not indicate the degree of irritation, if any, evoked by the disturbance. Lasen (2002) reports observation research undertaken in three European capitals and claims that normative attitudes to public use have softened with time. Okabe and Ito (2005) describe the evolution of attitudes to public use in Japan, showing how these vary in response to technological changes. In Japan a stabilized norm that sanctioned the public use of mobile email, but not calls, has been re-opened by recent concerns that mobile phones affect heart pacemakers.

Although it is generally agreed that public use of mobile phones can cause irritation, it is less clear why this is so. The ringing of a phone may be intrusive, because it is perceived as a summons (Schegloff, 1968), but mobile phone conversation is also seen as irritating, although public conversation between copresent participants is tolerated. One explanation is that people on mobile phones tend to speak more loudly
in automatic reaction to the level of ambient sound (Ling, 2004b). This, it is argued, creates "coerced eavesdropping" (Ling, 1997, p. 12); "the public is put in the position of a 'voyeur'" (de Gourmay, 2002, p. 198). Normative practices suggest people should 'disattend' the focused interaction of others and perform 'civil inattention' (Goffman, 1963a); however, unlike visual voyeurism, from which onlookers can easily and markedly avert their gaze, 'non-listening' is more difficult to perform (Geser, 2004). There is some support for this: Höflich (2005, p. 130) reports a non-representative survey of 400 people across four countries, in which 'many' agreed that they found it most irritating to hear things on mobile phone calls that were not their business. Further evidence comes from an ingenious experiment. Blythe et al. (2004) compared the intrusiveness of mobile and face-to-face conversations. Staged conversations, controlled for loudness and content, were enacted either face-to-face or on mobile phones, in front of passengers on trains, and at a bus station. Immediately afterwards, 64 bystanders gave verbal ratings on the intrusiveness of the interaction they had overheard. The mobile phone calls were rated as significantly more intrusive than the face-to-face conversations, even when they were no louder. Those who overheard mobile phone conversations were significantly more likely to agree that they found themselves listening to the conversation. It seems that it is not just the loudness that is annoying, but also that only one side of the conversation is heard. However, despite the mundane realism of this experiment, it is possible that the revelation that respondents had been covert subjects, may have affected their answers. Katz (2003) claims that people are 'hardwired' to seek others with whom they can communicate, and are therefore annoyed when others "are engaged in acts of unreciprocated communication" because they "are physiologically prepared to engage with them, yet they are engaged elsewhere" (2003, p. 27). I think that the irritation that arises from one-sided conversation can also be explained in terms of the documentary method of interpretation. Turns of talk are interpretively open and become meaningful cumulatively, as each subsequent turn clarifies the preceding turns. Consequently, people automatically engage with and attempt to interpret overheard one-sided conversation, but there is no answering, clarifying interpretation; this is irritating.

In this section, I have explored the effect of mobile phones on place. Phones, both mobile and landline, enable social practices between people at different locations;
using my analysis in chapter three, this creates social situations across non-contiguous places. In this way, mobile phones juxtapose disconnected places. Social situations thus become more vulnerable to interruption from the ‘Umwelt’, as Goffman (1971) noted, but this does not fundamentally alter the concept of place.

4.4 Social Network Effects

In this section I discuss the social coordination and social network effects of mobile phones. Mobile communication enables more efficient scheduling and increases communication availability. This potentially improves social coordination, creating more opportunities for social interaction, and supporting existing relationships. Some authors suggest that mobile communication nurtures close relationships but inhibits opportunistic encounters with co-located strangers; this, they argue, reinforces strong ties at the expense of weak ones.

4.4.1 Social Coordination

A meta-analysis of telephone research in five countries (LaRose, 1999) showed that the telephone is used to a large extent for arrangements; the mobile phone extends this and increases the flexibility of social coordination. There is substantial agreement that the mobile phone changes the scheduling of meetings, “finely re-ordering the temporal structure of our lives” (Haddon, 2000, p. 5). This is supported by research: in the EURESCOM P903 survey, 69% of respondents thought that their mobile phones helped them to coordinate their social activities (Ling, 2004b). The mobile phone facilitates micro-coordination in at least three ways: redirection of trips in progress, rearrangement of appointments when running late, and iterative coordination, where the precise details of the time and place of meetings are agreed and revised in transit (Ling & Yttri, 2002; Plant, 2002). Townsend suggests that more fluid planning increases the pace of life, increasing complexity and speeding up urban systems, creating the “real-time city” (2001, p. 66). The social consequences of these changes in scheduling are more speculative. Jaureguiberry (2000) considers how time for reflection and meditation is eroded, while Green (2002) suggests that the mobile phone may transform the way people organize their activities, affecting the

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9 Aronson (1971, pp. 154-5) made a similar claim for the telephone, arguing that it reduced ‘transaction time’ and made mass production manufacturing possible.
rhythms of daily life. Ling (2004b) argues that there is a ‘softening of schedules’ because mobile communication enables one party to advise the other of any delay, and to revise arrangements, preventing a breach of social etiquette. Kopomaa (2000) goes further, claiming that continuous connection obviates the need for advance planning, liberating us from fixed schedules. Geser (2004, sect. 8) concurs, and claims that mobile phones give us the opportunity to “live more spontaneously: without strictly scheduled agendas, because meeting hours can easily be rearranged”. Srivastava (2005) states that people keep their options open by arranging several tentative appointments and choosing at the last minute. I think these rather extreme inferences are influenced by teenage usage. Teenagers were the early adopters of mobile phones, and consequently much of the research in this field has been with this age group, but teenagers have rather more spontaneous and less committed social lives than adults. It is not clear whether the teenage practice of spontaneous social coordination will also be adopted by older users, or whether, with maturity, teenage users will revert to more traditional social scheduling. Ling cites research which found that more than 92% of people think that the mobile phone helps to notify others when late; this indicates that any ‘softening’ is limited, because the concept of ‘late’ is still relevant.

4.4.2 Mobile Phone Communication in Social Networks

Several writers claim that mobile phones reduce the place-centredness of communication, disconnecting social networks from location, and loosening ties to the local community. “The sense of belonging to a place ... is actually transformed into the sense of belonging to one’s communicative network. Those emotional elements that are lost in the relation with space are transferred to a social level” (Fortunati, 2000, quoted by Geser, 2004, sect. 5.1). Similarly, Wellman states that mobile communication “shifts community ties from linking people-in-places to linking people wherever they are. Because the connection is to the person and not to the place, it shifts the dynamics of connectivity from places – typically households or worksites – to individuals” (Wellman, 2001, para. 37). At the same time it is argued that mobile communication restores a sense of community, albeit one that is less focused on place. Gergen (2002) claims that unlike most communication technologies, the mobile phone strengthens the nuclear circle, while disrupting more casual relationships, reversing the trend towards wider networks of horizontal
relationships. Roos (2001) asserts that mobile phones “enable the type of (virtual) communication and interaction which characterizes premodernity: people who never move far, live in small towns and villages near each other, everybody knows where everybody is etc. But being virtual, this kind of communication is not any more bound to any single locality, as it was in the premodern time”. Similarly, Fox (2001) argues that text messages restore “a sense of connection and community”; recreating “the brief, frequent, spontaneous ‘connections’ with members of our social network that characterised the small communities of pre-industrial times”. These claims are reminiscent of debates about the extent to which the telephone created ‘psychological neighbourhoods’, enabled relationships and reduced loneliness (Aronson, 1971; Keller, 1977; Brooks, 1976; Noble, 1987; Moyal, 1992). There were similar concerns that the telephone weakened social ties within local communities, while facilitating distant social contact. However, billing studies in several countries shows that a high proportion of telephone calls are made within the local area (Rutter, 1987; Fischer, 1992; Haddon, 1997; Claisse and Rowe, cited by Licoppe, 2004).

Evidence of the social network effects of the mobile phone is mixed. Ling et al. (2003) report research on the relationship between mobile phones and social capital, based on an E-living survey, which involved a random sample of over 10,000 people in six countries. Analysis revealed significant covariance between the time spent on the mobile phone and informal social interaction, but mobile phone usage was not correlated with formal interaction or with the number of close friends. Findings from a non-representative U.S. student survey (Sugiyama & Katz, 2003) are somewhat similar. Students who used their mobile phones frequently were more likely to socialize with friends. Thus there is some evidence of a correlation between mobile phone usage and informal social interaction, but the causality could be in either direction. It is just as likely that social interactions increase mobile phone usage, as that mobile phone usage increases social interactions.

Several authors suggest that the increased contact facilitated by mobile communication increases intimacy in relationships. Mobile phones facilitate a ‘nomadic intimacy’ (Fortunati, 2000); this creates a ‘fulltime intimate community’ (Nakajima et al., cited by Ito, 2004). Geser claims that mobile phones increase social bonds between close friends (2005). Rheingold (2003, p. 5) notes that the “intimacy
maintaining ‘thinking of you’ form of mobile phone communication builds and maintains relationships. Licoppe and Heurtin (2002, p. 106) explain this: “Emotional bonds are reinforced not in the content of the call but as a consequence of the trust built into a series of short mobile connections. ... relationships appear as a reflexive project in which repeated short mobile phone calls, in which participants agree to reposition their respective context, nurture the trust feedback”. Prøitz (2005) develops this point further in her discussion of the ‘intimate discourses’ of mobile phone communication; frequent text messages reaffirm and remake the relationship, in what is a “technology of a relationship”. Pertierra (2005), reporting research in the Philippines, found some evidence that SMS supports the development of relationships.

Research indicates that mobile phone communication is usually between close friends or family members¹⁰ (Matsuda, 2005; Harper, 2003; de Gournay, 2002). Reid and Reid (2005b) suggest that texting occurs within small ‘text circles’. In their online survey they found that, on average, their respondents had twelve contacts whom they texted regularly. Reid and Reid classified their respondents on the basis of their expressed preference, as ‘Texters’ or ‘Talkers’. They found that the reported network and relationship effects of texting were significantly higher among Texters. “Texters establish small, tightly-knit networks of textmates with whom they exchange messages more or less continuously” (p. 116). In quantitative research in Japan, Habuchi (2005, p. 181) found that than 65% of respondents had regular mobile messaging contact with friends whom they rarely met face-to-face. Habuchi uses the term ‘telecocoon’ for this “sphere of intimacy that is free of geographical and temporal restraints”.

Licoppe and Smoreda (2006) claim that there is an interdependency between closeness of relationship, geographical distance and communication channel. Using the EURESCOM P903 data, Smoreda and Thomas (2001) found that the face-to-face social network is largest, a restricted number are phoned on mobile and land phones, and SMS is used within an even more restricted circle; over 75% of mobile phone calls and text messages were sent to people living within 50km. of the sender. French telephone research (Mercier et al., cited by Licoppe & Smoreda, 2006) links

¹⁰ Studies in several countries show that most telephone calls are also made to family and friends (Haddon, 1997; Frissen, 1995).
geographical distance and the frequency of telephone calls; after a move away telephone calls become less frequent but longer, but when people move closer, calls become more frequent but shorter. However, qualitative research (Rivière & Licoppe, 2005) that compared Japan and France, suggests that the relationship between communication mode and closeness of contact is influenced by culture. Rivière & Licoppe claim that whereas in France SMS is mainly used with intimate ties, in Japan mobile messages are used with a much wider social network, and do not reflect intimacy. Their research suggests that in Japan calling contact threshold depends on the relationship and is high, except between strangers and in very close relationships. Consequently, mobile messages are used with weaker ties to avoid intrusive calls, and calls are mainly used with very close ties. Quantitative Japanese research (Matsuda, 2005) confirms the predominant use of phone calls in close relationships, with 44.9% claiming their spouse/lover as their most frequent partner for mobile calls. However, Matsuda's quantitative survey suggests that mobile messages are also related to intimacy in Japan, with 30.7% describing their spouse/lover as their most frequent mobile messaging partner. A relationship between intimacy and mobile messaging in Japan is also supported by longitudinal social network analysis (Igarishi, Takai, & Yoshida, 2005), which found that relationships that included mobile messages (in addition to face-to-face contact) were rated higher in terms of intimacy.

A possible social network effect is a reduction of opportunistic encounters with copresent strangers when mobile phones are used in public (Ling, 2004b; Geser, 2004; Johnsen, 2002; Rivière & Licoppe, 2005; Srivastava, 2005; Katz, 2005). Even when not in use for communication, mobile phones are used as ‘involvement shields’ (Goffman, 1963a), reducing availability to those around them (Fox, 2001; Plant, 2002). There are numerous other involvement shields including magazines, music players and brain teasers such as SuDoku, but there is some evidence that mobile phones are deliberately used to avoid social encounters. In the Mobile Life survey (2006), 21% of respondents (and over 50% of women under 25) claimed that they sometimes deliberately used their mobile phones to deter unwanted approaches. It is difficult to assess the impact of this on social networks, because these approaches may well have been rejected in any case. Katz (2005, p. 180) goes further, and suggests that splitting attention between copresent and mobile interaction may be "hollowing out social relationships". However, encounters have always been subject to conflicts
and limited involvement allocations, and any reduction in the quality of copresent relationships may be compensated by the increased communication afforded by mobile phones.

4.5 Conclusions

My review of communication using mobile phones shows how the analysis developed in the previous two chapters illuminates some issues, including conflicting interactions, the idea of a 'phonespace' and role conflict.

Despite the large volume of work on mobile phone communication, there is relatively little established theory. The main conclusions in the areas I reviewed are that mobile phones increase communication, assist in the social coordination of arrangements, help people to keep in touch, and can disturb others when used in public. Text messages are thought to be less intrusive, because they are asynchronous, to have a strong reciprocation norm and to be perceived as gifts. There are a number of factors which may account for the absence of substantive findings. The multi-disciplinary approach adopted means that no discipline has assumed responsibility for the area, so that there is no consistent theoretical approach. Despite the large volume of empirical research (the details of over 90 mobile phone studies are summarized in appendix one), there is a lack of critique. In citing previous work, little attention is paid to the rigour of the research: very small scale qualitative (and even quantitative) findings are treated on a par with large scale projects, and there is little analysis of the relationship between the research method and the conclusions. Studies tend not to build on the work of other authors, criticizing and refining their work, so there is relatively little progress. In addition, the technology that is studied varies, subject to continued innovation, changing social practices and cultural differences, and this makes replication problematic. Finally, it seems that new technologies, and perhaps particularly communication technologies, are subject to hyperbole (Woolgar, 2005; Woolgar, 2002); this may divert attention from the less dramatic effects of the technology. Thus there are striking similarities between the exaggerated predictions made about the telephone and the mobile phone.
In this chapter I have identified a number of themes and concepts that inform my empirical research and analysis. These include the negotiation of availability; contact threshold; connectedness-orientated communication; connected presence; text messages as gifts; text message reciprocation norms; text message language; the 'phonespace'; conflicting interactions; attitudes to use in public places; scheduling of arrangements; and social network effects. My review also included a detailed examination of the empirical research methods used in previous research (see appendix one). This helped me to identify techniques for my own research including the use of communication diaries (Haddon, 1994; Grinter & Eldridge, 2001; Ito & Okabe, 2005a), the collection of text messages (Kasesniemi & Rautianen, 2002) and the use of mobile phone bills (Smoreda & Licoppe, 2000; Lacohée & Anderson, 2000). Most of the studies described here focus on either phone calls or text messages. Haddon (2005b) suggests that communication research should adopt a holistic approach to the communication repertoire, exploring channel choice and continuities between different media. I adopt this approach in my research, which includes respondents' whole communication repertoires, and focuses on their perceptions of the interactional differences between them.

From my review of the literature it is clear that mobile phone calls and text messages are interactionally rather different. Phone calls create simultaneous interactions and, on occasion, the illusion that the user is in two places at once, in contrast the asynchronicity of text messages reduces the intensity of the interaction. This shows how the interactional characteristics of communication channels differ. This concept is explained and explored in the next chapter.
5 Interactional Characteristics of Communication Channels

5.1 Introduction
This chapter addresses the first part of my research problem: *To what extent can one identify inherent interactional characteristics of interpersonal communication channels? What are these characteristics?*

I firstly introduce and clarify the concept of the ‘interactional characteristics’ of communication channels. This is a new concept that attempts to relate the technical affordances of a medium to the nature of the interaction that it enables. In chapter three, I distinguished between two types of mediated channels, those that form social situations in their own right, and those that mainly occur within face-to-face situations. I argued that mediated situations are produced when the interactants work together in a shared practice, and that this is only possible in channels that enable copresence. Copresence is an example of what I call an ‘interactional characteristic’.

This introductory section also includes a brief discussion of the social shaping of technology, and an overview of the literature on mediated communication.

In the second section of this chapter, I review concepts and typologies from various literatures, which have been used to characterize interaction through mediated channels, or which have been used to differentiate mediated channels, and evaluate them as possible ‘interactional characteristics’. I examine over thirty concepts, concluding with a list of twelve that, from a theoretical perspective, seem to meet my criteria for interactional channel characteristics. In my empirical research I explore the extent to which users employ these interactional concepts, and whether they are relevant to their choice and usage of communication channels.

5.1.1 The Concept of Interactional Characteristics
The concept of ‘interactional characteristics’ was inspired by Meyrowitz’ comments about medium theory, which he claims emphasizes “the particular characteristics of each individual medium or each particular type of media ... medium theorists ask: What are the relatively fixed features of each means of communicating and how do
these features make the medium physically, psychologically and socially different from other media and from face-to-face interaction?" (1994, p. 50). Meyrowitz (1985) claims that most researchers have focused on the content of messages, neglecting form. He states that although all media act as filters that exclude aspects of 'reality', each medium is a different type of filter. Medium theory has traditionally been applied to mass media, for example, in McLuhan's aphorism, 'the medium is the message', which refers to the way in which media shape society. McLuhan's position is extreme, but Meyrowitz suggests that medium theory should explore the relationship between the medium and what is communicated. Thompson (1995) also recognizes that mediation changes interaction, and claims that mediated interaction is characterized by a more ambiguous, open-ended interaction style. In chapter two I argued that written exchanges and verbal conversation are quite different forms of interaction. Talk is an interactive process, but in letters there is an exchange of preformed messages; the medium shapes the process of interaction between the participants. Communication is social action and is not just about "getting these messages across the airwaves via a communication channel" (Edwards, 1997, p. 17). New communication media seem to create new forms of interaction, which should be analysed as social activities in their own right, and not as deficient substitutes for face-to-face communication. What is relevant is not just content and form, but also the role of the interaction in the lives of the participants.

The 'interactional characteristics' of a communication channel (or interactional channel characteristics) are the characteristic and differentiating features of interaction that occurs through that channel. These features make the interaction through the medium "physically, psychologically and socially different from other media and from face-to-face interaction" (Meyrowitz, 1994, p. 50). Interactional channel characteristics are properties of the interaction, not of the technology, but they are afforded by the channel. Underlying this concept is the assumption that there are a limited number of these characteristics that occur, albeit in different combinations, in different forms of communication. This chapter tries to identify these characteristics from the literature; in my empirical research I explore their relevance to my respondents' attitudes to, and usage of, mediated communication channels. My focus is on intrinsic characteristics, as opposed to extrinsic aspects such as price and availability, but if interaction is shaped by both technological and social
factors, it may be difficult to disentangle these factors. For example, telephone communication is simultaneous, this may be partly because the technology enables simultaneous transmission of sound in two directions, and partly because social norms sanction overlapping turns. One of my objectives is to explore the extent to which it is possible to identify inherent interactional characteristics that arise from the technology alone, thereby distinguishing social and technical features.

5.1.2 The Social Shaping of Technology

My approach is essentialist, in that it assumes that technological artefacts have causal properties, but this does not entail technological determinism. Technological determinism assumes that “technology determines the shape and content of society” (Grint & Woolgar, 1997, pp. 11-12). ‘Soft’ determinism (MacKenzie & Wajcman, 1999) recognizes technology as a key causal factor, but holds that it works in conjunction with other factors: political, economic, cultural etc. Technological determinism presumes that technologies have unambiguous intrinsic properties and ignores their ‘interpretive flexibility’. Woolgar (2005) distinguishes two senses in which technology has interpretive flexibility. The first sense is found in the social construction of technology or SCOT (Bijker, Hughes, & Pinch, 1989) and relates specifically to new technologies, recognizing that during their development their design is influenced by social factors. Technologies are designed to meet the perceived needs of users, evolving as usage is shaped by social practice. In this theory there is an implication “that at the close of an (often protracted) contingent process of ‘negotiations’, the artefact stabilizes: at this point the technology becomes what it is generally accepted to be” (Grint & Woolgar, 1997, p. 24). The shaping of new technology extends beyond the site of production; consumer technology is tamed and domesticated within the home (Silverstone & Hirsch, 1992). “New practices do not so much flow directly from technologies that inspire them as they are improvised out of old practices that no longer work in new settings” (Marvin, 1988, p. 5).

In the second sense, the interpretive flexibility of technology is not limited to social influence during development. This view challenges the assumption that technologies are ever fixed. Cooper and Woolgar (1994, p. 56) suggest that ‘technology is text’. This metaphor captures the “deeply irredeemable ambiguity about what technology is (can do, is for, is capable of and so forth)”. Some interpretations are more persuasive,
but there is no definitive interpretation. One cannot disengage the technology from its social context; the interpretation of technology reflects social arrangements. This approach seems to imply that technology has no physical properties, "Woolgar and his followers ... tend to deny the material level of technology" (Joerges, 1999).

My approach is less extreme. In my research I explore the effects of the technical properties of communication channels, whilst acknowledging social, cultural, economic and other influences. I accept that the properties of any technology (and therefore of communication channels) are not "given, objective and unproblematic" (Grint & Woolgar, 1997, p. 15). Technology is shaped by social factors, not only during the design phase, but also during usage. This is particularly true for communication technologies, because their benefits depend on network effects, as demonstrated by the history of SMS. However, although it is important to recognize this interpretive flexibility, we do associate specific properties with particular technologies, for example, transmission of voice with phones. As Kling (quoted by Grint & Woolgar, 1997, p. 154) points out, "It's much harder to kill a platoon of soldiers with a dozen roses than with well placed high speed bullets", while Hutchby (2001, p. 446) asks "how far are a fruit machine and a telephone (for example) open to the same set of possible interpretations? ... it seems clear that at some level their very capacities differ". Certain characteristics seem to be temporarily 'blackboxed' and treated as part of what the technology is. The names of technologies are meaningful and have connotations (or in Frege's terms, senses) that relate to their properties; these are different for guns and roses, telephones and fruit machines. However, this does not mean that the technology is fixed and unambiguous, or that we can give a comprehensive list of these properties, any more than we can give an exhaustive definition of any other word. Rather than rejecting technological essentialism outright, I think that some persistence of properties is a necessary condition of talking about technology; these properties are not fixed, but over time bear a 'family resemblance' (Wittgenstein, 1953) to one another.

5.1.3 Theories of Mediated Interaction
I observed in chapter three that sociologists have tended to either ignore mediated interaction or to treat mediated channels as homogeneous, ignoring the differences between them. In the literatures of social psychology, organizational behaviour and
Human Computer Interaction (HCI), there is more acknowledgement of mediated communication, although it is generally compared with face-to-face interaction. These comparative analyses can be categorized into three different approaches: 1) the social aspects of interaction are **diminished** by a loss of cues leading to reduced social presence (Short et al., 1976), increased psychological distance (Rutter, 1987), or more anti-social behaviour (Sproull & Kiesler, 1986); 2) cues lost are **compensated** by the use of alternatives (Hiltz & Turoff, 1978; Walther, 1992; Thompson, 1995); and 3) mediated interaction has specific **advantages** because distance can foster intimacy (Hutchby, 2000), increase self-disclosure (Joinson, 2001), lead to 'hyperpersonal' communication (Walther, 1996), reduce social distance (Marvin, 1988; Sproull & Kiesler, 1986) or reinforce social boundaries (Postmes, Spears, & Lea, 1998). In this literature there is relatively little discussion of the different interactional characteristics of each channel.

### 5.2 Identification of Interactional Characteristics

The objective of this section is to develop a typology of interactional characteristics that can be used in my empirical research. This raises the question of the appropriate level of analysis. Biological, chemical, and quantum physics theories may be applied to the same physical situation, but in a sense each analysis is ‘fundamental’. Which is most appropriate depends on the perspective. The approach adopted here is initially technical and aims to identify interactional characteristics that derive from the physical properties of communication channels. However, for the interactants, other characteristics may be more important and fundamental; this is explored in my empirical research, which also explores the extent to which one can separate technological and social factors.

As a starting point I reviewed over thirty communication concepts, evaluating them as potential interactional characteristics. My criteria for selection were coherence, relevance to social interaction, channel discrimination and avoidance of duplication. The twelve interactional characteristics selected and the other characteristics considered are listed in Tables 5.4 and 5.5 at the end of this chapter.
5.2.1 Communication Constraints

Clark and Brennan (1991, p. 147) claim that to communicate, the interactants have to establish common ground. "Grounding is essential to communication. Once we have formulated a message, we must do more than just send it off. We need to assure ourselves that it has been understood as we intended it to be". Grounding theory recognizes the importance of collaboration in face-to-face conversation, but it is framed in terms of agreement on shared context, or grounding. Clark and Brennan claim that in mediated communication establishing grounding is more difficult, because there is less feedback. Scope for grounding, and the way it is established, is different for each communication channel, because the nature of interaction is shaped by the channel. They identify eight ‘constraints’ and eleven media ‘costs’ that, they claim, affect the grounding process. The term ‘constraint’ is used in the sense of a shaping rather than a limiting factor, and ‘costs’ are interactional rather than financial.

Clark and Brennan’s theory is linked to grounding; they argue that the specific constraints and relative costs of different communication channels affect grounding techniques. However, the characteristics they identify describe the interaction that occurs through these media. Consequently, their typology can be adapted and used as interactional characteristics in the sense that I have defined, although they do not suggest this. Their grounding constraints are: copresence, visibility, audibility, cotemporality, simultaneity, sequentiality, revisability and reviewability; these are listed in Table 5.1 together with explanations taken from their paper. Their grounding costs are discussed in section 5.2.2 and listed in Table 5.2.

<table>
<thead>
<tr>
<th>Table 5.1 Clark and Brennan’s Grounding Constraints</th>
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<tr>
<td>Copresence</td>
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<td>Visibility</td>
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<td>Audibility</td>
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<td>Cotemporality</td>
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<td>Simultaneity</td>
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<td>Sequentiality</td>
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<td>Revisability</td>
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<td>Reviewability</td>
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<tr>
<td>A and B share the same physical environment</td>
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<tr>
<td>A and B are visible to each other</td>
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<tr>
<td>A and B communicate by speaking</td>
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<tr>
<td>B receives at roughly the same time as A produces</td>
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<tr>
<td>A and B can send and receive at once and simultaneously</td>
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<td>A’s and B’s turns cannot get out of sequence</td>
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<tr>
<td>A can revise messages for B</td>
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<td>B can review A’s messages</td>
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Source: Clark and Brennan (1991)
These eight channel characteristics fall into four groups: copresence; two mode characteristics; three temporal characteristics and two that derive from the relative persistence of some channels, revisability and reviewability. I discuss each in turn below.

**Copresence**

Clark and Brennan's first constraint is the concept of copresence, which they define as "A and B share the same physical environment" (1991, p. 141). This concept is also important for Goffman's interaction order, and was discussed in chapter three. Goffman (1963a, p. 17) explains "the full conditions" of copresence in detail: "persons must sense that they are close enough to be perceived in whatever they are doing, including their experiencing of others, and close enough to be perceived in this sensing of being perceived". This definition is reciprocal and recursive, not only can each perceive the other, but they can be perceived as perceiving the other, and perceived in their awareness of being perceived. Copresence puts the participants into the same situation and gives them access to a shared environment. The importance of mutual monitoring is also recognized by Clark and Brennan, who claim that in copresence the participants "can readily see and hear what each other is doing and looking at" (1991, p. 141). The use of the present participle in these definitions reflects a temporal dimension: copresence is concurrent mutual awareness.

For Clark and Brennan, and for Goffman, copresence is reserved for face-to-face interaction. In chapter three, I extended the concept to mediated interaction, arguing that it is required for the shared practices that constitute mediated situations. In the HCI literature, copresence is often applied to mediated communication (e.g. Biocca, Harms, & Burgoon, 2003; Riva & Galimberti, 1998). Definitions of copresence in mediated interaction include "a sense of 'being there together'" (Schroeder, 2002, p. 4), or "an individual's subjective experience of being together with others" (Zhao, 2003, p. 450). Although in mediated copresence there is a sense of shared environment, mediated communication does not allow the full mutual monitoring of physical copresence. As Giddens (1984, p. 68) states, "Although the full conditions of co-presence exist only in unmediated contact between those who are physically present, mediated contacts that permit some of the intimacies of co-presence are made possible in the modern era by electronic communications, most notably the
Interactional Characteristics

telephone”. I argued in chapter three that copresence is required for the shared practices that constitute social situations, and consequently I regard it as an important interactional characteristic.

Mode Characteristics
The next two constraints are visibility and audibility. As defined by Clark and Brennan, visibility means that the participants can see one another, and audibility that they can hear one another. These definitions do not include the setting or the communication format itself. I would like to extend these two mode characteristics to take account of audible and visible context, because of their importance for expressions given off. On video phones and in video conferencing the interactants can usually see one another, but the loss of shared visual context affects the interaction.

Temporal Characteristics
Clark and Brennan list three temporal constraints: cotemporality, simultaneity and sequentiality. They use the term ‘cotemporality’ rather than synchronicity, because they claim that the latter includes simultaneity, which they treat as a separate constraint. The importance of cotemporality for interaction is indicated by the inclusion of concurrence in my definition of copresence. Cotemporality is a necessary condition of copresence, but not a sufficient condition. A medium can be cotemporaneous without enabling copresence, for instance, live television, and it is therefore useful to distinguish between these two characteristics.

Talk is often simultaneous as demonstrated by conversation analysis. Despite a turn-taking norm, overlapping comments are not infrequent and are indicated in special conversation analysis notation. Simultaneous communication provides immediate feedback, reducing communicative effort and supporting collaborative interpretation. It facilitates the documentary method of interpretation (Garfinkel, 1967), in that participants can ‘point to’ or ‘document’ the other’s comments as they occur, indicating what is being understood. Simultaneous channels enable Goffman’s ‘directional track’ (1974, p. 210), the “stream of signs which is itself excluded from the content of the activity but which serves as a means of regulating it, bounding,

1 This is the spelling in the original paper although it is sometimes misquoted as ‘contemporality’.
articulating, and qualifying its various components and phases” Goffman also (1981) stipulates simultaneous back-channel feedback in his list of requirements for effective communication: “so that while the speaker was speaking, he would know, among other things, that he was succeeding or failing to get across, being informed of this while attempting to get across” (p. 12).

Woodruff and Aoki (2003) compare the ‘push to talk’ one-way radio facility that is popular on American mobile phones, with conventional mobile phone calls. Despite superficial similarity, the two channels are used for rather different types of interaction; ‘push to talk’ usage is more monologue than dialogue. Woodruff and Aoki attribute this to the loss of simultaneity, reflecting the effect of this channel affordance on interaction. Simultaneity requires either a combination of different sensory channels (e.g. visual and auditory) or channels that can accommodate concurrent two-way transmission.

In addition to cotemporality and simultaneity, Clark and Brennan include sequentiality in their list of constraints. Sequentiality refers to the clarity of threading: the extent to which turns can get out of sequence. In Garfinkel’s documentary method of interpretation, utterances point to previous utterances and progressively shape the meaning of what has been said; this process depends on the participants identifying which comments are referred to, and this is facilitated by sequentiality. Although face-to-face conversation is sequential, this does not mean that each utterance is a response to the immediately preceding turn. Conversation analysis shows that comments can be delayed, and that the delay itself may be interpreted as meaningful, for example, as suggesting reluctance. The interpretation of utterances is not sequential, but iterative, and open to reinterpretation in the light of later comments. However, in face-to-face interaction the serial order in which utterances are made and received is known to both participants, and this assists interpretation (Hutchby, 2000). In contrast, Hutchby claims that in Internet Relay Chat (or what I call instant messenger) comments can get out of sequence, obscuring the response pattern of the participants. The delay that occurs while someone is typing means that a response may be directed at an earlier part of the conversation, and may ignore later comments. People can listen and talk at the same time, but it is more difficult to read and type at the same time. Hutchby notes that the resulting ambiguity is often left open and
unresolved, and may be treated as serendipitous, rather than problematical. This illustrates how sequentiality shapes interaction.

Revisability and Reviewability
The last two constraints identified by Clark and Brennan, revisability and reviewability, do not apply to face-to-face communication. They are typical of textual communication, such as letters, email and text messages. Revisability allows senders to format their messages in their own time, allowing them to choose their words carefully. Revisability facilitates the deliberate use of expressions, both given and given off, but limits the involuntary expressions that leak out, providing a glimpse of the self behind the presentation (Goffman, 1959). The intentionality of revisable, reviewable media helps to explain the emotional value traditionally given to personal letters.

Reviewability is potentially important for effective communication, because messages can be saved and reviewed later. Interpretation moves from a streamed\(^2\) in situ collaborative process, to a more leisurely solus activity, enabling more consideration of expressions given off. Reviewability also affects interpretation because prior conversational context can be consulted in saved messages.

I think that all Clark and Brennan’s constraints are interactional characteristics in the sense that I have defined, and therefore include them all in my provisional typology.

Table 5.2 classifies selected communication channels in terms of the interactional characteristics that I have derived from Clark and Brennan’s grounding constraints. Most of these details are taken from their paper, but I have added text messages. The table shows that the interactional characteristics of phone calls and face-to-face conversation are very similar, as are those of text messages, email and letters. Phone calls and text messages seem to have complementary characteristics; this suggests that the combination of these two channels in a single device should provide interactional flexibility.

\(^2\) “Words pop up one after another”, (Attewell, 2003, p. 17).
Table 5.2 Interactional Characteristics of Selected Channels

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Face-to-Face</th>
<th>Video Call</th>
<th>Phone Call</th>
<th>Text Messages</th>
<th>Email</th>
<th>Letters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copresence</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Visibility</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Audibility</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cotemporality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Simultaneity</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sequentiality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Revisability</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reviewability</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Source: Adapted from Clark and Brennan (1991)

5.2.2 Grounding Costs

Clark and Brennan also identify eleven costs of grounding: formulation costs, production costs, reception costs, understanding costs, start-up costs, speaker change costs, asynchrony costs, repair costs, delay costs, fault costs and display costs. These are listed and explained in Table 5.3. They are the ‘opportunity costs’ of involvement in the interaction.

Table 5.3 Clark and Brennan’s Grounding Costs

<table>
<thead>
<tr>
<th>Costs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start-up Costs</td>
<td>Cost of initiating communication</td>
</tr>
<tr>
<td>Formulation Costs</td>
<td>Cost of deciding what to say</td>
</tr>
<tr>
<td>Production Costs</td>
<td>Cost of creating the message, e.g. typing effort</td>
</tr>
<tr>
<td>Reception Costs</td>
<td>Cost of listening to or reading the message</td>
</tr>
<tr>
<td>Understanding Costs</td>
<td>Cost of interpreting the message</td>
</tr>
<tr>
<td>Speaker change Costs</td>
<td>Cost of changing turns</td>
</tr>
<tr>
<td>Asynchrony Costs</td>
<td>Cost of loss of precision timing</td>
</tr>
<tr>
<td>Delay Costs</td>
<td>Cost of delay in utterance</td>
</tr>
<tr>
<td>Repair Costs</td>
<td>Cost of fixing faults</td>
</tr>
<tr>
<td>Fault Costs</td>
<td>Cost of making a mistake, e.g. embarrassment</td>
</tr>
<tr>
<td>Display Costs</td>
<td>Cost of indicating and monitoring objects or participants</td>
</tr>
</tbody>
</table>

Source: Clark and Brennan (1991)

Clark and Brennan recognize that constraints and costs are related. For example, loss of visibility and audibility makes the communication less direct and probably textual, increasing formulation and production costs. Moreover, communication costs are not independent: for example, the loss of punctuation in text messages may reduce production costs, but increase understanding costs; careless typing reduces production costs, but increases understanding, fault and repair costs. For my purposes, I think that it is unnecessary and overcomplicated to have eleven different communication costs. I
therefore simply divide communication costs into production and reception costs, according to whether they accrue to the sender or the recipient. For example, I would classify formulation cost as a production cost, and understanding cost as a reception cost. Some costs, such as repair cost, can accrue to either, or both, of the participants.

Production and reception costs depend not only on the channel, but also on the skill and ability of the interactants, and on the specific features of the technological artefact used. For instance, the production cost of sending a letter is lower if the sender writes easily and fluently. Similarly, production cost is higher if a message is particularly important or sensitive and therefore requires careful composition. Nevertheless, I think that there is a channel specific element; for most people writing a letter is more effort than making a phone call, receiving a phone call is more effort than receiving a text message. Both production and reception costs will be affected by the quantity of communication, which in turn is influenced by normative expectations. This indicates that technological and social factors are interrelated. Despite these considerations, I think that production and reception costs are interactional characteristics of communication channels.

The work of Clark and Brennan provides the basis for my provisional typology of interactional characteristics. In the rest of this chapter I evaluate other concepts from the literature that have been used to describe, or discriminate between, communication channels.

5.2.3 Social Presence

The concept of social presence was devised by Short, Williams and Christie (1976), who were inspired by the rapid development in the 70’s of video telephones, teleconferencing and computer mediated conferencing systems. They observed that there was not much research on the interactional effects of these new channels and criticized, as simplistic, information-based models that emphasized the individual cues filtered out by mediation. Instead, they developed the concept of ‘social presence’, a holistic concept that attempts to recognize the way that non-verbal cues work together. The concept has been widely used in HCI for 30 years.
Interactional Characteristics

Short et al. define the "hypothetical construct" (1976, p. 65) of social presence as "the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships". Social presence is related to Goffman's expressions given off: "The capacity to transmit information about facial expression, direction of looking, posture, dress and non-verbal cues, all contribute to the Social Presence of a communications medium" (idem, p. 65). Although Short et al. state that social presence is a characteristic of the channel rather than of the interaction, they use it both for describing the interaction and as a feature of the medium. Phone calls have less social presence than face-to-face interaction, but more than email and letters.

There have been many attempts to clarify the concept of social presence, but there is no generally accepted definition. Biocca et al. (2003, p. 474) comment: "Current definitions may tend toward vague, overly broad, or circular definitions of social presence, and may tend to blur the logical distinction between the psychological state of social presence and the psychological or behavioral effects of social presence". Social presence is conceived as linear, and Short et al. developed several measurement scales. The most popular scale consists of four seven-point, bipolar semantic differential scales: unsociable-sociable, insensitive-sensitive, cold-warm, and impersonal-personal; unfortunately, these items are also rather broad and ambiguous and do not really clarify the concept. The statistical reliability of the scale does not prove that it is measuring a phenomenological concept, but only that these items are correlated for the communication channels evaluated. The concept of social presence is problematic. It is not clear that there is a "degree of salience of the other person" in communication. In addition, 'salience' would seem to depend on the participant and the specific circumstances of the interaction, and not just on the channel. More recent definitions are also problematic, for instance, "The amount of social presence is the degree to which a user feels access to the intelligence, intentions, and sensory impressions of another" (Biocca, 1997, sect. 7.2), or "Social presence is the degree to which a person is perceived as a 'real person' in mediated communication" (Gunawardena, quoted by Biocca, Harms, & Burgoon, 2003, p. 461).
Despite its popularity, I think that the concept of social presence lacks clarity and it is therefore not included in my list of potential interactional characteristics. However, in my empirical research I nevertheless explore whether my respondents use the construct.

### 5.2.4 Expressive Content

Mediated channels differ in their scope for expressive content. The quantity and range of expressions, both given and given off, are constrained by the medium. Mediated communication can create a bias towards expressions given, because reduced cues limit the scope for expressions given off. Thompson (1995) claims that in mediated communication ‘symbolic cues’ (or what Goffman calls expressions given off) are replaced by alternative expressions. These are from a reduced range, but are accentuated. Goffman also suggests that communication is adapted for mediated channels, “The fact that telephoning can be practicable without the visual channel, and that written transcriptions of talk also seem effective, is not to be taken as a sign that, indeed, conveying words is the only thing that is crucial, but that reconstruction and transformation are very powerful processes” (1981, p. 30). If this is correct, phone conversations should sound different from face-to-face conversations: on the other hand, people engaged in mobile calls continue to use their body in non-verbal communication, although it cannot be seen by the other person, indicating that the transformation process, if it occurs, is only partial.

The loss of expressions given off in mediated communication can make it harder to resolve ambiguity, because it is more difficult to check comprehension discreetly. Whereas in physical copresence ‘one cannot but communicate’ (Watzlawick, Beavin, & Jackson, 1967, p. 48), in mediated communication lack of response can be difficult to interpret. However, increased ambiguity can also be an advantage, in that it reduces accountability and increases deniability; this preserves face and protects against the exposure of self in affective communication, fostering ‘intimacy at a distance’ (Hutchby, 2000).

Garfinkel’s (1967) documentary method of interpretation helps to explain the importance of the difference between expressions given and expressions given off. What is given is explicitly available for collaborative interpretation, but it is more
difficult for a subsequent speaker to ‘point’ at, or document, what was merely given off. There are several reasons for this. Firstly, expressions given off are less accountable; they are merely implied and can be denied. Secondly they are less noticeable; neither the sender nor the recipient may be aware of them. Conversation analysis suggests that momentary hesitations affect conversation, even though interactants do not consciously take these into account. Thirdly, it is more difficult to refer to expressions given off, because they are hard to describe linguistically. Finally, there is a social norm which deters one from openly acknowledging unintentional non-verbal behaviour. This interpretive flexibility is useful, but it also introduces ambiguity and deniability.

Implicitly using a transmission model, Meyrowitz (1985, p. 109) claims that the encoding process affects the message: slow encoding, for example in writing letters, creates formal, stylized messages, whereas informal media that simply ‘capture’ behaviour, such as the phone, present more realistic messages. Using Goffman’s terminology, Meyrowitz asserts that the former have a ‘front region’ bias, the latter a ‘back region’ bias. He also claims that writing “excludes all expressive behaviour” (p. 110). This is not consistent with Goffman’s usage (for instance 1997, p. 211); in fact the slow encoding process of writing will encourage intentional expressive behaviour, but inhibit unintentional expressive behaviour. A classic example is the use of perfume in a love letter. Furthermore, slow encoding does not necessarily imply formality, as shown by technologies that have emerged since Meyrowitz devised his medium theory. Email and text messages are informal, even though the encoding process is relatively slow. However, underlying Meyrowitz’ comment is the important distinction between intentional and unintentional expressions; slow encoding increases control and intentionality. Letters are more deliberate and intentional, verbal conversation is less intentional. The interpretation of communication and the presentation of self depend on the perceived intentionality of expressive content (Goffman, 1959). Expressions given off are presumed to be more ‘reliably informing’ of self precisely because they are less controllable. Communication channels vary in the degree of control they give participants, for instance, revisable media facilitate control and intentionality.

The scope for expressive content in a communication channel seems to shape the
interaction. This is illustrated by a comparison of mobile phone calls and text messages. In SMS both given and given off expressions are limited; expressions given off could include the wording, quantity of text, abbreviations, punctuation, emoticons, idiosyncratic spellings, timing, and caller details. Senders have an opportunity to think about and revise messages before sending, so that expressions, whether given or given off, can be presumed to be largely intentional. Mobile phone calls enable more expressive content, both given and given off, but there is less opportunity for deliberation and this reduces intentionality. Expressions given off in mobile calls could include tone, pauses, inflections and other paralinguistics, background noise, caller phone number and name. In phone calls expressions are more transient, so that there is less opportunity for recipients to reflect on interpretation.

Although I want to include expressive content in my list of key interactional characteristics, I recognize that it is rather different from those characteristics discussed above. Firstly, expressive content is related to mode, for instance, channels which afford visibility make particular expressions possible. Secondly, expressive content is not a simple dichotomy or even a single dimension, but a multifarious collection of disparate aspects of communication, and thirdly, these features are less technological and more socially shaped than those discussed earlier. Thus it is social practice that creates the meaning related to the timing of a call or a text message, but it is a technical feature of the medium that records and displays these details. This reflects the difficulty of distinguishing technological and social characteristics.

5.2.5 Connectedness

Smith and Mackie (2000 p. 497) note: "Like traditional channels of communication, electronic communication is used as much for enhancing connectedness as for attaining mastery through task performance". Connectedness is a relatively new communication concept (Nardi, Wittaker, & Bradner, 2000; Bradner, 2001). It is suggested that feelings of connectedness arise through interaction, and that these play an important role in communication. The concept is relevant to mobile phone communication and was introduced in the last chapter. Van Baren et al. (2003, para. 4) describe connectedness as "a positive emotional experience which is characterized by a feeling of staying in touch within ongoing social relationships". Kuwabara et al. (2002) point out that connectedness-orientated communication can be observed in
email and text messages, when the "fact that a short message is transmitted may be more important than its contents" (p. 3271). Connectedness seems to be more apparent in newer communication media, where reduced scope for content changes the role of communication from the transfer of information to social connection. Several connectedness orientated prototypes have been developed to convey connectedness without any explicit communication, for example, a remote photo frame that animates when a baby shakes her rattle (Go, Carroll, & Atsumi, 2000).

Connectedness is the sense of closeness to another participant that can arise during communication. It involves connection in two ways, a connection through a communication channel and an experience of emotional connection or closeness with another. Although thinking of a loved one may create a feeling of emotional closeness, this is not connectedness because there is no interaction. The interaction can be minimal; in instant messenger the awareness that others are online creates feelings of connectedness even when there is no message exchange (Nardi et al., 2000). The concepts of connectedness and copresence are related, with connectedness more likely to occur when there is copresence, but the feelings of connectedness that arise in asynchronous media without copresence indicate that the concepts are distinct.

The concept of connectedness is included on my provisional list of the interactional characteristics of communication channels. The related concept of connected presence was introduced in the last chapter. Licoppe (2004) suggests that in close relationships, different forms of communication may together create a continuous feeling of connectedness or 'connected presence'. New, less intrusive mediated communication channels are particularly suitable for frequent, low-key contact. Connected presence is facilitated by a combination of media and is therefore not useful for discriminating communication channels. It is not included in my typology, but is nevertheless used in the analysis of my research.

5.2.6 Media Richness

Daft and Lengel (1984) introduced the term 'media richness' in their research on communicative effectiveness within an organizational framework. They define media richness in terms of availability of instant feedback, capacity for multiple cues, scope
for personalization, and language variety (natural language rather than numbers). Face-to-face communication is deemed the richest medium, followed by telephone, email, and letters. The theory contends that richer media are preferable when a task involves equivocality or ambiguity. There is mixed research evidence, but overall research does not support the theory (Dennis & Kinney, 1998). Media richness consists of four elements, but none of these are additional interactional characteristics: instant feedback is already covered by cotemporality and simultaneity; multiple cues and scope for personalization are covered by the mode characteristics and expressive content. The fourth element, a capacity for natural language, is not a differentiating feature of interpersonal social media.

Dennis and Valacich (1999) criticize media richness theory and offer an alternative theory of 'media synchronicity', which also relates to communicative effectiveness in organisations. Media synchronicity is defined as the extent to which individuals can work together on the same activity. The theory recognizes two distinct elements of communication, conveying information and the need to converge on shared meaning. They claim that media synchronicity is more important for the latter. Their distinction evokes that drawn in chapter two between written exchanges and verbal conversation; the former can be efficient for conveying information, but the latter enables collaborative production of meaning. Dennis and Valacich define media synchronicity in terms of five channel characteristics: immediacy of feedback and symbol variety (which are both taken from media richness), plus parallelism, rehearsability, and reprocessability. ‘Parallelism’ refers to the number of parallel conversations that can exist efficiently, for example, many different concurrent postal exchanges are possible, but one can only take part in one phone call at a time. This characteristic seems to me to be a consequence of asynchronicity and normative reciprocation practices, rather than an inherent channel characteristic. Rehearsability and reprocessability are already covered by revisability and reviewability.

Neither media richness, nor media synchronicity, nor their components, seem to provide any additional channel discrimination and are therefore not included in my typology.
5.2.7 Other Channel Characteristics

In addition to the characteristics discussed in detail above, a number of other channel characteristics were also identified; these are briefly discussed below.

The concept of presence (e.g. Lombard & Ditton, 1997) is derived from the concept of telepresence and refers to the phenomenological experience of being present, of being in a situation or environment, the sensation of 'being there' (Ijsselsteijn, et al., 2000, p. 3959). Blascovich (2002, p. 129) defines presence as “a psychological state in which the individual perceives himself or herself as existing within an environment”. However, despite widespread use and numerous measures (van Baren & Ijsselsteijn, 2004), the concept of presence is ill defined, as Waterworth and Waterworth (2003, abs.) comment: “progress in understanding presence is inhibited by the fact that we are unable to agree what it is we are talking about”. For this reason, and because of its overlap with the concept of copresence, presence is not included in my list of interactional characteristics.

Whittaker (2002) claims that most media can be characterized in terms of two technical affordances: mode, which he categorizes as either linguistic or linguistic and visual, and interactivity, which he explains as “synchronous, bidirectional communication” (p. 247). His characteristics are less useful for distinguishing channels than the mode and temporal characteristics already derived from Clark and Brennan’s work, and are therefore discounted.

The concept of liveness (Feuer, 1983) derives from broadcast media. Liveness or live transmission means that there is a potential connection to events as they happen (Couldry, 2004). “Liveness should be interpreted as a development within media history as a whole ... At the base, the need to connect oneself, with others, to the world’s events, is central to the development of the modern nation” (Bourdon, quoted by Couldry, p. 352). The concept of liveness, when applied to interpersonal media, is closely allied to both connectedness and cotemporality, and is excluded to avoid duplication. Couldry extends liveness to interpersonal communication and introduces the concept of group liveness. Group liveness occurs between groups who are in continuous contact, for example, through calls and texting. It enables people to be continuously connected with each other even when they are apart. This concept is
similar to the concept of connected presence (Licoppe, 2004). Group liveness, like connected presence, is formed by a combination of different communication channels and is therefore not chosen as an interactional channel characteristic.

5.3 Conclusions

In chapter two I claimed that there were different paradigms of communication corresponding to written and verbal communication. In chapter three I took this further and argued that these paradigms also correspond to two different types of mediated channel, those which enable the focused, copresent practices that constitute social situations, and those which do not. The interactional characteristic of copresence underlies the difference between these two types of mediated communication, demonstrating how interaction is shaped by channel affordances. In this chapter I have extended this, identifying other interactional characteristics.

<table>
<thead>
<tr>
<th>Source</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clark &amp; Brennan, 1991</td>
<td>Copresence</td>
</tr>
<tr>
<td></td>
<td>Visibility</td>
</tr>
<tr>
<td></td>
<td>Audibility</td>
</tr>
<tr>
<td></td>
<td>Cotemporality</td>
</tr>
<tr>
<td></td>
<td>Simultaneity</td>
</tr>
<tr>
<td></td>
<td>Sequentiality</td>
</tr>
<tr>
<td></td>
<td>Revisability</td>
</tr>
<tr>
<td></td>
<td>Reviewability</td>
</tr>
<tr>
<td></td>
<td>Production cost</td>
</tr>
<tr>
<td></td>
<td>Reception cost</td>
</tr>
<tr>
<td>Goffman, 1959</td>
<td>Expressive content</td>
</tr>
<tr>
<td>Kuwabara et al., 2002</td>
<td>Connectedness</td>
</tr>
</tbody>
</table>

At the beginning of this chapter I explained the concept of interactional channel characteristics, and throughout the rest of the chapter I have attempted to identify relevant concepts from the literature. Underlying the development of my typology is the assumption that there are a limited number of basic affordances that occur, in different combinations, in mediated channels, and that these shape the interaction that occurs through these channels. Table 5.4 lists the twelve concepts that seem to meet my criteria for interactional characteristics. I have selected all eight grounding
constraints and two costs from Clark and Brennan (1991), and added expressive content and connectedness.

In developing this typology I reviewed 25 other concepts from the literature; these are shown in Table 5.5.

<table>
<thead>
<tr>
<th>Source</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clark &amp; Brennan 1991</td>
<td>Formulation costs</td>
</tr>
<tr>
<td></td>
<td>Understanding costs</td>
</tr>
<tr>
<td></td>
<td>Start-up costs</td>
</tr>
<tr>
<td></td>
<td>Speaker change costs</td>
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<tr>
<td></td>
<td>Asynchrony costs</td>
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<td></td>
<td>Repair costs</td>
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<td></td>
<td>Delay costs</td>
</tr>
<tr>
<td></td>
<td>Fault costs</td>
</tr>
<tr>
<td></td>
<td>Display costs</td>
</tr>
<tr>
<td>Licoppe, 2004</td>
<td>Connected presence</td>
</tr>
<tr>
<td>Short et al., 1976</td>
<td>Social presence</td>
</tr>
<tr>
<td>Daft &amp; Lengel, 1984</td>
<td>Media richness</td>
</tr>
<tr>
<td></td>
<td>Immediate feedback</td>
</tr>
<tr>
<td></td>
<td>Multiple cues</td>
</tr>
<tr>
<td></td>
<td>Personalization</td>
</tr>
<tr>
<td></td>
<td>Language variety</td>
</tr>
<tr>
<td>Dennis and Valacich, 1999</td>
<td>Media synchronicity</td>
</tr>
<tr>
<td></td>
<td>Parallelism</td>
</tr>
<tr>
<td></td>
<td>Rehersability</td>
</tr>
<tr>
<td></td>
<td>Reprocessability</td>
</tr>
<tr>
<td>Whittaker, 2002</td>
<td>Interactivity</td>
</tr>
<tr>
<td>e.g. Lombard &amp; Ditton, 1997</td>
<td>Linguistic/visual mode</td>
</tr>
<tr>
<td>Feuer, 1983</td>
<td>Presence</td>
</tr>
<tr>
<td>Couldry, 2004</td>
<td>Liveness</td>
</tr>
<tr>
<td></td>
<td>Group liveness</td>
</tr>
</tbody>
</table>

My empirical research focuses on mobile phones, and compares phone call and text message interaction. The twelve concepts that I have selected as interactional channel characteristics inform my study. In my empirical research I explore the extent to which users are aware of these characteristics, their perceived effect on interaction, and their relevance to choice and usage. In addition, I explore the relevance of the concept of social presence, in view of its importance in the HCI literature, and the concept of connected presence, which seems to be particularly relevant to a communication repertoire that includes mobile phone calls and text messages. The
other concepts reviewed here also shaped my research, although to a lesser extent; all were included in my initial coding frame to encourage me to reflect on their relevance for my respondents. My research method is described in detail in the next chapter.
6 Methodology

6.1 Introduction
This chapter describes my research method and includes the research rationale, a discussion of the relationship between research and reality, a detailed description of the research conducted, a report on the analysis process and an evaluation of my research design. The chapter concludes with a reflexive section on writing the research. Although my approach is relativist and constructionist, and my method is qualitative, I adopt validity and reliability as my research criteria.

6.2 Inference in Social Research
Inference is the process of reasoning from the research to the findings. One can distinguish three types of inference: deduction, induction and abduction. I used all of these at different points in my thesis. In deduction, the conclusions are derived from the premises using only the principles of logic; the conclusions are already contained in the premises. Induction goes beyond the premises, reasoning from observed to unobserved phenomena. The observed phenomena are taken as evidence for a general law and this is applied to other phenomena. Induction is not deductively valid; there is no logical reason to assume the persistence of regularities. One cannot argue from past experience of successful induction, because this argument presupposes the validity of induction.

Any generalisation, whether based on quantitative or qualitative research, involves induction, and is therefore not deductively valid. "To generalize is to claim that what is the case in one place or time, will be so elsewhere or in another time" (Payne & Williams, 2005, p. 296). Inferring causation, and therefore causal laws, is also a form of generalization. In sociology, inherent variation and complexity makes generalization particularly problematic, particularly if based on qualitative research. Williams (2000) notes that while generalization from qualitative research is recognized as problematic (Hammersley, 1992), or even impossible (Lincoln & Guba, 1985), it is nevertheless commonplace, and he claims, "inevitable, desirable and possible" (p. 209). Payne and Williams (2005) argue that by recognizing the process
of generalization we expose it to scrutiny; rather than avoiding the issue, interpretivist researchers should plan for and explicitly formulate generalizations. They advocate 'moderatum generalization', which refers to the "generalisations of everyday life" (Williams, 2000, p. 215), which are moderate in scope, contingent and subject to further research.

The formation of an inductive hypothesis may involve the process of abduction. This involves using reason to devise an explanation (Peirce, 1958). Abductive reasoning is particularly relevant to qualitative research. Abduction attempts to explain some surprising situation in terms of something more understandable (Shank, 2001); unlike induction, it does not depend on an observed regularity. Abductive inference can be rather tenuous, ranging from a hunch to an explanation, and includes the analysis of meanings and motives (Blaikie, 2000). The analysis of exploratory research data uses abduction to identify patterns and suggest alternative hypotheses. These can then be tested against the data, but research usually aims to go beyond this, using induction to generalize to other contexts.

I have used deduction throughout my thesis, for instance, arguing from the research question and the literature to the research design. I also use induction, for example, when I generalize from examples of a particular usage to a general usage pattern, either for a particular respondent, for the sample, or taking the induction even further, to the UK population of mobile phone users. Technologies vary over time and with social context, as discussed in the previous chapter, and this limits the transferability of my findings. I was influenced by the approach of Payne and Williams (2005), and have tried to articulate and moderate the breadth of my generalizations. I found abductive inference particularly relevant to my analysis, as it is less prescriptive than induction. Abduction allows one to use research as a source of insight and inspiration. The primary aim of my research is theory building. In my final chapter, I present a number of hypotheses that could be tested, using Popper's (1959) method of falsification, which is based on deduction.
6.3 The Relationship between Research and Reality

Sharrock and Button (1991, p. 145) claim that "within sociology the first unresolved question must be that about the relationship between 'social reality according to the sociologist' and 'social reality'". From an ethnomethodological perspective, the concept of a social actor only makes sense within a situation (as discussed in chapter three) and an objective reality outside the actors’ perceptions does not make sense. Consequently, Sharrock and Button state that if two actors have different conceptions of social reality, it does not make sense to compare them, there are simply two different social realities. Applying this to the sociologist researcher, her view is not better or more objective; in fact it is not in conflict with that of her respondent at all. In contrast, Sharrock and Button claim that in the 'objectivist' perspective, there is an objective reality, but it is not actually available to either the researcher or her respondent. The sociologist is also a social actor and therefore can be a member of the same social situations as her respondents, giving her access to a shared social reality, and like other members, she can judge matters of fact within that context. But in adopting a consistently theoretical stance, and in acting as a sociologist rather than as a member, she is 'effectively disqualified' (p. 148, original emphasis) from making judgements as a member. Moreover, in seeking to 'objectify', the researcher is likely to conduct 'Formal Analysis' and impose a structure on the data, losing the phenomenon she is researching. Ethnomethodology does not see the role of a sociologist as identifying or explaining social reality; rather her role is to reveal the details that may be taken for granted by members, providing a different perspective through thick description.

Although I have considerable sympathy with the position of Sharrock and Button, and despite my extensive use of Garfinkel's work in the development of my theoretical approach, my research is influenced by, but is not based on, ethnomethodology. This is for several reasons. Firstly, although I use Garfinkel's definition of situation, his situated concept of social actor makes it impossible to talk about the same social actor in different situations. I find this unacceptable because sometimes we want to compare the behaviour of an actor in different roles or situations. Moreover, unlike Garfinkel, I do not feel that one has to abandon all 'Formal Analysis'. My own view is that whereas he is right that 'Formal Analysis' does impose a structure from outside
the situation, this is acceptable if it is recognized, and if this recognition informs the analysis. As a researcher, I sometimes want to offer my own rather than my respondent’s view of her social reality. However, I do accept that my view is not more objective than her view. For example, my respondent might describe her texting as very frequent, but based on the evidence of her mobile phone bill and in comparison with other respondents, I might disagree. More contentiously, she might feel that mobile phone communication has not had an effect on a particular relationship, but based on our conversation, I might reach different conclusions. In order to merge the views of my different respondents, I think that I have to do some degree of ‘Formal Analysis’. However, in line with Sharrock and Button, I agree that the version of social reality that I offer is not more objective than my respondents’, only different. I think that sociological research is a form of social reality in its own right, with its own members’ methods. In addition, I agree with ethnomethodology that there are aspects of practice of which members are not consciously aware, and consequently, that these cannot be studied from accounts in interviews.

Research by Gilbert and Mulkay (1984) on scientists’ discourse challenges the relationship between interviews and respondents’ social lives. Potter and Mulkay (1985) extend this to other areas of social research. They claim that research participants’ accounts are much more variable and inconsistent than is usually acknowledged and that one “cannot treat any subset of them as unproblematic and transparent windows onto the social or natural world” (p. 266). Consequently, they abandon altogether the assumption that interviews reflect events and attitudes in their respondents’ lives, and instead assume only that the interpretative techniques used within the interviews resemble their participants’ interpretative work outside the interviews. This approach recognizes the interview as a social reality in its own right, but does not accept it as a reliable source on the social life of the respondent. This view is more radical and rather different from that of ethnomethodology. Garfinkel, for instance, accepts much of Agnes’ account of her life (1967), and within a site ethnomethodologists often use interviews to help them understand members’ perspectives. Although I think that Gilbert and Mulkay’s use of interviewees’ interpretative repertoires is ingenious, I do not think it is either necessary or possible to totally discount respondents’ descriptions of their lives. Research interviews are social practices in which the participants construct shared meaning, as in other
Methodology

conversations. Hence, although interviews are not conduits into the worlds of interviewees, they do enable communication about these realms. Hence I agree with Miller and Glassner (1997, p. 105), who claim that interviews are interactional contexts from which, through shared understanding, knowledge of respondents’ social worlds can emerge.

My own view is that the relationship between what happens in the interview and respondents’ lives varies throughout each interview, depending on the participants, the course of the conversation, the specific question, the extent to which the respondent is interested, etc. For example, if a respondent shows me a mobile phone then I think this is good evidence that this is her mobile phone in her everyday life. Similarly, if she tells me her age I think this is relatively reliable. I would be more circumspect about some other areas. I did not expect my respondents to remember precisely when they got their first mobile phone, or to accurately describe their pattern of mobile phone usage. In addition, I think that attitudes and motives are constructed within interaction and do not refer to mental states and processes, and therefore may not correspond with the respondent’s behaviour within his everyday life. Although I do not accept their central thesis, I like the way Gilbert and Mulkay used interviews as a source of their respondents’ interpretative repertoires. I adapted this in my research, using the talk within the interviews as a source of my respondents’ communication constructs.

6.4 The Research Method

My main research method was qualitative interviews, supported by communication diaries and text messages collected from respondents.

6.4.1 Choice of Research Method

The implicit assumption behind my research problem is that there are different forms of interaction, and that these are shaped by communication channels. In addition to answering my original research questions, my research was designed to assess the practical application of the theory of mediated interaction that I had developed. In chapter two, I distinguished two modes of communication. In chapter three, I took this further, distinguishing between situational and non-situational mediated interaction,
and relating this to the channel affordance of copresence. The concept of the interactional characteristics of channels was developed further in chapter five, generating a list of twelve concepts from the literature. My research aims to gauge whether these characteristics are relevant to users.

Open-ended (Silverman, 1997) qualitative interviews were selected as the primary research method, for several reasons. Firstly, the overall aim of the study was the development of theory, rather than to test specific hypotheses arising from previous research. Secondly, interaction is a subtle, complex phenomenon; hence my emphasis was on interpretation, meaning and understanding rather than on the measurement of standardized items. Thirdly, the research focused on my respondents’ perceptions and communication channel choices. I could not assume that respondents would be spontaneously aware of their motives and attitudes; in interviews these could be co-constructed in interaction with the researcher (Wright Mills, 1940). These factors indicated that qualitative research was appropriate for my study.

Unstructured interviews “facilitate a high degree of psychological depth, that is investigations of motivations, associations and explanations” (Miriampolski, 2001, p. 49). They encourage respondents to be ‘self-reflexive’ (Miller & Glassner, 1997), and are therefore more suitable than focus groups for exploring subjective issues in detail, and more suitable than observation research for cognitive as opposed to behavioural topics. Informal, unstructured interviews reflect the interactional nature of communication and in discussion, meaning can be progressively clarified and developed. An ethnographic approach, interviewing in respondents’ homes where possible, enabled me to understand their communication behaviour within the natural context of their lives. I had originally intended to accompany interviewees, observing their natural mobile phone interaction and using this as a topic of discussion. This was impractical; the interviews took over two hours and would have been unnecessarily prolonged by shadowing informants. In the event, I was able to observe and record respondents’ mobile phone interaction on 27 occasions during the interviews. In retrospect, it is interesting that my respondents and I both took it for granted that their mobile phones would be on during the interviews, and that they would answer them and read any text messages received. I adopted an ethnomethodological approach to
the mobile phone use that occurred within the interviews. Rather than take this practice for granted, I tried to focus on the details and to see them in a new way.

Although qualitative interviews were necessary to understand respondents’ perceptions, they were less satisfactory for usage behaviour. Self-report is unreliable, partly due to imperfect memory retrieval (Stone, et al., 1999): for instance, my respondents were unlikely to remember the details of their communication usage on a particular day. I therefore complemented the interviews with communication diaries, text messages collected from my respondents’ mobile phones, and copies of their mobile phone bills.

6.4.2 Pilot Research

I conducted two pilot interviews. This exercise was invaluable and changed my attitudes to the field research. Whereas I had initially approached this with positivist notions of coherence, consistency and control, my pilot interviews helped me to appreciate the essential subjectivity and interactivity of the interview process. I realized that I had to trust my own judgement and interpretive skills honed by years of effective communication. The pilot interviews were similar to the main field work and are included in my analysis.

6.4.3 The Sample

I recruited 32 respondents. Recruitment was mainly through friends, supplemented by advertising in newsagents’ windows and on notice boards. I knew did not know any of my respondents. Except in one case, I did not recruit through respondents, because I thought there might be group effects among friendship circles. In the sample there were just two pairs of people who knew each other. Although I paid £30 per respondent, it was relatively difficult to recruit participants, probably because I told them that the interviews would take up to two hours. This may have put off some potential informants. Choice of informants may affect research reliability (LeCompte & Goetz, 1982); consequently, although my sample was not random, I made considerable effort to recruit an appropriate sample. The main issue was the consistency and variation of the sample. Rubin and Rubin (cited by Rapley, 2004), emphasize the importance of getting a range of people with different demographics and lifestyles to increase the insights provided by the research. I therefore deliberately
recruited respondents from diverse backgrounds and with different occupations. Appendix two contains details of my respondents' recruitment, background, demographics, and mobile phone usage.

However, I also thought that it was important that my respondents were not so diverse as to prevent the emergence of a coherent picture from the research. This is analogous to block design in quantitative research in which respondents are selected from homogeneous groups, to reduce extraneous noise and variation in the data. In order to increase the cohesiveness and homogeneity of the sample (Kuzel, 1999), I tried to exclude other cultures and chose only adult respondents who lived in the UK and spoke English fluently. I also restricted the sample to frequent mobile phone users, in order to ensure that all respondents would have considerable mobile phone experience. My recruitment criterion was an expenditure of at least £15 per month; industry sources indicate that about 75% of UK users fall into this category. This increased the efficacy of my limited sample, but my exclusion of other cultures and of non-users, limits the scope of my inferences. King, Keohane and Verba (1994) claim that random selection is not generally appropriate in small sample research, and advocate intentional selection to maximize variation in the range of explanatory variables. Previous research on mobile phone communication, suggests that age, and to a lesser extent, gender may affect usage (e.g. Ling, 2004b; Lemish & Cohen, 2005a). I therefore decided to quota my sample on the basis of sex and age, and recruited only people over 21, dividing my respondents equally into two age bands, under 35, and 35 or over (see Table 6.1).

<table>
<thead>
<tr>
<th></th>
<th>Under 35</th>
<th>35 or over</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>8</td>
<td>8</td>
<td>16</td>
<td>50%</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>8</td>
<td>16</td>
<td>50%</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>16</td>
<td>32</td>
<td>100%</td>
</tr>
</tbody>
</table>

Mobile phone usage is likely to relate to class, so I deliberately recruited people from different social classes; about a third of my respondents were working class (as classified by socioeconomic group). Respondents in the two classes were evenly split by gender and age, see Tables 6.2 and 6.3. The sample included a broad variety in
terms of presence of children in the family, income and education level. Just under half of the sample had children living at home; income split is shown in Table 6.4 and educational qualifications in Table 6.5. Although I achieved a reasonable spread of income, half of my respondents had university degrees. This is much higher than for the UK population as a whole. Unfortunately, due to resource constraints, all respondents were recruited in one geographical area of the UK, but my respondents actually came from various parts of the country, and two originally came from other countries.

Table 6.2 Sample Split by Class and Gender

<table>
<thead>
<tr>
<th>Working Class</th>
<th>Middle Class</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>5</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Male</td>
<td>5</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>22</td>
<td>32</td>
</tr>
</tbody>
</table>

| %     | 32% | 68% | 100% |

Table 6.3 Sample Split by Class and Age

<table>
<thead>
<tr>
<th>Working Class</th>
<th>Middle Class</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 35</td>
<td>5</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>35 or over</td>
<td>5</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>22</td>
<td>32</td>
</tr>
</tbody>
</table>

| %     | 32% | 68% | 100% |

Table 6.4 Sample Split by Income

<table>
<thead>
<tr>
<th>Up to £10,000</th>
<th>£10,000 to £20,000</th>
<th>£20,000 to £30,000</th>
<th>£30,000 to £40,000</th>
<th>£40,000 plus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>6</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>%</td>
<td>19%</td>
<td>28%</td>
<td>16%</td>
<td>9%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Table 6.5 Sample Split by Educational Qualifications

<table>
<thead>
<tr>
<th>None</th>
<th>CVE or equiv.</th>
<th>GCSE or equiv.</th>
<th>A' levels</th>
<th>Degree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>%</td>
<td>9%</td>
<td>9%</td>
<td>16%</td>
<td>16%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Theoretical sampling (Glaser & Strauss, 1967) suggests that the sample should be reviewed during the research and extended as necessary. During my interviews I identified the relevance of email usage on mobile phones, and therefore deliberately included three Blackberry users. I also tried, but failed, to include respondents who
made video calls, although my sample did include three lapsed users. I believe that this reflects the lack of success of this technology.

6.4.4 Interviews
I conducted the pilot interviews in October and November, 2004 and the remaining 30 interviews between March and September, 2005; I have included all 32 in the analysis. The interviews all took place in the south of England, ranging over a broad area from Guildford to Croydon. Most interviews took more than two hours and the last half hour was usually the most productive. The interviews were recorded using a digital recorder. Photographs and field notes were used to record the interview context and my observations. An outline of a typical interview is shown in appendix three. In line with grounded theory (Glaser & Strauss, 1967), the discussion guide and research materials evolved as the interviews and their concurrent analysis progressed. I transcribed each interview, usually immediately afterwards. This enabled me to reflect on my interviewing technique and to identify new topics for discussion. I changed my discussion guide for nearly every interview, incorporating new questions that were particularly relevant to that particular respondent, or which had become relevant in the light of previous interviews. Throughout the interviews I focused on social rather than work related communication, although it was clearly difficult for some respondents to disentangle these two aspects of their lives.

Interview Resources
Research materials used during the interviews included communication channel cards, social circle drawings and Blob Tree diagrams. In my pilot interviews, I found that it was difficult to get respondents to articulate the more mundane characteristics of communication channels, such as the audibility of phone calls, because these were taken for granted. In order to elicit respondents’ communication constructs, I used a form of repertory grid analysis (Kelly, 1955). Repertory grid analysis is designed to elicit ‘personal constructs’; these are the concepts respondents use to understand and interpret the world around them. For Kelly, these constructs are individual or ‘personal’ and always bipolar, e.g. sensitive or not sensitive. In conventional repertory grid analysis, respondents are shown three items and asked which two are most

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1 It was very difficult to recruit people who used Blackberries, because they tend to be particularly busy. Consequently, I agreed to shorter, one hour interviews with two Blackberry users.
similar, and then asked in what way they are similar; the answer is a personal construct. Theoretically this exercise should be repeated for many different triads, until all the relevant constructs have been elicited. I originally thought that I would use this technique for identifying my respondents' constructs and produced a set of cards for different communication channels. However, I found that this process took a long time, was boring for interviewees, and was relatively unproductive. I therefore adapted the method and, using only those channels that were relevant to a particular respondent, simply asked them to arrange the different modes of communication in groups, putting those that they thought were most similar together (see Figure 6.1). When they had done this, I asked them to talk about how they had grouped the channels. On occasion, respondents talked about the difficulty of classifying a particular medium; for instance, several chose to use the construct 'personal', and then found it difficult to decide whether text messages were personal or impersonal.

Figure 6.1 Card Layout Produced by Frank

This exercise helped me to elicit the constructs my respondents used to distinguish between communication channels, and also indicated how they perceived the different channels. I sometimes asked respondents to repeat this process several times. On occasion, I asked respondents to rank channels in terms of a particular dimension, and I sometimes used the cards to force a comparison of three specific channels, for instance, text messages, mobile phone calls and email.
In my interviews, I approached communication perceptions in two ways. At the beginning of the interviews, we discussed the respondent’s perceptions of communication channels in general, focusing on perceived characteristics and choice. For instance, using a communication diary entry or a saved text message I might ask, ‘Why did you text rather than call?’ In the second half of the interview, I changed tack and focused on specific contacts, trying to understand how their communication repertoires varied for particular relationships. In order to elicit the various relationships in their lives, I asked respondents to complete social circle drawings (Pahl & Spencer, 2004). I gave them charts containing concentric rings and asked them to put themselves in the middle, and then write in all the people in their lives, using the rings to indicate how close they were to that person. This was not unproblematic; some people didn’t understand, and I had to clarify that I was concerned with emotional closeness rather than geographic distance or frequency of contact. Some seemed to find it stressful to think of their relationships in this way, but others naturally grouped contacts, and in some cases spontaneously used the distance metaphor before I introduced this exercise. These charts were very useful, because I could then choose a name and discuss the respondent’s communication repertoire with that person. Figure 6.2 demonstrates how these drawings were used in the interviews.

Figure 6.2 Eddie’s Social Circle Drawing
I also used a projective exercise in the interviews. I wanted my respondents to compare the phenomenological experience of different communication channels. This was a difficult area, because my respondents took these experiences for granted and found them hard to articulate. To help with this, at the end of the interviews I used a Blob Tree diagram (Wilson, 1991), see Figure 6.3.

Figure 6.3 Yves’ Blob Tree Diagram

I asked respondents to choose figures that best illustrated what they felt when making phone calls, texting, or emailing etc. Although this exercise was difficult to analyse, their choices seemed to me to be relevant and surprisingly consistent, both with the
views that they had expressed in the interviews, and between respondents. On occasion, the exercise provoked respondents’ reflections; their spontaneous comments at this point were often particularly illuminating. As shown in Figure 6.3, Yves selected figures representing (tele)phone calls, text messages, email and instant messenger. He feels closest to the other participant when using instant messenger and hates the phone; his feelings are reflected in the figures he chose. Blob diagrams were only used in 24 interviews, because I identified the technique after I had started my interviews. I have also excluded Harry’s Blob tree exercise from my analysis, because his deafness meant that he couldn’t take phone calls.

**Interviewing Style**

Rapley (2004) distinguishes four interviewing styles: a passive and neutral approach; the active involvement of the interviewer as a person in the interaction; the use of intimate self-disclosure to encourage disclosure; and interviewing as mundane interaction. Rapley recommends the latter which is “engaged, active or collaborative interviewing” (p. 26). He points out that none of these interview styles necessarily produce better data; the data is not the interviewee’s individual responses, but their talk as embedded in the context of the interview as a whole, and it should be analysed as such. Rapley claims that two key interview issues are rapport and neutrality. Rapport is something that interviewers work to produce, in order to develop the interviewee’s trust. Neutrality is variously regarded as essential to avoid influencing the findings (Douglas, 1985), or as undesirable and to be relinquished in favour of mutual self-disclosure (Oakley, 1981). Rapley argues that neutrality is a misleading term; interviewers are never neutral because, even if they refrain from asking leading questions and offering their own opinions, they still control the whole process. Their choice of questions, prompting, silences, back channelling and decisions to pursue a particular answer, all contribute to the construction of the interview. Recognition that interviews are active (Holstein & Gubrium, 1997) and not neutral, allows the interviewer to ask directed and even leading questions, because this can be taken into account in the analysis of the research. However, the corollary of the recognition that interviews are not neutral, is that they cannot be analysed as ‘windows on reality’. All interviews, despite efforts to avoid influencing findings, involve co-construction of the data and do not give direct access to respondents’ experiences (Miller & Glassner, 1997). Holstein and Gubrium (1997, p. 114) urge that we recognize that meaning is
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"actively and communicatively assembled in interviews", consequently interviewers are "deeply and unavoidably implicated in creating meanings that ostensibly reside within respondents". Interviewees are not passive conduits, but actively construct their realities in response to questions. Consequently, rather than trying to avoid 'contaminating' questions, 'active' interviewers may offer relevant conceptualisations.

In my interviews I used a combination of interviewing styles, depending on the respondent, the topic and the stage in the interview. My natural style is to say as little as possible, often leaving my questions unfinished and open ended to enable respondents to complete them in ways that they found relevant. I experimented with other styles. Although I generally tried to ask questions in a neutral way, I found that on occasion a leading question was particularly valuable, because it forced the interviewee to confront an issue. On several occasions, the interviewee initially agreed, then thought more carefully and disagreed, reflecting a high degree of cooperation. I found self-disclosure less successful; on the recordings I seemed artificial and there was rarely an obvious payoff. Often towards the end of the interviews I worked collaboratively with my interviewee, discussing and developing conceptual models together. Vocalising models during the interview was also a useful way of capturing my interpretive ideas in my recordings.

The presentation of self (Goffman, 1959) is relevant to interview interaction. The respondent projects himself as an "adequate interviewee" Rapley (2004, p. 16), in response to the way the researcher presents herself (Fontana & Frey, 1998). Although I presented myself as a student, rather than as an academic or researcher, I initially tried to present myself as a competent interviewer and user of new communication technology. However, I learned that appearing incompetent was actually a more effective strategy. Research interaction is also influenced by the researcher's gender, age, life stage, class and personality; these factors should be taken into account during analysis.

6.4.5 Communication Diaries
I asked my respondents to fill in a 24-hour communication diary on the day before the interview (see appendix four). These worked in several ways. Firstly, they were a
source of information on respondents' communication behaviour, corroborating their comments in the interviews. Secondly, they were a useful resource in the interviews, identifying communication partners and patterns, and thus helping me to frame relevant questions. Inevitably, the diaries also primed participants, encouraging them to reflect on, rationalize, and construct their communication use. Several commented that the diary had made them more aware of their communication habits. This was useful, but may also have influenced the interviews, and, as such, is part of the context of my analysis. Although I analysed the diaries, I did not find them particularly useful compared to the much richer sources of the transcripts and the text messages.

6.4.6 Text Message Sample
I asked my respondents to save all the text messages sent or received on the day before the interview. In addition, during the interviews we looked at other messages saved in their phones. I either wrote these down or they forwarded them directly to my mobile phone. There was a wide variation in the number of messages that could be saved on respondents' phones, ranging from only ten to several hundred. A few of my respondents were reluctant to show me their text messages, and in several cases I had the impression that they had removed sensitive material from their phones before the interview. Some of the messages they showed me were particularly personal and I felt it was inappropriate to take a copy of the message. These attitudes reflect the inherent privacy of mobile phones. I collected nearly 300 text messages, but some of these were sent by or to me, and were therefore excluded. My final analysis included 278 text messages. I have analysed these using content analysis and state the proportions in various categories, for example, the percentage that contain abbreviations. However, these are indicative only; it is not suggested that this sample is representative or large enough to draw conclusions about the structure of text messages in general.

6.4.7 Mobile Phone Bills
I asked my respondents for examples of their mobile phone bills, photocopying them before returning them. These were useful resources within the interviews and also corroborated phone call and text message usage patterns. The level of detail of these bills varied, but many showed the phone number, the time of day, the duration of
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every call made and the number of texts sent at a particular time. I saw sixteen phone bills (and took copies of fourteen). Some respondents did not have mobile phone bills, either because they didn’t have contract phones (seven respondents) or because their contracts were paid by their companies (three respondents). Six did not keep copies or were understandably reluctant to show me copies of their phone bills (which contain the phone numbers of all their contacts).

6.4.8 Immersion in the site
Although no formal observation research was conducted, as a mobile phone user immersed in a culture which is eagerly embracing mobile phones, I am a participant observer who remembers a previous culture. Not only do I have very frequent opportunities to observe mobile phone interaction, but it is a frequent topic in films, books and newspapers. These sources were not analysed formally, but they influenced the research design and my analysis.

6.4.9 The Use of the Mobile Phone in the Research
I used my mobile phone to facilitate the research in several ways. Firstly I gave my mobile phone number in the leaflets and posters used to recruit respondents, so that the initial contact was usually by text message. Secondly, I used text messages to remind respondents to start their communication diaries on the day before the interview, and in turn, the inclusion of my texts in their diaries confirmed the accuracy of their reporting. During the interviews I used my mobile phone to take photographs of the interview setting, of respondents’ mobile phones and of the layouts of their communication cards. In many cases, respondents forwarded their saved texts to my mobile during the interview to save me copying them down.

6.5 Analysis
Huberman and Miles (1994) divide data analysis into three stages: data reduction, data display, conclusions and verification. However, I saw it as a continuous, iterative process that began during the interviews – shaping my questions, and continued throughout transcription, coding, a formal period of analysis and during the writing process.
6.5.1 Transcription

I scheduled the interviews so that I could usually transcribe each interview before conducting the next one. The digital recordings were transcribed using a simplified form of Gail Jefferson’s conversation analysis notation (Atkinson & Heritage, 1984), because I found this made it easier to read the transcriptions (see appendix five). I endeavoured to create accurate transcriptions, but discovered that a linear format cannot always capture the simultaneity and sequencing of conversation. I embedded the text messages collected, and photographs of the research setting, of the respondent’s phone, and of the three exercises, into the transcripts. As I transcribed, I highlighted key segments and inserted codes into the text relating to emerging patterns, hypotheses, and associations. I also used the transcriptions as a research diary, including notes about the research as they occurred to me. In retrospect, this was very useful because it enabled me to trace the development of my analysis and relate it to the relevant data. This process resulted in over 2000 pages of data. I rechecked all the quotations that I have used here against the original digital recordings. The transcription process made me aware of the extent to which listening itself is a selective process of perception (Bruce, cited by Krauss & Chiu, 1998). During the interviews, I rarely noticed background noises and how some respondents stumbled and repeated themselves, because I automatically screened this out. In fact, when transcribing, I found it was extremely difficult to tell whether a respondent repeated a phrase three or four times, despite being able to replay the recordings.

6.5.2 Coding

Coffey and Atkinson (1996, p. 27) stress that although coding may be part of the analysis process, it should not be thought of as a substitute for analysis. Coding links data fragments to concepts, but “the important analytic work lies in establishing and thinking about such linkages, not in the mundane processes of coding”. However, Tesch (quoted by Thompson, 2002, sect. 4) contends that the choice of codes is not a mechanical process, but requires “skilled perception and artful transformation”. My own view is closer to Atkinson and Coffey, in that I treat codes as labels in a filing system, rather than as theoretically meaningful dimensions. However, the identification of the patterns in the data that are coded is not automatic; consequently I agree with Richards and Richards that coding is a “a theorizing process” (Richards and Richards, quoted by Bong, 2002, sect. 3; 1994).
I coded the transcripts using Atlas.ti, a ‘code and retrieve’ CAQDAS (Computer Assisted Qualitative Data Analysis) software package. It is suggested that use of CAQDAS software facilitates: systematic coding, comprehensive searching, use of multiple and overlapping codes, coding of large data sets; and hypothesis testing (Gerson, 1984; Padilla, 1991; Fielding, 1994; Coffey, Holbrook, & Atkinson, 1996). Conrad and Shulamit (1984) claim that using a computer for the more mechanical aspects of the process allows the researcher to devote more energy to analytic and interpretive work. However, others are more critical, contending that computer coding encourages a focus on de-contextualized segments, with consequent loss of the overall picture (Roberts & Wilson, 2002; Bong, 2002). I disagree: the CAQDAS software packages that I have used have all made it easy to view excerpts within the context of the transcript as a whole, as well as facilitating extraction of all excerpts with the same code. In fact, I used Atlas.ti to improve my concept of the overall picture, for example, quickly identifying all comments in a transcript about a specific topic. I transferred each transcript to Atlas.ti, coding the transcripts in random order using a random number generator (Random.org, 2006), to avoid an order effect. I derived codes from many different sources. Some codes came from the literature, for instance the interactional characteristics identified in chapter five. Many codes emerged during the interview and transcription process, and others arose during the coding process. In the coding process, I worked through each transcript line by line, allocating appropriate codes. My segments were of variable length, ranging from one word to several paragraphs, and I used overlapping and coincident codes as appropriate. Overall, I coded about 8000 segments and used nearly 500 codes (see appendix six). Over 400 of these codes were used in the first three transcripts; this reflects a high degree of consistency.

I used codes in many different ways. My codes included mundane demographic and usage details, the emerging communication channel constructs used by respondents, my reflexive thoughts about my interviewing technique and the research process, research notes, discourse analysis observations, etc. I found that I had to remove all the embedded pictures for the Atlas.ti analysis, because the size of my files made the programme unstable, and I therefore used special codes to describe visual features of the Blob Tree exercise. I also introduced special codes to analyse the text messages, for example, whether they had kisses, salutations, abbreviations etc., to enable a
content analysis of these messages. Although in some cases a code name related to an analytical concept, I treated my codes more like folders to which I could, by means of Atlas.ti, output relevant segments. The output from a specific code, which could be 50 or more pages long, was then recoded, usually using paper coding, but on occasion I re-entered the output file for a second order computer coding. Overall, I think that Atlas.ti made it much easier for me to access my data and to be methodical in my analysis. The use of CAQDAS proved particularly useful when I went back to the transcripts during the writing process to check on specific issues. Although this was several months after my analysis, I found that I was able to access the data quickly and easily.

6.5.3 Analysis Strategies

Although CAQDAS coding has been closely associated with grounded theory (Lonkila, 1995; Coffey et al., 1996), Lee and Fielding (1996) claim that it is adaptable for different analytic strategies. My analysis was influenced by some elements of grounded theory (Glaser & Strauss, 1967), but I used several different analytic strategies, adapting them to the specific topic. In line with grounded theory, I used theoretical sampling, analysed the research as it proceeded, and allowed codes to emerge from the data. However, whereas in grounded theory the analysis should emerge solely from the data, I had a framework of research questions and used codes from the literature, in addition to those that emerged from the data. Codes in grounded theory are analysed hierarchically, moving from lower level codes to higher order codes, which have a better explanatory power. In most of my research, I was not interested in a reductive analysis. For example, I was not trying to find an overall category for communication-related effort, because I already had the concept of production cost. Rather, I wanted to discover the different aspects of this concept and its relevance to respondents. In grounded theory there is an emphasis on causal explanation, but I was often more interested in meaning and practice.

In my analysis, I used different approaches for different aspects of my study. These included an analysis of the constructs used by my respondents, content analysis of text messages, and discourse analysis of key passages, together with more conventional analysis of themes, attitudes and usage frequencies. Analysis involves looking for patterns in the research data, and these can range from patterns that are common to all
respondents, to patterns that are found in only a few transcripts, down to patterns that occur within a particular transcript. All of these are relevant, although the emphasis moves from inductive inference, which is concerned with law-like regularities, to abduction, which is more concerned with explanation and the connections between concepts. In my analysis, I combined different approaches, including a consistent methodical analysis, which attempted to generalize across the data, and a more intuitive, interpretive analysis of small sections of the data, influenced by both ethnomethodology and discourse analysis. For the more methodical part of my analysis, I used many of the specialized search tools in Atlas.ti, particularly the ‘query tool’, which enabled me to explore coincident, overlapping, preceding or following codes, using Boolean logic operations. This was particularly useful for the analysis of the text messages collected, for instance calculating the proportion of text messages with salutations. The network interface of Atlas.ti also made it easy to depict connections between codes graphically. In addition, to the Atlas.ti tools, I used Excel spreadsheets to record key variables for each respondent, and to track the uniformity of the research sample. I noticed that there was sometimes a difference between my subjective impressions from the interview and transcription process, and the results of a methodical analysis of the data facilitated by CAQDAS. For example, I had thought that usage of instant messenger was low and that it was still in the early stages of adoption, but I discovered that although only two of my respondents were intensive users, in fact fourteen respondents had tried it.

The analysis of interviews as interaction requires a reflexive approach (Fontana & Frey, 1998). “The interview is a joint accomplishment of interviewer and respondent. As such its relationship to any ‘real’ experience is not merely unknown but in some senses unknowable” (Dingwall quoted in Rapley, 2004, p. 16). This means that it can be misleading to extract quotations from the transcripts and treat them as data. The analysis of ‘active’ interviews (Holstein & Gubrium, 1997) recognizes that research is an interactive process, and instead of just reporting what was said, attempts to document the process of meaning-making within the interview environment. This constructionist approach to interviews creates a problem when trying to generalize across respondents, because one has to collate replies from questions which, although intentionally similar, are often worded quite differently. The extent of this problem depends on the topic; for instance, it was quite straightforward to ask each respondent...
if they used email, and then to aggregate the responses across all the interviews. This was more difficult for less categorical variables, but I tried to do it by adopting a consistent approach. For example, when I analysed respondents’ attitudes to the use of mobile phones in public, I went through each segment with this code, determining the range of attitudes and I then applied this ‘scale’ to get an overview of respondents’ attitudes. However, in addition, I used these segments to understand the role, range and formation of mobile phone normative practices. Here, rather than reducing the data to common elements across the interviews, elements from different interviews are compared to illuminate the researched phenomenon. In my analysis I also found deviant or negative case analysis useful (Merton, cited by Stinchcombe, 2005; Silverman, 2001). Negative case analysis suggests a focus on exceptions and an attempt to refine conclusions to account for variations in the data. This amounts to looking for patterns within the variances. For instance, I noticed that whereas many respondents felt very close to the other person when on the phone, there were a number of exceptions; this led to my identification of two different types of mobile phone user. Analysis involves movement from the data to an inference, but this does not mean the connection between the data and the inference is obvious. I often found that I did not recognize a connection at first exposure. For instance, in my last interview I made a connection between the respondent’s description of text message interaction and Garfinkel’s documentary method. Having made the link, I found that my first interviewee had made the same point, but I had not made the same connection. The formal process of analysis encourages one to focus on inscriptions from the research, such as the transcripts, diary entries, and text messages. During the interviews I learnt a lot from my respondents’ non-verbal behaviour that wasn’t picked up in the recordings, and I tried to include these impressions in my analysis.

Lincoln and Guba (1985) suggest reserving a portion of the data for comparison with the findings. I tried to do this by randomly selecting half of my transcripts and analysing them first. Theoretically, if the second half of the data is not used to derive hypotheses, it can be used to test them. However, although the second sample did support the findings from my initial analysis, the process was not reliable. When I coded the second half of the data, it was clear from my comments in the transcripts that some of the analytical findings, which were ostensibly based on the first sample, had actually been derived from the second sample, albeit during the interview and
transcription process. I was also concerned at the robustness of the reduced sample of only sixteen respondents, because I noticed that on one dimension, broadband use, there was a marked difference between the two samples. On the other hand, if I had done the first analysis before doing the second half of the interviews, the analysis would have shaped the second group of interviews. However, my practice of inserting comments into my transcripts enabled me to date many of my hypotheses, and it was clear that many of these were identified during the first few interviews, and confirmed by later interviews. More importantly, there were very few examples of hypotheses that were disproved by later interviews, although in several instances my findings were refined as the research developed. Another problem with reserving some of the data to test the findings is that analysis is ongoing; it sometimes took me a long time to see connections which, in retrospect, I could have seen in earlier data. However, this exercise did encourage me to focus on the consistency of my data, and I consequently checked the uniformity of my two sub-samples frequently during my analysis. The consistency between these sub-samples suggests that my sample size was adequate.

Research analysis involves identifying patterns within data. These patterns are identified on the basis of their explanatory power and/or their fit with the data. However, Garfinkel's (1967) documentary method raises legitimate doubts about the reliability of the analysis process, because it shows how 'facts' may be moulded to perceived patterns in "fact production" (p. 79). I think that the inferences I draw and the patterns I identify are sanctioned by the members' methods used by sociologists within the setting of sociological research. This is supported by discussion with other sociologists, and by my providing excerpts of the data, and making the process of interpretation explicit, so that it can be re-created and corroborated by the reader.

6.6 Evaluation of the Research Design

6.6.1 Research Criteria
My thesis adopts an anti-foundationalist, constructionist approach. These philosophies are relevant to the research and an evaluation of its rigour. The concern is that if the world is constructed through the interpretation of its actors, then research, however rigorous, cannot depict an objective reality (Lincoln & Guba, 1985). Questions about
the ontological and epistemological status of the empirical world threaten the traditional research criteria of validity and reliability. Validity cannot be explained in terms of reality or ‘the facts’ if this reality is disputed. Similarly, if reality is constructed through interpretation, there is inherent subjectivity and variance, which challenge the concept of reliability. However, relativism does not mean that everything is equally subjective, and therefore that ‘anything goes’; but rather that everything must be justified, “a matter of consensus and disputation” (Edwards, Ashmore, & Potter, 1995, p. 39). Haraway (1991b, p. 191) criticizes relativism as “a way of being nowhere while claiming to be everywhere equally” and argues for “situated knowledges” which are always held from an embodied, partial perspective. My view is somewhat similar; I think that the concept of objectivity as a view from nowhere does not make sense, and that my research findings are situated in the discipline of sociology, in a particular culture, at a particular time.

Although the criteria of validity and reliability have traditionally been applied to quantitative research, many authors also use validity as a criterion of qualitative research (Hammersley, 1992; King, Keohane, & Verba, 1994; Silverman, 2001). “An account is valid or true if it represents accurately those features of the phenomena, that it is intended to describe, explain or theorise” (Hammersley, 1987, p. 69). Kirk and Miller define reliability as “the degree to which the finding is independent of accidental circumstances of the research” (cited by Peräkylä, 1997, p. 203). In quantitative research, reliability is defined as the consistency with which the research measurements can be repeated or replicated. It is more difficult to replicate qualitative research, because it does not use a standardized research instrument such as a questionnaire. This challenges the concept of reliability, but one can still look for consistency within interviews and across respondents, and try to identify the effects of the research process.

I think that the research criteria of validity and reliability can both be applied to qualitative research, and have used them in my study. Validity is the extent to which research measures what we think we are measuring. I do not think one has to theorize an external reality to use this criterion. After all, even if one takes a realist approach, an external reality is not available to verify validity. What would make my research invalid is not identification of differences between it and an external reality, but
inconsistencies between my own views, or between my interpretations and those of other sociologists. Validity depends on what one is trying to measure, and the extent to which the research is a good source of this information. It is established by reasoning about the research method and the inferences from the research. For instance, in my research, it would be invalid to treat my respondents' descriptions of text message practice as a definitive source of general practice, because their experience is limited to their own 'text circle'. I checked the validity of my research in many different ways throughout the research process, and include three examples to show how I implemented this criterion. Firstly, I recruited my sample carefully, as reported in section 6.4.3; this increased the validity of my generalisations about my research, because it made it more probable that the patterns that I found applied to UK mobile phone users in general, and not just to my respondents. Secondly, I had several sources of data. In addition to the interviews, I used my respondents' diaries, text messages, and mobile phone bills and continually looked for differences between these sources. For instance, during the interviews, I cross-checked respondents' claims about their daily usage of texts, with the number of texts in their diaries, and with their average daily usage, which I estimated from their phone bills. This enabled me to ask further questions to resolve any discrepancies. Thirdly, I tried to understand the ways in which my respondents used language and concepts, and did not assume that this always coincided with my own usage. For example, in his interview Cecil said that text messages were more private than a video phone call, I did not understand and asked him to explain; it emerged that he was using the word 'private' in the sense of 'less invasive'. However, the validity of my research is relative to my sociological perspective. For example, although from a layman's perspective I thought that a group of my respondents were on the autistic spectrum, I have not included this in my findings, because I do not have the relevant specialized knowledge to make a valid inference of this kind.

In my research I attempted to achieve reliability in several ways. I think that my sample of 32 respondents was adequate, because of the consistency I found between my two sub-samples, as described in the last section. Throughout the interviews I checked the consistency, and therefore the reliability of my respondents. I usually tried to ask questions without leading my respondents and took my own contribution into consideration during analysis. I also tried to be aware of my preconceptions and
continually re-evaluated my interpretations of my data. Finally, I analysed my findings during the data collection process and this enabled me to test my developing theory in subsequent interviews. However, my research is framed by my sociological perspective and hence its reliability is relative to that frame. For example, when I write about normative practices, I impose a sociological concept that shapes my findings.

Several authors suggest additional or alternative research criteria. Hammersley (1992) stipulates relevance, and although this seems rather difficult to define it is related to usefulness, and seems to me to be a reasonable criterion. In my concluding chapter I extend the theory I have developed to other communication channels in order to demonstrate its usefulness. Stengers (cited by Pryke, Rose, & Whatmore, 2003) emphasizes the role of risk in research: in ‘good’ research, the research questions are at risk of being redefined by the research phenomena. I think one can relate this to Garfinkel’s (2002) emphasis on the inadequacy of research that does not risk losing the phenomenon. If research is without risk, the findings are not empirical, but already contained in the premises. In my own research I think I took risks, for example, in the innovative research techniques that I adopted. In addition, my research was designed so that my concept of interactional channel characteristics could be redefined by my research findings.

Lincoln and Guba (1985) regard validity and reliability as impossible within an interpretivist paradigm, and advocate trustworthiness as the criterion of naturalistic inquiry. They suggest four criteria for determining the trustworthiness of naturalistic research: credibility, transferability, dependability and confirmability. I disagree and have argued that both validity and reliability are coherent criteria within an interpretivist frame. I think that trustworthiness is a flawed criterion because it privileges research that supports existing paradigms and research from recognized authorities, discouraging the risk that, as Stengers asserts, characterizes good research. Treating credibility as a criterion of research quality could encourage one to deliberately skew the process to obtain findings that are believable, and therefore ‘better’. It seems to me that Lincoln and Guba confuse research criteria with the strategies used to judge whether they are satisfied (Hammersley, 1992). Morse et al. (2002) claim that Lincoln and Guba’s criteria have marginalized qualitative research,
pointing out that their criteria refer to the evaluation of research after completion and are less useful for guiding research design.

6.6.2 Research Questions and the Research Design

In this section I show how my research is designed to answer my research questions. The relationship between the research and my inferences depended on the topic. For some of my research questions, I relied on my respondents' reports of their behaviour, but for others I used their behaviour within the interviews as evidence of their interpretive constructs. My research problem can be summarized as, 'Do the characteristics of communication channels shape social interaction, and if so, in what ways?' In chapter one, I divided this into four related questions; I go through each question in turn, explaining how my research was designed to answer that question.

I. To what extent can one identify inherent interactional characteristics of interpersonal communication channels? What are these characteristics?

In chapter five, I produced a list of interactional characteristics of communication channels from a review of the literature. My interviews involved prolonged discussion and comparison of different communication channels. My analysis identifies the constructs used throughout the interviews to describe the interaction in different communication channels and compares these with those I derived from the literature. In this part of the research I was more interested in my respondents' language and the salience of the different communication concepts they used, than in their reports of their behaviour.

II. To what extent do people perceive differences in the interactional characteristics of different channels of communication? Is this relevant to choice and usage?

This was covered directly with questions, such as 'How would you describe the differences between text messages and phone calls?' and 'Do you use mobile calls and text messages differently?' Throughout the interviews, my respondents described their perceptions of different communication channels. In addition, I probed specific channel characteristics, for example, asking them to compare the effort of texting and calling. I also asked about channel choice, for instance: 'When would you choose text messages instead of calls?' This question was also tackled indirectly, asking
respondents to explain their channel choice for specific diary entries or text messages. In addition, I discussed the communication patterns within particular relationships and asked respondents to reflect on their choice of communication channel on specific occasions. I treated their rationalisations of choice as constructed motives that were situated within the interview and not as reports of mental processes (Wittgenstein, 1953; Wright Mills, 1940). This is particularly pertinent because from the interviews it was clear that channel choice is usually instinctive and only rarely deliberated. Their motives might have been constructed quite differently in other circumstances. However, it is likely that the concepts used would have been similar, even if their rationalisation for a particular use was different. For example, a respondent might explain that he sent a text because it was quick, whereas on another occasion he might have explained the same choice in terms of the recipient's preference. Nevertheless, over the course of an interview, and of the research as a whole, most of the relevant concepts should be elicited.

In exploring why people choose specific channels, I might seem to imply a causal link between these factors and their behaviour, but my evidence is only their constructed rationalisations. There may be factors which unconsciously influence their behaviour, such as sound quality, but of which they are unaware. These factors are causes but they cannot be reasons; on the other hand, respondents' constructed reasons may well not be causes (Davidson, 1980). This does not mean their reasons are irrelevant, because my objective is to understand how communication channels are perceived. Even if their perceptions of apparent causal links are wrong, they are still relevant to consumer behaviour and user design.

I was also interested in the relationship between technological and social factors, and the extent to which these were distinguished by my respondents. I therefore explored the normative practices that they associated with each channel, attempting to assess to what extent these were rationalized in terms of technical factors, and whether normative practices were treated as inherent channel characteristics. For instance, when told that text messages were quick because one could just send one line, I asked why one couldn't just make one comment in a phone call.

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2 Unconscious reasons don't seem to make sense (although unconscious motives do).
Channel usage was covered by numerous questions in the interviews. However, my respondents were unable to accurately recall their daily usage patterns, although the communication diaries encouraged them to think about this before the interviews. In addition, social acquiescence may have affected some answers, for example whether they replied to text messages. Respondents’ reports of their usage patterns were compared to their mobile phone bills, where these were available. Generally use was exaggerated; typically they thought they sent more texts and made more calls than shown in the bills, but their behaviour patterns were more reliable. Their diaries were less useful than the phone bills for this, because they only captured the usage of one day and my respondents often claimed that they were atypical. However, the diaries were particularly useful for quantifying text message reciprocation rates, because replies are often made in different channels. My respondents clearly found the diary writing process quite onerous and I believe that some were written up afterwards. Some had used their mobile phone logs, which obviously increased accuracy, but I did not have time to check these logs during the interviews. It is also possible that the process of writing the diaries affected the communications made. However, some of the collected text messages, such as goodnight messages, corroborated both claimed usage behaviour and the diary entries.

**III. In what sense can new mediated channels, and specifically mobile phones, create new forms of interaction?**

This was not something that my respondents could answer easily, although I did ask about the extent to which new channels were supplementary rather than substitutional. For instance, birthday text messages were sent in addition to phone calls and greeting cards. I also explored the extent to which they saw practices, such as goodnight text messages, as new forms of communication. When going through their saved text messages, I discussed meaning construction and interpretation, misunderstandings and repairs. In addition, I made inferences based on their descriptions of the different ways in which they used each channel, on their descriptions of their phenomenological experiences when using that channel, and from my analysis of the text messages collected.
IV. What is the social significance of the interaction enabled by new mediated channels, particularly for social relationships?

I discussed each significant relationship in turn, exploring the role of mobile phone communication, if any, in the development of that relationship. Questions included, 'Is it easier or harder to develop close relationships when you’re not face-to-face?'; 'Do you have any relationships which would not exist without text messages?' This was the most problematic area of the research, because respondents do not really know whether mobile phones have affected their relationships. In addition there is, I think, a natural reluctance to admit that such pragmatic matters are relevant to their most intimate relationships. However, in some cases the effect was obvious, both to the respondent and to myself, for instance, where relationships were developed exclusively through a protracted exchange of text messages, or where text messages were the only form of communication. In other cases, I made inferences from respondents' comments, discussing with them possible causal links between their mobile phone usage and relationships. This is discussed in detail in chapter ten, which also attempts to draw out the social significance of the relationship effects I identified.

6.6.3 Evaluation of the Research Design

Recommended research evaluation strategies include reflexivity, member checks, triangulation and prolonged engagement. Altheide and Johnson (1994, p. 489) emphasize the situated, interpretive process of ethnography, and encourage a reflexive focus on the researcher's role. Silverman (2001) also emphasizes reflexivity and reflection on the impact of the researcher, the values of the researcher and the truth of the informant’s account. I have tried to adopt a reflexive approach throughout this study.

I did not go back to my respondents for member checks, for several reasons. Firstly, I was constrained by resources and preferred a larger sample size rather than a smaller sample, combined with member checks. Secondly, much of what I was interested in, for example respondents' use of communication constructs, is not something they would be able to check, because they are not consciously aware of these constructs. Furthermore, in my research I was generally not concerned with underlying attitudes, but regarded the attitudes and motivations expressed in the interviews as co-
constructed; this belies the concept of member checks. Moreover, as Fielding and Fielding (1986) point out, there is no reason to assume that members have privileged status as commentators on what occurred in the interviews. From my sociologist’s perspective, I felt that my recordings and notes were more reliable evidence of what had occurred in the interviews than my respondents’ memories, several weeks after the interviews.

Triangulation derives from quantitative research and suggests that multiple measurement may compensate for the error in any one method (Seale, 1999). Denzin (1978) extends it to qualitative research and includes the use of different sources, researchers, theories and methods. The concept of measuring the same phenomenon in different ways assumes a fixed reality (Blaikie, cited by Seale, 1999) and consequently the use of mixed methods (Tashakkori & Teddlie, 2003; Caracelli & Greene, 1997) is more relevant within an interpretive approach. A combination of different methods is thought to improve reliability and provide complementary insights. Although my research was originally conceived primarily as interviews, I found that I collected a large number of text messages. To an extent, each method corroborated the other: the text messages served as examples of what respondents claimed, and the transcripts provided the context that made the text messages intelligible. Moran-Ellis et al. (2006) suggest that multiple methods can be integrated and analysed in two stages. Each source is analysed independently first, and then common ‘threads’ from different sources are analysed in an iterative, integrated analysis. This is similar to the process I followed.

Prolonged engagement in the research site also increases research credibility (Lincoln & Guba, 1985). Due to resource constraints my research was not longitudinal, and only provides a snapshot of usage at one time; my findings are likely to be short-lived, because the usage of communication channels changes over time.

6.6.4 Research Ethics

My research ethics were based on the British Sociological Association guidelines (BSA, 2002) and my own ethics. Although mobile phones are private, I did not think that my interviews were likely to affect “the physical, social and psychological well-being of research participants” (op. cit., p. 2). My respondents received information
sheets and signed consent forms (see appendix seven). At the beginning of the interview I paid respondents and made it clear that they could stop at any time, and that they didn’t have to talk about anything that made them feel uncomfortable. I expressly asked permission before taking any pictures, and did not include respondents in my photos, except in one case where the respondent insisted. I was conscious that the mobile phone is a private area and therefore asked for consent, before exploring respondents’ phones, and before collecting text messages. Where these were forwarded to my phone, I offered to pay the costs. Initially I had more reservations than my respondents, finding it difficult to ask personal questions, for instance about relationships. However, I learnt that most respondents were happy to talk about these areas, and were confident enough to draw their own boundaries. I disguised my respondents’ names, giving them aliases in alphabetical order. I also changed all the names in the quotations and text messages used, except in the social circle drawings, and in the excerpts and analysis related to these drawings. My consent form gave each respondent the opportunity to check my transcription of their interview, but none took advantage of this offer. In one case I realized that a colleague might be able to identify himself and consequently my interviewee, from a text message I had used. I therefore checked with him and my respondent, but they were not concerned.

6.7 Writing the Research

In writing my research, I have tried to achieve clarity, consistency and reflexivity. The crisis of representation is the problem that research cannot capture lived experience (Lincoln & Denzin, 1994); this raises questions about the relationship between the research description, the research and the reader. Smith (1978) shows how research accounts contain instructions for their interpretation and authenticity, so as to present a particular perspective. Writing research is not unproblematic and transparent, but is influenced both by literary style and conventions which suppress pragmatism and disorder (Pryke et al., 2003). Stengers (cited by Pryke et al., 2003) argues that good research should not gloss the risks taken or downplay interpretative ambiguities. Despite some sympathy with these views, I thought that a fuller description of the trials and tribulations of my research would have made my thesis longer and harder to read.
Writing is part of the research process rather than just a retrospective report. It is difficult to understand and compare arguments, do analysis and or develop theories without writing. Describing scientists, Latour (1990, p. 22) notes how inscription helps to discipline the mind, "When these resources were lacking the selfsame scientists, stuttered, hesitated or talked nonsense ... Although their minds, their scientific methods, their paradigms, their world-views and their cultures were still present, their conversation could not keep them in their proper place. However, inscriptions or the practice of inscribing could". Inscription creates 'mutable mobiles' and these help the researcher to juxtapose different ideas, making apparent connections and discrepancies. Writing is the means of constructing research and not just the way it is reported.

When writing my analysis chapters, I was troubled by the role of quotations from the transcripts. It was hard to avoid the idea that these were evidence, but I was concerned that as segments, out of context, their status as evidence was rather weak. I think that my quotations work in several ways. Firstly, they illustrate how I interpreted and analysed the data. Abduction changes the role of research data from evidence to a source of inspiration that provides insight into a phenomenon. Extracts from the transcriptions illustrate this process. Secondly, they succinctly capture a particular point of view using the respondent's own words to provide a gloss of veracity. In addition, they sometimes allow the reader to confirm a respondent's understandings because, according to the 'proof criterion' (Sacks et al., 1974), each next turn of interaction displays to the other participant (and therefore to the analyst and the reader) how it was understood. Finally, although the quotations, on their own, do not adequately capture the interaction, they may evoke the reader's recognition of commonplace social realities (cf. Sharrock & Button, 1991, p. 171).
The Characteristics of Mobile Phone Communication

7.1 Introduction

This is the first of four chapters reporting my research findings. In this chapter, I focus on the interactional channel characteristics, channel usage and choice, in response to my first two research questions, which ask:

i. To what extent can one identify inherent interactional characteristics of interpersonal communication channels? What are these characteristics?

ii. To what extent do people perceive differences in the interactional characteristics of different channels of communication? Is this relevant to choice and usage?

My research shows that the interactional characteristics of communication channels depend on both technological and social factors, and that these are interrelated. This is discussed in more detail in the next chapter, where I explore mobile phone normative practices. My third question asks whether new mediated channels, and specifically mobile phones, create new forms of interaction. This is covered in chapter nine, which examines text message interaction. Chapter ten responds to my final question, and focuses on relationship effects and their social significance.

The first part of this chapter describes my respondents' communication repertoires and typical usage patterns. The interviews revealed a surprising segmentation between two types of users, Talkers and Texters; their different attitudes and usage patterns are also presented in this section. The second part of the chapter focuses on my core research question, users' perceptions of the interactional characteristics of communication. Section two compares the interactional concepts used in the interviews, with the typology developed in chapter five. I analyse each concept in turn, assessing whether its usage by my respondents supports its classification as an interactional channel characteristic. The penultimate section of this chapter addresses channel choice, describing the many factors, both technical and social, that respondents think influence their channel choices. In the concluding section, I present my typology of interactional characteristics, and use it to compare face-to-face interaction, mobile phone calls and text messages.
7.1.1 Communication Repertoire

The communication repertoire of the sample is shown in Table 7.1. Email usage was higher than I had expected, although many were in the early stages of adoption, with limited social use. All except five respondents used the Internet and fifteen had broadband. At 85%, the proportion with Internet access was higher than the UK average (at the time of the research) of 60%, but the proportion of those who had broadband (56%) was in line with national figures (Dutton, di Gennaro, & Hargrave, 2005). This may reflect a correlation between mobile phone and Internet usage. Younger respondents rarely had landlines unless they lived with their parents. Social letters are used very occasionally: to people abroad, at Christmas, or in sympathy if someone has died. Although nearly half had some experience of instant messenger, usage was relatively low with only two using it frequently.

Table 7.1 Respondents' Communication Repertoire

<table>
<thead>
<tr>
<th></th>
<th>Landline†</th>
<th>Email</th>
<th>Instant Messenger</th>
<th>Letters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>27(1)*</td>
<td>8(6)*</td>
<td>8</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>4</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>Base: 32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* (tried not using)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>† Two thirds cordless</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

7.1.2 Mobile Phone Usage

Within the sample, there was a wide range of phones, from Anna's 1999 model, to new phones with all the latest features. Attitudes to mobile phones ranged from extremely enthusiastic to less positive, reluctant adopters. Intensity of usage did not seem to be related to technological enthusiasm, but technophiles were more likely to have expensive phones. Respondents' attitudes to their phones were often offered as part of their identity, whether it was, "I'm called the mobile phone queen" (Dee) or "My phone is quite often dead" (Jackie). The average length of ownership was seven years (see appendix two for respondents' phone details). Eight claimed that they had been reluctant adopters; emergency and work were common motives for the original acquisition (cf. Palen et al., 2001). For most, their mobile phones had become indispensable; they were kept on and used even when at home. There were many

1 Throughout I adopt the convention of italicising quotations from the literature, but not those of my respondents. Quotations are indicated by double quote marks, or by inset text in slightly smaller font. Text messages are enclosed in boxes and attempt to recreate the original layout on the respondent's phone.
spontaneous enthusiastic comments, “If I didn’t have a mobile phone one day, I’ll freak out, I just couldn’t function” (Frank); for Tanya leaving her phone at home “feels like I’ve lost an arm” (cf. Hulme & Peters, 2002).

Fred lives in a hostel for the homeless; his only close relationship is his 21 year-old daughter, who has been travelling for the last four years. They cannot afford mobile phone calls, but he sends her a text message every morning. He panics when he sees that the battery on his phone is low, because he has to borrow a charger. His phone is his “lifeline”: “I just like to have it there ((indicates his pocket)). It’s my companion, you know, that’s my daughter in there, my ‘wife’”.

<table>
<thead>
<tr>
<th>Mobile Calls</th>
<th>Text Messages</th>
<th>Picture Messages</th>
<th>Email on Mobile</th>
<th>Bluetooth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>32</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>27</td>
<td>27</td>
</tr>
</tbody>
</table>

Base: 32

Table 7.2 shows respondents’ usage of different mobile phone channels. All respondents made calls on their mobile phones and all texted, but Victor could only reply to text messages, except when using his Blackberry phone, because he didn’t know how to initiate messages on ordinary mobile phones. Although half the sample had camera phones, and most of these took pictures, only five respondents used picture messages. These were used very occasionally and none sent video messages. Three respondents had some experience of video calls, but none currently used them. Despite strenuous efforts, I was unable to find any regular users of video calls. These findings are in line with UK usage (Ofcom, 2005).

7.1.3 Talkers and Texters

Although all my respondents made calls and sent text messages, there was considerable variation between their relative usage of these channels. Reid and Reid (2005a) distinguish between ‘Talkers’ and ‘Texters’; preference for texting or talking split their sample roughly in half. Cognizant of Reid and Reid’s distinction between ‘Talkers’ and ‘Texters’, I compared respondents’ attitudes to texting and calling. However, whereas Reid and Reid seem to have used a question about preference to
define their two categories, I was wary of this approach, because I wanted to
distinguish between preference based on the intrinsic interactional characteristics of
the medium, and preference based on extrinsic factors, such as price or contract
allowances. I therefore first asked respondents how comfortable they felt, relatively,
face-to-face, on the phone or when texting. In addition, I explored actual usage and
price sensitivity. This was a relatively sensitive issue, because some respondents were
embarrassed about their inadequacy on the phone. On occasion, an informant’s
discomfort with calls only emerged towards the end of an interview, in response to
direct probing, contradicting his earlier comments.

Responses fell into two groups: the majority were most comfortable when face-to-
face, then during calls and then when texting (two had no preference). However, five
of those who were most comfortable with calls nevertheless texted, usually because of
cost, or in Harry’s case, because he is deaf and unable to hear when on the phone.
However, a substantial minority, twelve (38%)\(^2\) were most comfortable when texting,
usually followed by face-to-face, with phone calls as the channel in which they were
least comfortable. Note the asymmetry in that Texters generally prefer texting even to
face-to-face communication, whereas Talkers are most comfortable communicating
face-to-face; this pattern was also found by Reid and Reid (2005a).

Mobile phone bills, where available, and diaries supported claimed relative usage,
although there was a degree of over-claim. Mobile phone contracts are generally
designed for Talkers, with a basic allowance of calls and optional ‘top ups’ of text
messages. Most Texters with contracts were not using their call allocation each
month, and had accumulated a large number of ‘free’ minutes. For example, Xavier’s
bill was £46.01: he had an allowance of 120 minutes and a further 120 minutes had
‘rolled over’ from the previous month; in fact he used 13 minutes, and 109 texts. In
contrast Dee’s total bill was £50.37; she had used 497 minutes of her 500 minute
allowance (there was no carry over), and 79 texts. Whereas Talkers enjoyed talking
on the phone and could spend up to an hour on a call, Texters spoke of minutes: “I
can’t understand people who’ll talk on the phone for ten, fifteen minutes” (Yves).

\(^2\) Use of a simple preference measure, such as that used by Reid and Reid (2003), would have divided
my sample approximately into two halves between Texters and Talkers, in line with their findings.
The discomfort they experienced when making calls varied, but three respondents were extremely phone averse. Zoe met me with the words “I’m a ‘phone-o-phobic’”. Throughout the interview she explained her strategies for avoiding calls. She unplugged the answer phone on her landline to avoid having to call people back, and made excuses to get off the phone, even when talking to her mother or sister. She had particular problems with strangers:

Zoe: Even if I want a Chinese, I have to either go and ask my next door neighbour ‘Can you ring this up for me?’ Or if there’s someone in the house they can do it. I can’t do it. I can not ring up and order food, over the phone.

Yves shared her attitude to phone calls. If the job agency rang him to arrange an appointment for an interview, he would not take the call, but would use the call as a cue to go there physically, to avoid having to speak on the phone. This actually happened during the interview, and although I signalled that it he could take the call, he let it ring. The only UK phone numbers on his phone bill were a local taxi company, a pizza delivery company and his home number. However, through a dating site on the Internet he has built up a network of friends throughout the world with whom he exchanges text messages and emails, and has instant messenger conversations. Kevin also hated talking on the phone. If his mother called he would visit her, rather than return her call. He met his long term girlfriend in an Internet chat room. They meet rarely (she lives in Scotland) and do not speak on the phone, although they text frequently during the day. Despite using each other’s phone number to send frequent texts every day, they are not tempted to call each other.

Kevin: The only time I’ve spoken to her on the phone was (.4) ‘I’m at the airport waiting for you. Where are you?’
Ruth: So, not at all as emotionally close, as you are with texts, on the phone?
Kevin: No.
Ruth: But yet face-to-face?
Kevin: Face-to-face emotionally close, text messages –
Ruth: Why?
Kevin: I don’t know. Neither of us has ever phoned each other.

(bold is my emphasis)

The other Texters shared these attitudes to an extent, but were less extreme, often being relatively comfortable when talking to close contacts or strangers, but not with those in between. Other respondents explicitly recognized this category and often
chose to text those they described as being ‘not a phone person’ or ‘not good on the phone’. These attitudes to the phone are somewhat surprising given that my respondents all spent over £15 per month on their mobile phones. As Kevin said, “the only thing that surprises me, about me, is why I even bothered getting a mobile phone in the first place”.

Texters gave various reasons for their discomfort on the phone, including the lack of body language and consequent problems in interpreting cues; the need for small talk; and the difficulty in getting off the phone. As Kevin put it: “I’ve found myself thinking on a call before, ‘OK we’ve got the information. Can we just finish the phone call now, please?’” Most Texters also had particularly negative attitudes towards voicemail and answer phones (although one preferred it to actually having to talk on the phone). In my sample there were nine who never left voice messages; eight of these were Texters. This suggests that their problem with phone calls is not just the interpretation of tone, dislike of small talk or desire to get off the phone, as none of these are relevant to voicemail. Another possible explanation is that they find it difficult to present self and play roles, with the voice as their only resource. This would explain why they find it embarrassing to make or take calls in front of copresent others, and why they dislike voicemail, as these expose their ineptitude. Although the Texters among my respondents found it difficult to explain their attitudes, their responses, when I persisted, demonstrate considerable awareness:

Kevin: Maybe it’s hard work, maybe it’s harder work than a face-to-face conversation. (3) Um, there is an expectation of, of fluffiness in the call, which is an awful lot easier for me in person to person. (2) And written communication doesn’t have the same expectation of (2) the sort of bonding bit that goes around the conversation, when you’re just having an idle chat with someone. (3) Maybe I know I’m not great, or think I’m not great at it, and want the visual cues to back up the audience cues.

(bold is my emphasis)

Kevin dislikes small talk or “fluffiness” in a call. He finds this “bonding bit” difficult, suggesting a problem with presentation of self when on the phone. Kevin is aware that he finds it difficult to interpret “audience cues” when there are no visual cues, and explained, “I’m really, really lousy at picking up details in live conversations”. Texters may be less comfortable when face-to-face and on the phone, because they
are less accomplished in the presentation of self, and/or because they find it difficult to interpret the presentations of others. Phone calls are more pressured than face-to-face conversation, because silence is unacceptable. David was interesting because he had found phoning difficult when he was at university, getting his mother to make calls for him, but was now comfortable on the phone. He was conscious that his experience of phone calls had changed, but could not really explain why this was. Difficulty on the phone may be something that some people grow out of; this would explain the particular appeal of texting to younger people (Ling, 2004).

The problems experienced by those who are phone averse may be a combination of factors and may vary between people. Reid and Reid (2005a) used established psychology scales to measure ‘Loneliness’ (Russell, 1996) and ‘Interaction Anxiousness’ (Leary, 1983). They found that Texters were more ‘lonely’ and ‘anxious’ compared to Talkers. These findings are consistent with these respondents’ claims that they are more comfortable when texting than face-to-face. Their discomfort in phone calls may be an extension of their relative discomfort in face-to-face interaction, because most of my interviewees experienced calls and face-to-face interaction as similar.

The difference between Texters and Talkers was demonstrated by the Blob Tree exercise, as shown in Figures 7.1 and 7.2. I asked respondents to choose a picture that best illustrated what they felt when using calls, text messages, email, etc. All except one of the Talkers chose intimate figures to represent the experience of being on the phone, with six choosing the third picture in Figure 7.1. Texters, on the other hand, typically chose pictures showing more distant figures falling, waving, or hanging, as shown in Figure 7.2. However, when asked to repeat the exercise thinking specifically about their closest relationships, some Texters did choose more intimate figures like those shown in Figure 7.1. Talkers talked about how close they felt to the other person during a phone call, whereas Texters said they felt detached and sometimes anxious. The phenomenological experience of phone calls appears to be different for the two groups; Talkers seem to feel a sense of connectedness that Texters do not experience.
The distinction between Talkers and Texters is relevant to my research, because attitudes and usage were so different in the two groups. My research suggests that there is an interaction between the technology and the individual characteristics of the user, and that this affects the user's phenomenological experience when on the phone. The comments of Texters were particularly useful in the research, because they seem to be aware of aspects of phone conversation that others take for granted. Telephone aversion has been recognized for nearly 50 years (LaRose, 1999), but I found relatively little research on this area. Wurtzel and Turner (1977) suggest that 15% of the population are telephone averse; this corresponds with the 10% of my sample who were extremely phone averse. Research on telephone aversion has focused on extreme cases; my research suggests that in a milder form it is relatively common and influences phone usage. Those respondents who were phone averse generally preferred written media not only to phone calls, but also to face-to-face communication; this suggests that it is an important but neglected aspect of social interaction.

In the rest of this chapter I discuss the constructs used by my respondents to conceptualize mobile phone communication channels, and compare them to those I identified in the literature.
7.2 Interactional Characteristics

My objective was to identify the concepts used by my respondents to describe the interactional characteristics of communication channels. Underlying my research method was the assumption that these constructs were revealed by their salience in the interviews. Throughout the interviews, I tried to identify the constructs my respondents used to describe interaction through different communication channels. These were elicited in many different ways. Initially I asked them how they would explain the difference between phone calls and text messages to a non-user. I also asked them to talk about their usage patterns, the entries in their communication diaries and the way they communicated in specific relationships. In addition, using repertory grid style cards, they compared the interaction through different communication channels. In each case, I was interested not only in their specific answers, but also in the way they conceptualized the interactional differences between communication channels.

Table 7.3 Respondents’ Terms for Interactional Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Typical Respondents’ Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copresence</td>
<td>Like face-to-face, being there, being together, direct, versus indirect, distant</td>
</tr>
<tr>
<td>Audibility</td>
<td>Hear the voice, speak to them, versus silence</td>
</tr>
<tr>
<td>Visibility</td>
<td>See them, see where they are</td>
</tr>
<tr>
<td>Cotemporality</td>
<td>Immediate, instant, real time versus quick, nearly the same time versus delay</td>
</tr>
<tr>
<td>Simultaneity</td>
<td>At the same time, feedback</td>
</tr>
<tr>
<td>Sequentiality</td>
<td>In order versus out of order</td>
</tr>
<tr>
<td>Revisability</td>
<td>Change it, edit</td>
</tr>
<tr>
<td>Reviewability</td>
<td>Look at again, reread</td>
</tr>
<tr>
<td>Production cost</td>
<td>Effort, chore, hassle versus convenient, easy</td>
</tr>
<tr>
<td>Reception cost</td>
<td>Effort, interrupt, disturb, intrusive versus unintrusive</td>
</tr>
<tr>
<td>Expressive content</td>
<td>Body language, tone, expressions, cues, nuances, clues, signals, brief versus long, amount, space</td>
</tr>
<tr>
<td>Social Presence</td>
<td>Personal, emotional, intimate, sensitive, warm</td>
</tr>
<tr>
<td>Connectedness</td>
<td>Connect, connection, in touch, in contact, feel closer</td>
</tr>
</tbody>
</table>

Table 7.3 maps the terms used by my informants to the relevant concepts from the literature. Most of the characteristics I had selected from the literature were used by my respondents, although they obviously did not use words like ‘copresence’. Twelve of the concepts shown here were selected in chapter five as being the best candidates from the 37 concepts I reviewed. Social presence, which I reviewed but did not select,
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is also included, because of its prevalence in the literature. In the rest of this section I go through each of these concepts in turn, evaluating whether my empirical research supports its inclusion in my typology of interactional channel characteristics.

Before I conducted my research, my approach to the interactional characteristic was rather simplistic. I had assumed, for instance, that audibility was intrinsically advantageous for interaction. However, from the interviews it became clear that most interactional characteristics are dimensions (in this case from silence to sound) and that different points on the scale can be interactionally useful.

7.2.1 Copresence
In chapters three and five I extended the concept of copresence to cover mediated interaction; copresence is mutual concurrent awareness or the sense of being there together. Although my respondents seem to use this concept, they do not use the term ‘copresence’; rather the other person is ‘there’ or ‘not there’. The excerpt below illustrates the way I worked with respondents in the interviews to explore copresence.

Carol and I were talking about the difference between phone calls and text messages.

1. Ruth: What’s the difference? I know it’s really difficult.
2. Carol: Yes. Oh (.) I’ve not really had to think about it before so, um (.8)
3. I don’t know, I think it is possibly because we are human and
4. we do need that kind of contact and the (.3) to know that there is
5. a physical person there. Um, I’m not sure how to explain it,
6. because I mean I do get satisfaction from (.7) a text message as
7. well.
8. Ruth: But it’s, you’re saying it’s different and when you’ve got p-. Is it
9. in the sense of the, with the phone call the other person is more
10. there? Is that what?
11. Carol: Yes, I think (.2) the other person is there, then and there. And
12. you’re both communicating at exactly the same time. And that
13. person has stopped to speak to you and you’ve stopped to speak
14. to that person and you’re both (.2) com[municating]. Like your
15. thoughts are together at the same time.

Note that Carol comments (line 1) that she has not thought about this before; respondents do not normally think in these terms. At line 5 she suggests that on the phone she knows there is a “physical person there”. Her use of ‘physical’ is interesting given the mediation of the phone. I try to clarify this in lines 8 to 10, by suggesting that it is a matter of degree. However, although she agrees, Carol emphasizes concurrence “there, then and there” and “at exactly the same time” (lines
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11 and 12); this is part of copresence. She also suggests that focused attention is relevant; the participants have stopped to speak to each other (line 13-14). The sense of intersubjectivity and the cotemporality of copresence are captured by her last sentence: "your thoughts are together at the same time". The concept of copresence was often used when respondents were comparing phone calls and text messages: they contrasted calls in which they were 'there', with SMS where the other person was 'not there'. When comparing face-to-face interaction and calls they did not make this distinction, because in both cases one is there; both channels enable copresence. Consequently, phone calls are used when they feel lonely and in need of company. This also came up spontaneously, when I asked them how they would deliver bad news; they invariably said that this should not be done by text, but should be done by phone or face-to-face. They explained that they had to 'be there' in order to support the other person. This use of 'there' is in line with Sacks' (1995, p. 461-2) discussion of place terms. 'There' does not refer to location in this usage, but to situation; the interactants are there together in a mediated situation. A physical metaphor was also used by Sue when we were discussing her Blob Tree figures.

**Figure 7.3 Sue's Blob Tree Diagram**

1. Ruth: Why is that one text and that? (indicating picture for calls)
2. Sue: Because you're actually talking to them there, aren't you?
3. Ruth: Yeah. So it's closer?
4. Sue: Yeah.
5. Ruth: So hhh with text is there a feeling of being connected to the other person?
At line 2, Sue distinguishes calls from text messages: "because you’re actually talking to them". In response to my direct question she agrees that calls feel closer, but comments that there is still a feeling of connection with text messages. However, in lines 8 to 9 she explains the difference, claiming that in calls one is "actually physically talking" (that is, there is a shared practice). Sue says that phone calls are "like face-to-face" (line 9). Others made the same point; the comparison was taken further by Jackie: “although you’re not actually looking at each other, I suppose in a sense it still, it’s face-to-face, without the faces”. Zoe, who is phone averse, made the same point when explaining why she preferred text: “at least I don’t have to talk to them. I know it’s not, it’s daft ‘cos it’s not face-to-face on the phone, but it is face-to-face to me”. The mediated copresence of phone calls is similar to the physical copresence of face-to-face interaction. Calls are perceived as ‘direct’ interaction, the other person is ‘there’. This can divert attention from the face-to-face situation, “you forget actually that you’re in a crowded place, you’re kind of in your own little world” (Anne). This is consistent with my interpretation of phone calls as mediated situations; the participants feel as if they are together.

The feeling that the other person is ‘there’ depends on the perceived focus of attention. If the other person isn’t listening, it may feel as if they are distinctly ‘not there’. The focus of attention mediates the experience of copresence. Dee was talking about how she felt when she was on the phone:

Dee: Yeah I feel close to people. Sometimes you do, but then sometimes you know that other people are talking to you on the phone (mainly) and you’re talking to them, but they’re not listening. I do that a lot with Chris ((her partner)). Sometimes I’ll be sitting doing whatever. Watching the telly and he’ll be going on. And I don’t even know what he’s saying. I just know that he’s finished and I will be going yeah, yeah, OK, yeah ( ). So sometimes I’m not even on the phone, I am on the phone, but I’m not really listening. You know ‘cos he phones up, he phones up so much, that he hasn’t really got anything else different to say.

(bold is my emphasis)
Dee’s phrase “not even on the phone” when describing herself on the phone, illustrates how ‘being there’ is intrinsic to being on the phone. The copresence of phone calls was also reflected by respondents’ use of the term ‘situation’. Phone calls and face-to-face interaction were both situations; it was easier to ‘leave the situation’ when on the phone than when face-to-face. Text message conversations were not referred to as situations; one could always just ignore or delete a text message. This supports my situational analysis of mediated communication in chapter three. Dee’s comment also highlights expectations of focused attention on the phone, although clearly this can be simulated. Respondents had an idealized view of phone calls: “you’ve very much more got somebody’s undivided attention on the phone and than, than almost anything else ...” (Harry). In practice most multitasked when on the phone (two thirds had cordless landline phones) and recognized that others did too.

In addition to respondents’ spontaneous discussion of copresence during the interviews, at the end of each interview I asked directly whether they felt as if they were with the other person when on the phone.

Ruth: I mean, is there a sense in which the other person is really more there than (.)?
Carol: (.) Yeah the other person is (.6) Yeah I mean the other person is, I mean practically there really except for you can’t see them.

Nearly all respondents agreed and several used the same simile as Carol. It was like being with the other person, but with one’s eyes shut. I found this a difficult question to ask because the indexicality of the word ‘there’ makes it so ambiguous. Sometimes they thought I was asking if they were in the physical location of the other person. Two of those whom I have classified as phone averse said they felt nothing, or were just bored, when they were on the phone. Their anxiety on the phone may be undermining this aspect of copresence. In contrast, when discussing texting, respondents spoke of the other person as not being there, or of ‘distance’.

Copresence is not always an advantage. Olivia explained that it was easier to use endearments in text messages, because if one was rejected “it wouldn’t matter ‘cos you’re not there”. The feeling that the other person isn’t ‘there’ in text messages is especially relevant in embarrassing situations and in new relationships. This is
discussed in chapter ten; in chapter nine I argue that unintrusive ‘thinking of you’ text messages exploit their lack of copresence.

7.2.2 Mode Characteristics

Rather than discuss audibility and visibility individually, I have grouped them into a single mode dimension, because it became clear in the research that audibility and visibility were complex categories, rather than simple affordances. Visibility is complex, because what is relevant is not visibility per se, but the nature and range of any visual elements. Visibility can refer to the interactants, their environments or the message. For my respondents, visibility was an important aspect of face-to-face communication, but the limited visibility of picture messages did not, in most circumstances, provide a significant communication advantage. They were used by only five interviewees, and then rarely. Where they were used, it was often to convey visual novelty, for instance, a car that had flipped in an accident (Eddie) or a pub sign with a rude double entendre (Cecil).

Three respondents had used video calls, but none used them currently. Two had tried it only once or twice, despite owning video phones, because being seen by the other person was a significant disadvantage. They found it invasive and it made them feel vulnerable, although they had no difficulty when face-to-face. In face-to-face communication, both participants and their mutual context form a composite visual frame; this is very different from the limited vista of a video call. Video calls force a choice between participant and background, and even when the latter is chosen, the perspective is very limited (for instance, you can’t tell if there is someone else is in the room). This, and the loss of acuity (and consequently eye contact) means that participants cannot see “their experiencing of others” or “this sensing of being perceived” (Goffman, 1963a, p. 17). They can’t see how the other participant is reacting to them, and this makes them feel uncomfortable, “they can see all your actions, they know exactly what you’re, how you’re coming across” (Cecil). My three informants distinguished between seeing the other person and being seen; the benefit of seeing the other participant was not worth the disadvantage of being seen. Calling someone on a video phone was perceived as particularly invasive, because the recipient was so exposed if she answered the call.
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Audibility is much more relevant than visibility for mobile phone channels. Harry was particularly interesting; he had suddenly and permanently lost about 75% of his hearing after a plane journey. The particular sound characteristics of phone calls meant that he was virtually unable to hear on the phone, but we were able to communicate in the face-to-face interview. Harry was particularly aware of the differences between the calls he could no longer make and the text messages he was forced to use instead. He also distinguished between hearing and being heard, or “the transmitter and the receiving bit of sound”; he felt that his loss of the latter was compensated, because he could see non-verbal communication, and he could still speak. Harry’s awareness of what he had lost provides a poignant description of audio communication and the intersubjectivity it affords: “Well you lose humanity, don’t you? You lose the human interchange, you lose, you know, I miss it, because I’ve had it, and it was – and it’s gone”.

Nearly every respondent used the phrase ‘hear the voice’ and this was often their grounds for choice and preference. The voice was invariably seen as an essential aspect of phone calls, and was important for several reasons. Firstly, the tone gives off considerable information, both about the other participant and about their reaction to your comments. Jackie pointed out, “You can hear sighs, you can. You can’t hear them on text messages can you?”, and went on to describe text messages as “voiceless images”. The impotance of the voice, and the extent to which it conveys meaning, is reflected in this extract, where Fred is explaining why he feels close to his daughter on the phone.

Fred: ... And you can hear the voice, you can hear it, you know. Say a little joke, and I can hear that she’s happy or not happy, you know, I can hear, feel that I can hear, () by the sound of the laugh.

Secondly, the voice is distinctive and specific to a person, as Eddie put it, it’s in the “same vein as someone’s handwriting, ‘cos it sort of really defines that person”. Whereas a text message could “just be anybody” (Dee), the voice is characteristic of the person and “it gives you a kinda like recognition and reassurance” (William). Several respondents commented that hearing the voice enabled them to visualize the other person, and this increased the feeling of connectedness.
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My respondents' disparaging attitude to voicemail indicates that it is not the sound of the voice, per se, which is valued, but verbal conversation. Although one can hear the voice in a voice message, the sound experience is very different, because it is not interactive. Recorded phone messages were not valued; usually voicemail was not saved by service operators for more than a few weeks, but this was not a problem for my respondents. Eleven respondents had switched off the voicemail option or didn't bother to retrieve messages. Many don't leave voice messages, texting instead or relying on the miscall notification. Voicemail wasn't seen as communication, people were "just leaving a fact" (Cecil); "they're only speaking to your phone, they're not having contact with you" (Ella). This reflects the role of shared practice in conversation. Talking about voice messages, Patricia explained:

Patricia: ... 'cos then there's no kind of reaction to what you're saying or how you're, you know, what tone you're taking in the text. Or if it's on a call, how your voice is sounding. There's no, not picking up any emotion. A voicemail is a voicemail and that's it. It's, it's done, you know, there's no kind of room to correspond with it. Well there is afterwards, after the event. Whereas even with a, a text, it's more of a, a quicker response than with a voicemail.

(bold is my emphasis)

Audibility is not always an advantage. Some respondents spoke about the silence of text messages as a benefit. The silence of text messages makes them less intrusive to bystanders, so they can be used at work or in restaurants, without disturbing other people. Silence also makes text messages more private: it meant that Nick and his friends could circulate dirty jokes, and Olivia could send text messages about her affair in the presence of her husband. Rosie said, "My children can hear me on the phone in the car, so [I] tend to text at the traffic lights". Text messages were sometimes used for private communication between two people who were copresent, to avoid being overheard.

What is relevant is not just that an interaction includes images or sounds, but what is seen or heard, and the quality and interactivity of the communication. Interviewees also distinguished between seeing and being seen, hearing and being heard. Visibility and audibility could be negative as well as positive aspects of communication, and the

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3 Except by Mary who had about 40 messages saved on her home answer machine.
benefit of perceiving the other person had to be traded off against the cost of being perceived.

Although text messages are visible, one can see neither the other participant nor their context. In my research legibility was treated as a third communication mode. Written communication was often contrasted with verbal communication, endorsing the distinction I drew between them in chapter two. For instance, Jackie grouped the communication cards into ‘written’ and ‘spoken’ formats (see Figure 7.4).

**Figure 7.4 Written and Spoken Channels**

![Diagram showing written and spoken channels](image)

Harry seemed to be particularly aware of the differences between written and verbal communication, because he had become deaf and couldn’t use the phone. Comparing the two, he stressed the responsiveness of verbal conversation. Several respondents said that people expressed themselves differently in writing. Although some people were more circumspect about written media because it persists, most of my respondents said that they (or their partners) found it easier to express their emotions when texting. They thought that people ‘went further’ and revealed more about themselves in text messages; female respondents thought that men were more romantic in text messages (this is discussed in more detail in chapter ten, section 10.6.1). It was not clear from the research whether this is a general characteristic of written communication or a specific characteristic of text messages (perhaps because...
they have a light-hearted ethos which allows people to be more outspoken). Typed written communication was seen as more anonymous than visual or verbal communication, “it’s just words, it’s just a machine” (Frank), but hand written letters were personally distinctive.

7.2.3 Temporal Characteristics
In chapter three, I identified three temporal characteristics: cotemporality, simultaneity and sequentiality; all three were used in the interviews. Respondents frequently described and compared interaction in temporal terms. Phone calls were instant and immediate: “you’re living in the moment, communicating in the moment” (Harry). Cotemporality is an important characteristic of phone calls, because it enables responsive, interactive communication.

In phone calls the reaction is immediate. This enables dialogue, which facilitates quick resolution, for instance if they are trying to make arrangements. Some respondents distinguished the instant response of phone calls from the more considered replies to text messages; it was “the unconsidered reaction that you, that’s giving the extra information” (Ulysses). What is given off quickly is more revealing of self because it is spontaneous (see section 7.2.6). Many respondents chose to make phone calls because they enable dialogue. “People can play off each other” (Patricia), one can “bounce stuff off somebody” (Xavier). Responsiveness is important when participants want to collaborate, for instance, when discussing something. Dialogue was frequently the reason for choosing to make a call. It is much easier to reach agreement in conversation, because the documentary method of interpretation enables co-construction of understanding. Harry explains the process:

Harry: We’re having a conversation now where you’re if-ing and butting and suggesting (.) possibilities that are under my initial point of view, and we’re thrashing those out. So I mean that’s what we’ve got. It’s a possibility with a two-way live communication. With a two-way, not-live communication it takes a lot longer to get to that, if you get to it at all. (.) So you don’t have that (.).

Several respondents used the concept of simultaneity, usually when trying to explain the experience of calls: “you can hear each other’s breath” (Jackie), “it’s the feedback loop” (David), “it’s like the encouragement, isn’t it. It’s like if you or I were talking,
you’d go mm, yeah, mm” (Olivia). Concurrent response or back-channel feedback means that they can gauge others’ reactions as they speak, changing what they say and forestalling inappropriate comments. They can check how they are being understood: “you get the reaction in [the] voice, which, you can then reassert what you meant. Yeah, you get that feedback in voice” (Ulysses).

Sequentiality, which relates to the sequencing of messages, was occasionally mentioned. Multi-page text messages could get out of order, and there was sometimes confusion over whether a voicemail was left before a text message was sent, or vice versa.

The most important temporal characteristic for mobile phone communication is cotemporality. However, rather than treat cotemporality as a dichotomy, respondents clearly differentiated the near-cotemporality of text messages, ‘a reasonably short period’, from the much longer delay they experience when sending letters. “They’re instant, people get them within ten minutes, a letter takes a day” (Rosie). Text messages replies are usually quick, but sometimes there is a delay. Bill explains here how this affects the connectedness of the experience, demonstrating the importance of near-cotemporality.

Bill: ... sometimes I’m not sure if she got a text straight away. I mean I feel like, when I send a text sometimes I kind of send it and it’s just like, well I send it. And sometimes if I get a quick reply, I sort of think, well that’s the moment when I’ve actually got a connection, because she’s actually got her phone with her.

Ruth: Right.
Bill: Whereas sometimes I send a text and I won’t get an answer for ages. And then when I eventually do get one, it doesn’t feel the same, because we won’t be (...). I think ultimately it’s about being in the same frame of mind at the same time with someone else, really.

The distinction made between near-cotemporality and long delays is important. Text messages differ from traditional mediated channels, because with their near-cotemporality they offer speed and a degree of responsiveness.

A new temporal interactional characteristic emerged from the research, continuity. Phone calls are continuous; the contact afforded by the channel is not momentary, but
extends over time. This means that calls encourage sustained attention. This is interactionally important and for my respondents could be advantageous, for example if they felt lonely, or disadvantageous, for example if they were busy. In contrast, texting is discontinuous and requires only intermittent attention. This is important, because attention is a limited resource; it is easier to fit discontinuous interaction into a busy schedule. Before initiating a phone call my respondents considered whether they, or the recipient, could spare the time. The discontinuity of text can be an advantage, because it gives the participants more time to think, as Anne explained:

Anne: ... it's discrete isn’t it? It stops, it’s not continuous in that way. Um, and maybe that’s one of the appealing things. Yes you can e- well I certainly think, you know, you’ve got time to say what you want to say and to take care.

(bold is my emphasis)

Rosie thought that text was often less disruptive because it didn’t require continuous attention:

Rosie: And actually quite often it would’ve been easier to phone, but (.) I don’t know. It’s, you know, you can have the dinner on, and the kids doing their homework, and it’ll just, we’ll just sort of have that conversation rather than it all interrupting your life. I think that’s what’s great about text, because it doesn’t interrupt.

(bold is my emphasis)

Text messages are not only less intrusive for the recipient, they are less disruptive for the sender, because they do not require continuous time. Text messages are discrete, and therefore interactants can pay attention to other activities between turns. However, unlike letters (which are also discontinuous), the near-cotemporality of text messages means that interactive conversation is possible. The continuity afforded by the phone means that a gap between turns of more than a few seconds creates “uncomfortable silences” (Irene), which are interpreted as meaningful (Jefferson, 1989). Continuity and discontinuity are partly shaped by social practice; it is normative expectations that make silence on the phone unacceptable. Continuity is important for sustained shared practice, and therefore for social situations.

### 7.2.4 Revisability and Reviewability

Although my respondents used the concepts of revisability and reviewability, they were only occasionally relevant to channel choice. Most respondents edited messages
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before sending them, but a substantial number did not bother. Some compose their
text messages and a few even treat it as creative writing, but most just write and check
them quickly. For my respondents, it is not the ability to compose and edit messages
that is important, but that they have time to think before responding, reducing their
need for what Goffman (1981) calls ‘safe supplies’ of conversational small talk. This
increases their control over the communication; they can decide what they want to
say, and say it without interruption. On the other hand, as some respondents noted,
this increased control over what is transmitted is offset by reduced control over what
is understood or received. Carol indicates her ambivalence, talking here about text
messages.

Carol: ... You can choose really carefully what you're saying and you
can (.2). You can pick specific words, but I mean, earlier on we
did say that they could be mis-, [the] written word could be
misinterpreted. So I'm not too sure really.

However, for those who touch type when texting, the process is fairly instinctive and
"your fingers are doing the thing for you" (Dee). The process becomes quicker,
reducing thinking time; texting becomes as intuitive as speaking. This difference
between mindful and habitual typing is illustrated by the following extract, where
Ulysses contrasts texting, which he finds difficult, and instant messenger, where he
touch types. He had just said that with instant messenger his “throw away lines”
sometimes came across as “very sharp” because there was no tone.

Ruth: Do you have the same experience with text messages at all?
Ulysses: (. ) No because they're much more considered. Because it takes
(.) a long time to put in, input the damn words, and because
you're minimising your words. (.2) Uh you get a chance to
think it through, just exactly what you're sending.
Ruth: Right.
Ulysses: Whereas it’s much more fluent on, uh, on instant messaging
((clicks fingers)). You don’t think about it, you don’t think about
your typing, just bang bang and ping. It’s gone and you go,
‘Ooh, what did I send?’

(bold is my emphasis)

Ulysses’ comparison of text and instant messaging shows how revisability is affected
by temporal characteristics and production cost. For Ulysses, instant messaging is
quicker and this encourages a less considered, more conversational style.
Reviewability increases the need for revising; text messages are 'in writing' and in some sense 'evidence', as Carol explained:

Carol: Well (.2) the reason you need to read (.2) and check texts and emails [is] because it's there printed. It's in type, so they could reread it. And, um, whereas a voice call, obviously certain things stick in ones' head, but it it's nev- you can never remember it in exactly the same way.

The reviewability of text messages was useful for arrangements, new addresses and invitations. It was also relevant for emotional messages: "I'll hang onto it for days and that I can do with texts, with the phone call you can't hang on to it" (Fred). Details may be texted to complement calls. The reviewability of text messages is made relevant by the mobility of the mobile phone, because people take calls when mobile, and in places where it is difficult to write anything down.

My respondents talked about durability, as well as revisability and reviewability. Durability is particularly important for letters and emails. Durability is related to privacy; communication that persists can not only be reviewed and revised, but can be shown or forwarded to others. Text messages are different from written media such as letters and emails, because their persistence is limited. Some respondents could only store ten or twenty messages, and even those with newer phones delete most messages, or lose them, when they get new phones. There were exceptions, particularly for romantic messages, which might be forwarded to the new phone or written down. The semi-permanence of text messages was contrasted with the durability of love letters; they couldn't be tied in ribbons. Durability is not always an advantage: "if you ring them there's no evidence of it on the phone" (Irene). Victor texted in some legally sensitive work situations because text messages were less likely to be saved.

From my research revisability, reviewability and durability are all interactional characteristics.

4 Kevin was able to save his text messages on his computer, but this was beyond the technical competence of my other respondents.
7.2.5 Production and Reception Costs

Production and reception costs were often mentioned and used to explain channel choices. There were many different types of cost including financial cost, time cost, opportunity cost, emotional cost, and effort. For instance, my respondents might compare the effort of typing and formulating a text message, with the cost of being on the phone, possibly for a protracted period. “I deliberately didn’t call her, because I thought I’ll be on there for hours, and I haven’t got hours” (Anna). In addition to prolonged duration, the continuity of phone calls requires a sustained focus of attention, which affects the caller as well as the recipient: “I find texting doesn’t really interfere with what I’m doing so much” (Carol). Although most respondents multitasked when on the phone, silence is socially unacceptable, so they have to be responsive. Production cost can be emotional: Fred and Lynn described recent traumatic events where they had texted rather than phoned, because they didn’t want to talk. Effort included communication related effort, such as typing, and incidental effort, such as buying stamps. In the next extract, Bill’s term ‘expense’ is a reference to reception cost. He is explaining why, although he prefers calling, he often texts.

Bill: So, uh, I think it makes more sense to me if, um, if um, if it’s not at other people’s expense. If it’s like ‘cos they’re like, whatever they’re doing, they’d probably really don’t want to be disturbed.

Respondents differed as to whether phone calls or text messages required more effort. Production cost is user related. Those who text less frequently, or don’t use predictive text, find the keyboard fiddly and tend to think that phone calls are easier. However, for most (and especially Texters) texting is quick and easy, and phone calls involve more effort. It is also task related; for complex arrangements or sensitive issues, phone calls can be easier.

Reception costs mirror production costs and include interruption of activities, time, effort and emotional cost. Irene’s boyfriend first told her he loved her by text: it was “much easier for him to write it than say it, also much easier for me, because I didn’t have to sort of worry about what my face was doing”. Reception cost was frequently the reason for choosing text messages, rather than phoning. My respondents thought about what the other person was doing, conducting a ‘priority analysis’ (Schlegloff, 2002). In order to assess reception cost, users build up detailed schedules of their
close friends’ activities (this is discussed in more detail in chapter ten, section 10.5). The contact threshold for text messages was lower; they have less reception cost and are therefore less intrusive.

Production and reception costs are partly social (the prolonged duration of calls arises from normative rather than technical constraints) and are partly user related - depending, for instance, on the typing skills of the sender and the activity of the recipient. However, I regard them as interactional channel characteristics, because they are clearly channel related and were often used to explain channel preference and choice.

7.2.6 Expressive Content
My respondents frequently distinguished between channels in terms of the quantity and range of cues experienced. They talked both about cues given and those given off, although rarely in those terms. Expressions given were ‘what was said’ or the ‘contents’; those given off were ‘body language’, ‘signals’ and ‘nuances’ which were ‘picked up’, or ‘came across’. These cues were important for understanding what was communicated, but also told them about the mood and emotional state of the other participant. In line with Goffman (1959), respondents thought that expressions given off were less controllable, and therefore more reliable. It was hard to tell if someone was lying on the phone, and even harder when texting, because there were fewer involuntary cues: “on mobile, on any phone, um, you sort of have to listen to their body language as it were, you know, how they respond to you. ... when it’s face-to-face you can gather more from the expressions” (Greg). Written formats were the worst, as Nick explained:

Nick: There’s no, there’s like I say, there’s no way of expressing what you actually mean in, in a letter form of any description. Uh, spoken you can you get all the nuances and, especially if it’s face-to-face, you can tell (. ) how people are feeling by their facial expressions, body language. Anything like that is all, is all clues to how people, what people are saying, why they’re saying it and probably hidden meanings behind what they’re saying. Whereas something that appears on a little plastic screen black on white (. ) What what’s the feeling in that? None whatsoever.

(bold is my emphasis)
Text messages are brief with little given content. This makes them quick and easy to send, but also difficult to interpret (see section 9.6.1). Their brevity increases the relevance of any expressions given off. As Greg put it, “It’s lots of little messages in there”. In phone calls the voice gives off emotions and reactions:

Jackie: ... You can kind of hear (.2) emotion within a phone call that you don’t get within a text, because although you can use the kind of, um, expression and marks that are on there. People tend not to, apart from exclamation marks and that kind of thing.

As Jackie notes above, emoticons or ‘smileys’ are rarely used, but in text messages punctuation is used intensively and ingeniously to convey meaning (see chapter eight, section 8.5.4). In the interviews I discussed the text messages saved in their phones, and respondents explained not only their context, but also how they interpreted them. Although expressions given off in text messages were limited, they were actively looked for and interpreted. For example, “Yeah, like with my Mum putting ‘I love you’ in large [capitals] ... I think that she was proud of me”, or “you can tell if they’re feeling OK, or if they’re not feeling OK, because of what they write, or maybe because of what they don’t write” (Yves). In addition to punctuation, implicit cues included the time the message was sent, any delay in responding to a message, its length, use of endearments and nicknames, and the number of ‘kisses’, if any. It was harder to express emotion in text messages: “it doesn’t come across on the text as if she’s (.), with attitude, but it does in her voice” (Zoe speaking about her ten year old daughter). Text messages were nevertheless used to convey emotions. People were more affectionate in text messages, because it was less embarrassing; for instance, using kisses when they would have been more formal on the phone. Irene’s boyfriend had just been sent to Iraq; this emotive text message, sent just before he left, demonstrates how text messages can convey emotion:

Babe, i cant belive im goin, i dont want to leave u, this is the hardest goodbye ive everhad to do, wait 4 me. Love you xxxxxxxxxx

(sent to Irene by her boyfriend)
Many respondents were conscious of the impressions they gave off, and deliberately used cues in the presentation of self. In the following extract, Carol explains how the act of communication, and the choice of channel, can be as meaningful as the message itself. She was explaining the use of text messages in new relationships.

Carol: ... When you first start going out with somebody that’s quite good, because it’s not as keen as making a telephone call. You can send quite a not an emotion, like quite a cool message. But you’re kind of letting somebody know that you are thinking about them, but you’re not being too keen as well.

Ruth: Right now, in that sort of situation would you write it quite carefully? So you sort of?

Carol: Oh gosh yes, you might read it about ten times over, sort of thing, just to appear like as if you’re really cool, and you’re, you’re just sending a casual message to a friend type thing.

Note how Carol carefully crafts the appearance of a casual message and how any text message gives off the impression that one is thinking about the recipient (see chapter nine, section 9.3). Some respondents distinguished between the spontaneous expressions given off in phone calls, and the more calculated expressions given off in text messages. This mirrors Goffman’s (1959) distinction between intentional and inadvertent expressions given off. Lynn is a Texter, but she thought that one got to know people better from phone calls.

Ruth: So you get to know them better on the phone than you would in a text. Why is that?

Lynn: Because you can ask questions, you can respond a lot quicker. The, the other person has to respond a lot quicker. I mean it’s a lot harder on the telephone to sort of say, ‘Oh give me half an hour to think about that, then I’ll come back with a witty answer’. You get an immediate response from somebody, you can pick up much [more].

Ruth: Because it’s immediate you can pick up?

Lynn: Um, well I mean, you learn, think about you know their sense of humour. I think, I think, emails and letters I mean you can, you can contrive yourself in a way that you want to be perceived, which perhaps isn’t necessarily the way that you are. Whereas I think on the telephone, um it’s very hard to sort of think quickly about things.

Lynn suggests that one “picks up more” from an immediate response; this is a reference to the self behind the self deliberately presented. Her phrase, “you can
contrive yourself in a way that you want to be perceived, which perhaps isn’t necessarily the way that you are” is pure Goffman. Greg made the same point, “what they reply back in a text might not be as strong as how they were reacting initially, you know what I mean, because they can hide more of what they are thinking of, in a text”. However, time to contrive expressions given off may be eroded as texting becomes more fluent and spontaneous with habit.

The range of expressive content, both given and given off, was relevant to channel choice. For example, my respondents preferred to communicate bad news by phone (or for Texters, face-to-face) because of the importance of emotional cues in that situation. This construct is complex; it includes expressions given and given off and their perceived intentionality, but it is clearly an important aspect of interaction.

Social presence, which is discussed in the next section, was less relevant.

7.2.7 Social Presence

In chapter five, I questioned the coherence of the concept of social presence. Although respondents did not use a holistic construct corresponding to social presence, some of the items in the traditional social presence scale were used spontaneously. For example, “... from warmest to coldest you’ve got face-to-face, phone, really mobile or landline and then texting” (Greg); similarly, “I’ll use the phone if it’s something that’s sensitive” (Anne). The phone is warmer, more sensitive and more intimate, because the tone conveys emotions. The term ‘personal’ was used frequently, but it was used in at least three different ways. It usually meant ‘intimate’, for instance: “It would just be more intimate, a bit more personal, talking to someone” (Tanya). ‘Personal’ was also used to mean ‘private’, and to mean ‘distinctive of a person’. Text messages are more personal in the sense of private than calls, because they can’t be overheard. Phone calls, on the other hand, are **personally distinctive**, because one can hear the voice, which is specific to a person.

Cecil and Eddie ranked communication channels in terms of how personal they were, as shown in Figure 7.5; Cecil’s is on the left and Eddie’s is on the right. Like other respondents, they thought that letters and greeting cards were **more** personal than

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5 The scale consists of four seven-point, bipolar semantic differential scales: unsociable-sociable, insensitive-sensitive, cold-warm, and impersonal-personal.
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phone calls (although they are generally regarded as lower in social presence). This is because they are hand written, which is distinctive, and because they required effort, which implied care and intimacy. Cecil, a Texter, thought that text messages were more personal than phone calls, whereas Eddie, a Talker, thought they were less personal. These individual differences were common and reflect the conceptual problems inherent in the notion of social presence and the scale used to measure it.

Figure 7.5 Communication Card Layouts by Cecil and Eddie.

My research suggests that although items within the social presence scale are used, my respondents do not use anything analogous to the concept of social presence. The concept of ‘personal’ is too ambiguous and subjective to be useful as an interactional characteristic; warmth, sensitivity and intimacy are already covered by expressions given off. Social presence is rejected as an interactional channel characteristic, and is not pursued further.

7.2.8 Connectedness

In chapter five, connectedness was defined as the sense of closeness to another participant that can arise during communication. It was clear, from spontaneous comments and responses to direct questions, that my respondents experienced connectedness both during phone calls and when texting. They did not use the term ‘connectedness’, but spoke about ‘connection’, ‘contact’ and ‘being in touch’. For example:

Anne: I’ll send a text to a friend saying, you know, I’m sitting on top of the world what are you up to? And they’ll say I’m sitting in front of my screen in a grey office in London or something like that. I like that, that connection.

Connectedness seems to be a generic aspect of communication. Connectedness occurred when texting, but it was more intense in phone calls (except for Texters).
However, my respondents talked about connection more in relation to texting, possibly because they take the connectedness of phone calls for granted. Phone calls seem to create intersubjectivity; this is important for emotional support. Anne tried to explain this: “if I am feeling, um, kind of a bit needy or vulnerable, then text isn’t enough. Then I do need I need to kind of have a proper dose of somebody”. Carol also said she’d call if she felt sad, and explained, “I think it is possibly because we are human and we do need that kind of contact”. Patricia explained that she had run up huge phone bills, because as a single mother she was desperate for social company, and couldn’t get it from text messages.

Text messages are typically used for short ‘thinking of you’ messages that create a feeling of connection: “your thoughts are with them and their thoughts are with you” (Carol). The feeling of connectedness is higher during an extended text conversation and when they receive a quick reply. It also depends on whom they are texting; if it is just a colleague or work contact, there may be no feeling of connection. Connectedness is also related to availability. Some respondents felt more connected because they could be reached. Frank makes this point in the next excerpt. I had asked him if he felt obliged to keep his mobile phone on, and he was explaining why he felt it was indispensable, and that he couldn’t “function” and would “freak out” if he didn’t have his phone with him.

Frank: ... you’re contactable, you’re (.) there’s a link there. (.) You, you feel just (.) isolated if you don’t have a mobile phone. At least with a mobile phone, you know, you’re part of the world in a way. I don’t know. It’s bizarre.

This need for connectedness was particularly noticeable among the three Blackberry users: “I like being in touch with people. It makes me feel comfortable knowing that people can get me” (Bobbi). She could be in touch without being in the office, increasing her ability to work from different locations. Two of the Blackberry users had conventional mobile phones as well, and rarely made calls on their Blackberries, because they were large and awkward to use. They were prepared to carry two devices, because they found their Blackberries indispensable for their work. All three said they would invariably check their email in the evening (after a working day), at weekends and when on holiday. Victor compared his Blackberry to a daemon from
Philip Pullman’s novels. He described this as “an animal that grows on the shoulder, which is the soul. And if it gets cut away, which is part of the story, they feel very upset. It just feels a part of me”. He explained, “I absolutely panic, over Christmas I lost [it]. I absolutely panicked. I was bereft”. The increased contact afforded by Blackberry phones seems to increase the desire for connectedness. Quinton had just taken early retirement and he seemed disorientated because he was only receiving four emails a day instead of over a hundred. He explained the need for connection:

Quinton: I think there’s the positive side of, of reinforcing, you know, you’re part of this network and therefore you’re important, and, and I think the opposite side is simply the fear of missing out on something.

Quinton’s “part of this network” is similar to Frank’s “part of the world” in the preceding quotation. These phrases suggest that the need for connectedness is a social need to be part of a social group. Blackberry phones facilitate connection to the workplace and this could have a significant effect, potentially eroding life/work boundaries, with possible negative effects on social relationships.

From my research, I conclude that connectedness is not an interactional channel characteristic, for three reasons. Firstly, it seems to be a generic aspect of communication; secondly, the degree of connectedness appears to be related more to the relationship of the participants than to the channel; and thirdly, although my respondents used the concept, it was rarely used to explain channel choice. However, although dismissing connectedness as an interactional channel characteristic, I nevertheless think that it is an important aspect of interaction. In chapter nine, I describe how text messages are used to create connectedness, because they are not intrusive, and in chapter ten I discuss the effect of this on relationships.

Connectedness is related to connected presence (Licoppe, 2004), in which an open channel of communication is maintained, usually involving a combination of communication media, for instance phone calls, text messages and email. It was clear from the research that a quarter of my respondents did maintain this sort of contact with their partner, and this is discussed in more detail in chapter ten, section, 10.3.

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6 Orlikowski (2006) suggests connectedness can be addictive.
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Connected presence is produced by a combination of media rather than a specific channel and is therefore not useful for discriminating between communication channels.

7.2.9 Mobility
The interactional characteristic of mobility emerged from the research. I did not identify this characteristic from the literature, probably because it is specifically relevant to mobile phones. Availability is a key aspect of channel choice; obviously one can only choose from the range of channels perceived to be available, and availability is clearly related to the channel characteristic of mobility. Mobile phones increase availability because they are portable and can be used while moving. Mobility enables people to use 'dead time': “we’re both in the car, we’re both making our way back from school, it’s dead time, it’s a great time to chat” (Rosie). Mobility doesn’t guarantee availability, but it makes availability possible when the user or the recipient is mobile. Mobile phones also increase expectations of availability; respondents assumed that they could reach people on their mobile phones and were irritated when they could not. The characteristic of mobility should become more important with ubiquitous computing and the diffusion of phone email and phone messenger.

Mobility facilitates privacy. My respondents talked about privacy as an advantage of mobile phones; the user can move away from copresent interaction to avoid being overheard, and can make calls in private from a different room. Frank had had an arranged marriage and said that he had bought his fiancé a mobile phone so that they could get to know one another in privacy. Several respondents used their mobile phones at home, to avoid the centrally placed telephone. Anna and Zoe both encouraged their children to take their mobile phones with them when they stayed with their fathers, so they that had a private channel of communication.

7.3 Channel Choice
In the interviews, I asked my respondents to explain their channel choices when discussing their diaries, their saved text messages and their communication repertoires within specific relationships.
Channel choice is usually instinctive rather than deliberated: “don’t think about it, instinctive” (Victor), “it’s just on automatic” (Frank). Habit is relevant. Some habitually call or text (or vice versa) unless there is a particular reason not to, and many use specific channels for particular contacts, phoning family and old friends in situations where they would text newer friends. When replying they tend to use the same channel, phoning in response to miscalls, texting back for text messages. The design of mobile phones encourages same channel response, but the motivation is often normative rather than convenience. Although choice is often not deliberated, they had no problem in rationalising their usage patterns. For most, financial cost influences choice, and they choose more deliberately if they have recently had a large phone bill or if they have used, or not used, their call or text allowances. Similarly, if they are particularly busy they may choose more purposely, texting to save time.

When choice is deliberate, the most important factor is financial. Calls are seen as expensive, but text messages were cheap enough for them to ignore the cost. Nearly all respondents were price sensitive about phone calls; the exceptions had their phone bills paid by their companies, or were Texters on contracts, who were always well within their call allowances and did not want to make more phone calls. Anna is a single mother and was on benefit. Although she was not a Texter, she tried to avoid making mobile phone calls:

Anna: “I’ll do anything I can not to make a call, I’ll text instead, ‘cos I don’t tend really to call people for a chat on my [mobile] phone in any way, because I can’t afford to”.

The second most important factor is the reception cost for the recipient: “it’s normally determined by, um, what I think the other person’s doing” (Bill). This depends on occupation. For some office workers, phone calls at any time are acceptable, for other people, for instance teachers, they are unacceptable except during breaks. Contact threshold is balanced against the communication task, if it is important or urgent the interruption of a phone call can be justified.

My respondents also considered the impact on themselves (production cost), taking into consideration time and effort, situational and task related factors. As discussed above, Texters find calls much more difficult than Talkers, and avoid calling when
possible. The specific reason for the communication affects choice, particularly whether they need dialogue and whether there is a lot to talk about. Respondents also talked about duration, and this was relevant to choice, “You need to work out if you’ve actually got time to have that conversation” (Rosie). Respondents complained that it could be hard to get off the phone, and when discussing their social network diagrams would point out particular offenders. Text messages are particularly useful because they are so quick: “You don’t have to hold a long conversation before you can actually say what you want to say”. Greg is referring here to the normative expectation in calls, whether mobile or landline, of small talk. Although the duration of calls is very relevant to users, it is a social rather than a technical channel characteristic; there is no technical reason why one cannot phone and deliver a one-line message. The relationship between normative phone practices and technical interactional characteristics is discussed in the next chapter.

Other factors relevant to choice include embarrassment, the relationship (closer relationships are deemed to warrant calls), the recipients’ preferences and communication behaviour, the desire to hear the other person’s voice, or to hear how they are. Reviewability can be relevant in romantic relationships, or where details need to be communicated, for example, in invitations. Normative practices are also taken into account; it is rude to send a text message in response to a call, and in certain situations, for example when firing or dumping someone.

It is misleading to portray calls and text messages as mutually exclusive, as their use can be complementary. Examples of complementary usage include goodnight calls followed by text messages, or birthdays which may be celebrated with calls and texts and greeting cards. Text messages are often used to prepare the ground before, or to instigate, a call, for example, to exploit subsidized office phones. Text messages are more useful when there is already a shared context, because they are so indexical. They therefore work best as part of a communication repertoire that includes other channels. An example of how communication channels are combined is illustrated by the entries in Rosie’s diary. Rosie sent a text about buying tickets to her (next door) neighbour, who texted back that she would call her later. When she called, Rosie had

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7 As used by kidnappers in films.
7.4 Conclusions

There are four significant findings in this chapter: the difference between Talkers and Texters; support for the difference between situational and non-situational mediated interaction; empirical support for and clarification of my typology of the interactional characteristics of communication channels; and the interrelationship of technical and social factors.

My respondents fell into two groups: Talkers, who preferred talking on the phone, but used text messages as a convenient complementary medium, and Texters, who were much less comfortable on the phone and preferred to send text messages. Texters ranged from those who were uncomfortable only when talking to people they didn’t know well, to those who hated and avoided using the phone. Phone aversion has been recognized for many years, but is relatively under researched, particularly in connection with mobile phones. For those who dislike calls, text messages are as ground-breaking as the invention of the telephone, creating a quick, comfortable form of mediated communication. Email, which enables more prolonged and detailed conversation, is also potentially an important medium for these people. For many Texters, mediated communication is preferred even to face-to-face communication and is the channel in which they feel most comfortable. This may explain why Reid and Reid (2005a) found that Texters were more likely to report that texting had positively affected their relationships. The structure of mobile phone contracts suggests that most service operators have not yet recognized the different needs of this segment.

The second part of the chapter focused on the core research problem. My research indicates that communication channels do shape interaction. Moreover, users are aware of the interactional differences between communication channels, and this influences their use and choice of interpersonal media. Copresence emerged as a key concept, supporting the distinction drawn in chapter three between mediated interactions that create situations, and those which do not. Table 7.4 presents my
typology of interactional characteristics, and uses them to compare face-to-face interaction, mobile phone calls and text messages.

Table 7.4 Comparison of Interactional Channel Characteristics

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Face-to-Face</th>
<th>Mobile Calls</th>
<th>Text Messages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copresence</td>
<td>Copresence</td>
<td>Copresence</td>
<td>No copresence</td>
</tr>
<tr>
<td>Temporality</td>
<td>Cotemporaneous</td>
<td>Cotemporaneous</td>
<td>Nr. cotemporaneous</td>
</tr>
<tr>
<td></td>
<td>Simultaneous</td>
<td>Simultaneous</td>
<td>Not simultaneous</td>
</tr>
<tr>
<td></td>
<td>Continuous</td>
<td>Continuous</td>
<td>Discontinuous</td>
</tr>
<tr>
<td></td>
<td>Sequential</td>
<td>Sequential</td>
<td>Usually sequential</td>
</tr>
<tr>
<td>Perceptual mode</td>
<td>Audibility</td>
<td>Audibility</td>
<td>Legibility</td>
</tr>
<tr>
<td></td>
<td>Visibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistence</td>
<td>Not revisable</td>
<td>Not revisable</td>
<td>Revisable</td>
</tr>
<tr>
<td></td>
<td>Not reviewable</td>
<td>Not reviewable</td>
<td>Reviewable</td>
</tr>
<tr>
<td></td>
<td>Transient</td>
<td>Transient</td>
<td>Limited durability</td>
</tr>
<tr>
<td>Costs</td>
<td>High production</td>
<td>Med. production*</td>
<td>Low production**</td>
</tr>
<tr>
<td></td>
<td>High reception</td>
<td>Med. reception*</td>
<td>Low reception</td>
</tr>
<tr>
<td>Expressive content</td>
<td>High given</td>
<td>High given</td>
<td>Very low given</td>
</tr>
<tr>
<td></td>
<td>High given off</td>
<td>Med. given off</td>
<td>Low given off</td>
</tr>
<tr>
<td>Mobility</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

* High for Texters  **High for new users

Of the twelve characteristics selected from the literature in chapter five, I have retained eleven, excluding connectedness, and added four additional characteristics: continuity, legibility, durability and mobility. I have rearranged these characteristics and grouped them into more general dimensions, because the research indicated that a simple correlation between these characteristics and communication channels was inappropriate. The characteristics of audibility, visibility and legibility are grouped as perceptual mode characteristics. Similarly, I have grouped the temporal and cost characteristics, and include revisability, reviewability and durability in the category of persistence.

I do not want to suggest that the interactional characteristics that I have selected are unvarying channel affordances, unmediated by user and usage. For instance, communication costs are user related. Those who send text messages frequently find texting easy and convenient, but less frequent users struggle with the truncated keyboard. Similarly, reception costs depend on the situation of the recipient. My
Characteristics of Mobile Phone Communication

attempt to distinguish social and technical aspects of communication shows how these concepts are interconnected. For instance, phone calls typically involve a collaborative style of conversation, which is continuous and has a prolonged duration. However, it would be possible to use the phone quite differently. Social, rather than technical, factors make it difficult to end a phone conversation, allow people to interrupt one another, and make silence unacceptable. In the next chapter I explore mobile phone normative practices, suggesting that in new channels these are shaped by technical channel characteristics.
8 Normative Practices

8.1 Introduction

Although I recognized that social factors affect the use of technology in chapter five, I did not, at that stage, envisage a major focus on normative practices. Part of my original research objective was to see how far it was possible to identify inherent channel characteristics, which, while relevant to social interaction, were predominantly technical rather than social. My research, as described in the last chapter, showed that perceptions of channels are affected by normative practices. The technical and social properties of communication media are entwined, and the use and choice of media are affected by normative constraints. Consequently, in order to understand the interactional characteristics of communication channels, it is necessary to explore the interconnection between normative and technical factors. This chapter attempts to trace these connections.

My research provides insight into the development of normative practices in communication channels. There was a wide variation in these practices, from the entrenched customs of telephone calls and letters, to the evolving conventions for the use of mobile phones in public, to the incipient practices of SMS. My study indicates that some mobile phone normative practices have not stabilized. The chapter begins with a review of the normative issues that arose within the interviews. Some normative practices were seen as developing and controversial rather than fixed, and as such seemed to be more open to practical reasoning. My respondents recognized that these normative practices were changing, and seemed to adopt an evangelical stance, defending their own views as more rational. I argue that when normative practices are developing they are often justified in terms of the technical characteristics of the medium. Consequently, at this stage it is easier to identify the influence of the technology.

Text message normative practices were relatively undeveloped. I discuss these in detail, as evidenced both by the interviews and by the text messages I collected. However, rather than controversy, in this area there was uncertainty and a general
lack of prescriptive norms. I argue that text messages are less constrained by normative practices than traditional communication formats, and that this freedom has interactional advantages. I relate this feature to the newness of the medium, its use within restricted ‘text circles’, and to the technical characteristics of the channel.

In areas where norms seem to be more established, I found considerable variation between respondents’ compliance. I distinguish between those where adherence is seen as discretionary, and those where conformity is taken for granted, and argue that the need for intelligibility helps to enforce communication norms.

### 8.2 Mobile Phone Normative Practices

Normative comments arose in connection with many issues: mobile phone use in public and in company; appropriate choice of channel for situation and recipient; appropriate times and places to use calls or texts; reciprocity expectations; obligations to be available and to keep in touch; call screening; appropriate attention allocation and multitasking; and communication format including style, content and structure. Different channels have different norms; for example, my respondents thought that it was acceptable to send a text after ten or eleven at night, but not to call. Normative practices relating to situational communication, such as phone calls, seemed to be more extensive and stronger than those relating to non-situational communication, such as letters. There is also a moral order of communication channels, in which face-to-face contact is most worthy, followed by phone calls, then text messages, with email having least social merit. Bobbie articulated this: “if it’s an old friend I haven’t heard from for a long time, I might think that they actually had the decency to telephone me”.

The status of mobile phone normative practices varied. Some norms seemed to be firmly established, while others were perceived by my respondents to be changing and not to have stabilized. I identified three different types of normative practices: established and taken for granted; developing and controversial; and undeveloped and uncertain. This variation was useful, because when normative constraints are well-established, they become less visible to users and may be perceived as inherent aspects of the technology. Thus it seemed to me that mobile phone call etiquette was
taken for granted, perhaps because it has been transferred from telephone norms, albeit somewhat circumscribed by increased financial costs. I was struck by my respondents’ unthinking acceptance of phone call normative constraints, and they were perplexed at my questioning this behaviour. In contrast, they were aware of, justified, and adopted a polemical stance towards some normative practices that were less established, such as the use of mobile phones in public. Their justifications of normative practices that are still contentious revealed the interconnections between technological and normative factors.

8.3 Established Normative Practices

Many of the normative practices associated with phone calls were established. Some established normative practices were treated as an inherent part of the technology, whereas others seemed to be discretionary and dispensable. Phone call content and structure practices were taken for granted. Texters (as identified in the last chapter) did not challenge them, even though they were a barrier to their use of this channel. Xavier (a Texter) was surprisingly aware of the structure of phone conversation, recognizing the different stages that have been identified using conversation analysis (Schegloff & Sacks, 1973).

Xavier: ... A phone call comes in stages, you know. ... you have to obviously let them know who you are, um. Get that out the way then um (.3) you can either (.2), uh, go along with small talk for a little bit, or you can go straight in with what you called to talk about, if it’s that sort of phone call. Um, once that’s out the way, bit more small talk and then tail it off, or you can say, ‘OK I’ll see you later’, if you want to make it a shorter phone call. But, um (.4) tailing tail- I don’t really like the tailing off part, because of, um, it’s pure jest who has to do it first and the way you do it and ahh who says goodbye first.

Xavier much preferred texting, because he did not like small talk and he found it hard to end conversations. Despite his awareness of call structure, Xavier takes it for granted. He does not treat the norm for small talk as discretionary, although he has devised strategies for minimizing it:

Xavier: ... I think you have to voice it to say, ‘Oh I’m off yeah, my phone bill’s terrible this month’ and uh just. I I sometimes say, ‘Just a quick one’ right at the beginning of the conversation, ‘Just a quick one’ and then I get on with the phone conversation.
and then I get on with it with the phone conversation, yeah. And
I say, ‘Yeah quick yeah see you later’.

Patricia also took established call practices for granted, as shown in the next extract. I
had asked her about the difference between phoning and texting.

Patricia: ... You don’t have to ask how somebody is, I suppose, and listen
for two minutes. You can basically just say ‘Hi’, maybe say
‘How are you?’ and then just get, you know, cut to the chase.
Ask what you really want to know, or you know.
Ruth: Why is it that we, we can do that on the text and it’s quite OK
and you can’t do that on your phone?
Patricia: I think some people can, but it’s just I suppose the majority of
people, perhaps a bit more polite, and they, you know, they’re
um (...). I don’t know and you can, I mean you can ask how
somebody is, you can say, ‘Hi how are you?’ so in 4 words
you’ve got the niceties over with and then still do that. Whereas
on (...) a call you have to listen to someone and (...) it sounds
terrible, but you know. For convenience, I think that’s why you
can do it. But you just, I don’t know, for me I don’t like being
rude.

(bold is my emphasis)

Patricia prefers texting because one can “cut to the chase”, but when I ask why she
can’t do this in a call, she is clearly flummoxed by my question and gives her reason
for following the norm as being “a bit more polite” and not wanting to be rude. She
does not question or try to explain the call norm, it is simply rude. Compliance with
these norms is mandatory and taken for granted, and does not seem to be open to
reasoning and personal preference. This explains why Texters feel bound to make
small talk on the phone, and forgo phone calls rather than disobey this norm.

However, other established normative practices were treated as more discretionary,
for example, call screening. Caller identification facilitates screening, which is made
more relevant by perpetual availability. Not answering is widespread. Most of my
respondents admitted that they screened their calls and only one claimed never to do
this. Some were initially loath to admit it, and most were slightly shamefaced about
screening their calls, but none offered extensive justifications. When screening calls
they let it ring rather than reject the call, because otherwise the caller can tell. This
suggests that they still recognize an answering norm, but treat it as discretionary.
Rosie was slightly more outspoken, but her attitude is not atypical:
Rosie: So you know if you, if somebody phones I don’t necessarily answer it. I see who it is, and I then, I evaluate whether I can be bothered to talk to them at that point. ‘Cos I’m a bit like that uhh ‘heh heh’ horrible. I’m quite precious with my time.

Rosie’s laugh and description of herself as ‘horrible’ acknowledges the norm, but she clearly has little compunction about ignoring it. Looking at caller ID before they answer not only enables them to filter calls, but prepares them for the contact. Cecil had deliberately bought a flip style phone with a screen on the outside, so that he could see who was calling before answering; without this it would be “an absolute nightmare”. Irene made the same point, “that phone’s brilliant if someone rings me, then it comes up like that and I don’t have to answer it”. This is an example of the way that technology shapes normative practice. However, for two of my respondents, the assumption that calls are screened, creates an obligation to talk if you do answer, reducing the right to negotiate access on answering.

Bobbie: I sometimes get a bit cross when people have got their phones on and answer them and say that they’re in a meeting. Well no, because you’ve just answered your phone. If you don’t want to answer your phone, you don’t answer it.

(bold is my emphasis)

This is not an established norm, but one that might develop if the norm that proscribes screening becomes obsolete. This is an example of a developing norm; these are discussed in the next section.

8.4 Developing Normative Practices

Some mobile phone normative practices did not seem to have stabilized and were open to debate. In contrast to established norms that were treated as given, even when they were not followed, these seemed to be controversial. Respondents were clearly aware of this and made their own positions clear, in many cases spontaneously. The public use of mobile phones was an area where normative practices were perceived to be shifting. There was a general consensus that public use was prevalent, and increasingly tolerated: “It’s socially acceptable now ain’t it?” (Nick). In my sample,

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1 This is consistent with quantitative research. In a survey carried out in the UK in 2002 (Crabtree, Nathan, & Roberts, 2003), 45% were in favour of banning public use, but in more recent research (Mobile Life, 2006), only 9% thought that it was unreasonable to use a mobile phone on a train.
most respondents were either tolerant or in favour of public use. However, they
distinguished between public use on public transport and in the street, which was
acceptable, and in restaurants, which was not. This was an issue on which nearly
everyone had an opinion. Some don’t mind, while others found it rude: “It really does
wind me up” (Frank). Their attitudes related to their own usage, with those who liked
using their mobile phones in public more likely to find it acceptable. Texters tend to
mind more; they often don’t like being observed when speaking on the phone and so
keep their own phones off in public.

Anne spontaneously dissociated herself from those who minded. I had asked Anne if
there was anything she disliked about mobile phones.

Anne: No I don’t, you know, I’m not one of those people who (.). I
don’t mind people phoning and, you know, I can never
understand why people get so upset.
Anne: It doesn’t bother you?
Ruth: It doesn’t bother me, no not at all. But I
Anne: I don’t know why they care. People care about mobile phones,
don’t they? They don’t like people phoning in public places,
some people don’t.

Anne makes it clear here that she knows that other people disapprove of her behaviour
and apply sanctions, but she deliberately ignores them, claiming that she can’t
understand their attitude, “I don’t know why they care”. Anne went on to distinguish
use in public from use in company, which she doesn’t do, because she dislikes it when
other people do it. On this issue Anne, treats normative practice as subject to practical
reason, rather than as a mandatory constraint. Her reasoned approach was similar to
that of Patricia, who had clearly tried to work out why people object to public use of
mobile phones.

Ruth: Um, when you’re on the train and people get calls, and you
overhear them, how do you feel about that?
Patricia's comments indicate that, like Anne, she expects this normative practice to be rational and is trying to understand why people "get the hump". She argues rationally that face-to-face conversations are just as loud, but these are accepted. However, in contrast, when Patricia was talking about phone call small talk norms (as shown in the excerpt quoted on page 172, above) she did not expect these to be rational. When I pressed her to explain her adherence to these norms, she did not try to explain them, instead describing herself as "perhaps a bit more polite" and saying she did not like to be rude. Normative practices which are not stabilized seem to be more open to rational argument. This suggests that when technology is new, normative practices are shaped by the interactional characteristics of the technology. At some stage normative practices seem to stabilize, perhaps because they are adopted by the majority. At that point it is rude to break them, even if they seem irrational, and so there is no point in questioning them, because debate will not change their status.

Those who disliked phone calls in public, minded because they were disturbed by loud voices. Texting in public is generally acceptable; its silence means that it doesn't intrude on other people. This shows how the interactional characteristic of audibility is relevant to this norm. In contrast, my respondents did not, and could not, justify call structure norms; they are entrenched and taken for granted. It is possible that they are transferred from face-to-face interaction, and applied to phone calls (both landline and mobile), because they also create copresent situations. These norms may arise from the need to show deference and demeanour, preserving face and enabling the presentation of self in situations (Goffman, 1955).
Like Anne, my respondents usually distinguished between mobile phone use in public and in company. Many felt that it was acceptable to use their phones when in public, but not when engaged with other people: “... that’s unsociable, he’s out with me, he shouldn’t be bloody answering the phone” (Zoe). Olivia is the manager of a small health food store; she explained how the behaviour of her customers had changed.

Olivia: ... Instead of answering and saying sorry I’m in a shop at the moment I’ll ring you back, they carry on their conversation. And you’re trying to say to them how much something is and give them their change. I’ve just been known to slam their change on the counter ‘cos that’s so rude. It’s very rude (2) and they do it all the time these days. When people first started using mobiles a few years ago they’d say, ‘Oh, you know, I’ll call you back in a minute, I’m just being served in a shop’. But they don’t do it any more, just carry on their conversation, might as well not be there.

(bold is my emphasis)

Olivia’s phrase “might as well not be there” indicates that she sees her customers’ behaviour as offensive because they behave as if she is not there. She went on to say that it was as if they’d “blocked out” what’s around them. One can explain this in terms of the copresence of phone calls. People who are on the phone feel as if they are together and so, in some sense, they absent themselves from their physical situation (Gergen, 2002); this creates conflict if they are already in focused interaction, but not if they are in unfocused encounters, for example on a train. However, despite its lack of copresence, texting in company is also seen as rude, if it is prolonged. “It’s quite rude sometimes, if you’re out with friends and, and you’re supposed to be enjoying yourself with them and catching up with them, and you’re texting somebody else” (Ella). I think that both these circumstances can be analysed in terms of Goffman’s allocation of involvement. If texting is a side involvement, it is tolerated, but if it becomes the main involvement, it sidelines the copresent interaction. The problem in both these cases is that the interactant ceases to pay attention in the face-to-face situation, changing it from focused to unfocused interaction. This unilateral change leaves the other participant in an asymmetrical interaction; “you feel a bit awkward” (William). This applies particularly to phone calls, because they demand a sustained continuous allocation of involvement. Text messages can usually be handled without disrupting copresent interaction. On the other hand, as William observed, in a phone call “you could actually maybe hear them saying, ‘Oh I’m just having dinner with
William”, um, and you feel a little bit [better]”. This illustrates how mobile and copresent situations are interlinked. William feels less left out, because he is explicitly included in the mobile phone call interaction. This example shows how the individual, whose face-to-face interaction has been interrupted by a mobile call, is similar to one in a copresent interaction where the other participant is involved in cross-talk (Humphreys, 2005). He is a ratified participant, entitled to listen to the conversation and to make the occasional contribution.

8.5 Uncertainty and Lack of Norms in SMS

The third type of normative practice that I observed related mainly to text messages. Here, normative practices were relatively undeveloped, and my impression was that rather than being controversial, there was a lack of accepted practice. Consequently, there is uncertainty and scope for individuality.

I found that although my respondents knew about their own practices and those of their friends, they were ignorant, or had misconceptions about customs beyond their immediate circle. One reason for this may be that texting is mainly used for strong ties, so that friendship groups form closed ‘text message circles’ (Reid & Reid, 2005b); consequently people are only aware of the SMS practices within their own circle. On the other hand, it may be a temporary consequence of the newness of the technology. This lack of convention has important consequences for text message interaction (which are discussed in the next chapter) and I therefore explore this in some detail, covering text message reciprocation, structure, style, formalities, and language. The absence of constraining expectations makes text message interaction very flexible and this facilitates personalisation. This is used both in the presentation of the self and to symbolize special relationships. The lack of social constraint also makes the effects of the technology more visible, and this enabled me to explore connections between the interactional characteristics of the channel and text message interaction.

8.5.1 Text Message Reciprocation

Text message reciprocation norms varied among my respondents and their friends. Some of the literature (Kasesniemi & Rautianen, 2002; Laursen, 2005) suggests strict
reciprocation norms and a few of my respondents agreed, but the others felt that unless a message contained a question, replying was discretionary. In some text messages, replies are cued by the abbreviation ‘tb’ (text back), which suggests that it is otherwise optional. I analysed reciprocation in my respondents’ communication diaries: 29% of text message entries seemed to be unrelated to any other communication entry, neither responding to a previous message (or other form of contact) nor receiving any response. This will have been affected by inaccuracies in the diary entries, and replies may have occurred outside the diary period. When I asked Tanya whether she always received a reply, she explained that practice varied among her friends.

Tanya: Um, my friends, um, it’s half and half. I could put them in boxes. Some that I know that would. And I know some that would, just look at it and if they say, ‘Thanks, oh lovely, OK great’ and you know that they’ve got it and they’ve read it and they appreciate it. But they wouldn’t necessarily text you back.

Like most of my respondents, Tanya did not use message reports to confirm receipt, because they are confused with a reply and disappoint. Nevertheless, she assumes that her messages are received, because she knows that her friends all look at their phones frequently. Response can be prompted by further messages and calls if they don’t receive an answer within a reasonable time period, but this itself was regarded by some as rude, unless it was important. Failures to reciprocate are excused by lack of credit, the other’s activities, and an appreciation of the variation in reciprocation practices. Reciprocation expectations seemed to be lower in close relationships. Cross-channel response is not uncommon, and my impression was that reciprocation expectations relate to general communication turn-taking expectations and are not specific to text messages. Conceptions of an acceptable response time varied from 10 minutes to 24 hours; respondents use knowledge of the other’s schedule to rationalize delays. They recognize that if people don’t reply immediately they tend to forget; after a lapse of time, an answer may no longer be appropriate. This relaxed approach to reciprocation facilitates casual ‘thinking of you’ messages, because it reduces reception cost.


8.5.2 Structure and Style of Text Messages

My respondents took the structure of letters for granted. Like call structure, this was perceived as a rigid constraint. Comparing letters and text messages, Olivia explained: “... a letter you tend to think you’ve got to structure it, a beginning, middle, end and things. Whereas a text you can just say what you want to say”. Lack of restrictive structure is seen as a major advantage of text messages: “... [that’s] why text messages are so good, you can just get straight to the point, no beating around the bush, no pleasantries” (Tanya).

I think that the difficult keyboard, small screen size, and the 160 character content limit all help to explain why letter structure was not transferred to text messages, whereas call structure seems to have been transferred from the telephone to the mobile phone. Telegrams and postcards are other examples where production cost and constraints on expressive content seem to have affected structure, reducing formalities and expectations of small talk. However, I think that near-cotemporality is also relevant; the short delay between the transmission and the reception of messages enables a conversation rather than a monologue, encouraging informality. The presentation of self and deference to the other interactant is achieved through the conversation as a whole, rather than in any particular message, enabling an informal conversational style. The fast response afforded by SMS discourages lengthy composition and allows collaborative meaning construction. Text messages seem to function rather like the notes children exchange in class, and these would typically be informal in tone and without structure. Cecil explained that he wouldn’t use the recipient’s name in a text because: “it’s too formal for one. When it’s usually, texting it’s friendly, it’s friendly, it’s in the tone of the voice too”.

The relevance of size and keyboard constraint is also demonstrated by the difference between emails sent from Blackberries and from computers. The three Blackberry users all said that emails sent from Blackberry phones were shorter; “more terse ... because it’s, it is harder to type” (Victor). Here Bobbi talks about sending email on her Blackberry, and compares the production costs of text messages, Blackberry email and computer email:
Bobbi: ... it's better than texting and in the sense that it's easier than texting. But it's still (.). And people tend to write in complete words, as opposed to, you know, the sort of text abbreviations, on a Blackberry. But none the less, um, it's, it's more hassle than (.). so people tend to do it, you know, abbreviate.

Ruth: So what would get left out, would?

Bobbi: Well some of the niceties.

Many respondents said that the size of text messages was constrained by space; they thought this affected style. They had to work out how to say something in relatively few words. I think that this increases informality and constrains the development of text specific decorum. Lynn makes these points in the next extract where she compares emails and text messages.

Lynn: ... because you’ve got the expanse to write more, so I will be more elaborate. Whereas in a text message I tend not to say ‘hi’ or ‘hello’ or ‘goodbye’, ‘cos it takes up valuable space on your text message. So emails I would write more fluidly. It would be much more sort of personal and all polite and sign off and sign on kind of thing.

Space makes it possible to write more, but it also increases content expectations. Sending unused space can give off the impression that the sender cannot be bothered, as Fred observes here, talking about text messages:

Ruth: ... you know – the way it’s put across do [you] sometimes think about that at all?

Fred: Yeah yeah I do um. I think, with Geoff the other day, he sent me a very – like a three word reply. That’s a whole text where he could have put a lot more words into it, yeah for the same cost. But yet very little said, just a few words, you know?

The size constraint of text messages makes it acceptable to send relatively short text messages, reducing production cost. On average, the text messages in my sample contained 18 words and 88 characters; this is approximately half a text-page and suggests that the size constraint is only occasionally a limiting factor.

8.5.3 Salutations, Signatures and Kisses

In line with my respondents’ claims, most of the text messages in my sample were informal with little structure. In the next chapter I discuss text message formats in more detail, distinguishing informal ‘one-liners’ from slightly more formal ‘mini-letters’. In the text message sample, I found a considerable variation in openings and
closings. Many started messages without any salutation, “We just start the message as
if we’re talking to each other” (Olivia). A few thought this was rude, “I nearly always
start ‘hi ya’ ‘cos I think it’s polite” (Zoe). Similarly, there was considerable variation
within my sample in the use of signatures and kisses² at the ends of messages. Most
text messages are sent to people who already have the number in their phone book, so
the name of the sender is automatically displayed when a text message is received.
Some cited putting one’s name at the end of a message as an example of
incompetence (usually when criticizing their parents’ text messages). In text
conversations, and for those who text intermittently throughout the day, the first
message might have a salutation, but not subsequent messages. Similarly, the end of a
text conversation, or temporary unavailability, might be indicated with a sign off
phrase or some kisses. This indicates that the medium is sometimes treated as an open
channel of communication: the participants behave as if they are in an open state of
talk (Goffman, 1981b).

Salutations occurred in 19% of the messages I collected, sign off words or phrases in
12%, and kisses in 29%. Texts collected from younger respondents were more likely
to contain kisses, but less likely to contain either salutations or sign offs. However, a
text message collected from a respondent in one age group, may have been sent by
someone from a different age group. Texts sent by women were more likely to
contain kisses (34% versus 24% for those sent by men). This was because the texts
sent between men contained kisses in only three cases, and these were sent between a
particular respondent and his son. Kisses in text messages create new social
dilemmas. William noted that people use kisses and sign offs like ‘take care’ in text
messages, although they wouldn’t show affection in the same circumstances when
face-to-face or on the phone. He felt it wasn’t appropriate for him to reciprocate
kisses when texting his teenage drama pupils, but noted that in a letter the term ‘dear’
is used by everyone, without any qualms. This is an example of the uncertainty that
surrounds new normative practices. Some people use kisses to express meaning, but
others put kisses on every text, and it means as little as the conventional ‘dear’ in a
letter. This makes it difficult to interpret the kisses in a text message and to respond
appropriately.

² Yves said that people in other countries often do not understand the use of ‘x’ to signify a kiss.
8.5.4 Text Message Language

Most of my respondents and their contacts do not use ‘text speak’, although some, possibly influenced by mass media, thought that this usage was widespread, and consequently that their own usage was unusual. Some younger interviewees spoke disparagingly of ‘text slang’, which they thought was used only by teenagers. Cecil, who is 21, commented, “I think it’s become quite uncool maybe in a way because it’s, it’s advertised so often”. However, a couple of those new to text embraced abbreviations eagerly, keen to demonstrate their expertise, “I like learning quite a bit about these, new little, these new shortcuts” (Frank). In the text messages I collected only 35% had any abbreviation at all and about half of these had less than three abbreviations, with ‘u’ for ‘you’ as the most common abbreviation, followed by ‘2’ for ‘to’ or ‘two’. Only 20% of the messages I collected had more than three abbreviations. These were clustered by respondent; 60% of heavily abbreviated messages were collected in just six interviews. Those who do abbreviate do it both to ‘get more in’, because of the limited character allowance (that is, it is technologically influenced), and to personalize their messages (exploiting the lack of normative constraint on style). Text messages collected from younger respondents were slightly more likely to contain abbreviations, at 39% versus 30%. The level of abbreviation in text messages collected from male and female respondents was similar.

Interestingly, my respondents explained the trend away from abbreviation in terms of technology. Most predictive text dictionaries contain few abbreviations, so these have to be entered separately, either into each message, or in some phones, into the phone dictionary. Consequently, if one uses predictive text, it is easier not to abbreviate. Predictive text technology promotes the use of correct English, showing how technology can shape normative practice. However, some of my respondents seemed to have been misled by mass media exaggerations of text message abbreviation. Several thought they must be exceptional, because they did not use many abbreviations, indicating lack of awareness of text message styles outside their own text circles. The general lack of knowledge of SMS practice was also demonstrated by the ambiguity of the abbreviation ‘lol’. Some were certain that this stood for ‘laugh out loud’ but meant ‘slightly amusing’, while others interpreted it as ‘love you loads’.

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Olivia adopts two different text message styles. In the next extract she compares the style she uses with her boyfriend (her main text contact), with the style she uses when texting her girlfriends.

Olivia: We do something strange. I mean everyone else abbreviates on text, don’t they? And use ‘u’ for ‘you’ and things like that. We don’t, we write properly ((said very proudly)) ‘heh heh’. Which is fine, because you’ve got predictive text, so that’s that’s not a problem. I find the other texting more difficult, which I tend to do to other friends.

(bold is my emphasis)

Olivia made this point several times, treating the style she shared with her boyfriend as a ritual within the relationship. In addition to the impact of predictive text, abbreviation has become less necessary with increased screen sizes. This is illustrated by the two phones in Figure 8.1, Anna’s phone is shown on the left; she has had it since 1999. Her screen is much smaller than Yves’ modern model, which is on the right. Anna’s phone doesn’t have predictive text and only two lines of text can be seen without scrolling. If words are not abbreviated, only five or six words are seen at one time, making it hard to read the message.

Figure 8.1 Development of Phone Screen Size

Below is an example of a text message sent by Anna. She uses a lot of abbreviation, in contrast to Yves, who didn’t abbreviate at all.

Hi jo cd u let me hv felicities email agn as I cant get email thru 2 her. Mny tks.

(sent by Anna to her friend Jo)
In the messages I collected, there was one other message with a similar style and an unusual amount of abbreviation:

```
Am goin in 2 town
18r fancy mtn aft ur techin?
```
(sent to Jackie by her friend Alan)

I found out later that Alan had the same phone as Anna. Although these are only two cases, they support my conjecture that the lack of predictive text and the small screens of early phones, encouraged abbreviation.

Predictive text can directly affect style. There were several examples where people spelled names and words in specific ways, because it was easier with predictive text. For instance, “My phone it will only predict Claire as C L A R E so I’ll do C L A I space R E ‘cos then I don’t have to go into typing each letter in” (Patricia). She also wrote ‘wouldn’ because with her predictive text “the ‘t’ it messes the word up”. Predictive text is not standardized, but varies for different phones. These examples show how technology shapes the way text messages are written.

Punctuation was another area in which practice differed from claims in the mass media. Experienced texters use full stops, commas, exclamation marks and question marks. On average each message in my text message sample contained three punctuation marks and eighteen words, a ratio of one for every six words. In comparison, this paragraph contains one punctuation mark for every eight words, suggesting that the level of punctuation can actually be higher in text messages than in other written text. This does not mean that usage is punctilious; texters often leave out apostrophes and capitals. However, some conventional punctuation is required to make text messages comprehensible. In addition, punctuation is used innovatively to convey meaning. The text messages I collected contained many exclamation marks, sometimes repeated to add weight. Capitals may also be used for emphasis. The quotation below indicates how texters feel free to adapt punctuation to create meaning. Although Olivia doesn’t realize it, the practice she describes is quite common.

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3 I excluded the six graphic messages for this analysis.
Olivia: We tend to use, um and there's things that perhaps other people don't use. Like the dot dot dot when you wanna say something that's 'yeah, think about that one' or lots of exclamation marks and things like that. Or put something in capital letters when you really want to emphasize it.

Olivia comments here on the usage of ‘…’ which she thinks may be specific to her boyfriend and herself. However, within the sample I found sixteen messages (6%) where repeated full stops were used to represent what is inevitably left out due to the constraints of the medium or “like a pause for pathos” (Patricia). The text message below illustrates this usage. It was sent to Quinton by his sixteen year old son Oliver, who was on a rugby tour with his school.

```
Guess wat i found out 2day. i won the man of the match for the last Match which was nice :) met new hosts 2day. they're well... at least we move on soon
```

(sent to Quinton by his son Oliver)

Oliver used three dots to indicate that he doesn’t like his current hosts, without having to go into the details. He also used an emoticon to express his pleasure at being made man of the match. In my sample there were only six emoticons.

In this section I have tried to show how the language in text messages is relatively free of normative constraints, but is influenced by the technological constraints of the medium.

### 8.5.5 Style as Presentation of Self

Although there is more scope for the presentation of self in phone calls, the laxity of normative constraint in text messages allows users to adapt style in presentation of self.

Most of my respondents thought that text message styles were distinctive, and that they would know if somebody else was sending a message from a friend’s phone. Kevin explained how he would recognize a text from his girlfriend: “What makes it
her? Lack of caps (.) no capital letters. No grammatical capital letters, only used for emphasis. Umm quite often abbreviates ‘about’ to ‘bout’”. Irene also talked about the distinctiveness of text messages:

Irene: Everyone’s got their own style. Like, um, I, I, I do ‘you’ just in like the letter ‘u’. Whereas my sister would do sort of ‘Y O U’.
((spells it out)) And just, just little things like people’s style. Like how many kisses people put at the end of the text messages, whether they put punctuation marks in.

Most respondents thought they knew their close friends’ styles. I confirmed this by asking them questions about the text messages in their phones; they could accurately describe openings and closings, typical abbreviations, the number of kisses etc. They notice these details: “If they, if they usually put a kiss and they don’t that certain time. It kind of makes you think, oh why haven’t they put a kiss there” (Tanya). The number and layout of kisses can be quite elaborate, for example, ‘xxxxXXxxxx’ or ‘xXxXxXxX’.

Some respondents thought that they recognized not only these details, but also the tone. I had asked Lynn whether she would know if somebody sent her a message from her boyfriend’s phone:

Lynn: Yeah, I think, I’d know the way he, he would send a text message. I think I’d probably pick up on it. I don’t think it’s that he does anything particularly unusual but his, there’s sort of a certain tone. Or maybe, I don’t know or maybe it’s the way I read the messages because I know it’s come from him.

Lynn’s last point is interesting, suggesting recipients may add tone when they read the message. Reading, like listening, is interpretive. The meaning constructed is framed by knowledge of the sender. Several respondents made the point that humour and sarcasm were possible in text messages, but only if one knew the other participant well. Text messages are so limited and indexical that the sender’s personality is relevant to interpretation. In addition, style is used in the presentation of self; users deliberately exploit the lack of prescribed style and structure to convey their individuality.
A few of my respondents had developed serious relationships through text interaction, and I was interested in whether the self presented through this medium, was consistent with that presented in subsequent face-to-face interaction. They generally felt that through text they had developed an accurate impression of the other person; what usually surprised them when they finally met was the way the other person spoke or the sound of their voice.

8.5.6 Style as a Symbol of a Relationship

The flexibility of text message style is also exploited to symbolize relationships. Some people vary their style depending on whom they are texting, mirroring the other participant. “If somebody texts like that, I will text them back in that pattern” (Olivia). In close relationships users sometimes develop specific styles that symbolize the relationship. The use of nicknames is common; although they rarely use the recipient’s name in a text message, endearments and special names are used frequently:

Dee: ... sometimes like, um, he calls me his little lady and things like that. Just like, ‘Hi baby it’s baby boy just to say I love you’ um no ‘Hello little lady it’s baby boy this is to say I love you’ sort of thing.

In my text message sample, 24 messages (9%) contained nicknames or endearments, for example:

Night boo Xx
(sent to Tanya by her boyfriend)

Text nicknames occur not only in romantic relationships, but also in same sex friendships, for instance, Nick and his friend Andy called each other ‘Doug’ in their text messages. Respondents often have several people with the same first name in their phone books, so they use nicknames to differentiate the entries, for example, ‘Baby Mark’, ‘Big Mark’, etc. These are displayed when the person rings, so that the technology reinforces this aspect of the relationship.

Nicknames are used in other communication channels, but in text messages they are particularly useful, because they are an effective method of personalising the
message, without using up the limited character quota. Once again this shows how users adapt text message communication, shaping usage to convey meaning despite technical constraints. This is facilitated by the lack of prescriptive normative practices.

8.6 Enforcement of Normative Practices

When discussing their normative practices with my respondents, I noticed that there seemed to be different types of obligations. Phone structure norms were referred to as ‘niceties’, ‘pleasantries’, and even ‘airs and graces’; infringements were ‘rude.’ In contrast, texting while driving was ‘naughty’ or ‘wrong’. This terminology suggests that the former are more discretionary. However, many admitted to texting while driving: “I do it in the car while I’m going. Disgraceful!” (HatTy). In contrast I was struck by how phone call structure was treated as a binding constraint. The difference in attitudes is not about interpretive flexibility, because there was general agreement about norms in both cases. Mobile phone use while driving is prohibited by law; several of my respondents texted when driving because they felt that they were less likely to get caught than if they made calls. Presumably they feel they there is minimal risk of hurting someone, and this explains why the norm is not obeyed. However, this does not explain why norms associated with phone call structure are taken so seriously, compared to other breaches of mobile phone etiquette, such as not returning a call.

This variation in attitudes to different norms did not seem to be about the severity of social sanctions. Respondents sometimes talked about how normative practices were enforced; they got ‘moaned at’ or ‘told off’. They felt guilty or ashamed of behaving ‘incorrectly’. Anna no longer sent text messages at 6.00 a.m.; “I’ve woke people up because their phones go off and I’ve been told about that, so I don’t, try not to do that any more.” Xavier felt that if his text messages were too direct and abrupt he was “not guaranteed a reply”. Lynn received the following text message because she never replied to her friend’s messages:

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4 This relates to the distinction between morality and etiquette. The former is more serious and refers to a universal code of conduct, whereas the latter describes the social code of a particular group (Gert, 2005).
However, these types of sanction were rarely mentioned in relation to call structure. My respondents found it difficult to explain their unquestioning acceptance of these norms, avoiding or side-stepping my questions. Normative constraint in communication seems to be enforced because, irrespective of the participants’ intentions, what is communicated is shaped by norms. This works in two ways. Firstly, when there is copresence, face-work (Goffman, 1967) is relevant. Flouting an established normative practice in the presence of the other, can give off an impression of a lack of care, dishonouring the ‘face’ of the other. For example, Anna complained that her father went “on and on” on the rare occasions when they spoke on the phone. She felt constrained to talk to him at length, because otherwise he would be hurt, and she would feel guilty. This is an example of how Goffman’s interaction order is enforced by the need to honour face. However, there is a second factor that is more specific to communication, which derives from the difficulty of distinguishing what is said from the way it is said. The meaning of any communication depends not only on what is said, but on what is given off (Goffman, 1959), and this is shaped by communication norms. The interactants assume that breaches of established conventions are meaningful, changing the meaning of what is said. Thus participants are forced to conform with these norms in order to communicate meaningfully; this enforces compliance. This is an example of how the ethnomethodological requirement for intelligibility in social situations (Rawls, 2003) enforces interaction order (see chapter three). In the extract below Ulysses explains how breaches can be more meaningful than “most words you can think of”.

Ruth: You said on the phone you can’t be silent? Why not?
Ulysses: Or, if you are, it’s a very big statement. It’s a very, very big statement, if you’re silent on the phone. You know, they’re (.) just all the pressures are to make a noise.
Ruth: The reason why you can’t be silent is, even if you are silent it says something?
Ulysses: Oh absolutely// oh yes.
Ruth: //and what it says is huge?
Ulysses: Is is usually a very strong statement.
Ruth: //so you can’t be silent?
Ulysses: //so you can’t be silent.
Ruth: So?
Breaking the norm of continuous phone talk is interpreted as a “very big statement”. This extract shows how meaning is shaped by established normative practices. Phone call norms enable one to convey considerable meaning, without actually saying anything: “silence on the phone is stronger than most words you can think of”. Communication format norms are obeyed, when established, because they affect interpretation. Participants cannot ignore these practices any more than they can choose the meanings of the words they use.

Within this context, text message normative practices are interesting, because they are so fluid. On the one hand, interactants are very free to present self. They can start with a personal greeting, or put it in later in the text, or leave it out altogether. On the other hand, because there is no established practice, leaving out a greeting means less than in would in a letter. Similarly, without a reciprocation norm, no response or ‘silence’ is less eloquent than on the phone.

8.5 Conclusions

In the previous chapter I found that users’ perceptions were influenced by normative constraints and this made it difficult to disentangle technical and social characteristics. This chapter has tried to unravel these connections by focusing on areas where normative mobile phone practices have not stabilized. My research identified a range of mobile phone normative practices that seemed to be at different stages of development. Some, such as call structure, seem to be well established, and are taken for granted. My respondents were unable to justify or explain this practice, and saw it as an inherent aspect of the technology. In addition, breaches of established normative practices are part of the communication process, and give off meaning, affecting what is communicated; interactants are forced to adopt these constraints in order to communicate successfully. This is an example of how the need for intelligibility enforces commitment to the interaction order, as discussed in chapter three. Other
norms, such as the public use of mobile phones, seem to be at a formative stage and are controversial. In these cases, respondents not only had definite views, but expressed them vehemently, sometimes rationalising their stance in terms of the technical characteristics of the channel. There seemed to be a power struggle for the ultimate determination of the norm, and respondents were expressing their own interests.

Text messages, however, were relatively free of both established and controversial normative practices. There was a wide variation in actual text message practices, including reciprocation, structure and style. Even where there was consistency, my respondents were not aware of this and thought their own practises were unusual, because there is a lack of knowledge of what others do. This may be because text messages have been used within closed social groups or ‘text circles’ (Reid & Reid, 2005b), so that users do not receive messages from outside their own circle. This may change if text message use becomes more widespread. The lack of normative practices in text messages is, however, interactionally useful, because users can use style variations to convey meaning, present the self, or symbolize relationships. The relative lack of established text message norms makes the connections between the technical characteristics of the channel and usage more visible, and therefore easier to trace. Although I have suggested that normative practices are at different stages of development, I do not mean to suggest this is an inevitable, linear progression. Some practices may remain undeveloped or may not stabilize, whereas stabilized norms may be re-opened in the light of social or technological changes.

Throughout this chapter I have given examples where normative expectations and usage seem to be shaped by technical channel characteristics, suggesting, for example, that small screens on early phones encouraged abbreviations, but that a subsequent change in the technology, the development of predictive text, discouraged abbreviation. The particular relationships suggested have not been proven; this is not possible within my research design. These connections are drawn to illustrate the way that technology shapes interaction and normative practices, rather than to make any specific claims.
In the next chapter, I argue that the technical characteristics of text messaging, together with its relative freedom from normative constraint, create a new form of interaction. This is followed by my final analysis chapter, which explores the relationship effects of mobile phones, arguing that both mobile phone channels have significant relationship effects.
9  Text Messages: A New Form of Interaction?

9.1 Introduction

My third research question asks in what sense can new mediated channels, and specifically mobile phones, create new forms of interaction? My criterion for a new form of interaction is interaction that would not be substituted by any other medium, and which has interactional consequences that could not be achieved by any pre-existing communication channel. Applying this criterion, I argue in this chapter that text messages are a new form of interaction.

The chapter begins with a discussion of text message formats and motivations. Many of the text messages I collected were ‘thinking of you’ messages, which my respondents use to keep in touch with their friends and family, without intruding on their lives. These ‘one-liner’ messages are sent to show the recipients that the sender is thinking about them, rather than for more functional objectives. In chapter seven, I explored the interactional characteristics of text messages, and in the last chapter I claimed that text message normative practices were relatively undeveloped. In this chapter, I argue that together these features facilitate ‘thinking of you’ messages. These messages are interactionally interesting, because they involve minimal effort for both participants, and can therefore be used when more invasive communication would be inappropriate. They are sent regularly and routinely, creating relationship specific rituals, such as goodnight text messages, and social rituals, such as New Year’s Eve text messages. Although text messages have little intrinsic value, recipients like to get them because they show that someone is thinking about them. I argue that these ‘thinking of you’ messages are a new type of communication.

I also argue that in text message conversation, the construction and interpretation of meaning is different from verbal conversation. Although the interpretation of SMS can be collaborative, the process is slower, so the interactants have more time to consider their responses; this changes the course of the conversation and can change the outcome of the interaction.
9.2 Text Message Format

This section explores the different ways in which text messages are used, distinguishing two different formats and two different usage motivations. The 278 text messages I collected fell roughly into two groups, ‘mini letters’ and ‘one-liners’ (both of these terms were used on occasion by my respondents). The distinction is indicative rather than categorical. Mini letters usually consist of a full text page, cover several topics, and may have recognisable openings and/or closings. They are the text message equivalent of a letter and are slightly more formal and less conversational than ‘one-liners’. One-liners are very short messages, often with no salutation or sign off; they vary from minimalist text messages containing the single letter ‘k’, signifying agreement, to several short sentences. Style tends to be concise, but conversational. Mini-letters and one-liners can be used either in a short exchange, or in a longer text conversation. Text conversations are prolonged exchanges of messages; they may occur over a relatively long time period and they consist mainly of one-liners. Text conversations may not be initiated as such, because the other participant’s availability is not known; they can develop from an initial mini-letter or one-liner text. Some respondents interpreted a message with several questions as an invitation to have a text conversation.

Cutting across these formats, text messages can also be broadly classified as instrumental or phatic. The term ‘phatic’ derives from Malinowski’s concept of ‘phatic communion’: "a type of speech in which the ties of union are created by a mere exchange of words" (1923, p. 478); phatic communication has a social rather than an instrumental motive. This is similar to the distinction drawn between intrinsic and instrumental telephone calls (Haddon, 1997); phatic text messages are not sent to accomplish a specific task, but for their own sake. Table 9.1 shows examples of text message mini-letters and one-liners, classified as phatic and instrumental.
Table 9.1 Examples of Mini Letters and One-Liner Text Messages

<table>
<thead>
<tr>
<th>Mini Letters</th>
<th>One-liners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ill tell you the same as I tell your Dad we all make mistakes they cant be changed and whoever make the mistake has got to live with it. Youve said sorry and better still youve proved it. Ive got my Dee Jayne back. THANK YOU LOVE (sent to Dee by her mother)</td>
<td>Spoke to holly’s ma. All ok and thanks you for bringing it to her attention but could you let me know if it continues so I can tell her. Thanks William. (sent by William to an employee)</td>
</tr>
<tr>
<td>You moan and wrinkle up my clothes... but I love you! (sent to Lynn by her partner)</td>
<td>Buy paint (sent by Patricia to her brother)</td>
</tr>
</tbody>
</table>

Text conversations can also be classified as predominantly phatic or predominantly instrumental, as shown in Table 9.2 on the next page. The text conversation between Zoe and a male friend begins with an exchange of greetings and a conversation of one-liners develops, ending with a longer text, where the sign off indicates the closing of the conversation. However, in the conversation between Sue and her partner, there is no opening and only a suggestion of a closing, with the use of an endearment in the last text in the sequence. This is because Sue and her partner maintain a state of open communication or ‘connected presence’ (see section 10.3); the beginning and end of the conversation I have shown here is somewhat arbitrary, and in fact I collected twelve text messages that they had exchanged over a period of six hours.
### Table 9.2 Examples of Text Conversations

<table>
<thead>
<tr>
<th>Mainly Phatic</th>
<th>Mainly Instrumental</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(previous evening)</strong></td>
<td><strong>10:00</strong></td>
</tr>
<tr>
<td><strong>G:</strong> Hi ya hon, i’ve not seen on msn of late! where are you and wot you been up to? X</td>
<td><strong>S:</strong> By the way you missed out on the bike you bid by 2 pound</td>
</tr>
<tr>
<td><strong>Z:</strong> Hi ya, my comp’s out at the moment. I have been ok celebrating for 3 days it’s gotta be done. Ha ha. Hope you all ok.</td>
<td><strong>10:08</strong></td>
</tr>
<tr>
<td><strong>G:</strong> Celebrating what?</td>
<td><strong>S:</strong> You have been outage on the 2nd one but another day to go yet</td>
</tr>
<tr>
<td><strong>Z:</strong> By birthday</td>
<td><strong>10:59</strong></td>
</tr>
<tr>
<td><strong>G:</strong> Oops</td>
<td><strong>(time not recorded)</strong></td>
</tr>
<tr>
<td><strong>G:</strong> I’m absolutely useless when it comes to birthdays. My mates was the 23rd and another was 24th. Its a wonder I still have friends... lol x</td>
<td><strong>(approx 3:30, during interview)</strong></td>
</tr>
</tbody>
</table>

---

1 Predictive text typo for ‘my’.
2 The abbreviation ‘lol’ means either ‘laugh out loud’ or, as Zoe interpreted it, ‘lots of love’.
3 Predictive text typo for ‘outbid’.
Table 9.3 shows the distribution of my text message sample, classified in terms of format and apparent motive. In my sample of text messages, 61% appeared to be phatic; this corresponds with Thurlow’s (2003, Fig. 2) classification of 61% of his text messages as “high intimacy high relational orientation”. In my sample, a higher proportion of texts collected from younger respondents (under 35) were phatic, 76% compared to 48% for older respondents. However, these messages may have been sent by people from a different age group. There was no evidence of any gender effect. The distinction between instrumental and phatic text messages has only initial validity. Firstly, the two are sometimes combined in a single message and secondly, an instrumental text message may have, or be interpreted as having, a phatic motive, while an ostensibly phatic text may have an instrumental motive.

Table 9.3 Classification of Phatic and Instrumental Messages

<table>
<thead>
<tr>
<th></th>
<th>Phatic</th>
<th>Instrumental</th>
<th>Both</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-liners</td>
<td>128</td>
<td>59%</td>
<td>77</td>
<td>36%</td>
</tr>
<tr>
<td>Mini-letters</td>
<td>41</td>
<td>66%</td>
<td>16</td>
<td>26%</td>
</tr>
<tr>
<td>Total</td>
<td>169</td>
<td>61%</td>
<td>93</td>
<td>33%</td>
</tr>
</tbody>
</table>

Base: 278 text messages

Although the distinction between these formats is not clear cut, it is important; phatic one-liner text messages appear to be a new form of interaction, different not only from verbal conversations, but also from traditional written formats such as letters. Whereas mini-letters are similar in layout and composition to letters, albeit considerably abridged, one-liners are rather different. It is likely that when SMS was introduced, technical features, including a constraint on the number of characters, small screens and truncated keyboards, reduced expectations of content in text messages. The constraints on text message size have lessened, as the technology has changed. Phone screens have become bigger and text messages can be combined in multi-page messages. Practice, and the development of predictive text, means that text message typing has become easy for frequent texters. However, the one-liner message has retained its social acceptability, creating a communication format that involves minimal effort for the sender. Production cost is very low for proficient users; some of my respondents could text with one hand, without looking, while walking along, talking on the phone or watching television. From the recipient’s perspective, reception cost is also minimal; texts do not demand immediate attention and reciprocation norms are lax. The low production and reception costs of text messages,
combined with ‘perpetual’ private access, create a quick, easy, personal form of communication. Moreover, because texts are silent, they do not intrude on any bystanders. The instrumental one-liners I collected frequently related to arrangements (Ling, 2004b), but phatic one-liners were used rather differently.

9.3 ‘Thinking of You’ Text Messages

Phatic one-liners may have very little given content, but they give off an emotional message. They have a “meta-content, i.e. the receiver is in the thoughts of the sender” (Ling & Yttri, 2002, p. 158). Their low production and reception costs mean that they can be sent whenever the recipient is in the thoughts of the sender. Nearly all my respondents spoke enthusiastically about ‘thinking of you’ text messages. For example:

Eddie: If they, they, just text just for a () sort of say, ‘Oh hi, haven’t seen you for a while we should catch up again’, that, that’s, that’s obviously that’s nice, because they’ve obviously thought about you.

An analysis of the six respondents who did not talk about ‘thinking of you’ messages, showed that five of them were infrequent texters, who found it difficult to text; the sixth, Sue, received a stream of ‘nagging’ instrumental one-liners from her partner (see Table 9.2). ‘Thinking of you’ texts exploit the immediacy of text messaging. Frequent users assume that the recipient will read the text almost instantly, and this is confirmed if they get a quick reply. This enhances the experience of connectedness, as Zoe explained, “yeah it’s nice, you’re at, you’re on someone’s mind at that precise moment”. Bill made the same point, “you are both in the same frame of mind, at the same time, so that is a sense of connection”. Messages may explicitly state that they are thinking of the other person, but more usually this is just implied, as in the example below.

Looking forward to seeing you!
(sent to David by his girlfriend)

Dee: ... To make a text you’ve got to think of that person so, you know, I suppose when he’s texting me all the time, at least I know he’s thinking of me.
Any text message can be interpreted as ‘thinking of you’, as Dee explains above. In Goffman’s terms, whatever the given content, a text message gives off the message that someone is thinking of you. The converse of this is that not receiving a text suggests someone is not thinking of you: “if you don’t get a text message you tend to sort of think, ‘Oh, maybe they haven’t thought about me today’” (Lynn). Text message jokes and aphorisms also work as ‘thinking of you’ messages. An extreme example of this is a series of intermittent text messages received by Greg from a male friend in America. These had no content at all, but were an amusing way of keeping in touch, and sometimes prompted Greg to phone his friend. They are translated here but were originally in Spanish (Greg comes from Spain, but his friend doesn’t). In the excerpt that follows Greg explains their role.

```
My snail plays the saxophone

My snail plays the saxophone and they always end up calling the police
```

Greg: Yeah like you know a few weeks later [or] something the same thing and it just gets into a whole – oh this is getting really stupid, funny stupid, you know. ‘Cos that, perhaps, you know, depends on someone’s humour, but I find that quite funny. Whenever he sends it.

Ruth: And he, does he send something else as well?

Greg: No, no just that, that’s all he sends. And I find that quite funny that (.) It’s just a completely meaning-free thing, meaningless but it’s just funny. You know, it’s like, in a way, it’s sending a message and it’s itself saying, ‘Oh, I am thinking of you. How are things? Everything’s great here’ kind of thing. That’s for me is what the it’s kinda saying, but just in a different way. And that you can’t sort of convey across in a telephone conversation or face-to-face. You can say it, but it doesn’t have quite the same thing as in someone’s texting you it.

(bold is my emphasis)

‘Thinking of you’ messages exploit the interactional characteristics of SMS, specifically: their lack of copresence, near-cotemporality, low production and reception costs, and silence. These characteristics minimize the intrusiveness of the

4 There were nine jokes and eight aphorisms among the text messages I collected.
medium, so that messages can be sent at any time, with minimal interruption to the activities of the sender, the recipient, and any other people in the vicinity. This means that they can be sent whenever the recipient is in the thoughts of the sender. People in relationships think of each other from time to time during their separate days; with text messages they can let each other know that they are thinking of them.

9.4 Text Message Rituals

Some ‘thinking of you’ text messages have become rituals. The most common ritual texts are goodnight messages, but good morning and good luck messages are also very common. These text messages exploit the ease of ‘thinking of you’ messages and are rituals in two senses; they are exchanged routinely, and the exchange is seen by the participants as a symbolic expression of their relationship. Their use is illustrated in the following excerpt taken from my interview with Anne.

Anne: ... it's quite new, but probably about three months in and we're, we're texting daily and often in the morning and in the evening. So it's good morning and goodnight and ( ) that might be all it is. You know, good morning and a nice little warm message thought of you or whatever.
Ruth: At a particular time or just?
Anne: Yeah, I mean we're both early risers so often half six, seven, half past seven.
Ruth: There'd be an exchange?
Anne: One, one would text the other.
Ruth: And what about in the uh //
Anne: //And in the evening again about half eleven, something like that.

Note that although the relationship is relatively new, these text rituals already have specific time expectations. Anne was concerned that this should not become an obligation, and had discussed this with her partner. This shows how within particular relationships these rituals may develop into expectations. Nearly all my informants had sent or received goodnight text messages. The seven exceptions were the five who rarely texted, Ulysses whose girlfriend was in America, so that they could not mark a shared a temporal context, and William who has not been in a relationship since he started texting. Goodnight messages are most commonly used in relationships, but they are also sent between parents and children and between friends. Good morning messages are also sent, although they are less common. Goodnight texts may simply say goodnight or they may include a short message. The following
examples show how users personalize text messages so that they symbolize their relationships:

<table>
<thead>
<tr>
<th>huggie hugs*</th>
<th>huge hugs*</th>
</tr>
</thead>
</table>

(sent between Kevin and his girlfriend)

| nite nite baby missing u | me 2, nite nite going to bed |

(sent between Carol and her boyfriend)

The prevalence of goodnight text messages is supported by data I obtained from the service provider O2, which detailed consumer call and text usage, by hour of day, over a period of four weeks (over 69,000 text messages and 241,000 call minutes). The graph in Figure 9.1 shows that although call usage peaks just after 19:00, SMS peaks at 23:00. Figure 9.2 shows how the ratio of texts to call minutes changes through the day; it is relatively high throughout the night, and again around 8:30, possibly with good morning text messages sent when people are on their way to work.

Figure 9.1 Comparison of SMS and Call Patterns over Time
Goodnight messages do not replace phone calls; it is quite common to send a
goodnight message immediately after a phone call. They are new communication acts
in the sense that they do not replace other communication. Good night texts exploit
the interactional characteristics of text messages. On the one hand, they are nearly
cotemporaneous, because users usually have their phones on, and with them, so that
even when they are in bed they can send and receive goodnight messages. The
popular alarm facility on mobile phones reinforces the common habit of keeping the
phone by the bed at night. However, because text messages (unlike phone calls) do
not require copresence, messages can be sent even when the recipient might be asleep,
to be read in the morning. A few respondents reported deliberately sending combined
goodnight/good morning messages when they didn’t know whether their message
would be received at night or in the morning. Reviewability is also relevant; recipients
can look at the message when thinking about the other person.

Good luck text messages are also popular, and had been sent or received by two thirds
of my interviewees. They are used to wish people good luck for driving tests, exams,
job interviews, special dates, etc. The immediacy and unintrusiveness of text
messages means they can be precisely timed to arrive close to the relevant event,
indicating that the other person is thinking of them at that particular time. My
respondents deliberately exploited this aspect of text messages. David explained how
if his friend had a job interview at 2:00 pm he might “send [a text] at 5 past 2, so as
soon as you come [out] it’s like, ‘How was it? I was thinking of you whilst you were
doing it’”. The message timing reflects detailed knowledge of the recipient’s
schedule, making the message more personal, suggesting effort and giving off an impression of caring. Unlike text messages, traditional greeting cards cannot be timed accurately, as Kevin explains:

Kevin: But again greeting cards have the downside that they almost certainly never arrive when you want them to. They’re OK for things like Christmas and Easter, and they’re sort of OK for birthdays, where you know somebody would get it and may sit on it. But they’re no good for good luck, because you don’t want to send it too far in advance, but you don’t want to miss it.

Text messages are also useful when phone calls would be inappropriate at a particular time:

William: ... they can be busy getting ready or they’re going to be, you know, celebrating, so you don’t want to disturb them. And um, so yes, I think, again text does give you that access to people that you wouldn’t necessarily want to disturb at that particular time.

Text messages are often used in addition to, rather than as a substitute for, more traditional forms of communication; for instance, although many sent birthday text messages, for close friends these were in addition to greeting cards and phone calls. In most of the interviews, I asked directly about goodnight, good luck and birthday texts, although these occasionally came up spontaneously. I used these examples to introduce the topic and went on to discuss, with those who had used them, whether they might be a new form of communication. Although they agreed, this was clearly led by my introducing the topic. Using my examples to indicate the category (Sacks, 1995), I asked for other examples, and elicited many text message ‘rituals’ including Get Well messages, ‘Bon Voyage’ texts, ‘Post Card’ texts sent from holiday, and congratulatory texts celebrating Christmas, New Year, Valentine’s Day and other festivities.

These types of communication are not new, but SMS increases the scale and range of these rituals. In the past, New Year greetings would be included on Christmas cards and some people would phone close friends. However, the New Year text message has become a ritual and nearly all my respondents sent New Year messages. On New Year’s day 2006, 165 million text messages were sent in the UK (Text.it, 2006a). The affordances of text messages make them particularly appropriate for New Year’s Eve;
they can theoretically be precisely timed to arrive in the midst of the celebrations at midnight, situating them within the ongoing occasion without interrupting it. Ironically, their popularity means that on New Year’s Eve service providers cannot cope with the demand, so that messages may actually take several hours to be delivered.

David: New Year’s there just seems to be this random thing, you know sort of culture everyone does, doesn’t it? So I try and send a text early on.

(bold is my emphasis)

David’s use of the word “culture” and his comment that “everyone does” indicates his awareness that it has become a ritual. Even though the affordance of timeliness is not available, he nevertheless follows the ritual, adapting his behaviour to the technological mediation of the service bottleneck. Although he suggests that it is irrational, he nevertheless follows this practice, reflecting a normative element. New Year text messages endorse and symbolize relationships, but sending and receiving these messages has also become part of the bigger New Year’s Eve ritual itself, so that the sound of text messages arriving are part of face-to-face celebrations. Although my fieldwork was not conducted at the beginning of the year, I collected four New Year messages, including this one:

| happy new year 2 u |
| as well hope u get |
| drunk and have fun |
| xxxxxxxxx |

(sent to Nick by his fourteen year old daughter)

9.5 The Perceived Value of Text Messages

This chapter has focused on the prevalence of ‘thinking of you’ text messages. These messages help to explain the popularity of SMS. Moreover, as described above, text messages may be exchanged ritually to symbolize relationships. Taylor and Harper (2003) take this further with the suggestion that text messages can play the role of gifts. However, my respondents did not see text messages as gifts, although the phenomenological experience of receiving a text message is similar in some ways to the receipt of a gift.
My respondents clearly welcomed text messages, but they were perplexed when I suggested that they might be regarded as gifts. I approached this question carefully, linking the question to the arrival of the message. Although somewhat attracted by the idea, my respondents felt that it was an exaggeration, because when they received a text message they did not feel that they had acquired anything that could be termed a gift. It was simply a “little joy” (Cecil). Although some text messages are saved, especially in romantic relationships\(^5\), their value is reduced by their limited persistence. Many respondents could store less than twenty messages at a time and in many cases all messages are lost annually when they get a new phone. Nevertheless, nearly all my respondents described a momentary sense of elation when they received a text message. In my pilot interviews, I noticed positive comments about ‘the sound of a text message’, and I pursued this in subsequent interviews. The sound that signals a text message is welcomed; several respondents compared the feeling of a text arriving to getting a letter, as in this quotation:

\begin{quote}
Ruth: When you get a text message generally, do you tend to look at it immediately?
Frank: Yes I do.
Ruth: Its here ((inviting the respondent to act as if one had just arrived))
Frank: You do. Yeah, yeah, yeah I think it’s just (.) in a way it’s like, um you know if you’re waiting for the mail in the morning, you know. Then letters or you, you sort of, it’s something exciting. And I don’t know why it is, because all you ever get is bills, annoying. But you just think, it’s just that something, it might be something different.
\end{quote}

I found that an ethnomethodological perspective helped me to capture the phenomenological experience of the arrival of a text message. In his ‘summoning phones’ exercise, Garfinkel (2002, p. 153 - 162) asks his students to collect recordings of phones summoning themselves and others, and simulations of phones summoning themselves and others. He points out that ‘Formal Analysis’ would render these in the same way, as silences followed by ringing. This analysis loses the phenomenon: an ethnomethodological approach notes that the first silence before an unsimulated phone call is not heard as a silence, except retrospectively after the first ring. This relates to the arrival of text messages. When the text message tone interrupts the silence it creates, it arouses feelings of anticipation and excitement that are similar to

\(^5\) Olivia had 300 text messages from her boyfriend saved on her phone.
those experienced when receiving a gift. The act of ‘opening’ the text extends the analogy. A pleasant anticipation arises, because so many text messages are of the ‘thinking of you’ type. Those present work together in the production of the arrival of a text message as an event. On the ten occasions on which my respondents received text messages during their interviews, we both looked at the phone and then at each other, creating a sense of anticipation, and tacitly agreeing that it should be opened. The interview was suspended, as the respondent, smiling, opened and read the message before showing it to me. This mimics the behaviour that occurs when a gift is received and opened. I also observed this behaviour outside the interviews, on occasion accompanied by a comment such as ‘somebody loves you’. In this excerpt, Yves comments on the same behaviour.

Yves: There’s a guy in the, the pub, opposite and someone’s phone beeps and he said um, ‘Somebody’s in love’ (.) and that, that, explains, explains it quite well.

The pleasant anticipation aroused by the arrival of a text message meant that most respondents had switched off text reports. These messages confirm that a text message has been delivered, but they found them annoying: “that used to [make] me wild because it’s the same, uh, ring tone as if you’ve received a text. So it’s like, you think it’s a reply to the text” (Cecil). The pleasure afforded by the arrival of text messages, unlike email and letters, is relatively untainted by commercial messages. Messages from mobile phone service providers can be annoying, “I get VERY irritated by messages from O2” (Ulysses). Although the arrival of a text message is generally welcomed, this is not because text messages are perceived as gifts, but because ‘thinking of you’ messages provide a small emotional lift.

9.6 Text Messages and Meaning

In the first part of this chapter I argued that text messages have unique interactional characteristics, these give rise to ‘thinking of you’ messages, which are used in new communication rituals. In this section I argue that text messages are a new form of interaction in a quite different way. I explore meaning construction, and argue that this is very different in text message communication. In the first section I show how the brevity of text messages increases indexicality and ambiguity; this means they
work better when used as part of a communication repertoire and with close friends.

In the second section, I argue that SMS enables a reduced form of collaborative interaction, which encourages reflection and avoids instinctive reactions. This can change the path and outcome of the interaction.

9.6.1 Message Ambiguity

Misunderstandings occur frequently with text messages, because they are so brief that there is no space to elaborate. In addition, there is no tone, which makes it difficult to signal nuance. Predictive text also causes mistakes, such as ‘he’ for ‘if’, or ‘of’ for ‘me’, but frequent users know the common predictive text errors and automatically correct them when they read messages. Recipients sometimes look for hidden meaning, especially in romantic relationships: “you try and read more than’s there” (Anne). Bill commented “you can read a text in so many ways”. He went on to explain:

Bill: Depending on the frame of mind of the person that’s reading it, it’s like they can put their own meaning on to it, I mean, because words are very neutral when they’re written down and the tone of it can be, you know (.6)

Respondents were very aware of the difficulty of conveying meaning in text messages. This came up spontaneously in nearly every interview. They described the problems they had experienced, and the strategies they adopted to avoid them. Anne’s communication diary included this text message:

```
Good morning Clare,
off 2 start the day
before the day before.
LX
```

(sent to Anne by her boyfriend)

She interpreted this as meaning life was a treadmill and replied in similar vein. In fact, he was being romantic and referring to the fact that they were due to meet in two days time. Her diary and saved texts captured their efforts to repair this miscommunication. His alternative interpretation of the message is also an example of how users try to

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6 If two words use the same phone keys, the texter has to select the appropriate word from the predictive text dictionary. They sometimes forget to do this.
imply much more than they actually say. This increases the scope for misinterpretation. My respondents agreed that humour and sarcasm were especially difficult, and that one had to be careful if angry, because it was difficult to express emotion. These problems are caused by the lack of tone in text messages. Tone may be supplied by the recipient so that any negative comment may be taken much more seriously than intended. Sue recounted a recent example:

Sue: He sent me a text message saying ((cough)) ‘Can you make me a chicken sandwich or something when I get back?’ But he’d already, previously, told me he wouldn’t be back for an hour and I said, ‘what now?’ meaning //
Ruth: //Oh!
Sue: //Now? //</b>
Ruth: //That’s a brilliant example
Sue: Meaning, ‘Are you coming back now?’ And he read it as ‘What Now?’. So he text me back saying, ‘What’s up with you now?’
‘heh heh’
(bold is my emphasis)

The phrase ‘what now’ is clearly ambiguous and Sue’s husband interpreted it critically rather than as a straightforward question. Humour and sarcasm are difficult, because they involve a change of footing (Goffman, 1981), which is signalled in verbal communication by change of tone. However, if people know each other well, they can use humour and sarcasm successfully; both are actually quite common, because text messages are usually sent between close ties. Texters also invent creative ways of constructing meaning; in this text message Xavier uses punctuation (as discussed in the last chapter) to indicate a change of footing. It was sent to say that he was on his way, but the bus was slow.

En route.............
allegedly
(sent by Xavier to a friend)

In the extract below Nick explained how text messages are misinterpreted. He was talking about sending risqué text messages.

1. Nick: If you put something in a text it could be misconstrued. They could take it entirely the wrong way and, you know, it can happen.
2. 4. Ruth: Has it happened to you ever?
3. 5. Nick: Ummm, well it did with her [an ex-girlfriend] sort of thing, now, ‘What, what do you mean by that?’ Then you’d got to think
Nick’s comment line 7 to 9, “I know what I meant by it, and the text said what I meant by it, but you obviously haven’t got what I meant by it” sums up the problem. In lines 9 to 10 he talks about the difficulty of trying to write about sensitive issues in text messages. Several respondents remembered trying to write messages in certain circumstances and giving up because they couldn’t express what they wanted to in a text message. As Nick points out above, once there is miscommunication, it is harder to repair in SMS than in phone calls (lines 14 to 15). In line 15 Nick says that text messages have “no context”. Nick is dyslexic and this exacerbated the problem for him; his comments were extreme but not atypical. The indexicality of text message one-liners was brought home to me by the amount of work I had to do in the interviews, trying to understand them. This means that they are not self-contained and work in conjunction with other forms of communication, including face-to-face contact. If the communicants know the details of each other’s lives, then they can keep in touch with very brief messages, but text messages are less useful for weaker ties.

This need for context also helps to explain the variation in patterns of communication found in different relationships. The social network exercise in the interviews encouraged respondents to relate communication mode to intensity of relationship, but several did this spontaneously. Typical patterns among my respondents were: a combination of frequent text messages, emails, phone calls and face-to-face contact for their closest friends; occasional ‘catch up’ phone calls topped up with ‘thinking of you’ texts for those who were less close; while those who were most distant only received sporadic text messages or emails. The text messages sent were also different: those sent to distant friends tended to be mini-letters with little indexical content, whereas text messages between close friends were often one-liners that assumed a common context. The difference is illustrated by these two text messages:
Hi Yves. How are u doin?
Busy on work lately as no
news from ur side. I hope
that u are well:-) How work
going? OK? just want sayin
HI to u hehe, wish u have a
lovely day n weekend too. Pls
take care.. Love Weuwei

(sent to Yves by a female friend)

THIS IS TAKING
AGES

(sent to Dee by her boyfriend)

The first text was sent to Yves by a friend whom he had met on an Internet dating site; they have not met face-to-face. In contrast the message from Dee’s boyfriend is casual and conversational. They maintain a state of connected presence, which meant that she could supply the context (he was waiting for a hospital appointment).

When discussing their social network diagrams, several respondents commented that communication patterns had changed when friends moved away. Although text messages could be sent abroad and were not that expensive, they tended to email and/or phone instead, and to communicate less frequently. Text messages are less suitable for ‘catching up’ because of their brevity. This relates to findings (Mercier et al., cited by Licoppe & Smoreda, 2006) that when people move away the frequency of calls reduces, but if the relationship persists, it is compensated by longer calls. In close relationships, text messaging assumes a shared context; when people move away there is, literally, a loss of shared context that makes texting and brief phone calls less appropriate.

My respondents sometimes deliberately exploited the ambiguity of text messages. Irene explained how she had intentionally sent an ambiguous ‘thinking of you’ message, but it had backfired because she couldn’t interpret the reply.

Irene: ... I sent that message ‘thinking of you’ to an old friend (.). And we’ve never sort of been boyfriend and girlfriend. We just, I don’t know, we’ve always been good friends, but we hadn’t seen each other for about six months and I just sent him a message one night, just saying ‘thinking of you’. And he was back ‘Yeah you too’ and I was like shit, you know, ‘What do you mean by...
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that? 'Cos I've sent that to you meaning one thing, but what do you mean by your reply?'

The interpretive flexibility of text messages combined with their near-cotemporality changes the collaborative dynamics of conversation, as I explain in the next section.

9.6.2 Meaning Construction in Text Interaction

Verbal communication happens very quickly; the participants instinctively interpret and reinteract what is being said, and respond immediately. Text message communication slows down this process. Facilitated by relaxed normative practices, recipients can choose when and whether to respond. Whereas in phone communication silence is unacceptable, because it is so meaningful, the lack of a shared situation in text message conversation reduces the pressure for an immediate reaction: "... the thing is that they don't have to react. So if you want to say something sometimes, where you want to give them time to think about it, or time to react, then you can do it that way" (Anne). Recipients can reply in their own time, allowing them more time to interpret what has been said.

Garfinkel (1967, p. 41) shows that conversation is irreducibly indexical; utterances point to, or document, previous utterances and shape the meaning of what has been said. Participants wait "for something more to be said in order to hear what had previously been talked about". Talk is cotemporaneous and simultaneous; this means what is 'pointed to' is interpreted very quickly, and there is an immediate response. Both participants may talk at the same time, and even when they don't, there is a backchannel of communication, with a continuous stream of impressions given off. These indicate what is being understood, so that interpretation and reinterpretation happens within, as well as between, turns. This instant feedback means that speakers can change what they were going to say, even within a turn, in the light of the concurrent response given off by the listener. The 'turn', as identified in conversation analysis, is therefore the outcome of a collaborative process. Interactionally this has advantages: it averts embarrassment and saves face, because the speaker can avoid finishing a sentence in the light of negative cues from the listener. However, because the process is so fast, the conversation is shaped by the participants' spontaneous and unconsidered reactions; they do not have enough time to deliberate before responding. The speed and collaborative nature of verbal conversation makes it possible for one
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participant to manipulate the other. Text message conversations are different in several ways. Firstly, the process is asynchronous, so recipients have more time to think before responding. Secondly, turns are not collaborative but discreet, without interruption and concurrent response, so senders can select their words without concurrent pressure from the recipient.

The Texters among my respondents felt vulnerable to coercion when on the phone. Kevin articulated this: "I hate being manipulated in conversations, absolutely loathe it". Lynn explains this clearly in the following excerpt. I had asked Lynn to describe the differences between texting and calling.

Lynn: ... And I think probably text, texts are probably more of an avoidance device as well. Whereas I think on, being on the telephone, you can, sometimes you can be in a situation you have to confront things a little bit more. "heh heh".
Ruth: Yes, can you say about bit more about that?
Lynn: Um, uhhh (.6) um. Well I mean for me anyway I tend to find that ((clears throat)) sometimes it's harder, it's harder to, um, well for me anyway, it's harder to say what you're, what you're trying to say to somebody, because they can interrupt or they can change-. They can say something well makes, which will make you change what you were going to say, whereas on a text message, because it's only. It's like writing a letter, you can, you can kind of break down exactly what you want to say and it doesn't get manipulated [in] any way, and then you send it, and it's gone, "heh heh".

(bold is my emphasis)

Lynn argues that, in contrast to phone calls, in text messages “you can break down exactly what you want to say”, without interruptions that “make you change what you were going to say”. Lynn’s use of the word ‘situation’ when on the phone supports my situational interpretation of this channel; situations are more confrontational.

Text message exchanges are not collaborative within turns, and are less collaborative than phone calls between turns, partly because replies are slower, but also because there is limited scope to reprise what has been understood. This reduces the extent to which participants wait “for something more to be said in order to hear what had previously been talked about” (Garfinkel, 1967, p. 40). Rather, each participant individually works out what is being said and what he is going to say. As a result, the interaction is closer to the transmission model of communication; this paradigm is
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particularly relevant for ‘thinking of you’ texts, which may receive no reply. In text conversations there is collaborative interpretation, but this is much less than in an audio conversation. Text messages are less accountable, partly because it is part of the ethos of the medium that messages should be light hearted and not taken too seriously, and also because it is more difficult to challenge a particular message and to seek an explanation or account. These features of text message interaction make it useful in sensitive situations, for example when apologising. The sender can take the time to think carefully about how she phrases the apology and she does not have to get involved in a joint reconstruction of what actually happened. In the text messages collected there were eleven apologies, which at 4% is a relatively high proportion. Here Irene explains why she uses text messages to apologise.

Irene: ... it’s sort of saying you’re sorry but not actually sort of, you know (.) **putting yourself about there** but just sort of saying, ‘well look this is me, I’m really sorry’.

Ruth: Why’s it easier?

Irene: Because you don’t have to speak to them. **You don’t have to explain yourself.** There’s no sort of unexpected questions going to come at you:: like, as if you were talking to them, and being face-to-face with them. A text message you can actually think about:, sort of plan what you’re going to say. Be nice, sort of say maybe love you at the end, give it a few kisses, and it would be easier wouldn’t it?

(bold is my emphasis)

Irene’s phrase, “putting yourself about there”, in the second line seems to be a reference to the lack of copresence in text messages. If one is not ‘there’ one can deliver the prepared message, without being vulnerable to “unexpected questions”. This reduces accountability: one “doesn’t have to explain oneself”. The apology stands on its own, one does not have to get involved in its interpretation. Lynn suggested one further advantage: “sometimes you can say an apology, but then also take it back, by saying but you did this kind of, whereas with a text you can, you can literally just say I’m sorry...” (Lynn). Inscription creates an ‘immutable mobile’; fixing the apology as sent (Latour, 1990).

The asynchronicity of text messaging means that one gets a more considered reaction. As Fred said: “Sometimes texts work wonderful[ly] like that, you can text something, and normally they’d just respond [verbally] like that, you know, but if they wait a while they would have responded in a different fashion, possibly”. Recipients have
time to interpret and reinterpret what has been said, applying the documentary method of interpretation in a slower, less collaborative way. Texters seem to like and deliberately exploit these interactional characteristics. Here Frank (who is married to someone else) describes how he used text messages in the development of his relationship with Lucy, whom he met in a club.

Ruth: Do you think you’d, you’d actually be in communication with her at all, if there weren’t text messages?
Frank: Probably not, uh, I mean if she was, I suppose if she had email then I’d be, but no probably not.
Ruth: Yeah, because?
Frank: Probably not, no. So then it would be a case of a quick phone call saying, ‘Alright, you know, meet up next Friday’ or something so there wouldn’t be so much (.)
Ruth: What is it? You couldn’t do what you’re doing by text if, by phone call, could you?
Frank: No.
Ruth: Why not?
Frank: I suppose because in hhh (.) you don’t want that instant reply. You want her to think about something, maybe, possibly.

(bold is my emphasis)

Frank explains that he doesn’t want an “instant reply”; he wants her to ponder about what his text meant, as became clear a little later in the interview:

Frank: Yeah. I mean you could be just teasing, just, just trying to – so as I say you’ve got a route you want to go down. So you’ll try, just try out a few things on text messages as it were, and then just see where that goes, and if that sort of thing goes the other way, also. Whereas within conversation it’s, if you’ve gone done one route, then it’s pretty much you’re down that route and you can’t really change direction.

Ruth: Ah.
Frank: Whereas with //text messaging you can?
Ruth: //You can send a text?
Frank: You can you can I suppose coerce them in a way much //easier with a text message than you can with a conversation.

(bold is my emphasis)

Frank uses text messages to explore alternative routes while keeping his options open, whereas in a verbal conversation “you can’t really change direction”. This is because in talk the progressive application of the documentary method quickly reduces interpretive flexibility. The unresolved ambiguity in text messages enables both parties to keep their options open; Frank deliberately exploits this to “coerce them”.

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His approach is exemplified by the text message he sent to a male friend about this relationship:

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The fish is on the hook
(sent by Frank to James)
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The reduced collaboration in text message interaction makes it harder to clarify meaning. Turns are short and frequently ambiguous, meaning remains open and unresolved. Control over what is sent is increased, but offset by reduced influence over how it is interpreted, leading to the misunderstandings discussed in the previous section. However, as Frank’s exploitative approach shows, this also has interactional advantages. Anne also explained how she had consciously chosen to send a text message because it was a slower, less collaborative form of communication, but her motives were rather different. Her friend had invited another friend to join them for a meal out, but Anne preferred to see her friend on her own.

Anne: I knew that if I rang up and said, um, ‘Oh Joan, I really don’t want Katie to come, you know, I’m just not in the mood for her’ and all the rest of it, then Joan would get anxious. She’d get upset and she’d think she’d done the wrong thing which she had, as far as I was concerned. Uh, but then I’d have to do all the, you know, ‘Well I suppose it will be all right’. So I sent her a text saying, you know, ‘Oh dear, I would rather see you on your own. Is there a way through this or is there a way out of this?’ And then she’s got a couple of hours to think about coming up with another way of doing this, or maybe cancelling this other woman or whatever, without me having to deal with her emotions, so that I don’t have to look after her and tell her all, she’s all alright. Do you know what I mean? And comfort her and reassure her that I’m not that upset about it, but I would like to see her on her own. I can just give [her] the message and she can get on with finding a solution.

(bold is my emphasis)

Anne used a text message to give the problem back to her friend and to avoid the more cooperative interaction of a phone call. She said that if they had spoken on the phone she would have had to console her friend and deal with her emotions. I think this is because a phone call would create a shared situation and intersubjectivity, which would blur their separate subject positions. Anne used text, because she wanted to avoid sharing the problem; collaboration in a phone call would have led to a joint resolution of the problem.
Although the reduced collaboration in text message exchanges can be an advantage, it also means that ambiguity may be left unresolved, and cannot always be repaired. Greg showed me a series of text messages from a colleague in America and sought my opinion. He was genuinely unsure whether he had received (and accepted) an invitation to stay in his colleague’s home, or whether the colleague was merely saying that the company would arrange accommodation. He had gone along with the text conversation implying he understood and hoping it would become clear. It hadn’t, but it was too embarrassing to admit it at this late stage, consequently the ambiguity was not clarified.

9.7 Conclusions

In this chapter, I have argued that text messaging is a new form of interaction for two different reasons. Firstly, the most common text message format, the ‘one-liner’, is very different from traditional written and verbal communication. These short messages are minimally invasive, so that people can easily let others know that they are thinking about them, without disturbing them. This facilitates connectedness in relationships. ‘Thinking of you’ messages can be used where any other form of communication would be inappropriate, for example in goodnight texts. Their lack of intrusiveness means that text messages can be delivered virtually at any time, anywhere. Text messages are usually opened immediately. Consequently, messages can be precisely timed, creating meaning by their timeliness, for instance in a good luck message. ‘Thinking of you’ text messages seem to facilitate relationships, enabling unobtrusive emotional support and sustained contact in close relationships.

Secondly, meaning construction and interpretation is different in text conversation. Messages are more ambiguous and interpretively flexible, and there is limited scope for collaborative interpretation. SMS is not cotemporaneous: consequently, as with conventional letters, participants can think about the messages they send, choosing their words carefully and not reacting impetuously to the messages they receive. However, unlike traditional written media, it is near cotemporaneous. Messages are relatively quick, they reach users wherever they are, and replies require minimal effort. This creates rapid feedback and “room to correspond” (Patricia) with them, enabling dialogue and collaboration. This enables a new form of conversation, which
is slower, but still collaborative. In text message exchanges, the documentary method of interpretation works differently, because the increased time between turns changes the dynamics of documentary interpretation. Text messages are 'ready-made' signs, so collaboration only occurs between and not within turns. In addition, although text messages are not transient, previous comments are less available to 'document'. Although a sender may re-look at a message received several hours ago, before sending her reply, the recipient may no longer remember the details of her previous message, and neither is likely to remember the whole sequence of exchanges. In addition, there is insufficient space to discuss nuances of interpretation and to affect repairs. Consequently, with text messages what is documented or 'pointed to' is limited. Interpretation is less collaborative and intuitive, but more individual and deliberative. Each participant has more control and can think carefully about any reply, but meaning is left without clarification for longer and some ambiguities are not resolved. This enables tentative moves in a more open-ended form of interaction. My examples in this chapter show not only that this changes the path of meaning-making in the conversation, but that some respondents were aware of this, and deliberately used text messages to exploit these interactional effects.

In chapter two, I distinguished between conventional written communication and verbal conversation. The former involves the transmission of inscribed messages; the latter involves a collaborative process and the co-construction of meaning. Text message conversations fall between these two extremes, creating a new form of interaction.

In this chapter I have also tried to show how the specific qualities of text message interaction are shaped by the interactional channel characteristics of SMS, as identified in chapter seven. I think that text messages enable a new form of interaction because they lack copresence, are near cotemporaneous, and have low production and reception costs. Production and reception costs are low partly because text messages are relatively unconstrained by normative practices (as discussed in chapter eight), in contrast to the more rigid constraints found in traditional communication channels.

'Thinking of you' text messages facilitate contact when people are apart. This affects relationships, increasing connectedness. In addition, the different interactional
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dynamics of text messages can affect the development of new relationships, and are useful in the maintenance of existing ones. The relationship effects of mobile phone communication are discussed in the next chapter.
10 Relationships

10.1 Introduction
My fourth research question covers the relationship effects of mobile phone communication and their social significance. The mobile phone enables interaction at times and in places where it was previously impossible, extending opportunities for communication. My respondents unequivocally agreed that they communicated more, because they had mobile phones. It is therefore unsurprising that mobile phones affect relationships. These effects were not confined to close relationships, but included distant and difficult relationships, such as children separated from a parent by a broken marriage. Nearly all my respondents thought that mobile phones had improved some of their relationships, despite an initial natural reluctance to admit that such pragmatic matters were relevant; only a few suggested possible negative effects. The topic was problematic, because respondents found it difficult to account for their relationships, and to assess the impact, if any, of mobile phone communication. I have tried to trace connections between their descriptions of their relationships and their communication patterns. In some cases the effects were obvious, both to the respondent and to me; for instance Frank gave a mobile phone to his fiancé (before his arranged marriage) so that they could communicate privately. There were several cases where relationships were developed through a protracted exchange of text messages, and in some cases, text messages were virtually the only form of communication in the relationship.

In the last chapter I argued that text messages are a new form of interaction, for two reasons: firstly, they enable ‘thinking of you’ messages and secondly, they lead to a different form of collaborative communication. Both of these have important relationship effects. ‘Thinking of you’ messages affirm relationships when people are apart, enabling connection and emotional support without intrusion. In some cases, these messages are combined with other forms of communication, including mobile phone calls, to create a connected presence in the relationship throughout the day. The slower, more open form of conversation facilitated by text messages has, I think, even more significant relationship effects. My research suggests that text message exchanges can play a special role in new relationships, facilitating a gradual process
of development, with minimal commitment in the early stages. This allows the participants to keep their options open, and is particularly relevant where a participant is shy, reluctant or in a conflicting liaison. I also argue that mobile phone calls, and to a lesser extent text messages, increase knowledge of other people’s schedules. This enables people to synchronize their time tables, increasing opportunities for communication and for face-to-face contact. These effects of mobile phone communication are illustrated in a range of different relationships: romantic liaisons, friendships and family ties.

The first part of the chapter focuses on text message effects. This is followed by a discussion of mobile phone calls and the synchronization of schedules. The last two sections review different types of relationship and negative effects.

10.2 ‘Thinking of You’ Text Messages in Relationships

In close friendships, ‘thinking of you’ text messages sustain the relationship in between calls and face-to-face meetings. For instance, friends may exchange messages when watching a TV program they both follow. In the next excerpt, Rosie explains how text messages keep her in touch with her friends and facilitate face-to-face meetings.

Rosie: I think that you, you, just keep in touch more, so you think to yourself, ‘Oh gosh, I haven’t, I haven’t spoken to Vanessa, gosh how long is that? About two weeks? I must, I must contact her’. You know, because you sort of want to keep friendships going, but it’s a lot easier to sit and bang out a few, sort of, ‘Oh, hi how are you?’ Um, um, you know, ‘I’ve been really busy it would be great to meet up’ deedeedada’ And then she’ll send me one back saying, ‘Yeah. Can, lets meet for coffee. Haven’t seen you for ages. When can you do?’

‘Thinking of you’ texts can be used quite deliberately to maintain relationships, as Anne explains in this excerpt.

1. Anne: Yeah I like the idea with um (.3) I like the idea of sending a text and, you know, who ever it is opening it up and smiling or feeling warm towards me (.3) and I imagine them doing that (.3) I suppose 2. and (.4) without me being there, here. So I suppose it’s reminding 3. them, maybe, you know, thinking about this, I’m reminding them 4. of my existence even though I’m not talking to them.

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Text messages gently remind the recipient of the sender without embarrassing either of them. A phone call wouldn’t work as well, because there is a shared situation; note Anne’s says “without me being there” (line 4). I probe this (lines 9 to 10); Anne agrees and adds that a phone call “seems too much as well” (line 11); this refers to the increased intensity of a shared practice. Anne deliberately sends text messages to arouse warm feelings (lines 2 and 3) towards herself. A phone call would be more embarrassing, making her feel stupid and egotistical (line 15).

My respondents thought that ‘thinking of you’ messages had a positive impact, because they enabled people to keep in touch, even when both were very busy; this was particularly important for Texters, because they disliked phone calls. ‘Thinking of you’ messages are deliberately sent to people in need of emotional support. For example, Patricia had a friend in hospital recovering from a serious motorbike accident, so she made a point of sending him regular text messages. Similarly, Dee sent text messages to support her sister after her relationship broke up.

Dee: ... I had to send a lot of emotional texts, you know, through the night, just to keep her going so that, you know. She wouldn’t send me one, but I’d send her one, just to like perk her up. Just so that she would receive something, um, because like if I’m having a down day it ( ) and if Chris phones, uh just texts ‘Oh, love you’ and that’s it, I think, ‘Oh, ok then’. Then it makes you feel better.

(Dee’s use of text messages to lift her sister’s spirits, without expecting a reply, illustrates the use of ‘thinking of you’ messages in relationships. Text messages can also facilitate a ‘connected presence’ mode of communication, which is discussed in the next section.)
10.3 Connected Presence

Frequent ‘thinking of you’ messages may develop into what Licoppe (2004) describes as ‘connected presence’, where an open channel of communication is maintained between the interactants. This usually involves a combination of communication media, for instance mobile phone calls, text messages and email. Eight of my informants appeared to maintain a connected presence with their partners. This is a high proportion of the 22 who were in serious romantic relationships. My criteria for connected presence were 1) a stream of intermittent communication throughout the day and 2) whether the interactants would advise each other of the temporary suspension of the open channel. The frequency and intensity of the contact varied, as did its importance in the relationship. Those who maintained a state of connected presence were aware of the details of each other’s schedules and felt that they were more part of each other’s lives, because of their frequent communication. Ella sent her boyfriend about ten text messages and ten emails a day.

Ella: **There’s always some kind of contact throughout the day** whether, if it’s an email or a text it’s always, you’re kind of always, um, either one of us is either, is always kind of **there**. Do you understand?

(bold is my emphasis)

I have interpreted the word ‘there’ as referring to copresence and a shared situation when used in relation to phone calls. I think its meaning is rather different here; it is more like ‘there for you’, which implies availability and connectedness, rather than a shared presence. The state of connected presence is captured by this extract from my interview with David.

Ruth: Does text add anything to your mobile? I mean how important is it to you that you’ve got text messaging facility on your mobile phone?

David: I think the main thing is that, probably girlfriend more than anyone else, it’s just that we can do this random, often **knowing each other’s there, ‘thinking of each other etcetera’** without it (,) impeding and, you know, often (,). Like [on] the way home last night, a text followed on by another text, followed on by a phone call. I don’t norm[ally], generally, to and from with text, we do a phone call. But I just really like the idea of it. Even a voicemail, I think, can, can be intrusive. But I don’t mind intruding, I ring her every **evening**, but just randomly through the day. You know have a few minutes, send a message. And when I get a message it’s a **nice pick up, puts a smile** you know.

(bold is my emphasis)
David’s spontaneous description shows how connected presence depends on the unintrusiveness of ‘thinking of you’ text messages and how these create low-key emotional connection. David’s phrase, “knowing each other’s there” supports my interpretation of ‘there’ in this context as availability and connection. Dee and her boyfriend also maintain connected presence. This open channel is clearly an important part of their relationship that she values, but on occasion it can become more like surveillance. During our two hour interview he phoned twice and sent two text messages, before arriving in person. Dee thought that he suspected she was having an affair and she colluded with her employer to talk in the background in order to confirm her location, as she describes here:

**Dee:** ... I’m at Wanda’s and Wanda’s in. She’ll hear my phone ring so many times and I’m like, ‘Oh for God’s sake’. You know sometimes I get so annoyed and she’s like, ‘I’m sure he thinks you’re just like, not here’. Because Wanda actually does me a favour and talks in the background, so that he can hear her, because me and Wanda think this is a bit strange, for someone to phone so many times.

Of the eight who maintained connected presence, seven (including Dee, who is quoted above) were enthusiastic and convinced that it had a significant positive effect on their relationships. However, Sue was less keen, because she felt that she was subject to a stream of demands. In two cases, there was virtually no face-to-face interaction, but the participants nevertheless play a continuous and active part in each other’s lives. Kevin met his girlfriend in a chat room and the communication migrated to text messages. Despite using each other’s phone numbers for text message exchanges throughout the day, they have only once spoken on the phone (see excerpt, chapter seven, page 137). They have met face-to-face, but the relationship is almost exclusively conducted through text messages; consequently these undoubtedly have a major impact on their relationship. Ulysses and his girlfriend also maintain connected presence, but their extensive communication repertoire includes email, instant messenger, Skype calls, telephone calls, mobile phone calls and (more recently and to a lesser extent) text messages. He only sees his girlfriend face-to-face when they are on holiday, because she lives in America; they met through emails she sent to his bee-keeping blog. They developed this communication repertoire in stages and Ulysses described what each added to the relationship. For Ulysses, connected presence mainly arises through instant messenger, because they both have online computers on
their desks. Text messages provide additional personal contact, when they are away from their computers and are used for jokes and for ‘thinking of you’ messages. He felt that the multifarious combination of communication channels that they used enabled a long distance relationship that was nevertheless “an afternoon to morning to afternoon to evening relationship” and would not have been possible even a few years ago.

Ruth: So is there a sense in which she’s is perhaps in your current, in your life more? I don’t know how to explain it.

Ulysses: Oh yeah, oh absolutely, oh yeah, yeah that is that has to be one of the first times in the history that you have a relationship with somebody who’s thousands of miles away that actually (_) works in a funny sort of way.

Although connected presence was generally seen as positive, some suggested that it meant there was less to talk about when they were face-to-face, as Dee explains here.

Dee: So it’s like when he comes home from work he’s got nothing to say, ‘cos I already know what he’s done. I know how many leads he’s got, he knows exactly what I’ve had to do around at Wanda’s. Because we’re on the phone talking to each other, so it’s like he’s there all the time.

Presumably this could have an adverse effect in relationships. In the next section I discuss the impact on relationships of the slower, less collaborative form of interaction afforded by SMS.

10.4 Text Message Interaction in Relationships

The different interactional dynamics of text messages seems to affect both new and existing relationships. Text messages can be especially important in the early stages of amorous relationships, when people are getting to know one another. The absence of copresence means that text messages are an easy, undemanding form of communication, with less pressure for an immediate reply, giving the interactants time to consider their responses. This is particularly important for Texters who find phone calls difficult. Both Ella and Irene were convinced that their relationships would not have occurred without text messages. Ella explains here how she and her boyfriend first got together. She had met him about a month before, then one evening
he started texting her. At first she didn’t know who it was, so “it was like a guessing game”:

Ruth: You spent the whole night texting backwards and forwards?
Ella: Yes it started like something like 7.30 at night. I know it was a Friday night, and [he sent] the text. He was out, and he was texting me ‘til like 2 o’clock in the morning and then I got a phone call.
Ruth: At 2 o’clock in the morning?
Ella: Yeah.
Ruth: Gosh. And then when did you see each other from then?
Ella: Um, the next day.
Ruth: And that wouldn’t have happened (.) you don’t think - if text messaging didn’t exist?
Ella: Oh yeah, I doubt it, we wouldn’t have said so much, I don’t think. Yeah, not. Yeah less inhibited I think with text.
Ruth: So even though you sort of didn’t know who it was, you both were able to be less inhibited, as the texts went backwards and forwards?
Ella: Yeah, you can be kind of flirty, kind of thing and, um, so we said quite a lot I remember. We said quite a lot over the text and (.) then suddenly when we met each other it was kind of, it was really quite funny. It was kind of a bit, oh what do I say, when, whereas we didn’t have that problem with the text.

(bold is my emphasis)

Ella definitely felt that she and her boyfriend would not be together without text messages. Ella explains that one can be ‘less inhibited’ and that text messages are ‘kind of flirty’. Text messages feel safer, because there is no shared situation. Ella is quite shy and a Texter, who prefers texting to face-to-face communication. Although they now live together and have known each other for five years, Ella and her boyfriend maintain a state of connected presence, with frequent texts and emails throughout the day. When he first started texting her in the evening described above, she couldn’t remember him and wouldn’t have accepted an invitation to go out with him. Text message conversation involves minimal commitment, so they were able to flirt through SMS for several hours, before he phoned her. She felt much more comfortable with text messages: “when it came to having a conversation with him over the phone it was, ‘Ah what do I say?’ and there were long gaps and things”.

Irene also felt that she would not have got together with her boyfriend without text messages. When she met her boyfriend she didn’t want to have anything to do with him, because he was a soldier.

Ruth: So did (.) the phone play any part in you getting together?
Irene: YEAH, YEAH
Ruth: Tell me about it.
Irene: He, we met and, um, we were at a night out and he just sort of came up to me and sort of came up to me, started chatting to me.
I said, 'Look you can take my number, but I'm going home I'm, you know, really tired or whatever'. Went home and then he text[ed] me that night and I was just, 'Ohhh whatever', you know, delete sort of thing. And it took him three months of texting me constantly, just sort of saying 'Hello, what you doing? Are you free to meet up?'

Irene was adamant that she would not have entered the relationship without the low-key persuasion of three months of text messages. She replied occasionally, but his messages let her know he was still thinking of her, without intruding on her life. I asked her what difference it would have made if he'd phoned her instead:

Ruth: So if he'd been phoning you like every day for three months?
Irene: Yeah?
Ruth: How would that have been different?
Irene: I think that would have just wound me up, I was just like //
Ruth: // It would be annoying wouldn't it?
Irene: Yeah, it would have been 'Just leave me alone you, stalker'. But because he was actually sort of texting me and sort of saying, 'Listen Irene please give this a go' and I could actually see what he wanted to say. And I could choose to ignore it or I could, you know, respond. So the ball was sort of every time he was texting me the ball was put in my court.

The last line of this quotation captures the precise interactional characteristics of text messages. At each turn the ball was in "her court". Irene was free to reply, or not. This approach forestalled her immediate reaction, which would have been rejection. The slower, less collaborative dynamics of text messages is useful in the development of relationships, because it allows people to keep their options open, and to interact with less commitment. It is also less intrusive; her boyfriend could not have achieved the same effect by phoning her every day for three months, because that would have made him a stalker. Irene also commented that she could see what he wanted to say. Text message interaction gives people time to take in what the other person is saying, because it is slower.

Many respondents described how they used text messages in arguments and apologies (see chapter nine, section 9.6.2), because it meant they could take the time to express
what they felt, without being interrupted, and the recipient had the time to read and consider what was said, before responding. This can help to sustain relationships, as shown in the following excerpt. Tanya was explaining to me that sometimes it was easier to say things in text messages.

Tanya: ... Like to my boyfriend. Um, I couldn’t sit here and go through all my emotions and all my feelings and everything like that but if I wasn’t looking at him, and I was just texting him, I’d find it much easier.

Ruth: So are there things you’d talk about in texts //

Tanya: //Yeah.


Tanya: Yeah, um. Well like we had, um, like say we fell out and, um, and, you know, I think we were, we were sort of close to like almost breaking up and, um, I actually felt like texting him and actually saying ‘Well, I don’t want to’. Whereas if I was on the phone I’d’ve just put [it down]. I would’ve. You know, if you’re worked up or upset or anything like that, you just want to kind of get off the phone. But you couldn’t [talk] if you’re crying or anything like that, obviously you can’t really talk, but, through text you can say what you want, they don’t have to listen to you, they don’t have to see you, and you can say what you want. You know, it’s just easier.

(bold is my emphasis)

Tanya says that when upset, “you just want to kind of get off the phone”; this is a reference to the shared situation of the phone call. It can be easier to argue with text messages; there’s no shared situation and increased control, so “you can say what you want”.

In the first part of this chapter I have focused on the relationship effects of text messages. Mobile phone calls also affect relationships, increasing knowledge of each other’s schedules and creating shared rhythms that facilitate contact. This is explored in the next section.

10.5 Schedules and Synchronization of Lives

Although several authors (e.g. Geser, 2004; Ling, 2004b) suggest that mobile phones reduce the importance of schedules, I found that for my respondents they actually made them more relevant. In my initial interviews, I formed the impression that intensive mobile phone users knew more about the schedules of their close contacts than less intensive users. When explaining their daily usage pattern, they related the
Timing of their communication very specifically to the recipient’s schedule. I therefore pursued this topic in later interviews, using the social network drawings to ask about their knowledge of the schedules of the different people in their lives. The following excerpt from my interview with Rosie indicates her detailed temporal knowledge of her friend’s life:

Ruth: Um, you know, you were saying about making this decision, shall I phone, shall I text, to what extent when you make that decision do you think about what the other person’s doing?

Rosie: (.) Oh yeah, I think a lot of it’s, a lot of it’s to do with the time of day, so if I’m in the car, on the school run in the morning, quite often I’ll phone, because everyone else is in the car on the school run. So like my friend Cathy, whom I speak to most days, um, I usually speak to her in the car. In fact, I was supposed to phone her this morning in the car, which I’ve just remembered. She said phone me on the school run, damn. Never mind, um, I speak to her on the school run probably three times a week. Because we’re both in the car, we’re both making our way back from school, it’s dead time, it’s a great time to chat.

Ruth: What would the school run be for her in time? Do you [know]?

Rosie: Um, she goes from Teddington to Kingston Hill and back so she’s usually home by about 9 and I’m usually home by about 9 so between – She gets back into the car at half 8, 25 to 9 and I get back in the car at 20 to 9, so we’ve normally got a 20 minute (.) bit or even if we talk for 10 minutes. We normally talk for sort of 10, 15 minutes.

(Rose clearly knows her friend’s schedule very closely and they have identified a shared slot of ‘dead’ time when they can speak on their mobile phones. Rosie’s knowledge seems to be linked to the phone calls they share during this time. I think that knowledge of other people’s schedules is related to priority analysis (Schegloff, 2002) where, before phoning another, the caller is expected to have assessed the validity of the interruption. With mobile phones this is complicated, because the situation (that is the location and activity) of the recipient is unknown, and the contact threshold varies according to the situation. The situation-work done in response to the characteristic question, ‘where are you?’ establishes the relevant contact threshold as part of the negotiation of access (Licoppe, 2004). The term ‘where’, like ‘here’ and ‘there’, refers not just to location, but to situation, and the answer provides information about what the other person is doing. This explains how mobile phone users acquire knowledge about their friends’ schedules and why they know more about the time periods when they usually call. I explored this model with respondents.)
Rosie, who displayed exact knowledge of her friend Cathy's timetable in the last excerpt, explains that she gathers this information because when she phones her friend, "she always tells me where she is". Note that her examples are not just of places, but of situations, for example, when she's about to meet a friend for coffee.

Ruth: Right, so with all of these ((indicating her social network drawing)) four, you, you really know quite in detail what they do?
Rosie: Mmm.
Ruth: Do you think there's an extent to which your knowledge of what they are doing comes out of the fact that you're communicating via the mobile phone?
Rosie: (2) Yes, because when you phone somebody on their mobile, like if I phone Cathy, then she'll say, 'Oh I'm just about to meet my friend such and such for coffee' or 'I'm just about to meet my friend such and such for lunch. I'm in Wimbledon' or 'Oh, I've just arrived in Richmond or, you know, she always tells me where she is.
Ruth: So actually when you're phoning them you're getting all this information in bits?
Rosie: Yeah, mmm mmmm I always know where she is, or I usually know where she is.

To an extent, this finding is counter intuitive, since mobile phones increase availability and therefore, as the literature suggests (e.g. Geser, 2004; Ling, 2004b), should reduce the importance of knowing the other person's schedule, because one can reach them anywhere. However, the fact that people can be reached wherever they are, whatever they are doing, increases the onus on callers to consider the impact of the call on the activities of the recipient. My respondents knew not only what their close friends were doing at different times, but also whether they would be able to take calls at that time, for instance: “I’ll call sort of half five, because I know they’ll be walking from work to home then” (Kevin). Those who frequently phoned people in other time zones were aware of their clock times. The extent of this knowledge varied; some people have inherently unpredictable schedules. I found that although most claimed to know their close friends’ schedules, when questioned some could give much more specific details. Further analysis of the negative cases showed that less frequent callers knew less about others’ schedules and that knowledge was often related to those times when they usually phoned. For instance, Cecil knew the precise timings of his friend Miranda’s schedule in the afternoons, but not in the mornings, because he usually slept in. This supports my hypothesis that the details are derived
from mobile phone calls. Those who tended to text, rather than to call, knew less about what their friends were doing, although those who maintain connected presence do build up a picture of the other’s schedule through frequent ‘thinking of you’ texts, as Lynn explains in the next quotation.

Lynn: Um, it’s just silly things actually, like ‘I’m off swimming’ and I he’s finished swimming and he’s, um completely knackered. It’s just silly little kind of, you know, filling me in on his day sort of stuff.

Text message reciprocation is also relevant. When there is no reply to a text message, it may indicate that the recipient is busy, which builds up a picture of the recipient’s schedule. In turn, these schedules are used to set reciprocation expectations. The next extract occurred later in Lynn’s interview; she is responding to my question about the extent of her knowledge of others’ schedules:

Lynn: I speak enough anyway so I pretty much, I mean, I know their routines, but I think you’re more conscious of it when you send text messages because you think well, is it an appropriate time to communicate or is it not or? Um, for example, Adam if he’s on the tube, there’s just no point, so I’d know at that particular time in the morning, if I send a text message he’s not going to get it for another hour anyway, so I’d either avoid doing it or just not expect a reply back immediately. (bold is my emphasis)

Lynn’s phrase, “is it an appropriate time to communicate or not” refers to priority analysis. Assumptions about schedules are used not only to assess contact threshold, but to interpret delays in response.

Increased knowledge of schedules means that mobile phone users can synchronize the rhythms of their lives, organising communication around “flexible compartments of time rather than compartments of time associated with particular geographical spaces” Green (2002, p. 287). My respondents quite often spoke about this aspect of mobile phones; it makes them more available to one another, and uses ‘dead’ time, so that they communicate more. David explained how mobile phones affect his relationship with his friend Sam:

Ruth: Oh, what about Sam?
David: Um, () we have a very similar [schedule in] that we’re both in the car late evenings and it’s a great time to catch up and we’re
both (.) I’m, you know, have normally one evening clear in my diary. And, I can know that I’m always booked up Tuesdays, Wednesdays, Fridays and all that, so it’s Monday or Thursday and normally something crops up for those days, and it’s similar with Sam, you know, we both live active lives, it’s absolutely great we use dead time to stay in contact.

Ruth: So you you prob- you probably talk to each other more than you would otherwise ( )
David: Absolutely, I really don’t think, you know.
Ruth: You, I mean you’d still be friends obviously, but //
David: //We’d still be friends, I’d still see him (. ) monthly but //
Ruth: //It keeps the friendship up a bit?
David: Totally. It keeps me know- going back to, it keeps me knowing roughly what he’s doing this week. ( . ) You know, what’s happened in his life, if he’s seen any other wider friends, keeps me really feeling I know most things in his life.

(bold is my emphasis)

Mobile phone calls not only build up their knowledge of each other’s schedules, but make people feel closer because they share the day-to-day details of their lives. David had just changed his contract so that he got free calls after 6:30; this meant that he could make long calls on his hands-free set, as he commuted home from work. In David’s case, mobile phone communication supplements face-to-face contact; in other cases it increases face-to-face contact, because people can identify and take advantage of a fortuitous concurrence in their schedules. I had asked Bill about the impact, if any, of mobile phones on his relationships:

Bill: I think I have a better relationship with, um, with well everyone basically because I’ve got a mobile. If I didn’t have a mobile, um, I wouldn’t be able to be as flexible. I mean, one sort of ( . ), one sort of factor is um because uh I’m around a lot. Um, if I’ve, if I’ve finished teaching in Kensington. My girlfriend’s college is in Kensington, so if I finish uh finish teaching for the day, um at about 9 o’clock or something, I can phone her and say, ‘Are you still at college because I can meet you?’

The ability to arrange meetings is particularly useful for people who are itinerant like Bill, who gives private guitar lessons. Bill’s diary showed that he had used his mobile the previous day to arrange, at the last minute, to have lunch with his brother.

10.6 Mobile Phone Communication in Different Types of Relationship

Nearly all my respondents felt that mobile phones had had positive effects on some of their relationships. The effects of text messages are easier to identify, because they are
Relationships

distinctive and different from traditional communication channels, but mobile phone calls enable immediate remote emotional support, which can be very important in close relationships. However, network effects are complicated: one person in the relationship may be a Texter, both may be Texters, or both may be Talkers. Several respondents explained that their communication patterns, with a previous partner, or for a particular person, were different because of individual preferences for texting and calling. Relationship effects depend on the type of relationship. In order of importance in terms of the impact of mobile phones these are: romantic relationships, friendships, and families ties. Each of these is discussed in turn.

10.6.1 Romantic Relationships

The relationship effects of mobile phones are most noticeable in romantic relationships. In my sample, 22 respondents currently had partners. In 14 of these cases, mobile phone communication seemed to have had a major positive effect on the relationship; in the other eight cases (all of whom were in the older age group) there was no evidence of any significant effect.

The main effect in ongoing romantic relationships is increased availability to one another, through phone calls and text messages. This was most noticeable among those who maintain a state of connected presence, but it was also important where circumstances make face-to-face meetings difficult. Mobile phone calls mean they can support each other emotionally when necessary, even though they can't be together. Text messages are less useful for intensive emotional support, because there is no shared situation, but they play a special role in arguments, because of their specific interactional characteristics. Their lack of intrusiveness and privacy also extends availability, especially in secret relationships. Olivia's boyfriend was unable to take phone calls, presumably because he was married; with text messages they could still communicate every day.

Text messages seem to encourage the expression of romantic feelings; the lack of copresence makes it easier because it reduces embarrassment: "I'd find it mortifying if I said something really embarrassing over the phone, whereas on text you wouldn't" (Ella). Anne said that she had asked her boyfriend to write down his text messages at one point, because she was not receiving them. She said that when he looked at what
he had written, he had remarked that he would never say or write things like that. As Anne put it, "there’s something about text, it’s quite romantic stuff". Olivia felt that text messaging had taught her how to express her emotions. Previously she had found it very difficult to use endearments. She had begun to use them in text message conversations with her boyfriend, because she found it was easier, and was now able to use endearments when face-to-face. Presumably letters once filled a similar role, enabling people to express emotion away from the embarrassment of face-to-face contact. Romance is encouraged by other text message affordances; they are revisable, so they can be carefully composed, and reviewable, so they can be kept, like love letters, as a symbol of the relationship. Their brevity also prevents them lapsing, like phone calls, into the mundane details of everyday life.

Bill: ... the texts were more romantic than the conversations we would have. Like um, you know, we would speak on the phone and go did you get the message? Oh yeah stupid or yeah (.) and then just get on and talk about what it is, so we wouldn’t sort of have like sort of a soliloquy on the phone.

10.6.2 Friendships

The role of mobile phone communication depends on the strength of the tie. This became clear in the social network exercise. My respondents described different communication patterns for contacts on different rings of their social network drawings. In the next excerpt Irene is discussing her social network drawing, which is shown in Figure 10.1.

Figure 10.1 Irene’s Social Network Drawing
Irene: Mmm.
Ruth: How would it be any different, your communication with them?
Irene: ((sigh)) Well Vicky and Caroline have only recently gone up into that section hhh. 'Cos they've done a few things recently that I'm not particularly happy about. Um, but the college girls I only really speak to them now on email (.2). Unless it's their birthday when I'll send them like a text message or something.

(bold is my emphasis)

Irene’s comments show how the strength of the tie can change within relationships over time. Irene explains that she only sends occasional text messages and emails to friends relegated to the outer rings of her social network. In this way she feels that she keeps these relationships on hold, so that they survive in a minimal form, without the commitment required by close ties.

The phone book in the mobile phone is used to remind people of those they contact less frequently, helping them to retain these weaker ties. Eddie felt that it was important to maintain relationships; while watching TV in the evening, he went through his phone book, texting friends whom he hadn’t heard from recently, without risking more demanding phone communication. Similarly, Rosie explained that on a car journey while her husband drove, she would go through her phone book, keeping in touch by sending text messages to friends. When discussing their social network drawings, several respondents thought that without intermittent texting, less close friends would move towards the outer rings of the chart, or they would lose touch with them altogether. In the next excerpt, Tanya explains this in response to my direct question; we were both looking at her social network drawing, a close up of which is shown in Figure 10.2.

Figure 10.2 Tanya’s Social Network Drawing.
So what I wanted to talk about, if there was no texting how would that change these relationships? Or how would it change, you know the way you are with these people? Would it change anything?

Um, I probably wouldn’t be in contact with them.

With which ones?

Um, obviously these people I would ((indicates inner circle)).

That’s the inner circle, the inner circle.

Yeah, definitely, um (.2) and for these three. I would still ((indicates Lucy)) obviously, because I just phone her occasionally. I would still speak to her, but as I say, it’s about, literally, every sort of few months anyway. So that probably wouldn’t change. Um, Beth I’d make the effort with, because obviously I’ve known her all my life. These two ((indicates Beth and Lucy)) I’ve known all my life basically. If I didn’t have text, I probably would never speak to him ((indicates Andy)), um, likewise for Carole. Probably those three actually, ((Katie, Sarah, Sarah)) all of those probably. I wouldn’t really speak to, um, Hayley, I’d probably make a few phone calls and these people here ((indicates two inner circles))

Your parents?

My parents, yeah, but the ones on that outer circle, no.

You’d lose them?

Probably would lose them.

(bold is my emphasis)

Text messages also strengthen group bonds. Jokes and humorous messages are forwarded between groups of friends, often in anticipation of an event or as a post mortem on the day after (Ito & Okabe, 2005b). Patricia spoke enthusiastically about the text message “banter” among her closest friends. Here Irene talks about the text exchanges which follow a night out.

I’d say, ‘Morning ladies’, um, ‘How are we feeling?’, um, ‘Any gossip from last night that I missed out on? I was drunk.’ um ‘What are you up to for the rest of the day? Anyone fancy going for lunch?’

And would you send that to everybody?

I’d send that probably to, on the usual night out, I would send it to about four or five the next day.

In the sample of text messages that I collected, the ‘thinking of you’ text messages sent between two females seemed to be more explicitly affectionate than those exchanged between men; although the proportion of phatic texts was similar for the two groups. Male respondents did send ‘thinking of you’ messages to their male friends, but these were usually ostensibly instrumental or humorous (and, as noted in chapter nine, did not include kisses). The difference is shown by these examples:
Previous research suggests that men are less inclined to 'call for a chat' on the telephone (Livingstone, 1992; Anderson, et al., 1999), consequently the additional contact provided by text messages may play a particularly important role in male friendships. As Frank explained,

Frank: It's not the sort of thing you're going to have a conversation about. It's not as if you'll say 'Hi James, I'd just like to tell you I've had 500 calories for lunch' It sounds quite stupid doesn't it? Silly.

For women, calories might not seem like a silly topic for a phone conversation, but my male respondents seemed to have higher thresholds for making phone calls. Text messages are low-key, which seems to make them particularly useful in male friendships. In this excerpt Xavier specifically relates text message use to gender:

Ruth: If somebody’s going on something, which is, I don’t know, exam or as special night out or something, or night with a new girl. Would you text afterwards to see how it went?
Xavier: Yeah, yeah, usually stuff like that you, you, don't, as a bloke you don't really want to make a phone call, because you, you, don't want to make a fuss. So sending a text message, is just it gets away with all of that.
Ruth: Oh I see. So it's a low fuss thing?
Xavier: Definitely, definitely.
Ruth: It’s not just // [that it’s] unintrusive in disturbing people?
Xavier: //it's fairly nonchalant.

(bold is my emphasis)

Text messages are less fuss than phone calls, more “nonchalant”, and therefore more suitable for “blokes”. The ‘snail’ text messages (chapter nine, page 199) sent to Greg, are examples of this minimalist approach to communication. Although my sample is too small to generalize about gender differences, Frank and Xavier’s comments reflect their gendered perceptions.
10.6.3 Family Ties

Although many respondents spoke about the impact of mobile phones on family relationships, some were less likely to use mobile phones with members of their family, perhaps because communication patterns are habitual. Within families, mobile phones primarily affect relationships between parents and their older children, but can also affect relationships with siblings and older parents. Just under half of my sample had children, and ten had children who were deemed old enough to have a mobile phone. The ‘appropriate’ age is clearly a contentious issue and varied between ten and thirteen years. Children are often expected to keep their phones on and there may be rules about regular communication; in many cases their phones are subsidized. Mobile phone communication is used to keep track of children, extending the physical freedom of both parents and children. The mobile phone also acts as a conduit for emotional support or remote parenting (Rakow & Navarro, 1993). In some families, children phoned or sent text messages when they needed sympathy, as indicated in the text message and excerpt below.

```
Mum I'm really pissed off
```

(sent to Anne by her daughter from school)

Anne: ... actually the first time Nigel went to Glastonbury, two or three years ago, and I had some lovely, well the first message I got from him was, um, yeah, ‘I want to be at home, I’m really missing you, it’s cold’. And, and then the second message was, ‘It’s getting a bit better now’ and the third message was a little music and a smiley face.

Anne felt that she was able to support her children just by receiving and replying to their messages. Text messages enabled them to vent their feelings and she thought that they would feel better after sending them. Text messages are also useful for contacting teenagers when they are out with their friends:

Anne: You can text teenagers in situations where they wouldn’t want to talk to you, like 2 o’clock in the morning at a party, and they’ll text back saying yes I’m safe. Um, which they wouldn’t, they wouldn’t want their mum calling.

Mobile phones also enable remote parenting in families where the parents have separated. Although Nick lives apart from his three children he feels he can,
nevertheless, be available to them and “be a father 24/7”. He knows their schedules and the times when he can phone them.

Nick: They’ve normally got it with them so I know that they’re, if they’re, say about half 8, quarter to 9, I know they’re on their way to school. Then I’ll use the mobile, because I know they’ll be on their way to school. Before that if, I try not to ring before that because they’re getting ready for school and as there’s three of them, it’s chaos.

I explored the impact of mobile phones on my respondents’ relationships with their own parents. This generally wasn’t significant, because most of their parents didn’t keep their mobile phones on and couldn’t text. Many were exasperated by their parents’ incompetence with mobile phones, and felt that they would contact them more often if they could send them text messages. Sometimes they didn’t phone their parents regularly, because they knew it would take a long time, and that it would be hard to get off the phone. A number felt that having a mobile phone made them more available to their parents in emergencies.

There were several examples of mobile phones facilitating difficult family relationships, particularly in families where the parents had separated. Bill phoned his younger half-brother on his mobile, to bypass his step mother. When Lynn wanted to speak to her father she sent him a text message asking him to call her, so that she could avoid speaking to his second family. In the next excerpt, Dee explains why she uses text messages with both her half-sister and her estranged father. Dee said that her father was an alcoholic and had left the family when she was three. She had a step sister of about 17, whom she had only recently met. She felt uncomfortable talking to either her father or step-sister on the phone, but was more comfortable when the interaction was mediated by text messages. Without text messages she doubted whether she would have much contact with either of them. Dee was not a Texter, she generally preferred talking on the phone to texting, but found these two relationships particularly difficult.

Ruth: You said you’ve only just started talking to her?
Dee: Yeah that’s why I’m texting her, rather than talking face to face.
Ruth: Explain why?
Dee: Um?
Ruth: Why text rather than phone? If it’s a new relationship?
Dee: Because, I don’t know, **I get really nervous and I fumble a lot.** When I just (.2) like chat on. Sometimes, I just come out with the most stupidest rubbish in the world. And people are just like, ‘What are you going on about?’ and when I get nervous, I get even worse. And, um, she makes me nervous because, you know, I haven’t really known her, and I’ve just had a, the same photo all my life of her and now she’s like 17 or something, and uh she’s not that old, I don’t know, not exactly ( ). I don’t, I don’t even know the ages of my sisters really honestly, and um so uh.

Ruth: So you feel happier texting?

Dee: I feel happier texting them. When we’re face to face, we talk great, yeah but. Um, for some reason I’m happier texting, because **I don’t want to mess it up and make a fool of myself** and stuff like that. So, and that’s how I really talk to my Dad as well, mainly, unless it’s face to face, ‘cos he left us when we were three.

(bold is my emphasis)

This quotation shows how text messages can be helpful in estranged relationships; they are less stressful and embarrassing than phone calls, because there is no shared situation. Predictably, text messages were particularly important for Texters. Yves has no close relationships at all, but he clearly values the text messages he receives from his people he has met online. This was demonstrated not only by his comments, but by his reaction when he received two text messages during the interview.

**10.6.4 Negative Effects**

Not all of the relationship effects of mobile phone communication are positive, but there were relatively few adverse comments. Some respondents felt that they saw friends less frequently; it was easy to defer face-to-face contact when they spoke on the phone and exchanged text messages. Several felt that when they did meet there was less to talk about, because they had already shared the details of their lives. A few said that those who did not have mobile phones could be left out, both from group text message banter and from gatherings arranged at the last minute. Most of my respondents did not feel that their mobile phones imposed obligations; they kept them switched on because they wanted to be connected, rather than because they were expected to be available. However, Dee felt that the constant stream of texts from her boyfriend were a form of surveillance, and Sue resented her partner’s frequent texted instructions. When I tried, with some difficulty, to recruit Blackberry users, several wives commented on their adverse relationship effects. Victor said that his wife had thrown his Blackberry into the garden when he tried to take it on holiday.

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Two respondents reported that text message misunderstandings had permanently damaged relationships. In addition, several respondents claimed, sometimes from experience, that mobile phones facilitate infidelity. Text messages afford a silent, private channel of communication, and can encourage ostensibly harmless flirtations that develop into more serious relationships. This had happened to Olivia, who had since left her alcoholic husband and was very happy with her boyfriend.

Olivia: I never realized there was anything going on until, for a long time. So I, to me it was a safe way of communicating with someone that I was going to get to know without having to meet somewhere. Because I'd never, never, had any sort of relationship with another guy all the time I was married. Let alone friendship with another guy, let alone anything else. And it was very strange to me and that he wanted to be my friend and it was it was safe in a way.

The slower, less committed process of relationship development enabled by text messages meant that Olivia herself didn’t realize that she was getting involved. This made her open to a relationship that she would probably not have entertained if it had been conducted through phone calls. Olivia said that her boyfriend couldn’t take phone calls and I presumed that this was because he was married. Text messages are their main form of communication.

Ruth: Do think text has made a difference to your relationship? Without text do you think it would be very different?

Olivia: It would be more difficult, definitely, um, because it wouldn’t be so easy to let me know when he could fit, you know when he could see me. He’d have to just come in, um, or probably ring me at work, which he probably wouldn’t want to do, um. Yeah. I think that would’ve been very difficult. He often says, ‘Thank God for text’, strangely enough.

10.7 Conclusions

In this chapter I have shown how mobile phone communication affects different relationships, tracing these effects to several sources. Firstly, ‘thinking of you’ messages facilitate closeness in relationships, enabling people in serious relationships to share the details of their lives when they are apart. In combination with other communication, these text messages may create a connected presence (Licoppe, 2004)
that creates a sense of connectedness throughout the day. Secondly, text message interaction is more open-ended, reducing commitment. This reduces risk, increases control and enables a slower pace of relationship development; the participants feel safer and this makes them more open to new relationships. My respondents felt they were less susceptible to coercion and manipulation when texting. This made communication easier and less confrontational, facilitating apologies and the resolution of conflict, nurturing both new and ongoing relationships. Texting is also less embarrassing and this encourages emotional expression. Mobile phone calls also facilitate relationships, because they create shared situations, enabling remote intersubjectivity and emotional support. In addition, mobile phones provide private access; this increases communication and facilitates arrangements and face-to-face meetings. The situation-work done when answering mobile phones helps the caller to build up a picture of the recipient’s activities and this helps to synchronize schedules. Although there are some negative effects of mobile phone communication, my research suggests that these are relatively minor.

The relationship effects of mobile phone communication were illustrated by examples from different types of relationship, including lovers, friends and families. Some of my respondents felt that their relationships with their partners might not have occurred without text messages. It is not possible for me to assess the social significance of this, but it is interesting to speculate that a slower relationship development process might encourage more rational and less impetuous relationships, and consequently, more social stability. On the other hand, text messages seem to facilitate privacy and the insidious development of infidelity. My research suggests that the connected presence mode of relationship is facilitated by the two mobile phone channels and is not uncommon. When people maintain connected presence they stay in touch, creating detailed knowledge of each other’s activities throughout their separate daily lives. It is difficult to gauge the social significance of this; connected presence facilitates intimacy and connectedness, but it could also become monotonous and oppressive. The role of mobile phone communication in estranged families is particularly interesting and was relevant to a quarter of my respondents. It provides private access in these difficult situations and is increasingly recognized in ‘indirect contact’ orders, following divorce proceedings (BBC, 2006).
I think it is particularly interesting that my respondents were so aware of the different interactional characteristics of text messages and phone calls, and of their advantages in relationships. Underlying these differences are the interactional characteristics I identified in chapter seven. In my next and final chapter I combine my empirical and theoretical analysis and develop a theoretical framework for mediated interaction.
11 Discussion of the Findings

11.1 Introduction
The objective of this chapter is to review my findings, bringing together elements from the different chapters and putting them into perspective. In the first section, I highlight the key findings from my research and discuss their social significance. The second part of the chapter develops a theoretical framework for understanding mediated interaction and shows how it can be applied to other communication channels. The chapter ends with some suggestions for further research and my concluding reflections.

11.2 Key Findings
My research question asks whether the characteristics of communication channels shape social interaction; my conclusion from my research is unequivocally affirmative. Communication channels shape interaction not merely superficially, but can also transform both the pattern of the interaction and its impact on the participants.

A key finding from my research is the diversity of interaction afforded by mediated channels. Moreover, interaction is not simply taken for granted and transparent, rather users are aware of the interactional differences between communication channels and, on occasion, deliberately select a medium for its interactional characteristics. This awareness may be a result of the recent proliferation of mediated channels, but it has a reflexive effect on face-to-face interaction, which becomes one option in a range of possible alternatives. Contrary to the assumption of much of the HCI literature (e.g. Short et al., 1976; Daft & Lengel, 1984), face-to-face communication is not always preferred, particularly for those whom I call Texters.

My research suggests that the medium shapes the message; people will say things in a text message that they wouldn’t say face-to-face or in a phone call. The path of a text message conversation, and its outcomes, are different from a verbal conversation, because SMS gives each participant more control over her own contribution. This
changes the power dynamics in the interaction: there is less scope for coercive interruption and interpretation. Whereas verbal conversations invite an immediate response, SMS gives the interactants more time to think, and may therefore evoke a different response. In addition, there is less embarrassment, because there is no shared situation; this encourages people to express themselves more freely.

My research suggests that text messages are a new form of interaction, and that ‘thinking of you’ messages are an important form of contact in relationships. These messages are used in new communication rituals, ranging from goodnight to New Year messages. Underlying the prevalence of these messages is their relative lack of affordances. The potential of the channel was not recognized when it was launched, and even after it took off in 1999, industry experts were predicting its demise within three years, because they assumed that users would prefer the richer affordances of 3G. However, my study suggests that the scantiness of text messages is an interactional advantage, because it allows people to send very brief messages without causing offence, reducing communicative effort for both sender and recipient. This is supported by the relative lack of normative constraint in SMS; there is no prescribed structure. Unlike previous research (Kasesniemi & Rautianen, 2002; Laursen, 2005), I found relaxed reciprocation norms for text messages among my UK respondents. This enables people to send text messages without imposing an obligation on the respondent, reducing contact threshold. These factors encourage people to send ‘thinking of you’ messages, developing and sustaining their relationships. My claim that text messages are a new form of interaction is radical, and opens the way for new forms of interaction, associated with communication channels that have yet to be developed.

The interaction afforded by mobile phones affects relationships. This has been recognized in previous research, which highlights increased communication and social coordination (Gergen, 2002; Ling, 2004b; Geser, 2005). However, while endorsing these findings, my research elucidates the role of mobile phone calls and text messages in relationships. Mobile phones nurture relationships because they enable remote, but private, emotional support; this is important not only in romantic relationships and close friendships, but also in estranged families. My work also suggests that mobile phones increase the pertinence of schedules, because they are
Discussion of the Findings

used to assess the contact threshold of mobile calls. Moreover, the negotiation of access in mobile phone calls provides a mechanism whereby users build up detailed knowledge of each other’s schedules. It is difficult to assess the social impact of this; increased knowledge of others’ lives impinges on privacy, but it may also strengthen social bonds. My research suggests that the connected presence (Licoppe, 2004) mode of relationship is facilitated by the two mobile phone channels, and is not unusual. The frequent contact in these relationships seems to strengthen emotional bonds and may have long term social significance.

Text messages are particularly useful in relationships. The interpretation of text message interaction is less collaborative than verbal conversation, and therefore more open-ended and non-committal. This enables a slower, less committed process of relationship development, facilitating relationships that might have been aborted if conducted face-to-face or on the phone. In addition, text messages encourage the expression of emotion, partly because of their lack of copresence, but also because it is part of the ethos of the medium, as demonstrated by the prevalence of ‘kisses’. The detachment and control afforded by SMS is useful for the maintenance of relationships, facilitating apologies and helping people to explain themselves in arguments. The low contact threshold for text messages encourages communication; this may be particularly important in male friendships, where phone calls seem to require more of an excuse. Whereas existing research (Gergen, 2002; Licoppe & Smoreda, 2006; Matsuda, 2005), emphasizes the role of mobile phones in strengthening close ties, I found that text messages are also used to maintain weaker ties, with intermittent texts sustaining relationships that might otherwise lapse.

The research suggests that there are two quite different types of mobile phone user: Texters and Talkers. This has only been identified once before, in an online survey conducted by Reid and Reid (2004; 2005a; 2005b). This is surprising, given the volume of mobile phone research in the last ten years, and therefore the significance of the distinction needs to be confirmed. One explanation for the lack of similar findings in previous research is that most studies have focused on either text messages or mobile calls; my work compared these channels, and explored the communication repertoire as a whole. Texters are extremely aware of the characteristics of phone calls and text messages and their, possibly fortuitous, inclusion in my sample helped me to
understand the differences between the two channels. For Texters, SMS enables the remote social contact and availability that they cannot enjoy in phone calls. Most of those who were phone averse were generally more comfortable in written media than in face-to-face communication; their attitude indicates an important, but neglected, individual response to social interaction. The recent proliferation of near-contemporaneous written media may facilitate the social connectedness of this section of the community.

The distinction between situational and non-situational communication underlies my theoretical perspective, and this was consistent with my respondents’ discourse. This distinction helps to explain the two communication paradigms I identified in the literature. The transmission model is relevant to non-situational communication, but an interactionist perspective seems to be more appropriate for situational communication. My approach also helps to explain the conceptualisation of a phone call as a place. Phone calls are mediated situations, in which the participants feel as if they are ‘there, together’, despite their different physical locations.

My research suggests that normative practices go through stages of development before stabilizing. SMS normative practices seem to be relatively undeveloped. This is interactionally useful, increasing flexibility and scope for personalisation. However, it is possible that more restrictive norms will develop if SMS usage spreads beyond ‘text circles’, and becomes a mainstream form of communication. Norms relating to the public use of mobile phones seem to be developing, and this helps to explain why people are vocal about these practices. When communication norms are established, they are taken for granted by users, and form part of the context of interpretation. Infringements become not simply a lack of etiquette, but part of what is communicated; thus the need for intelligibility enforces normative practice and the interaction order (Goffman, 1963). Overall, my research shows how the nature of interaction is shaped by both technical channel affordances and social practices. This shaping does not simply influence usage, but what is said and how it is understood.

My study has focused on mobile phones, but the findings can be extended to other forms of communication. In the next section, I develop a rudimentary theory of
mediated interaction, and apply my theoretical framework to email and instant messenger, to show how it can be used for the analysis of mediated interaction.

11.3 A Theoretical Framework for Mediated Interaction

In chapter three, I claimed that mediated interaction has been neglected by sociologists and treated as homogeneous, with little acknowledgement of the differences between channels. My study provides a theoretical framework that can be used to understand the differences between mediated channels. There are four elements in the framework: the distinction between situational and non-situational mediated communication; a typology of interactional characteristics; recognition of the role of social factors; and a conception of meaning informed by the documentary method of interpretation. Together these form an analytical tool that can be used both to understand the nature of interaction through particular channels, and for the design of new channels with specific interactional characteristics. The framework is shown in Table 11.1.

<table>
<thead>
<tr>
<th>Table 11.1 Theoretical Framework for Mediated Interaction</th>
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<tr>
<td>1. SITUATIONAL OR NON-SITUATIONAL?</td>
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<td>2. INTERACTIONAL CHARACTERISTICS:</td>
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<tr>
<td>Copresence</td>
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<td>Temporality</td>
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<td>Perceptual mode</td>
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<td>3. SOCIAL FACTORS</td>
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<td>4. DOCUMENTARY METHOD</td>
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The first element in my framework is the distinction between situational and non-situational mediated communication. My theory holds that in mediated communication there is a shared situation if, and only if, the participants are involved
Discussion of the Findings

in a shared practice. This is intended to be not just a matter of definition, but the empirical claim that in mediated communication the participants do not feel as if they are sharing a situation, unless they are actively interacting, in real-time, in an ongoing practice. The distinction was supported by my empirical research. My respondents spoke about ‘being there’ and ‘being together’ and sometimes used the term ‘situation’ when talking about phone calls, but never when talking about text message interaction. Some saw this as an advantage of texting; if they felt uncomfortable in an interaction there was no awkward situation to get out of; they simply deleted the message.

In situational communication, the participants collaborate to interpret what is being said. Each experiences his own agency as they interact, but the shared practice also creates a common ‘vivid present’ and the phenomenological experience of intersubjectivity. This affects relationships, because the other person is ‘there’. Intersubjectivity creates connectedness and facilitates emotional support; this explains why phone calls are deemed more appropriate for delivering bad news than written media. On the other hand, several of my respondents felt that they could be manipulated in phone calls, through interruption and coercive interpretation. In contrast, in non-situational mediated communication, the participants are not engaged in focused interaction. They do not feel as if the other person is ‘there’. This reduces embarrassment and facilitates risk taking, which can be interactionally useful. The participants have more time to think about what they want to communicate; this increases control, reducing scope for coercion.

The interactional differences between situational and non-situational mediated communication illustrate the impact of communication channel on mediated interaction: only channels that afford copresence can be used for situational interaction. Table 11.1 contains the typology of interactional characteristics derived from my study, and these are the second element in my theoretical framework. The typology provides a list of dimensions that should be considered when tracing connections between channel features and interaction. Each dimension draws attention to a particular channel affordance and its interactional effects. The list may not be exhaustive and other dimensions may become pertinent in new channels: mobility has only recently become an important aspect of mediated interaction. I
attribute many of the insights I derived from my empirical research to my focus on these interactional characteristics. For example, by focusing on the interactional costs of text messages, and exploring them with my respondents, I realized that these were seen as minimal, and that this encouraged the use of text messages as ‘thinking of you’ messages. Similarly, exploring the visual mode helped me to appreciate the difference between seeing and being seen, and consequently, to understand the unpopularity of video calls. The typology is useful when trying to predict the nature of interactional experience through a new channel. For example, channels that do not afford copresence will be less demanding in terms of attention, and could therefore be more efficient in an organisational context. The list of interactional characteristics can also be used when designing channels or channel artefacts, for instance, one might try to reduce production and/or reception costs to increase usage. For nearly 100 years, traditional telephony has required the caller to remember and dial numbers, although the technology for automated dialling has been available for many years. My theory would predict increased usage of telephones with predictive dialling or easy to use stored phone numbers. The framework could also be used to facilitate the design of a textual channel that mirrors the interactional characteristics of verbal conversation; this could be useful where audibility is problematic.

The third element of my framework is the critical role of social factors in shaping communication channels. Network effects are important; the value of a communication channel for a particular user may depend on its usage by others within his social circle. This applies to text messages, but not to mobile phone calls, because they are compatible with fixed phones. In addition, social factors mould channel perceptions and interactional practice; the need for small talk on the phone is not treated as a discretionary normative practice, but as an intrinsic part of the channel. The affordances of a communication channel are not necessarily exploited, although they constrain the range of possible alternatives. For example, face-to-face affords simultaneous communication, but this aspect is not always sanctioned. In therapy, the norm of simultaneous communication is sometimes suspended so that ‘sharing’ is uninterrupted. My theoretical framework helps to explain why this is interactionally useful: disallowing simultaneous talk reduces the collaborative element of the

1 The failure of this aspect of 3G is demonstrated by the absence of this feature in some of the newer 3G mobile phones.
interaction and increases the control of the speaker, creating a safer therapeutic environment. Applying this social focus in my research, I realized that the absence of normative constraint on text message format was significant, because it enabled users to send very brief messages. Although brevity is not technically constrained in other channels, such as letters and phone calls, it is not exploited because it is seen as rude.

The final element of the framework extends Garfinkel’s (1967) documentary method of interpretation from talk to other forms of communication. In conversation, there are many possible interpretations of what each person is saying, but working together, the participants progressively identify a common underlying pattern or shared interpretation. Comments ‘point’ to the supposed underlying reality they are talking about, to previous utterances and to what is being understood. Communication is temporally situated. Temporal relationships between turns affect the way meaning is constructed and interpreted, changing both what is said and what is understood.

In channels where there is a considerable delay, such as traditional letters, the time lapse between turns makes collaborative construction of meaning impractical. Letters move, as described by the transmission model, between sender and recipient as ‘ready made’ communication. If a channel affords near-cotemporaneity, the extent to which interpretation is collaborative, depends both on the time lapse between turns and the degree of continuity afforded by the channel. For instance, text can be transmitted letter-by-letter, word-by-word, sentence-by-sentence, paragraph-by-paragraph, etc. In some telex and early chat interfaces, transmission was letter-by-letter; anecdotally these systems are described as more like the telephone than current systems. Continuity of transmission facilitates interruption, promoting cooperative construction and interpretation of meaning; communication is no longer ‘ready made’, but is jointly forged by the participants. In less continuous channels, such as SMS, some form of cooperative interpretation is still possible, but production of each message is uninterrupted, increasing the control of each participant over her own contribution.

The documentary process also depends on the capacity of the channel to convey expressions, and on their persistence and availability during subsequent turns. In channels with a low capacity, such as SMS, there is less scope to document previous expressions, and on their persistence and availability during subsequent turns. In channels with a low capacity, such as SMS, there is less scope to document previous expressions, and on their persistence and availability during subsequent turns.

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2 Wikipedia (2006) describes early letter-by-letter Internet Relay Chat systems and notes that “this made it more like a telephone conversation.”
Discussion of the Findings

interpretations and seek clarification. Thinking about the documentary process of interpretation helped me to understand the interactional differences between mobile phone calls and text messages, and to appreciate how this affects relationships.

These four elements form a theoretical framework that can be used as an analytical tool to explore communication channels. Underlying them is a rudimentary theory of mediated interaction that holds that 1) there are two different types of mediated interaction, situational and non-situational; situational interaction involves shared practice; 2) the interactional characteristics listed in Table 11.1 are key dimensions of mediated interaction; 3) interaction is shaped by both technical and social factors and 4) meaning construction and interpretation involves 'documentation' (pointing towards), rather than representation (standing for). The documentary process depends on the extent to which it is possible to point to, and thereby respond to, previous comments, and on the temporal relationships between turns. The theory is intended as an empirical statement and is subject to confirmation in further research.

The application of my theoretical framework is illustrated by a discussion of email and instant messenger, both of which were included, albeit rather cursorily, in my research. Most of my respondents had some experience of email, but for many, the use of social email is constrained, because those who do not use email for work access their accounts very irregularly. Nevertheless my respondents were enthusiastic about email. In contrast, while nearly half of my respondents had tried instant messenger at some time, only a quarter still used it at all.

1. Situational or Non-situational?
For my respondents, email clearly does not afford copresence or create a shared situation. This was less clear for instant messenger, partly because only two of my respondents used it frequently. I think that the channel affords copresence, but it is not always used for focused interaction. Consequently, the channel can be situational or non-situational. My respondents tended to use it as a discontinuous channel, sending a message and returning to their email or Internet browsing, rather than waiting for a reply. Thus, shared practice was limited and intermittent. However, they sometimes found it difficult to leave a conversation, suggesting commitment to a social situation. In contrast, my respondents’ descriptions of email were typical of non-situational
interaction. For instance, my theory would predict less embarrassment. My respondents spontaneously gave me examples of circumstances where email had reduced embarrassment, for instance facilitating a romantic liaison.

2. Interactional Characteristics

Although email and instant messenger are ostensibly similar, both to one another, and to text messages, there are important differences in their interactional characteristics. An obvious difference is mobility; usage of both email and instant messenger is constrained by lack of mobility. For many of my respondents, a key difference between the three channels is the prolonged delay they experience in response to email; this occurs because people who do not work with computers often access their email infrequently. This delay, and the lack of a size constraint, seems to produce a more letter-like structure in social email than is typical for text messages. Ulysses commented that email encourages monologue and self-disclosure because, unlike verbal conversation, it allows uninterrupted narrative; this was an advantage, and enabled him to say things that he would not have communicated in any other medium. In contrast, instant messenger can only be used if both participants are online, and technically it is very nearly cotemporaneous. Instant messenger is more continuous than both email and SMS; it remains open and the size of turns is controlled by users. This facilitates conversation, but it also increases interactional costs. Conversations of up to an hour are not unusual, but some of my respondents no longer used the channel because they felt it wasted time, reflecting the relevance of temporal cost. These examples demonstrate how the typology of interactional characteristics helps one to identify the salient features of interaction in a communication channel.

3. Social Factors

Network effects constrain the usage of both channels: in the case of email, because many people do not access their accounts regularly; and in the case of instant messenger, because it can only be used with those who have the same system. The delay some of my respondents associate with email is shaped by usage and expectations, rather than the technology; recipients are not expected to reply immediately. Similarly, in instant messenger, even though message transmission is almost instantaneous, delays are acceptable; it is understood that the recipient may be working on his computer, involved in a phone call or in a different instant messenger
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conversation. This illustrates the importance of considering social practice as well as the technical affordances of a medium.

4. Documentary Method

My framework suggests that cooperative meaning construction and interpretation depends on the extent to which it is possible to point to previous comments and the timing of this process; relevant factors include the size and continuity of turns, the time between turns, scope for expressive content and persistence of turns.

In contrast to the brevity of text messages, in email the sender can write as much as he likes without being interrupted, reducing the opportunity for collaborative interpretation. Several respondents thought that this made email useful for ‘counselling’ friends, because it gave the sender time to explain without interruption, and because it gave the recipient time to interpret what was said. In instant messenger, although the quantity of text is not technically constrained, short turns are encouraged because (in most systems) messages are automatically sent as soon as the ‘enter’ key is typed. In practice, messages tend to be ‘chatty’ and even shorter than one-liner text messages.

In email (on default settings) messages automatically include the previous message in replies. This threading facilitates interpretation, reducing indexicality, because the whole path of the conversation persists, and is available to document. A variant of this process occurs where the recipient interleaves her comments with those of the sender (physically indicating what is documented). In contrast, in SMS it is awkward to refer back to previous messages. In instant messenger, however, the whole conversation is displayed in the system interface; theoretically this should facilitate the documentary process of interpretation. However, sequentiality can occasionally be a problem, because both participants can type at the same time, consequently documentary references may be unclear. Anecdotally, I understand that teenagers cut and paste previous comments to clarify references; this is an interesting illustration of the documentary process. Although I did not pursue this in detail, the continuity and interface layout of instant messenger should create a form of interaction that is less ambiguous and open-ended than both SMS and email. In retrospect, having developed
my framework, I can see how I could have used it to help me to direct my questions during the interviews.

The differences between text messages, email, and instant messenger, show how channel affordances and social factors shape interaction. The technology in these three channels affords near-cotemporality, but in practice immediacy of feedback is influenced by social factors. Although each channel enables collaborative interpretation, the process is affected by the size of turns, the temporal relationship between turns, and the precise format of the text. These create important interactional differences, despite the superficial similarity of these media. The theoretical framework that I have developed highlights these interactional differences. Although the framework does not create a template from which one can ‘read off’ the nature of the interaction in a channel, it is nevertheless a useful tool for analysing interaction through mediated channels.

11.4 Further Research

My approach has been theory building rather than testing. My sample of 32 respondents was not representative and too small to confirm my findings. There are several hypotheses that arise from my research. Firstly, the claim that there is a distinction between Talkers and Texters needs to be validated and quantified. This cannot be done simply by analysing mobile phone usage, because the distinction is about preference, not usage. In the UK there is a substantial difference in the price of calls and text messages, and this distorts usage. The polarization between Talkers and Texters observed here could be tested with a survey based on preference and comfort, rather than usage. A second hypothesis is that mobile phones increase knowledge of other people’s schedules. In my interviews I found that, when asked directly, everyone claimed to know the details of their friends’ schedules. However, when I asked for specific details, it became clear that frequent mobile phone users had much more detailed temporal information about their friends’ lives. To test this hypothesis, it would therefore be necessary to design a more sensitive research measure than a simple direct question. A further hypothesis relates to text message replies. Whereas previous research reports a strong reciprocation norm, my research indicates that in the UK expectations are relatively relaxed. This finding emerged not only from the
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interviews, but also from my analysis of respondents' communication diaries: 29% of text messages appeared to be unanswered. Diaries, combined with interviews, would be a good way to confirm this reciprocation rate, but would need to include the whole communication repertoire, because cross-channel reciprocation is common.

In addition to these specific hypotheses, the prevalence and role of 'thinking of you' texts requires confirmation. There is also scope for further evaluation of the relationship effects that I have identified. Finally, I have suggested that the documentary method of interpretation is affected by the interactional characteristics of the communication channel. This is a huge topic, which could be pursued with discourse and conversation analysis.

11.5 Conclusion

In retrospect, I feel that my research question was rather ambitious. This forced me to draw on several literatures, and I found it difficult to amalgamate my disparate sources. On two occasions I had to abandon concepts that were taken for granted in one discipline, because I couldn’t satisfactorily conceptualize them in another. However, I think that some of the insights I gained were due to my broad focus. I also underestimated the entanglement of social and technological factors, and the consequent difficulty of isolating the technical effects of the channel. Instead, my research highlights the mutual shaping of social and technological factors. My main regret, with hindsight, is that I didn’t include people who do not use mobile phones in my sample, because they may share Texters’ discomfort with phone calls, and their inclusion would have helped me to substantiate this distinction.

The main contribution of my thesis is the development of a theoretical framework that facilitates analysis of the differences between mediated communication channels. My work highlights the role of communication channels and traces connections between channel affordances and the characteristics of interaction. This has potential practical application, both in the design of new communication technologies and within organisations, where an appreciation of the differences between communication channels could improve communication effectiveness. My findings are relevant to social research, because they show how interview mode, whether face-to-face, phone,
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or textual, can affect meaning construction and interpretation. My work also contributes to the theory of communication, distinguishing two communication paradigms and showing how the specific characteristics of communication channels create a spectrum of different forms of interaction. My extension of the documentary method of interpretation recognizes the relevance of this approach to meaning.

My research provides insight into mobile phone communication and the interactional characteristics of phone calls and text messages. In particular, the study helps to explain the impact of SMS and the role it can play in the development and maintenance of relationships. The discovery that for a number of people phone calls are problematic is also important, because this group is at a disadvantage in any phone communication. In terms of social significance, the major contribution of my research is its demonstration of the diversity of interaction afforded by different media, and of the impact of this on social relationships. My theoretical framework reveals this diversity, and explains some of the mechanisms through which channel affordances shape meaning and affect relationships.

I conclude that communication channels have a significant influence on social interaction, with new channels creating new ways of interacting that have far reaching effects in social relationships.
### Appendix One

**Empirical Research Methods – Telephone Research**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Research Methodology</th>
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</thead>
<tbody>
<tr>
<td>Dimmick &amp; Sikand (1994)</td>
<td>Uses and gratifications research. Qualitative interviews followed by face-to-face surveys. 569 respondents in the Columbus area of the U.S.A. Further research with 525 respondents from Ohio.</td>
</tr>
<tr>
<td>Gillard, Wale &amp; Bow (1996)</td>
<td>Random Australian self-completion postal survey. 339 respondents in 192 households; half the respondents were recruited by telephone.</td>
</tr>
<tr>
<td>Haddon (1994)</td>
<td>A series of qualitative case studies. In each of three years, 20 or more households completed one-week communication diaries. Respondents varied each year: teleworkers, lone parents, recently retired.</td>
</tr>
<tr>
<td>Hancock, Thoms-Santelli &amp; Ritchie (2004)</td>
<td>Diary research. For one week 28 students were asked to record any social interactions in which they lied. Comparative analysis of lying in email, on the phone, in instant messenger and face-to-face.</td>
</tr>
<tr>
<td>Lacohée &amp; Anderson (2000)</td>
<td>Mixed methodology. 48 UK interviews in six households; telephone bill analysis; and first wave of BT Home Online survey involving questionnaires and time-use diaries (over 800 respondents).</td>
</tr>
<tr>
<td>Moyal (1992)</td>
<td>200 qualitative interviews and one-week diaries of telephone use. Australian women from a variety of socioeconomic backgrounds.</td>
</tr>
<tr>
<td>Noble (1987)</td>
<td>Short face-to-face interviews with a student-recruited sample of 100 American men and women.</td>
</tr>
<tr>
<td>Smoreda &amp; Licoppe (2000)</td>
<td>French research. 553 respondents in households randomly selected from three regions. Telephone bills (92,000 private calls) and interviews to establish participants’ gender and relate it to duration of call.</td>
</tr>
<tr>
<td>Wurtzel &amp; Turner (1977)</td>
<td>1975 research in an area of New York that was without any telephone service for 23 days. 600 telephone interviews conducted immediately after telephone service was resumed. Stratified random sample.</td>
</tr>
</tbody>
</table>
**Empirical Research Methods – Mobile Phone Research**

<table>
<thead>
<tr>
<th>Source</th>
<th>Methodology</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson, McWilliam, Lacoche, Chucas, &amp; Gershuny (1999)</td>
<td>UK mixed methodology study. Household interviews, individual interviews and time use diaries in 367 households; 48 depth interviews including discussions of telephone bills; and series of three one-week call diaries in 60 households.</td>
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<tr>
<td>Arminen (2005)</td>
<td>Conversation analysis of 74 calls to mobile phones.</td>
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<tr>
<td>Barnett &amp; Hutchby (2005)</td>
<td>Conversation analysis of recordings of 20 calls to and from the researcher’s mobile phone.</td>
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<tr>
<td>Blythe, Carroll, Monk, &amp; Parker (2004)</td>
<td>UK experiment that took place on trains and in a bus station. Staged conversations, either on mobiles or face-to-face, controlled for loudness and content. Verbal ratings from 64 unwitting subjects.</td>
<td></td>
</tr>
<tr>
<td>Cornell et al.</td>
<td>Laboratory study involving 280 undergraduates (course requirement) followed by a survey within one organisation with 142 respondents.</td>
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<tr>
<td>Crabtree, Nathan &amp; Roberts (2003)</td>
<td>Ethnographic shadowing of four respondents for three days, followed by interviews discussing observation findings.</td>
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<tr>
<td>de Gournay (2002)</td>
<td>French focus groups, 60 respondents.</td>
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<tr>
<td>Döring (2002)</td>
<td>Research conducted in Germany in 2001. 1,000 text messages collected from 124 students.</td>
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<tr>
<td>E-living study</td>
<td>Longitudinal survey research. First round in 2001 included 10,534 respondents from five European countries. Second wave a year later with 7,205 of the original respondents.</td>
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<tr>
<td>EURESOCOM P903</td>
<td>Random sample of 9,079 people in nine European countries. Face-to-face survey.</td>
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<tr>
<td>Fortunati (2000)</td>
<td>Telephone research conducted in 1996 with 6,609 people from five European countries.</td>
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<tr>
<td>Fortunati (2005)</td>
<td>20 interviews and 200 hours of observation on trains in Italy.</td>
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<tr>
<td>Author</td>
<td>Description</td>
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<tr>
<td>Fox (2001)</td>
<td>Focus groups followed by a survey. Country not stated but presumably UK. Number of focus groups not given, described as 'representative'. Plus survey of a 'representative' sample of 1000. Funded by BT.</td>
<td></td>
</tr>
<tr>
<td>Green (2002)</td>
<td>Draws on UK ethnographic research carried out over two years; interviews with mobile workers, teenagers and parents, combined with observations in public places.</td>
<td></td>
</tr>
<tr>
<td>Grinter &amp; Eldridge (2001)</td>
<td>UK study involving five male and five female teenagers. Questionnaire and analysis of 7 day text message logs. Logs used as a basis for two group discussions.</td>
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<tr>
<td>Harkin (2003)</td>
<td>UK research including four focus groups and ten depth interviews with users, and nine interviews with experts.</td>
<td></td>
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<tr>
<td>Hård af Segerstad (2005b)</td>
<td>Corpus of 1,152 Swedish text messages from people of all ages. Three sources: web questionnaire, one-week diaries from four informants, messages from friends and family of the researcher.</td>
<td></td>
</tr>
<tr>
<td>Harper (2003)</td>
<td>UK and German focus groups and observation research in the UK, Germany, France and Spain. Questionnaire circulated in the UK, France and Germany and completed by 'a little less than 50 persons'.</td>
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<tr>
<td>Höflich (2005)</td>
<td>Non-representative survey of 400 people in four countries.</td>
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<tr>
<td>Hulme and Peters (2002)</td>
<td>Qualitative study of over 210 consumers (no further details given.)</td>
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<tr>
<td>Humphreys (2005)</td>
<td>U.S. one year ethnography (2002-3); observations (500 subjects) and 18 interviews.</td>
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<tr>
<td>Igarishi, Takai, &amp; Yoshida (2005)</td>
<td>Longitudinal study of 64 male and 68 female first-year undergraduate students in Japan.</td>
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<tr>
<td>Julsrud, (2005)</td>
<td>Qualitative interviews and observations of managers and employees in two companies.</td>
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<tr>
<td>Kasesniemi &amp; Rautianen (2002)</td>
<td>Extensive long term research that commenced in 1997 in Finland. Included 1,000 taped interviews; two surveys; and material collected by informants such as observation journals, text messages, photographs.</td>
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<tr>
<td>Author(s)</td>
<td>Description</td>
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<tr>
<td>Kim (2002)</td>
<td>Survey with 3,500 Korean respondents, over half were mobile phone users. Supplemented by a series of interviews.</td>
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<tr>
<td>Laursen (2005)</td>
<td>511 text messages and 287 mobile conversations from one friendship group of 6 teenagers, collected over one week.</td>
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<tr>
<td>Lemish and Cohen (2005a; 2005b)</td>
<td>Israeli research in three stages including a survey of 240 people; interactive voice response measures; and telephone interviews based on mobile phone logs.</td>
<td></td>
</tr>
<tr>
<td>Licoppe &amp; Smoreda (2006)</td>
<td>Draws on extensive qualitative and quantitative research of the telephone, Internet and mobile phone. Data sources included analysis of telephone traffic; interviews about telephones, mobile phones and other media; quantitative and qualitative research on the Internet.</td>
<td></td>
</tr>
<tr>
<td>Ling (1997)</td>
<td>Mixed methodology combining Norwegian focus groups (50 respondents) with information collected from four participants in an online Usenet forum on restaurants.</td>
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<tr>
<td>Ling (2000)</td>
<td>Mixed methodology research conducted in 1997 in Norway: ethnographic interviews with 12 families combined with 1,000 telephone interviews.</td>
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</tr>
<tr>
<td>Ling (2001b)</td>
<td>Mixed methodology: two different telephone surveys with adolescents conducted in 1998, involving a total of 2,007 questionnaires; a survey of 1,001 Norwegian parents; and ethnographic interviews with 12 families.</td>
<td></td>
</tr>
<tr>
<td>Ling (2002)</td>
<td>Extensive observation study in and around Oslo, including over 100 planned and opportunistic observations. Also informal ‘experiments’ such as invading the ‘private space’ of mobile phone users.</td>
<td></td>
</tr>
<tr>
<td>Ling (2004a)</td>
<td>Draws on e-Living data see above</td>
<td></td>
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<tr>
<td>Ling (2004b;2005a)</td>
<td>Draws on qualitative and quantitative research conducted over 8 years, mainly in Norway, EURESCOM qualitative and quantitative data, and the e-living longitudinal survey.</td>
<td></td>
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<tr>
<td>Reference</td>
<td>Methodology</td>
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<tr>
<td>Ling (2005b)</td>
<td>Telephone survey of 2,003 Norwegians conducted in 2002 in which 867 text messages were collected from 463 respondents.</td>
<td></td>
</tr>
<tr>
<td>Ling &amp; Haddon (2001)</td>
<td>Call diary (24-hour) research involving 93 parents in Oslo.</td>
<td></td>
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<tr>
<td>Ling, Haddon &amp; Klamer, (2001)</td>
<td>Six focus groups in each of six European countries, half of the groups were with mobile phone users.</td>
<td></td>
</tr>
<tr>
<td>Ling et al. (2003)</td>
<td>Analysis of the e-living data, see above.</td>
<td></td>
</tr>
<tr>
<td>Mercier, de Gournay &amp; Smoreda (2002)</td>
<td>Telephone traffic research of 110 household moves, conducted 4 months before the move and 12 months after.</td>
<td></td>
</tr>
<tr>
<td>Moyal (1992)</td>
<td>Australian survey of 200 women from a variety of socioeconomic backgrounds. Although the research reports a distinctive pattern of female usage, men were not surveyed.</td>
<td></td>
</tr>
<tr>
<td>Murtagh (2001)</td>
<td>UK observation study of mobile phone use on trains; 32 hours of travelling, 109 observations.</td>
<td></td>
</tr>
<tr>
<td>Nafus &amp; Tracey (2002)</td>
<td>Part of three year qualitative and quantitative study. The paper is based on 39 semi-structured interviews in the UK.</td>
<td></td>
</tr>
<tr>
<td>Palen, Salzman &amp; Youngs (2001)</td>
<td>U.S. qualitative research. Three 1 to 2 hour videotaped interviews of 19 first time owners, including discussion of bills, voicemail 'diary', and bill analysis.</td>
<td></td>
</tr>
<tr>
<td>Patel (2003)</td>
<td>Web survey of 800 mobile phone users in the UK, France, Germany and Italy and 1,000 users U.S. users.</td>
<td></td>
</tr>
<tr>
<td>Perry et al. (2001)</td>
<td>UK research of 17 mobile workers using diary techniques, interviews, and analysis of documents.</td>
<td></td>
</tr>
<tr>
<td>Reference</td>
<td>Study Details</td>
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<tr>
<td>Plant (2002)</td>
<td>Qualitative research including structured and open ended interviews in eight countries, extensive observation in indoor and outdoor public spaces and email interviews.</td>
<td></td>
</tr>
<tr>
<td>Pröitz (2005)</td>
<td>Paper based on one of nine girls included in two-stage research. In 2001, the research involved focus groups and the collection of text messages sent/received for one month. In 2004, the research involved interviews and the collection of SMS and MMS messages.</td>
<td></td>
</tr>
<tr>
<td>Reid &amp; Reid (2005a; 2005b)</td>
<td>Online survey conducted 5\textsuperscript{th} to 19\textsuperscript{th} March 2003. 837 questionnaires, over half from Plymouth university.</td>
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<tr>
<td>Reid &amp; Reid (2004)</td>
<td>Extension of the online survey above to 26\textsuperscript{th} March 2003. 982 questionnaires, over half from Plymouth university.</td>
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<tr>
<td>Selian &amp; Srivastava (2004)</td>
<td>ITU survey of 189 teenagers and young adults, diverse socioeconomic, cultural and ethnic backgrounds, but confined to Boston area.</td>
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<td>Smoreda and Thomas (2001)</td>
<td>Analysis of EURESCOM P903 data, see EURESCOM entry above.</td>
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<tr>
<td>Spagnolli and Gamberini (2005)</td>
<td>173 text conversations collected from 30 Italians, a total of 549 text messages supported by short questionnaires.</td>
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<tr>
<td>Taylor (2003)</td>
<td>18 hours of observation in one English sixth-form college, plus nine video-taped groups with six students; five were female.</td>
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<tr>
<td>Thurlow (2003)</td>
<td>UK content analysis of 544 text messages collected from 135 students. Three quarters of the sample were women.</td>
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<tr>
<td>Weilenmann &amp; Larsson (2001)</td>
<td>Swedish study of teenagers, including observation and conversation analysis.</td>
<td></td>
</tr>
<tr>
<td>Weilenmann (2003)</td>
<td>Conversation analysis of recorded mobile phone calls made and received by one Swedish teenager, who had to wear a headset and push a button to record before answering calls.</td>
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Appendix Two

Respondents’ Age, Background and Recruitment Details

<table>
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<th>Alias</th>
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<th>Background</th>
<th>Recruitment</th>
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</thead>
<tbody>
<tr>
<td>Anne</td>
<td>50</td>
<td>Freelance social worker</td>
<td>Friend of friend</td>
</tr>
<tr>
<td>Carol</td>
<td>32</td>
<td>Mature undergraduate student</td>
<td>Friend of colleague</td>
</tr>
<tr>
<td>Bill</td>
<td>26</td>
<td>In rock band, guitar teacher</td>
<td>Anne’s cousin met at interview</td>
</tr>
<tr>
<td>Dee</td>
<td>29</td>
<td>On benefit, cleaner</td>
<td>Employer’s cleaner</td>
</tr>
<tr>
<td>Ella</td>
<td>25</td>
<td>Clerk in father’s removal firm</td>
<td>Daughter of cleaner</td>
</tr>
<tr>
<td>Fred</td>
<td>51</td>
<td>Homeless hostel</td>
<td>Contact of colleague</td>
</tr>
<tr>
<td>Greg</td>
<td>24</td>
<td>PhD student</td>
<td>Friend of Carol</td>
</tr>
<tr>
<td>Harry</td>
<td>55</td>
<td>Executive retired through deafness</td>
<td>Friend of husband’s client</td>
</tr>
<tr>
<td>Irene</td>
<td>24</td>
<td>Legal secretary</td>
<td>Friend of husband’s employee</td>
</tr>
<tr>
<td>Jackie</td>
<td>42</td>
<td>Part time university teacher</td>
<td>Friend of colleague</td>
</tr>
<tr>
<td>Kevin</td>
<td>32</td>
<td>Actuary in management consultancy</td>
<td>Husband’s archery coach</td>
</tr>
<tr>
<td>Lynn</td>
<td>33</td>
<td>Part time art technician</td>
<td>Ex tenant</td>
</tr>
<tr>
<td>Mary</td>
<td>40</td>
<td>PA</td>
<td>Advertisement in newsagent</td>
</tr>
<tr>
<td>Nick</td>
<td>38</td>
<td>Postman</td>
<td>Recruited when delivering</td>
</tr>
<tr>
<td>Olivia</td>
<td>40</td>
<td>Manager small health shop</td>
<td>Recruited in shop</td>
</tr>
<tr>
<td>Patricia</td>
<td>32</td>
<td>Mature undergraduate student</td>
<td>Student of friend</td>
</tr>
<tr>
<td>Quinton</td>
<td>51</td>
<td>Retired executive</td>
<td>Husband of friend</td>
</tr>
<tr>
<td>Rosie</td>
<td>33</td>
<td>Part time Sports school manager</td>
<td>Husband’s colleague</td>
</tr>
<tr>
<td>Sue</td>
<td>37</td>
<td>Tesco.com driver</td>
<td>Recruited when delivering</td>
</tr>
<tr>
<td>Tanya</td>
<td>21</td>
<td>Beauty therapist</td>
<td>Recruited during treatment</td>
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<tr>
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<td>51</td>
<td>Managing director own company</td>
<td>Friend of colleague</td>
</tr>
<tr>
<td>Victor</td>
<td>39</td>
<td>Managing director large company</td>
<td>Contact of colleague’s husband</td>
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<tr>
<td>William</td>
<td>37</td>
<td>Actor, drama teacher and manager</td>
<td>Daughter’s acting teacher</td>
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<td>Yves</td>
<td>29</td>
<td>Part time agency work as a packer</td>
<td>Advertisement in library</td>
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<tr>
<td>Xavier</td>
<td>23</td>
<td>Assistant manager small off-license</td>
<td>Friend of colleague</td>
</tr>
<tr>
<td>Zoe</td>
<td>37</td>
<td>On benefit, ex-bus driver, bankruptee</td>
<td>Advertisement in newsagent</td>
</tr>
<tr>
<td>Anna</td>
<td>42</td>
<td>On benefit, student teacher</td>
<td>Advertisement in newsagent</td>
</tr>
<tr>
<td>Bobbi</td>
<td>44</td>
<td>Senior solicitor</td>
<td>Friend of colleague</td>
</tr>
<tr>
<td>Cecil</td>
<td>21</td>
<td>Learning the London taxi knowledge</td>
<td>Friend of daughter</td>
</tr>
<tr>
<td>Eddie</td>
<td>24</td>
<td>Chef in stately home restaurant</td>
<td>Friend of colleague</td>
</tr>
<tr>
<td>David</td>
<td>26</td>
<td>Development project manager, Ford</td>
<td>Advertisement in gym</td>
</tr>
<tr>
<td>Frank</td>
<td>36</td>
<td>Computer programmer</td>
<td>Advertisement in newsagent</td>
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Means Age

Female 35
Male 35
Sample 35
### Respondents' Demographic and Mobile Phone Details

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<th>Children</th>
<th>Class</th>
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<th>Income</th>
<th>Contract</th>
<th>Spend</th>
<th>Used</th>
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<td>M</td>
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<td>W</td>
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<td>No</td>
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<td>6 yrs</td>
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<td>Yes</td>
<td>†</td>
<td>4 yrs</td>
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<td>2</td>
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<td>PG deg</td>
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<th></th>
<th>Married</th>
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<th>Class</th>
<th>Ed. Qual</th>
<th>Income</th>
<th>Contract</th>
<th>Spend</th>
<th>Used</th>
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<td>Females</td>
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<td>56%</td>
<td>31%W</td>
<td>37% Dg.</td>
<td>25% 40+</td>
<td>75%</td>
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<td>Males</td>
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<td>38%</td>
<td>31%W</td>
<td>62% Dg.</td>
<td>31% 40+</td>
<td>82%</td>
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<td>Sample</td>
<td>22%</td>
<td>47%</td>
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<td>50% Dg.</td>
<td>28% 40+</td>
<td>78%</td>
<td>£38</td>
<td>7 yrs</td>
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</tbody>
</table>

*Blackberry user, †company pays mobile phone bill.

D – divorced
P – partner
M – middle class
W – working class
Appendix Three

Outline Interview Content

Resources used in the interviews included diaries, saved texts (both those saved for the interview and those which are saved for personal reasons) a recent mobile phone bill and any phone communication that occurred during the interview. I approached the research questions from two directions, channel based and relationship centred. My questions initially explored the comparative characteristics and choice of communication channels. Later, having identified key relationships, I explored the use of communication within those relationships. The interviews varied, the content and order suggested here is indicative only.

1. Informal discussion to elicit demographics and background information. Photo of setting.
   e.g. Can you tell me a bit about yourself?

   e.g. When did you first get a mobile phone?

3. Perceptions of interactional differences between channels. Whole communication repertoire, Internet details, telephone (cordless?), instant messenger etc). Relative comfort with different channels. Ever lost phone?
   e.g. Generally, how would you describe the differences between text messages and phone calls?

   e.g. When would you choose text messages instead of calls? Are there some situations where you would text but not call or vice versa?

5. Repertory grid style channel analysis. Take photos.
   e.g. Can you please arrange these cards, putting them into groups so that the ones that are most similar are together?

   e.g. Why did you text rather than call? When you have important news, how would you let people know? Probe good news e.g. birth of a baby, engagement, versus bad news e.g. death or illness.

   e.g. Are there differences between what people actually say in texts and what they imply?
8. Social circle drawings to elicit relationships. Communication patterns within different relationships. Knowledge of others’ schedules. Role (if any) of mobile phone communication in relationship development/maintenance. Lost contacts. Less face-to-face?
   e.g. ‘Please can you put yourself in the middle and then write in all the people in your life, using the rings to indicate how close you are to that person’.

9. New forms of communication (e.g. goodnight texts). Communicate more nowadays?
   e.g. Do you think that text has created new ways of communicating for you?

    e.g. When you are on the phone do you feel that you are speaking directly to the other person? Can you draw a circle around the picture which is closest to the way you feel when on the phone?

11. Anything else I should have asked?
Appendix Four

Communication Diary
Instructions for Keeping the Communication Diary.

This diary should include all personal communication between you and other people, except face to face conversation. For every occasion of communication, please note down the time, what you are doing, where, type of communication received, whether you sent or received it, who to, and time taken. Also, briefly explain the reason for communicating, why you used this particular form of communication, whether the actual content of the communication was predominantly information, social chat or both, and whether and in what way the communication changed the way you felt. You can use the following abbreviations if it helps, or make up your own.

T - Telephone
M - Mobile call
SK - Skype call
TX - Text Message
IM - Instant messenger
E - Email
CH - Internet Chat Room
VM - Voice Message
AP - Answer Phone
L - Letter
S - Sent
R - Received
R - Reply
P - spouse/partner
F - Family
FR - Friend
I - Information
S - Social
C - Combination Information & Social

Forms are attached for you to complete and you are asked to keep the diary for 24 hours. It is better to write your diary as often as you can during the day rather than at the end of the day. If you run out of space in a box just continue on the same page.

If there are occasions when you do not wish to keep a record say so. Try to record everything relevant about each communication. Please fill it in when you get a moment during the day, as it will be difficult to remember if you try to do it all at once. If you exchange a number of texts/emails on one occasion, you do not have to write each one separately, but estimate the numbers sent and received, and the total time spent.

Please take time to complete the comments section at the end of the diary if there is anything that you want to explain. If you have any questions my phone number is 07846 605801.

Thanks for your help.

Ruth Rettie
<table>
<thead>
<tr>
<th>Time</th>
<th>What are you doing?</th>
<th>Where are you?</th>
<th>Type: T/M/TX/IM/E/CH/VM/L etc.</th>
<th>Sent or received?</th>
<th>To/from P/F/R/F or specify</th>
<th>Time Taken/No. of texts/emails</th>
<th>Reason for communication</th>
<th>Why this form e.g. why did you call rather than text?</th>
<th>Mainly information I/II/III</th>
<th>Combination C</th>
<th>How did this make you feel?</th>
</tr>
</thead>
</table>

COMMENTS: ____________________________________________________________________________

__________________________________________________________________________________
Appendix Five

Conversational Analysis Conventions used in the Transcript

The transcriptions were based on an adapted, simplified version of the ‘Jefferson system’ (Atkinson & Heritage, 1984).

( ) short pause
(.3) timed pause, the number after the period is the number in seconds.
†word noticeable rise in pitch
\ word noticeable fall in pitch
hh in-breath or out-breath
wor- A dash indicates a sharp cut-off
word A colon shows that the speaker has elongated the preceding sound.
(words) A guess at what might have been said if unclear
( ) Inaudible talk
word Underlined words are louder
WORD Capitalised words are even louder
°word° words between ‘degree signs’ are quiet
>word< Inward arrow indicates increased pace
<word> Outward arrow indicates slower pace
((sobbing)) description of some activity or reference
[word] missing word added by researcher to add interpretation

A: word/
B: //word / overlapping talk, the position indicates the beginning of the overlap

°heh°
°heh heh°
heh heh
ha ha laughter of increasing loudness

In addition there is an attempt to render sounds phonetically e.g. shhh

Conventional punctuation is not normally used in conversation analysis but I have used it to make it easier to read the excerpts.
### Appendix Six

#### Codes Used

This list excludes all the special codes that were used during the analysis of the codes. Note some codes were prefixed to facilitate coding.

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<th>Codes</th>
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<td>child first phone</td>
</tr>
<tr>
<td>absent presence</td>
<td>children</td>
</tr>
<tr>
<td>accountable</td>
<td>choice</td>
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<tr>
<td>addictive</td>
<td>cleaned phone</td>
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<td>communicate more</td>
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<td>anonymity</td>
<td>communication rating</td>
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<tr>
<td>answer machine</td>
<td>community</td>
</tr>
<tr>
<td>apologise</td>
<td>compose</td>
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<td>control</td>
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<td>convenient</td>
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<td>banter</td>
<td>conversation</td>
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<tr>
<td>basic but modern</td>
<td>conversation analysis</td>
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<td>phone</td>
<td>copresence</td>
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<td>cotemporality</td>
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<td>body language</td>
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<td>coward</td>
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<td>both</td>
<td>creative</td>
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<td>deniability</td>
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Note: The codes listed above are not exhaustive and are subject to change based on the analysis.
Appendices
wake up call
wap
warm
web cam
word recognition
work
work phone
wow
writing
writing down texts
x
x...
xliner
xabbreviate
xaphorism
xarrangement
xboth
xconversation
xemail
xemoticon
xexample
xfem2fem
xfem2male
xinstrumental
xjoke
xletter
xmale2fem
xmale2male
xpaphatic
xpicture
xplusabbrev
xsalutation
xsent by fem
xsent by male
xssignature
xunclear
yeah yeah
z i’m here text
z4th of july
zaddress update
zare you in
zare you ok text
zarripped safely text
zback channel text
zbirthday text
zbon voyage
zbook call text
zbusy call text/call
later
zcan-u-talk text
zcheer up text
zcchristmas
zcconfirm text
zccongratulations text
zdumped by text
zfather’s day
zgood afternoon text
zgood luck text
zgood morning
zgoodnight
zhappy diwali text
zhave a good time
zhog are you doing
zhog did it go?
zhog is it going?
zhog was it text
zi love you text
zinvitation
zlove letters texts
znew year
zplease call text
zpost-card
zpost-it text
zreassurance text
zupdate
zwatch tv now
zwelcome back
zwhat did i do text
zwhat’s wrong
zwhere are you text
zyippee
Appendices

Appendix Seven

Consent Form

RESEARCH TITLE: THE INTERACTIONAL CHARACTERISTICS OF MOBILE PHONE COMMUNICATION.

The purpose of this form is to convey a little background information about the interview and to make sure that you are still happy to participate. I would like to record the interview so that I do not miss anything you say. At any stage of the interview you can ask me to turn the recorder off or rewind it to erase anything you have said. Everything that you do say will be confidential and will not be disclosed to anyone else. I will be publishing and presenting findings from my research and this may include extracts taken from your interview, along with others. It is important to point out that your identity will be kept anonymous and any details that may identify you will be excluded from any published/presented findings. You are also free to decline from answering any questions or to stop the interview without having to give a reason for doing so.

If you wish, after I have transcribed the interview, I will send you a copy along with a pre-paid self-addressed envelope that will enable you to review and remove/add to any of the comments you have made.

If you have any questions or queries about the interview or research, please feel free to contact me at: rm.rettie@kingston.ac.uk  Telephone: 07946 605801

If you are happy to proceed with the interview, please sign below and print your name. Signing this form does not affect your right to stop the interview at any point.

- I consent to being interviewed for the purpose of this research study
- I consent to the interview being recorded
- I consent to my views, words and any text messages collected being included in published or presented material provided that my identity is kept anonymous
- I understand that I can stop the interview at any stage and do not have to give a reason for doing so.

SIGNATURE: ___________________ DATE: _____________

FULL NAME (BLOCK CAPITALS): ____________________________


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