

Interaction and Mobility

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Interaction and Mobility

Language and the Body in Motion

Edited by

Pentti Haddington, Lorenza Mondada
and Maurice Neville

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Transcription conventions

In this book, the transcriptions of talk are based on the conventions originally developed by Gail Jefferson (see e.g. Atkinson and Heritage 1984, Jefferson 2004) and which are now broadly used in conversation analysis and across disciplines.

The multimodal and embodied details of interaction are transcribed differently across the chapters, and each chapter provides its own conventions for these features.

1. Temporal and sequential relationships

Overlapping or simultaneous talk is indicated in a variety of ways:

- [Separate left square brackets on two successive lines indicate the onset of overlapping talk by two or more different speakers.
-] Separate right square brackets on two successive lines indicate the point where overlapping talk ends.
- = Equal signs indicate talk – either from the same speaker or another speaker – which comes immediately after previous talk has ended (i.e. there is no pause between utterances; previous talk latches with following talk).
- (0.5) Numbers in parentheses indicate silence in seconds and tenths of a second. Silences can occur within or between utterances.
- (.) A dot in parentheses indicates a less than 0.2-second “micro-pause”.

2. Aspects of speech delivery, including aspects of intonation

- . A period indicates a falling or final intonation contour (not necessarily the end of an utterance).
- ’ A comma indicates slightly rising intonation.

?	A question mark indicates rising intonation (not necessarily a question).
¿	An upside down question mark indicates a rise that is stronger than a comma but less strong than a question mark.
:::	Colons indicate that a preceding sound is stretched. More colons indicate longer stretching.
—	A hyphen after a word or part of a word indicates a cut-off or self-interruption.
WHAT?	All caps indicate loud voice quality.
<u>hello</u>	Underlining indicates that the underlined segment of talk is stressed or produced with high pitch. More underlining indicates greater stress.
°	A degree sign around a segment of talk indicates quiet or soft speech.
°°	Two degree signs indicate that talk between between them is markedly quieter or softer than surrounding talk.
↑	The upward arrow indicates rise in pitch.
↓	The downward arrow indicates fall in pitch.
> <	The “more than” and “less than” symbols, in this order, indicate that the talk between them is faster than surrounding talk.
< >	The “less than” and “more than” symbols, in this order, indicate that talk between them is slower than surrounding talk.
hhh	A string of the letter ‘h’ indicates an outbreath. More letters indicates a longer outbreath.
.hh	A string of the letter ‘h’ which is preceded by a period indicates an inbreath. More letters indicates a longer inbreath.

heh heh Laughter can be indicated in different ways depending on the quality of laughter (heh heh, hah hah, hi hi, heheh, hahah, and so on). Laughter inside words is marked in parentheses (e.g. “wh(h)at?”)

3. Other markings

(()) Double parentheses indicate a transcriber’s comment or description of an event or a situation, e.g. ((cough)) or ((sniff)).

(word) A segment of talk inside parentheses indicates the transcriber’s uncertainty of the transcribed talk.

() Empty parentheses indicate that something is being said, but the transcriber has not been able to identify what is said.

→ The arrow sign can be used to highlight an utterance that the analysis focuses on.

The following symbols are used variously across the chapters to indicate – similarly to the overlap symbols – the exact moment relative to talk at which an embodied or other multimodal event occurs.

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PART I
Introduction

Being mobile: Interaction on the move

1. Introduction¹

This book considers details of language, embodied conduct, and spatial and material orientation, for interaction in mobile situations. Mobility is a ubiquitous feature of our everyday and working lives. We are continuously on the move: we walk, we ride, we drive, we fly, we sail. We move from room to room within our homes and workplaces. We use modes and systems of transportation that allow us to travel long distances. In many ways mobility enables us to organise and conduct our personal and working activities, and so relate to others and establish and maintain social networks. As the chapters show, features of interaction can be inextricably intertwined with mobility, for example orienting to demands of mobility, coordinating with mobility, or enabling and accomplishing mobility. We talk and act to negotiate our way around shops, the streets of our suburbs, town centres, and cities. Moving from one place to another might make some activity relevant or possible; alternatively, than activity itself might be constituted by mobility. Some interactions and activities are carried out while on the move, while others might facilitate or control mobility, or make mobility possible. Mobility is germane to social action and participation in social life. We are always mobile for some reason, and we engage with and understand the world as we move through it. We are also very often mobile together with others, and even when we move alone we can very rarely do so fully independently, or without regard to others or to what is happening around us. Mobility therefore is not just abstract motion, but becomes meaningful as, in and through social action and interaction (see also Urry 2007).

The book brings together studies that examine in their rich detail the practices of social interaction for experiencing and accomplishing mobility in naturally-occurring settings. That is, we are interested in how people interact, and what is it they actually do, in order to be mobile, or when they are mobile, or to integrate their own or others' mobility, or to manage mobility with other activities. The studies here ask, for example, what kinds of social actions make mobility possible, and in turn, how does mobility impact social action, and processes of interaction? How do people interact as they attend

¹ We are grateful to Peter Auer and Mirka Rauniomaa for reading and commenting on earlier drafts of this introduction.

and respond to the passing environment around them? The studies cover various forms of mobility across a wide range of settings. They focus on mobility as situated and occurring in real-life real-time local (here-and-now) contexts, and in immediate spatial and material circumstances, such as playing games inside the home, shopping in a supermarket, visiting a museum, walking and driving in suburban streets, teaching dance steps, and flying over a battlefield. Mobility might involve a person's body directly (e.g. for walking, dance, creative performance), or bodies together, or the body itself might be relatively sedentary and mobility is somehow mediated or supported (e.g. when driving cars or flying planes).

Just what do we mean by 'mobility'? The studies here understand mobility to involve movement of people's whole bodies, or of other kinds of participant (e.g. vehicles, video game avatars), which recognisably change from one location or position to another. Participants in interaction are, for example, moving left and right, moving to or from, moving towards or away, moving in front or behind or besides, moving around or over, moving together or apart, moving across or through, moving up or down, moving inside or outside, moving in patterns and shapes, stopping and starting, and so on. In particular, the studies show how all this movements are experienced and accomplished in and through social interaction.

Consequently, by 'mobility' we do not mean small movements of parts of the body, such as the hands (e.g. gesturing, handling objects) or head (nodding), or moments when the body is generally shifting within a stable location (e.g. in a rocking chair) or only changing its postural orientation. We also do not mean movements of objects from one person to another. However, as the studies in this book show in detail, mobility might embrace and be constituted through such smaller movements and (re)positioning of the body, such as turning the head or shifting gaze, re-directing the shoulders or feet, pointing, leaning (forward, backward, sideways) or re-arranging posture, or moving the arms and legs. Indeed, such movements, as features of embodied conduct, have been considered in numerous studies of social interaction for their significance in creating and understanding meaningful actions (Ch. Goodwin 1981, 2003a; Schegloff 1984, 1998; Luff and Heath 1999; Mondada 2007a; Stivers 2008; Streeck, Ch. Goodwin and LeBaron 2011). The studies collected here build strongly upon this research on embodied interaction.

In this introductory chapter, we outline the background, rationale and some core aspects and interests of the analytical approach informing the studies collected here. The authors share a concern for uncovering the nature and organisation of interaction and social action. They examine the

practices and processes of understanding by which participants in interaction coordinate talk and other embodied activities jointly to create and make sense of what it is they are doing, of what is going on. Their data are therefore audio and video recordings of naturally-occurring interactions in real-life settings and situations, from these researchers develop highly detailed transcriptions or other forms of representation. The authors come from different disciplines and influences, for example from sociology, linguistics, and geography. However, they are all in various ways influenced by the insights, principles and methods of conversation analysis and ethnomethodology, and ideas of the sociologist Erving Goffman (1963, 1967, 2010 [1971], 1981).

Major sources of inspiration come from pioneering studies on social interaction, initiated in the 1960s. Most relevantly, the authors are indebted to Goffman's thinking on the 'interaction order', and also participation, role and identity. Goffman defined a social situation "as an environment of *mutual monitoring possibilities*, anywhere within which an individual finds himself accessible to the naked senses of all others who are 'present' and similarly find them accessible to him" (Goffman 1964: 135) [italics added]. At approximately the same period, Harold Garfinkel (1967, 1984, 2002, 2005, 2008) developed ethnomethodology with an interest in the ordinary common-sense knowledge, practices and processes of reasoning, or the rule-governed behaviour, on which members of a society rely to make sense and to create order in their everyday lives. Garfinkel was concerned with members' methods, that is, with how people act *as* members of a society by orienting to the never-ceasing demands jointly to construct experience in ways that are recognisable and intelligible. Through their local (there-and-then) and demonstrable (publicly available to others) practices, people are constantly and routinely working together to accomplish social activities, and for these activities to be seen and accepted for what they are (for introductions see Heritage 1984; Francis and Hester 2004, and later discussions in this chapter). Against this intellectual background, conversation analysis emerged in the late 1960s as a sociological approach to the study of talk and its contribution for social interaction. A basic principle of conversation analysis is that naturally-occurring interaction is systematically organised, and that this organisation is both discoverable and significant for understanding social order. The origins of conversation analysis are typically connected with the thinking of Harvey Sacks, and especially his course lectures at the University of California between 1964 and 1972 (Sacks 1992). Sacks had worked with both Goffman and Garfinkel, but he also worked closely with Emanuel Schegloff and Gail Jefferson, and it was this collaboration

that produced a ground-breaking study on the organisation of conversation (Sacks, Schegloff, and Jefferson 1974). Subsequent studies by these authors laid the foundation for conversation analysis and its development. Conversation analysis has since become an important methodological and empirical tool for analysing in close detail how people use language, embodied conduct (e.g. gesture) and other resources, to interact and produce and understand social actions, and so create order in social life, in both everyday and institutional settings (for introductions see ten Have 2007; Schegloff 2007; Hutchby and Wooffitt 2008).

Such an analytic approach for investigating interaction and mobility emphasises attention to actual data of social life, of real people's activities in real social situations, of how they talk and act relative to emerging contingencies in real time. So, it is not sufficient to rely on imagined or remembered experiences and phenomena (for example in interviews and questionnaires, or field notes), and it is not helpful to begin or rely on pre-defined or theoretical constructs and presumptions of what people do, or should do. The studies here therefore examine real-life instances to see how people actually interact as they orient to mobility, sometimes in contexts of specialist expertise. They examine *what* practices, actions and understandings people use for *being mobile*, and *how* these are deployed moment-to-moment in sequentially unfolding interaction. The authors explore in close detail how people manage and accomplish mobility activities through a range of resources, such as talk, the body, objects and other available features of the material and spatial surround. The focus is on how people interact to organise their own mobility with others, or to coordinate and control the mobility of others.

In the following sections, we present the essential background on which this book is based. Section (2.1) highlights major issues in conversation analysis as a methodology for studying naturalistic data. Section (2.2) presents key analytic phenomena for conversation analysis, its distinctive conception of practice, action, and sequence (2.2.1 and 2.2.2), how embodied (2.2.3) and material (2.2.4) resources organise social interaction, and approaches to the body in its environment (3.). We then outline interests and questions specifically concerning interaction and mobility. In this sense, we revisit some methodological challenges (4.1) and we explore some conceptual issues raised by mobility (4.2), before connecting to mobility studies in general (5.).

2. Analysing interaction and social action

2.1. Methodological background

With its focus on naturally-occurring data, conversation analysis examines how participants in interaction design and coordinate their actions to meet the contingencies of the moment and to be recognised and carried off for what they are, for particular social ends, and with real social consequences. Fundamental to conversation analysis is the idea that participants exhibit in the design and timing of their own talk and conduct their understanding and treatment of others' prior talk and conduct. Analysts therefore focus on the sequential development of interaction, on seeing what happens and what happens next. So, the basic guiding analytic question is "why that now?" (Schegloff and Sacks 1973; Schegloff 2007: 2). This invites consideration of the social action underway and to show how the design and timing of talk and other conduct is sensitive to its placement in the sequential organisation of real-time interaction and activity. The analysis aims to show what some particular detail of talk or conduct reveals about how a participant, there and then, understood and acted on what just happened, and made some new contribution by doing something next. Analysts ask, how do participants in interaction, *in situ*, determine and respond to what the other person is doing by saying this or that, in just those words, in just this way, at just this moment in this interaction (Schegloff 2006)?

The analytic approach is qualitative, inductive and strictly empirical. Conversation analysts are committed to using audio/video recordings of naturally-occurring interaction. These recordings provide the main data and they are replayed repeatedly for getting a detailed understanding of analysed interactional moments. Analysts support their investigations with highly detailed transcriptions, and other forms of representation, which make visible important aspects of how interaction is jointly produced and emerges in real time. Conversation analysts have developed transcription conventions, modified over the years from a system originally developed by Gail Jefferson (e.g. see ten Have 2007; Jefferson 2004). Importantly, by recovering the minutia of interactional organisation, transcripts also provide others the possibility to check the validity of claims and findings (Sacks 1984).

Although conversation analysts initially focussed mainly on talk, increasingly they use video data and so their transcriptions have also come to indicate multimodal details, such as gesture and other embodied conduct, and other relevant circumstances, including participants' use of objects and technology, or their bodily orientation – not much, however, of their movements

through space, a phenomenon for which this book explores various representational solutions. The advantage of video data is that analysts are able to consider aspects of interaction often unavailable in other forms of data, but which are demonstrably relevant to participants. Transcriptions of video data, together with screen shots, show how such multimodal and semiotic resources, and talk, have a complementary relationship in meaning-making for social interaction. We now have a growing body of rigorous analyses of the moment-by-moment sequential organisation of interaction, including talk and multimodal conduct, in a range of everyday and work settings (see below the section on multimodality, 2.2.3).

The ways in which talk is transcribed do not simply provide the content, but also show precisely *how* talk is produced. The aim is to provide sufficient detail so that analysts can grasp the processes of interaction, thereby capturing the here-and-now detail that was available to, and used by, the participants themselves. Conversation analytic transcriptions do not show grammatically correct or standardised sentences that speakers *should* have said, but try to represent talk as it is actually produced by the participants, including hitches, hesitations, non-standard constructions, and incomplete words. Transcriptions also indicate the particularities of speech production, mostly related to its temporal and incremental unfolding, for example, audible in-breaths and out-breaths, details of intonation, relative speed and loudness of talk, *u(h)ms* and *uhs*, the presence and length of pauses, and moments of overlapping (simultaneous) talk. Transcriptions also note details of the *recipient's* conduct, for example the presence of response tokens such as *mbm*, *uh huh* or *yeab*. This level of detail is important. Conversation analytic studies have shown how such features of talk are significant for the participants themselves. They can be indicative of how participants understand and contribute to what is happening and thereby impact the nature and course of interaction, and ultimately what the participants *do*.

The rationale behind detailed transcription is that if all talk is ordered then one cannot dismiss any of its aspects as being insignificant or unworthy of analysis – so long as something is demonstrably oriented to by the participants and consequential for the organisation of the interaction (Sacks, Schegloff, and Jefferson 1974). It is worth noting though that analysts use transcriptions in which the level of granularity can vary. Analysts' decisions for what to include, and how to do so, are usually informed by the analysed interactional phenomena, by the specific participants' orientations toward the phenomena, and also by considering what is important for scholarly communicative purposes, for example in a publication. Nevertheless, the basic idea remains the same: minute transcriptional details are important for

showing how participants produce, attend and respond to various interactional and social actions and demands.

In the next sections, we identify and explain some key phenomena and notions for studies in conversation analysis and ethnomethodology. We clarify especially how the existing work in these fields is important and relevant for analysing participants' social conduct in situations of mobility, and in turn how these fields can be enriched by such analyses.

2.2. A distinctive analytic mentality

Ethnomethodology and conversation analysis have developed their approaches by demonstrating the constitutive role of social practices, actions and activities, as these are organised sequentially and in a situated manner. This focus produces the distinctive 'analytic mentality' that characterises these approaches and on which the chapters of this book are based. In this section, we highlight some fundamental assumptions which concern the focus on practice (2.2.1), the importance of sequential organisation of actions (2.2.2), the complexity of the linguistic and embodied resources marshalled by participants (2.2.3), as well as the complexity of the settings analysed by newer studies which have begun to take into account not only language, the body, but also objects and technologies and how they feature in interaction (2.2.4). This existing body of research is the foundation on which an approach to interaction and mobility can be developed.

2.2.1. Interactional practices

The focus on *practice* as constitutive of social order was introduced by ethnomethodology (Garfinkel 1967), offering a radically alternative account to the problem of order in sociology. First, this praxeological primacy produces a view of "the objective reality of social facts *as* an on-going accomplishment of the concerted activities of daily life" (Garfinkel 1967: vii). The Durkheimian view of social facts as 'exterior' and 'coercive' is respecified by Garfinkel who shows, first, that they are the product of the incessant work of social members, and thus are a constant practical realisation. In other words, 'society' is made up of ordinary social activities, such as chatting, having dinner together, crossing the street, participating in a meeting, and so on. Second, this practical work is systematically ordered: instead of explaining the orderly character of social practices by invoking other dimensions on which it would depend, like the interiorisation of norms, representations or values, Garfinkel shows that social practices are endogenously organised.

This means that social practices are locally ordered, produced in a *methodical* and *accountable* way, that is, publicly and mutually recognisable, within their context and its specificities. In other words, social activities are produced so that they are intelligible for others and enable others to participate in them. Activities do not just happen: they are made to happen in a meaningful way. “Methods” are the recurrent and systematic practices through which participants organise their actions; they are both situated – that is, adjusted to the specificities of the context – and general – that is, systematic and recurrent. This methodical aspect of social actions makes them meaningful, recognisable, intelligible – that is: accountable.

On the one hand, members treat this achievement of social activity as a taken-for-granted, tacit, phenomenon. The work it relies on gets described and topicalised only when something goes wrong, when normative expectations are broken, when intelligibility is made opaque. Under normal, ordinary circumstances, this work is “seen but unnoticed” (Garfinkel [1967] 1984, 36) – in the sense that it is not commented upon, but is tacitly taken into consideration (oriented to) in the organisation of conduct, i.e. in people’s methodical and rational choices making their actions accountable. On the other hand, the analytical task of ethnomethodology is to turn the methods that achieve the order of everyday social life, as well as other professional and institutional activities, into an object of study. Thus, the task is to uncover these methods that produce the orderly character of situated practice. These methods are analysed in both ethnomethodology and conversation analysis, but with different emphases. The former tends to focus on the local specificities of action – its indexicality – and the latter on the systematic features of action.

Both aspects are central for the exploration of mobility in interaction: most often, mobile actions are taken-for-granted and unnoticed by participants, although they carefully adjust and coordinate their interaction with respect to their mobility or to the rich contingencies of their mobile environment. This detailed way in which participants achieve mobile actions relies on the practices by which they organise their conduct and understanding. This is precisely what conversation analysis has been developing over the years, insisting on the careful examination of micro-practices in order to show how they are systematically organised and socially significant and constitutive.

2.2.2. Actions and sequences in interaction

When people interact with each other, they produce social actions, they do things to engage with others, to participate in and construct the interaction. Perhaps the most important resource for producing actions is talk. People can for example ask questions, make requests and promises, tease or direct others, show that they have noticed something or recognised and understood other actions and events. People can design their talk, for example prosodically, so that it expresses a stance or a standpoint as part of some action. Prosody can also be used to indicate how some action is sequentially connected to the overall emerging context, to project the next action or to display that an action is complete. In addition to talk, interactants can also use a broad array of other semiotic and multimodal resources for producing actions and for recognising and responding to actions. These can be, for example, gestures and other forms of embodied conduct, as well as manipulations of objects (see section 2.2.3). Therefore, as Schegloff (1996a: 167) has noted, one of the main questions of conversation analysis is what action is being accomplished? Conversation analysts ground their analyses in the interlocutors' 'reality', their talk and other conduct that they themselves produce, and which is recognised and manifestly understood by others. Social actions are therefore seen to receive their interactional and social meanings in the situated and local context in which they emerge and are produced. Analyses involve detailed attention to *how* an action is produced. This means that analyses focus on what an action is recognisably designed to do when it is produced in a particular way: how is it designed linguistically, how gestures or other embodied features are mobilised, and how other semiotic and contextual features (materials, technologies, objects, space) are used as resources.

However, conversation analysis also maintains that no instances of talk or action should be looked at in isolation (see e.g. Schegloff 1996b). Focusing merely on the design of an action is not sufficient for determining what it is demonstrably and recognisably accomplishing in the situation in which it is produced. Rather, what a spoken utterance is doing at a specific moment and in a specific context (Schegloff and Sacks 1973; Schegloff 2007) is negotiated by participants in the sequential context of interaction. Consequently, analysts – similarly to participants themselves – pay attention to the organisation of actions as they unfold sequentially and temporally in interaction. Analyses can attend to, on the one hand, how an action builds on just prior actions and events and thereby displays a member's analysis and understanding of the just prior actions or events (i.e. an action is shaped by sequential context

[Heritage 1997: 162]). On the other hand, analysts can also study how an action sets up expectations, projects or even makes relevant that some next action should follow (see e.g. Schegloff 1972, 2007). An action thereby creates, shapes or even renews the sequential context (see Heritage 1997: 162).

Interactional conduct is organised such that participants “line up” actions into meaningful sequences in order to constitute activities. Such lined-up actions frequently form patterned conduct, such as basic two-unit sequences called adjacency pairs. In adjacency pairs, the actions occur adjacently to each other and are treated as one projecting the other, and building the normative expectation of the next (see Schegloff and Sacks 1973; Sacks 1987 [1973]: 55; Schegloff 2007). It is this organisation of actions into sequences that provides a context for members to publicly display their intersubjective understandings of talk and embodied conduct (see also Heritage 1984: 259). It also provides an analytic vantage point to observe participants’ reasoning, practices and procedures. Sequentially unfolding interaction is also the locale in which everyday social life is constructed and negotiated, corrected and instructed, moment-to-moment, step-by-step. Sequences, as Schegloff (2007: 2) aptly puts it, are the vehicle for organising actions to accomplish social activities.

2.2.3. Multimodal resources and the body in interaction

We have seen that in order to organise and coordinate interaction in detail, participants exploit a variety of resources, with which they produce social actions not only as ordered, but also as publicly and mutually intelligible (*accountable*, Garfinkel 1967). Even if ethnomethodology and conversation analysis have never been interested in these resources *per se* (Sacks 1984), their focus on how interactional order is accomplished has produced a substantial understanding of the linguistic and, later, the embodied resources that participants use.

The initial fundamental work on the turn-taking machinery and sequence organisation was based on audio recordings, and thus has explored in depth the resources of talk-in-interaction. This work has been further developed in interactional linguistics, with special emphasis on phonetic, syntactic, lexical and prosodic resources that speakers use for interactively formatting both turns at talk and social actions (Selting and Couper-Kuhlen 2001; Hakulinen and Selting 2005). The range of resources considered has been expanding with the use of video, making available not only how people talk but also aspects of their embodied behaviour. This has produced an interest in the way in which these multimodal resources (talk, gesture, gaze, facial

expressions, body postures and movements, manipulations of objects, etc.) are combined in the creation and understanding of meaningful social actions.

The detailed consideration of multimodal resources depends in a crucial way on the technologies for documenting social action. As the majority of the first studies in conversation analysis indeed used audio recordings, it is no accident that the first systematic analyses were based on data collected from telephone conversations. By using such data the analyst could be certain that participants were not relying on their mutual visual access. As Schegloff (2002: 288) put it,

for studying co-present interaction with sound recording alone risked missing embodied resources for interaction (gesture, posture, facial expression, physically implemented ongoing activities, and the like), which we knew the interactants wove into both the production and the interpretation of conduct, but which we as analysts would have no access to. With the telephone data, the participants did not have access to one another's bodies either, and this disparity was no longer an issue.

Nevertheless, the use of video began very early on in the history of conversation analysis. As early as 1970, in Philadelphia, Charles and Marjorie Harness Goodwin carried out film recordings of everyday dinner conversations and other social encounters. After 1973, these recordings were used by Jefferson, Sacks and Schegloff in research seminars and then also in published papers. In 1975, at the Annual Meeting of the American Anthropological Association, Schegloff presented a paper co-authored with Sacks, who had been killed a few weeks earlier in a car accident, on 'home position' (later published as Sacks and Schegloff, 2002). This was an early attempt to describe bodily action systematically. In 1977, Charles Goodwin presented his dissertation at the Annenberg School of Communications of Philadelphia (later published as Ch. Goodwin 1981). The dissertation was based on approximately 50 hours of videotaped conversations in various settings (Ch. Goodwin 1981: 33). A little later, in Britain, Christian Heath published a book (1986) which studied the coordination of body movement and speech on the basis of a large collection of video recordings of medical consultations.

Thus, early work by Charles Goodwin (1981) and Christian Heath (1986), and also Emanuel Schegloff (1984), used film materials to analyse how humans, in co-present interaction, exploit, in an orderly and situated way, a large range of verbal, aural and visual resources in order to produce intelligible actions, and how they use these resources to interpret publicly displayed and mutually available actions (Streeck 1993). In an important way,

this early work was convergent with some of the assumptions made by pioneers in gesture studies, such as Kendon (1990) and McNeill (1981) who had argued that gesture and talk are not separate ‘modules’ for communication but originate from the very same linguistic, cognitive and social mechanisms.

Subsequently, there has emerged a large range of analyses in research on social interaction and conversation analysis that builds upon this background and focuses on the use of such embodied details as gesture, gaze, head movements, nods, facial expressions and body postures. While some studies focus on one of these details and explore their systematic character (e.g. Schegloff [1984] on gestures produced by speakers; Ch. Goodwin [1981] on gaze and re-starts; Stivers [2008] on nodding and affiliation in storytelling; Mondada [2007a] on pointing and imminent speaker’s self-selection, and so on), other studies consider the coherent and coordinated complexity of embodied conducts (e.g. Heath [1989] on gaze, body posture and orientations; Streeck [1993] on gesture and gaze; Schmitt [2007] and Mondada and Schmitt [2007] on the coordination of a range of multimodal resources, and so on). This emphasis on global *Gestalts* also invites us to investigate the entire body and its adjustments to other bodies in their environment, and at the same time to take into account object manipulations and body movements within the environment (Ch. Goodwin 2000).

Sequential organisations of different kinds, levels and complexity have been explored within this approach, and they show that sequentiality is configured not only by talk but also by a range of embodied resources. They also show how the various concurrent temporalities of these resources contribute to the complex and smooth organisation of social interaction. Turn-taking, for example, basically relies on these multiple resources (Lerner 2003; Mondada 2007a; Streeck and Hartge 1991; Schmitt 2005) as well as on the interactive construction of single utterances and incremental turn units (Ch. Goodwin 1979, 1981), including the collaborative construction of turns (Bolden 2003; Hayashi 2005). Also, sequence organisation relies on multimodality, as has been demonstrated by studies on assessments (Goodwin and Goodwin 1987; Haddington 2006; Lindström and Mondada 2009), on word searches (Goodwin and Goodwin 1986; Hayashi 2003) and repair (de Fornel 1991), as well as by Ch. Goodwin’s (e.g. 2003b, 2004) research on how sequences are co-constructed by aphasic speakers and their co-interactants. Turns and sequences are closely monitored in the interactive construction of actions; for example, co-participants constantly orient to reciprocity (M.H. Goodwin 1980), mutual attention (Heath 1982), and the achievement of mutual understanding (Nevile 2004b; Koschmann 2011). This crucially involves multimodal resources, such as mutual gaze and gaze oriented to

objects, but also body postures and orientations. These embodied features in turn build and display different ways of participating (Goodwin and Goodwin 2004), in everyday situations (see the analyses of by-play by M.H. Goodwin 1995b; or of stance and participation by Ch. Goodwin 2007b) as well as in professional ones (see the analyses of embodied participation in meetings by Ford 2008; Markaki and Mondada 2012; Deppermann, Schmitt, and Mondada 2010).

These studies show that it is necessary to go beyond the study of single 'modalities' coordinated with talk and to take into account the broader embodied and environmentally situated organisation of activities. Charles Goodwin's research stands as a prime example of this and has been later developed in a rich diversity of terrains in the area of 'workplace studies'. Indeed, Charles Goodwin (e.g. 2000, 2003a) has pursued pioneering work in conceptualising social action in multimodal environments. He shows that, in addition to talk and embodiment, it is crucially important to consider other 'semiotic fields' or 'semiotic resources', such as the environment and the material artefacts that surround interactants, and to look at how these mutually elaborate each other and are used for producing and recognising actions and for accomplishing meaningful activities. Goodwin (2000) claims that in a particular moment in interaction there are several semiotic fields at play simultaneously, and although not all of them are necessarily relevant in the unfolding interaction at one time, many of them are. He uses the term 'contextual configuration' (2000) to refer to the array of semiotic (cultural, material and sequential) features that participants orient to as relevant for their action at a given moment.

Goodwin's work convincingly shows how different modalities and the environment are used together to organise interaction. For example, Goodwin (2000) shows how during a game of hopscotch a player can use the hopscotch grid as a multimodal resource for producing and challenging action, e.g. accusing the other player for throwing a beanbag in the wrong square and thereby for having breached the rules. In another example, he (2003a: 20) provides a detailed analysis of how a graphic structure in the soil, on which two archaeologists focus their attention, acts as a crucial resource in the production of the complex embodied activity in which they are engaged. Consequently, different modalities (language, gestures and the body) and the environment elaborate each other, are mutually interdependent, and are relevant to the organisation of activities in interaction.

As we can see, a multimodal approach to the analysis of social interaction has included an increasingly wide and complex range of resources, and taken more and more seriously the issues of engagement, position and arrange-

ment of bodies in interaction. These insights have been further used and developed in workplace studies for analysing complex situations, where specific activities, such as managing underground rail traffic and security (Heath and Luff 2000), coordinating the work in control rooms, for example in an airport (Ch. Goodwin 1996; Suchman 1996, 1997), managing emergency calls and help dispatch (Whalen and Zimmerman 1987; Whalen 1995), operating on a patient (Koschmann et al. 2003; Mondada 2003, 2007b), flying an airliner (Neville 2004a), directing and arranging camera views in a television studio (Broth 2008, 2009), allocating turns, organising exercises and checking homework in classrooms (Mortensen 2009; Kääntä 2010) are timely organised by relying on and using a wide range of embodied, environmental, material and technological resources. As we see next, very often the coordination of complex social practices involves the use of technology.

2.2.4. Technology and interaction

Chapters in this volume are in varying ways informed by research of how different forms of technology, such as complex computerised systems, mediated telecommunication, media systems, and video and other graphic representations such as displays and screens, feature in and impact interaction and social activity. This research has shown how technology can be consequential for specific aspects of the shape and sequential organisation of interaction, and for interaction's situated, embodied and temporal accomplishment. Especially after Suchman (1987), using and engaging with technology is associated with, and both enables and constrains, forms of perception, reasoning, understanding, and communication, and also the nature and trajectory of participation and the social actions undertaken. Three lines of research interest are particularly relevant for informing the chapters of this volume: technology in collaborative work; technology as mediating interaction (e.g. mobile phones, radio); and video technologies, as either resource for collaborative work (e.g. in work settings) or for capturing and investigating interaction itself. We will briefly introduce each of these in turn.

In the first line of interest, researchers have focused on how participants interact as they draw on technologies as a resource or tool in procedures and practices for accomplishing collaborative work, for example to conduct scientific research, perform surgery, operate equipment, manage computerised systems, and organise complex networks (e.g. Button 1993; Ch. Goodwin 1995, 1996; Heath and Luff 2000; Nishizaka 2000; Luff and Heath 1993, 2002; Mondada 2003; Neville 2004a; Koschmann et al. 2006). Technologies feature as part of the material, spatial and semiotic environment for the

moment-to-moment production, recognisability, order and intelligibility of the work for which they are used. Participants might look at and touch screens, push buttons, and enter data. With and through various technologies, participants can interact to organise joint conduct for tasks, often when multiple participants are physically distributed around a particular site, or located across multiple sites. Technologies may allow participants to perform particular activities, and forms of graphic display allow participants to render their own actions visible and to monitor others' actions. Participants draw on technologies as they cooperate to direct and prioritise actions, allocate duties and responsibilities, develop and share perceptions and awareness of activities and events, and attend and respond to emerging circumstances and contingencies. Also the spatial positions of technologies may impede or facilitate collaboration between people (e.g. Luff and Heath 1999: 307).

For example, a cluster of studies has considered technologies and collaborative activity in centres of control and coordination, most relevantly for this volume in operations rooms for transportation systems, such as at airports or for managing rail networks (e.g. M.H. Goodwin 1995a; Suchman 1996, 1997; Heath and Luff 2000; Heath et al. 2002). Key foci include participants' practices for sequencing activities by establishing and communicating awareness, and by coordinating independent actions. Other studies are especially germane because they explore technology and interaction in mobile settings, such as the airline cockpit or cockpit simulator (Nevile 2004a, 2004b, 2007, 2010; Auvinen 2009; Melander and Sahlström 2009; Arminen, Auvinen, and Palukka 2010) or the car (Haddington and Keisanen 2009; Haddington 2010; Nevile and Haddington 2010; Haddington, Keisanen, and Nevile 2012; Mondada 2012c). For example, studies of the cockpit examine pilots' language and embodied conduct for performing tasks or actions to control their plane, such as to turn, or control speed or direction, or change and regulate altitude, and to communicate with others (e.g. air traffic controllers) to remain separated from other air and ground traffic.

A second relevant interest is in forms of technologically-mediated interaction, such as through computer or telecommunications like radio and mobile phones (e.g. Arminen 2005; Arminen and Leinonen 2006; Arminen and Weilenmann 2009; Haddington and Rauniomaa 2011; Hutchby 2001; Hutchby and Barnett 2005; Keating, Edwards, and Mirus 2008; Keating and Sunakawa 2010; Sanders 2003; Szymanski 1999; Szymanski et al. 2006; Whalen 1995). This research has considered how participants organise and structure interaction relative to the particularities, demands and possibilities

of the systems, and how such technologies can impact and afford particular forms of social action and develop new forms of sociality. For example, technological mediation may have implications at least for openings and closings to interaction, identification of parties, turn-taking, silence, and topic introduction and transitions. In interaction for collaborative work such technologies can be highly significant for organising participation and for creating awareness across participants for determining courses of activity and task outcomes (Heath and Luff 2000; Juhlin and Weilenmann 2001; Mondada 2011; Nevile 2004a, 2009; Froholdt 2010).

Lastly, many researchers have examined specifically the role and character of video technologies in interaction. Some have analysed video as a tool for collaborative work, for example in control centres (discussed above) or in particular settings (e.g. surgery, Mondada 2003; Koschmann et al. 2006), especially for its significance in shaping and supporting perception and participation. Others have highlighted participants' situated considerations and actions for the very processes of producing video for diverse audiences, for example in the TV or editing studio (Broth 2008, 2009; Mondada 2009b; Laurier and Brown 2011), or for creating video data for research purposes and subsequent analysis (Ch. Goodwin 1993; Mondada 2006; Koschmann, Stahl, and Zemel 2007). In common, these researchers are interested in the local, here-and-now temporally and physically contingent practices through which video is produced by participants who interpret, assemble and configure relevant details from scenes of interest.

3. From space to mobility

Workplace studies have given a new impetus to the study of social interaction in complex settings: more particularly, in being interested in studying professional action in fragmented, often mediated, and technologically-rich ecologies, they have emphasised the role of the body in its multiple aspects, the role of material artefacts and technologies, and the role of space.

Research on the role of space in interaction is particularly relevant for the new studies on mobility in interaction. Early ethnomethodological and conversation analytic studies had already explored the ways in which space is referred to and used as a resource in interaction. These studies, however, remained at the margins until the emergence of a general *spatial turn* in the last decade in the social sciences. Subsequently, two different understandings of the role of space in the organisation of social exchanges in interaction can be seen to have developed. On the one hand, there has been an interest in how place is formulated (Schegloff 1972), i.e. in how participants refer to,

categorise, locate and describe places in interaction, through talk and gesture. On the other hand, attention has been given to the ways in which bodies in interaction are arranged and disposed, and how they achieve an interactional space for the purposes of the unfolding situated activity. These two ways of studying space have been treated separately but they are not disconnected: in direction giving, for instance, the way in which places are located and described also involves the position of the participants' bodies within the interactional space (Mondada 2009a). In this section, we reflect on how reference to place, direction-giving and interactional space have been treated in ethnomethodology and conversation analysis. We try to show that these studies constitute early contributions to issues of mobility and provide a solid ground on which further studies on mobility in interaction can be based.

In linguistics, there is a long tradition of research on spatial reference (Blom et al. 1996; Hickmann and Robert 2006; Lenz 2003; Levinson 2003). However, this abundant literature has largely neglected the interactional practices in which grammatical and lexical resources are used by speakers. Within ethnomethodology and conversation analysis, the way in which participants identify, locate, describe and refer to place in social interaction was influentially studied by Schegloff in his paper on formulating place (1972). Schegloff showed that place formulations share with other categorisation practices (Sacks 1972) the property of relying on features that are made *relevant* by the participants (and not just on features that are referentially correct) for the practical purposes of the activity in which they are engaged. These features are the product of multiple analyses conducted by the participants, including of the location of the speaker, of the co-conversationalists, and of the located objects. This means that participants rely on a situated common sense geography, but which they actively construct and produce. Additionally, formulating a place involves the participants' membership categorisation analysis. For example, the participants orient to and identify the person who delivers an itinerary description as a 'native' and a competent describer, and to whom the localisation inquiry can be addressed, by choosing a place formulation adjusting to his or her supposed category. Finally, participants engage in topic analysis or analysis of the activities at hand. Further work on place formulations has either focused on how shared understandings of locations are achieved by relying on and using specific kinds of resources in specific sequential environments (for instance by focusing on deictic reference), or studied the way in which locations are used in particular settings and activities – often where they are crucial for the achievement of a particular task (e.g. dispatching help in emergencies).

This interest in spatial descriptions and their situated and orderly use in social interaction converges with a substantial body of literature on referential linguistic forms. This is particularly the case for the study of spatial deixis within ethnomethodology and conversation analysis, which has contributed in an original way to linguistics and linguistic anthropology by focusing on the double situatedness of deictic resources, both within the local environment of the activity and the sequential context of the interaction. Interactional approaches to deixis have revisited the very notion of context (Hanks 1990) and shown the importance of multimodal resources (Haviland 1993) in addition to linguistic forms. These studies have also highlighted the importance of the relative position and distribution of the participants' bodies, constantly reconfiguring Bühler's *origo* (Mondada 2005), as they are finely coordinated within the unfolding of the activity (Hindmarsh and Heath 2000).

The situated embeddedness of referential practices within specific social activities has also prompted an interest in place formulations for particular settings and interactions in which they can have a crucial role for achieving tasks and activities. This is the case for example of place formulations in emergency calls, in which they are a central issue for dispatch (Bergmann 1993; Fele 2008; Mondada 2008, 2011a, 2011b; Zimmerman 1992). The same has been shown to apply also to surgical operations, in which the location of surgical tools as well as relevant landmarks within the anatomical landscape is crucial (Koschmann, Stahl, and Zemel 2007, Mondada 2003). Moreover, place formulations play an important role in the interaction and activity between fighter pilots when they need to establish their own position and the position of possible enemies (Nevile 2009, this volume). In all of these cases, place reference is crucial for planning, coordinating and organising action and mobility within space.

Locations, deictic references and place formulations are not only organised by reference to objects, persons or events located in space: they are selectively and situatedly formatted with respect to the position of the speaker and co-participants. Indeed, this is an important way in which research on place formulations contributes to mobility research and has become particularly evident in the analyses of direction-giving. 'Direction-giving sequences' involve practical formulations that take into account a starting point as well as a target or a destination. In addition, positions can be dynamic and change, for example, if movement in space is projected. In essence, directions are produced for a planned mobile activity that is anticipated in the future.

Direction-giving has been studied from a variety of perspectives, in lin-

guistics (see Klein 1979; Wunderlich 1976 for early works) and psychology (see for example Allen 2000; Denis et al. 1999; Mark and Gould 1995; Taylor and Tversky 1992), but also in ethnomethodology and conversation analysis. Linguistic and psychological research has privileged direction-giving as being based on linguistic and cognitive representations of space that are activated and actualised while delivering the itinerary, whereas ethnomethodological and conversation analytic research has emphasised the coordinated way in which the itinerary emerges within situated practical reasoning (Psathas 1979) and in which it is interactionally generated. The latter has also shown that itineraries are provided in response to an inquiry, within various direction-giving sequences whose organisation is not only dependent on how the initial question is formulated (cf. 'how to get there' vs. 'where are you?' sequences, Psathas 1986) but also on the monitoring of the recipient's understanding in the situation (Psathas 1991; Mondada 2007b). Further, in direction-giving sequences participants rely on a variety of linguistic, gestural, bodily resources (Mondada 2007b) as well as material artefacts such as maps and internet resources (Psathas 1979; Brown and Laurier 2005, Mondada 2011, 2011b).

For appreciating mobility, it is worth noting that most past studies have indeed focused on direction-giving from a static position, projecting and planning future mobile activity. What is noteworthy is that spatial references can also be modified dynamically when participants are engaged in an activity while on the move. Some recent studies show that even this position involves the constitution of a common space of action and multiple dynamic rearrangements of the bodies (De Stefani and Mondada 2007; Mondada 2007b, 2009a). Other recent studies focus on direction giving on the move, as they are formulated here and now within the journey, with respect to the participants' position in space, for example in cars (Haddington and Keisanen 2009; Haddington 2010; Mondada 2005) and aircraft (Neville 2004a, 2005) (see below 4.2.4).

Place descriptions and direction giving involve in a central manner the position of the participants to the interaction. This position can be seen as a point within space, related to the origo established within the interaction, formulated in more or less selective and abstract ways. In addition to this, this position of the participants in interaction can be conceived as being achieved through the finely-tuned coordination of an arrangement of bodies in face-to-face interaction. In other words, interaction is organised not only by addressing the co-participants in a recipient-designed way, nor by just categorising them, but also by taking into consideration their positions within the local ecology. On the one hand, the participants' positions within this

ecology can be seen to be constrained by the external and material space – which is, nonetheless, only made relevant when it is used as a resource for the organisation of action. On the other hand, space can be seen to be configured by the arrangement and coordination of the mutual body positions of the participants. This latter aspect defines *interactional space*.

Analyses of the interactional space have been influenced by the early work of Goffman (1963), Scheflen (1964) and Kendon (1977). Goffman shows that body arrangements in space create temporary and changing bounded territories. These territories are recognised by participants involved in an encounter, as well as bystanders. The positions of the bodies delimit a temporary “ecological huddle” (Goffman 1964) which materialises the “situated activity system” (Goffman 1961). These arrangements constitute what Goffman (1963) calls “focused gatherings” which are defined by mutual orientation and shared attention as displayed by body positions, postures, gaze and addressed gestures. This interest in temporary territories, and in their effectiveness, is shared by Ashcraft and Scheflen (1976). On the basis of video-taped encounters in private and public settings, they observe that “the unoccupied space in the center of the group nevertheless becomes a claimed territory. Others outside the circle customarily recognise the territory” (1976: 7). Kendon (1977; 1990: 248–9) conceptualises this territory by using the notion ‘F-formation’ by which he refers to how different body positions and orientations build an arrangement that favours a common focus of attention and engagement in a joint activity.

Mondada (2005, 2007a, 2009a, in press) draws on the above studies and proposes that interactional space is constituted through the situated, mutually adjusted and changing arrangements of the participants’ bodies. This produces a configuration that is relevant for how participants engage with each other, establish mutual and common foci of attention, manipulate objects and coordinate their joint action. Such an interactional space is constantly established and under transformation within the activity (De Stefani and Mondada 2007; LeBaron and Streeck 1997; McIlvenny 2009; McIlvenny, Broth and Haddington 2009; Mondada 2009a, 2011a; De Stefani 2011; Nevile 2012).

After this broader approach to space of social interaction, it is a natural step to begin to consider how people interact while they move. We can therefore wonder how people use language and their bodies for interacting with each other, how the space in and through which they are moving is consequential for and modifies their interaction, how they move together in groups and formations, or how they coordinate the mobility of others in and through talk and interaction.

4. Towards interaction and mobility

We have so far considered the broad range of phenomena and questions with which ethnomethodological and conversation analytic research has dealt. In many ways, these quite naturally build towards the analysis of interaction and mobility. Existing research and findings have predominantly focused on interaction in static settings and occurring within a local site. Occasionally mobility and its connection to action and interaction have been touched upon, as in the analyses of how embodied and spatial resources are built into a mobile action (Ch. Goodwin 2003a) and how space is described or constructed for or during a mobile activity (e.g. Schegloff 1972; Psathas 1991; Hester and Francis 2003). However, apart from a few papers, such as George Psathas' article 'Mobility, orientation and navigation: conceptual and theoretical considerations' (1976), it was not until quite recently that scholars have systematically begun to analyse and conceptualise the connection between interaction and mobility. Important recent work in this sense includes studies of pilots' interaction in the airline or military cockpit (e.g. Nevile 2004a, 2004b, 2005, 2007, 2009), work on pedestrian movements (Watson 2005) and studies of interaction between the driver and passengers in cars (e.g. Laurier 2005; Laurier et al. 2008; Haddington 2010; Haddington and Keisanen 2009; Haddington, Keisanen, and Nevile 2012), as well as mobility as an essential element of professionals' work practices (Luff and Heath 1999; Büscher 2006). Furthermore, in a special issue on 'Communicating place, space and mobility', McIlvenny, Broth and Haddington (2009) raise questions and issues about how mobility features in interaction as a resource or a contextual feature. They ask, for example,

what kind of a semiotic or interactional resource is mobility? Is 'mobility' itself a resource, or does mobility provide a continuing set of contingent resources [...] in the environment. And, thus, is it so that because of the conditions of 'mobility' we have to consider and deal with continuously changing material [...] and interactional resources in a qualitatively different way compared to what we find in a static situation? (McIlvenny, Broth and Haddington 2009: 1880)

These questions involve both methodological and conceptual matters that need to be taken into account when considering interaction and mobility together.

We aim here to extend research within ethnomethodology and conversation analysis by presenting new analyses of how mobility features in and for interaction, and how mobility becomes visible in everyday social behaviour, in and through talk, for actions and activities. The analyses draw from data that have been recorded in different interactional (everyday and work-

place), face-to-face and technologically mediated, as well as cultural and linguistic (English, Estonian, Finnish, French, Italian and Swedish) contexts, and in which mobility is oriented to, enabled, constructed, instructed, and so on. Throughout this section we reflect on previous research on interaction and mobility, and are informed also by the chapters in this book. Next we present possible methodological issues involved in studying interaction in mobile settings, especially for recording and transcribing mobile action (4.1). Then, throughout subsequent sub-sections, we introduce and outline some emerging important conceptual concerns for clarifying and understanding the relation between interaction and mobility (4.2). Finally, we connect the analytic approach and mentality adopted in this book to the multidisciplinary field of mobility studies (5.), to see how the present analyses can respond to and complement its interests and questions.

4.1. Methodological issues

In the paper ‘Mobility, orientation and navigation’, Psathas (1976: 385) makes the important methodological point that people are usually not explicitly aware of how they accomplish everyday tasks. Further, he notes that impressions and descriptions of how people do so are usually very different from what actually happens. Similarly, it is difficult to know individuals’ thoughts, emotions or feelings when they act and interact. What is more easily available for observation and analysis is how social participants talk, use their bodies and manipulate objects in interaction, and through their actions display how they recognise and understand others conduct, and events and situations. Recently, some qualitative research using audio and video-based data of human activity in different settings has emerged (Heath, Hindmarsh, and Luff 2010: 15), but still relatively few studies use audio or video data of mobile settings, and analyse interaction as it occurs in them.

In their introduction to the volume *Mobile Methods*, Büscher, Urry, and Witcher (2011a) raise an important methodological question specifically regarding the study of mobility: how to study the fleeting moments of mobility and their place in the social world? Various ways of collecting audio-video recordings for understanding ‘social action’ and the fleetingness of mobility have been explored (for guides and guidelines, see Knoblauch et al. 2006; Heath, Hindmarsh, and Luff 2010; see also Büscher, Urry, and Witcher 2011a: 9). While some researchers have used a method called “talking-while-walking” in which walkers talk to an audio recording device in order to capture their experiences and encounters during the walk (see Hester and Fran-

cis 2003; Adey 2010), and others, like Spinney (2011), use video ethnography for describing mobile settings and experiences while cycling, most conversation analytic researchers have privileged the video documentation of naturally-occurring mobile activities. For example, Psathas (1992) and Mondada (2009a, 2012b) have video-recorded situations in which people are walking; Laurier (e.g. see Laurier 2004; Laurier et al. 2008) has together with his colleagues collected an extensive driving corpus; Nevile (2004a) has built an important corpus of data recorded in the cockpit during commercial flights, with huge constraints related to the restricted space of the cockpit, and within extensive preparation in aviation and security matters.

Video materials permit careful observation of the embodied and situated details of mobile actions. In ethnomethodology and conversation analysis, researchers do not limitedly focus on the *content* of what people *say* e.g. their topics of conversation, or their opinions or beliefs. Rather, analysts are interested in what people *do* through interaction, and *how* they do so. In other words, the analytic focus is on the design and organisation of practices of verbal and embodied conduct, particularly in sequences of actions and activities, on which people rely, regardless of their individual opinions, beliefs, or identities, worldviews, etc. Video cameras capture these actions in their naturalistic settings. This methodology has generated the question of whether the presence of cameras influences or changes people's behaviour. Of course, people do sometimes talk or joke about being recorded, often when recording begins, and may gaze at the camera, often when delicate matters are transpiring. But this is not systematic. Mostly people forget the presence of the camera and continue in the typical routinised manner of their everyday and work lives and responsibilities (see Heath, Hindmarsh, and Luff 2010: 47–49). Instead of treating these moments in which participants orient to the camera as 'biases' in the video methodology, conversation analysis can treat them as topics for analysis by showing that the orientation towards the recordings reveal orderly features of the organisation of the interaction (Heath 1986; Lomax and Casey 1998).

The possibility to view video-recorded social events after they have taken place, and to view them repeatedly and even in slow motion, provides an invaluable resource for studying the richness of everyday interaction and mobility. It begins to show us how participants talk and act in mobile situations, and how they orient to the demands of mobility and coordinate their talk and actions with such demands. For example, video data can also show how people use 'stops' to punctuate trajectories of mobility, for example when they stop to ask for and give directions (Mondada 2009a), or to view an exhibit at a museum (vom Lehn this volume), or to do shopping (De Stefani

this volume). They can also show how mobility and mobile actions are coordinated from afar (Koskela, Arminen, and Palukka this volume; Licoppe and Morel this volume; Nevile this volume). Consequently, mobility is no longer ‘fleeting’, but either planned or ongoing, ever demanding, requiring continuous maintenance and orientation.

Obtaining good-quality audio and video recordings always requires careful preparation. Although in some rare situations it is possible to obtain good and interesting data from the internet (see Nevile, this volume), in most cases scholars use data that has been specifically recorded for research purposes. With the digital revolution, cameras are easy to use and it is relatively easy to transfer recorded material into computers for editing, analysis and transcription. Nevertheless, after one has been able to find people who are willing to be recorded, before the actual recording it is important to consider what could be most relevant and important for the analysis, or what can disrupt the recording. These considerations can inform decisions on the locations of cameras and microphones, camera angles, and whether the camera is fixed or moving. These and other issues are briefly summarised below (and see Heath, Hindmarsh, and Luff 2010: 10–12, 37–47; Knoblauch et al. 2006, 2008; and earlier Ch. Goodwin 1993). In addition to this, as always in data collection, there are special ethical issues involved in making recordings of real-life naturally-occurring everyday interaction and using them for research. This involves seeking ethical clearances, securing informed consent, and agreeing on how the data and the possible representations of them (e.g. transcriptions and images) can be used for research and teaching purposes.

A further issue to be taken into account when recording in mobile situations is given by mobility itself. Although digital video cameras and microphones are becoming smaller and lighter, recording interaction in mobile settings can involve several decisions: should one use fixed or hand-held cameras, how should one place, operate and move the cameras, how should one choose and maintain the appropriate field of view to include verbal and embodied conduct between mobile participants, and also how does one change the field of view if important events take place out of camera shot? In the chapters in this book, some recordings have been collected by following people (i.e. being mobile with them) (Broth and Lundström; vom Lehn; De Stefani; Lan et al.), some have used cameras that are fixed in a mobile vehicle, for example in cars (Laurier; Haddington) or aircraft (Nevile), and some have used fixed cameras within a setting (Keevallik; Mondada; Koskela, Arminen, and Palukka). It should also be borne in mind that with hand-held, roving cameras, the person doing the recording can be considered a participant who

is involved in the recorded situation. As Broth and Lundström (this volume) show, the person recording can display involvement in a situation by moving the camera in particular ways, projecting movement, starting, stopping and so on.

Another aspect to consider is how many cameras to use. As to the studies in this volume, some use one camera (e.g. Broth and Lundström; Keevallik), while others use two or more cameras (e.g. Laurier; Mondada; Haddington; Lan et al; Koskela, Arminen, and Palukka). While using a single camera might result in missing important events, using more cameras involves a risk of fragmentation of the views, and also means more data, requiring more work and time for editing, synchronising and analysing.

Recording moving people and events, and taking into account mobile contingencies, also entails other challenges. For example, for analysing in-car interaction it can be important to obtain recordings of the participants' actions from both the front and the back, as well as of the space in which the car is moving (see Laurier this volume; Haddington this volume). This requires more than one camera. Moreover, in settings like cars and airline cockpits there are few possibilities to move either the cameras or the people. In such spatially constrained settings, some problems can be overcome by using wide-angle or fish-eye lenses to capture as much of the interaction as possible (see Laurier this volume). On the other hand, recording interaction is still comparatively easy because the participants are seated and strapped in, and so cannot move about freely.

Video-recording walking, on the other hand, can be more challenging because people have more freedom to move with respect to their co-participants. Recent new technologies can provide some help. Some interaction analysts have started to use sunglass video cameras (see Zouinar et al. 2004) or small helmet cameras. These are light and easy to carry around, which makes them useful for recording mobile situations. The recorded participants can also wear them, although it should be borne in mind that sunglass video cameras do not show *what* the participant actually sees; they are just indicative of where the participant's head is directed.

Recording acceptable audio material is essential for analysing talk and thus for getting a solid understanding of unfolding events. In many cases, the video camera's own microphone is sufficient for getting good-quality audio recording (e.g. for interaction in cars). However, in situations in which people move further away from the camera it can be helpful to use separate microphones that are attached to the moving participants. If possible, one can couple microphones wirelessly with the camera, or the audio can be synchronised with the video afterwards. Some situations, for example recording

mobile phone conversations, can require special technical solutions or software (e.g. Licoppe and Morel this volume; Morel and Licoppe 2011). Sometimes it is also valuable to take into account possible background noise. All in all, it is important to plan carefully how the audio material is recorded since little can be done to improve the quality afterwards.

Another important issue is transcription. How does one transcribe the data and capture the relevant phenomena in ways that are sensitive to and able to represent mobility and interaction, *interaction on the move*? How to represent the rich social and material mobile world that people inhabit, share, and jointly experience and create? How to show how people orient to events and other participants' actions? But at the same time, how does one avoid extreme complexity of transcriptions while still including what is relevant for the analysed phenomena? The chapters in this book present several innovative ways to represent interaction of real-life and mobile activity. In addition to transcribing talk, which is traditional and fundamental for conversation analysis (see section 2.1), the authors have used special symbols, images, images in series, diagrams, maps, outline drawings and comic strips, and also various combinations of these, to represent situated conduct, in its embodied, material and spatial details, and the relationship between interaction and mobility. Many authors also use arrows, lines and circles etc. within their images to highlight the character of mobility actions and events. In addition, it is often important to ensure the privacy of the recorded participants and to secure their anonymity. There are many conventional ways to anonymise recorded participants, such as using pseudonyms in transcriptions and modifying images, for example by blurring them or making outline drawings (see Heath, Hindmarsh, and Luff 2010: 14–32).

In summary, the general methodological direction of this volume can be used innovatively to respond to many issues and questions involved in analysing mobile actions and practices, and the relationship between interaction and mobility.

4.2. Conceptualising action and mobility

McIlvenny, Broth and Haddington (2009: 1880) state that new concepts are necessary to deal with the added complexity of mobile interactions and to analyse the ways in which mobility affects and constitutes everyday communicative practices. Such conceptualisations also become important as we try to understand how people create, orient to, establish and achieve mobility in and through interaction. In the following, by drawing on prior research and the chapters in this volume, we present a view of how mobility features

in social life for forms of action, how mobility can shape and configure participants' social conduct, and also how talk and other interactional practices can be used in the service of starting, maintaining, coordinating and stopping mobility. Such interests are relatively underexplored in conversation analysis and ethnomethodology research. We are concerned with this volume to show that, and how, mobility in interaction can be investigated and understood for how it is accomplished through participants' local practices, and that there are particular challenges and implications for interacting on the move, for *being mobile* with others. Generally then, we can pose two broad questions for exploring interaction and mobility. First, how is social action related to mobility? And second, what kind of context is mobility for social action? Some responses are sketched in the next sections, dealing with mobile practices (4.2.1), stillness as a form of activity (4.2.2), mobility and temporal order (4.2.3), the ecology and context of mobile actions (4.2.4), and the way in which mobile actions are jointly organised (4.2.5), as well as technologically mediated (4.2.6). Each section is finished with some issues and questions that highlight key areas of interest for the chapters, as well as more widely for studying interaction and mobility.

4.2.1. Mobile activities and practices

There are very different ways of being mobile in the world. We can think of such mobile activities as walking, running, riding a bike, flying an airplane, dancing, driving a car, and so on. However, these displacements are more complex than just moving or going around. Walking, which is no doubt the most pervasive, mundane and basic form of mobility (Urry 2007: 63; see also Hester and Francis 2003; Mondada 2009a; Ryave and Schenkein 1974; Psathas 1992; Relieu 1999), involves very different kinds of experiences and practices than driving a car or flying an airplane. Different mobile activities also involve different mobility scales. These different forms of placement and relation also impose different possibilities and requirements for social interaction and how participants organise such mobile practices as starting, accelerating, slowing down, stopping, turning and giving directions, in and through interaction.

Furthermore, there are differences in how human bodies are involved in mobility (see e.g. Adey 2010: 133–175; Dant 2004). Some mobile activities and practices involve the participants' bodies directly (e.g. walking and running), while in some cases movement is mediated by technologies (e.g. cycling, driving, and flying an airplane). In some situations people are themselves immobile but coordinate the movement of others, as in different kinds

of coordination centres (Heath and Luff 1992, 2000; Goodwin and Goodwin 1996) or when players coordinate the mobility of virtual actors in video games (Mondada this volume).

We often take such mobile activities as walking and crossing the street for granted. However, often these must be taught and learned, for example for blind persons (Psathas 1976, 1992; Relieu 1994). In particular, the mobile activities that are mediated by technologies, such as riding a bike, driving a car or flying an airplane, require instruction, guidance and practice before one becomes accustomed to how the body functions and is appropriately coordinated with respect to objects and material circumstances, to adjust speed, integrate mobility with other mobile actors and so on. Additionally, the ability to successfully perform mobile activities is often part and parcel of everyday and professional work and has to be acquired in order to move around successfully, often in difficult or extraordinary circumstances (Melander and Sahlström 2009; Watson 1999).

The chapters of this book capture the diversity of mobile activities and the experiences and practices involved in them, and importantly, show the consequentiality of interaction. They focus on such mobile activities as walking, driving a car, flying, dancing, but also on immobility as an active accomplishment. They also show how these activities require very different kinds of interactional practices and embodied experiences:

- how mobile activities are organised into different mobile practices, such as ‘approaching’, ‘entering’, ‘circling’, ‘turning’, ‘stopping’, ‘slowing down’, ‘withdrawing’, ‘continuing’, ‘attacking’ and ‘diving’;
- how mobile practices are organised collaboratively as part of such broader mobile activities as walking and driving;
- how interactional practices – verbal and embodied – are involved in making decisions with/for different mobile practices;
- how people are taught mobile practices or how they are instructed to coordinate the mobile practices of several others;
- how technologies feature in how people accomplish and coordinate mobile activities and practices.

4.2.2. Stillness and mobility

In some settings, being mobile may also involve stopping and being still. Stillness might preface mobility, or occur within mobile activities, or might be an outcome of mobility. On the one hand, stillness amidst mobility can itself be the participants’ objective. Such occasions of stillness might be

occasional or frequent, and might be an ordinary, expected, unremarkable, and even necessary phase, when conducting and pacing a trajectory of mobile activities within the spatial surround. For example, landscape architects stop at key vantage points as they interact to assess the visual and landscape effects of proposed built developments (Büscher 2006). Pedestrians can also stop others for example for asking directions, in which case stopping involves careful embodied coordination before the new interactional encounter begins (Mondada 2009a). In driving, minibus passengers, conductors, and drivers collaborate so that passengers can negotiate their exit at the desired stop along the journey (D'hondt 2009). Drivers and passengers also can search for and find a parking place together (Laurier 2005). Or, in rail transport systems, controllers coordinate their activities to monitor and organise the movements and stops of trains (Heath and Luff 2000). Some activities that involve mobility, such as shopping, visiting a museum or taking part in a guided tour, are organised into successions of starts, movements and stops (see Broth and Lundström this volume; De Stefani this volume; Mondada in press 2012b). In many ways, for example stopping together at an exhibit in a museum and starting to move away from it is similar to opening or closing a conversation or a phase of it: as beginnings or endings of activities, they require careful alignment and coordination between co-participants (see also Mondada 2009a).

While in these cases stopping and continued mobility are usually seen-but-unnoticed phenomena, in other settings stopping or stillness may be unexpected, noticeable, remarkable and accountable, problematic, or even impossible. For example in artistic performances (e.g. in public freezes, see Lan et al. this volume) or in dance lessons (Keevallik this volume), stopping, stillness or immobility are made noticeable for different practical ends. In such situations, achieving stillness can require preparation and work, and particular kind of competence, so that stillness or a stop is done at the appropriate moment, together with others, and so that it is held for exactly the right duration. In other settings, participants draw on various resources to support and maintain continued mobility, or to recover mobility when it could be vulnerable or is lost. For example, a train stopping unexpectedly on an underground rail network can engender a range of communications and actions by controllers to remedy the situation and restore system mobility (Heath and Luff 1996). Car drivers mainly stop as required by traffic signals, but otherwise tend to ensure that their vehicle remains mobile and fits within, and contributes to, a persistent and recognisably orderly flow of traffic. For drivers, remaining mobile might involve interaction with passengers for specific

driving related activities, such as turning at junctions or negotiating a route (Laurier et al. 2008; Haddington 2010; Haddington and Keisanen 2009; Mondada 2005). Also, rather than pulling over and stopping, drivers might artfully craft and time their engagement in non-driving activities, so-called driving distractions such as making or receiving a mobile phone call, eating, handling objects, or talking with passengers, to prioritise driving demands and so best allow for the car's continued movement (Laurier 2004; Haddington and Rauniomaa 2011; Nevile and Haddington 2010). In yet another form of transport, and unlike car drivers, pilots require airflow over the wings for lift and so can not simply stop their aircraft mid-flight. Pilots do not have even the option of pulling over, but must perform tasks and be supported by others (air traffic controllers) to continue moving and so remain airborne, eventually to land and stop at an acceptable location (Nevile 2004a, 2005; Arminen, Auvinen, and Palukka 2010). For pilots, stillness (immobility) is not a possibility. In mobility settings like these, participants interact to coordinate their activities to promote, or even ensure, continued mobility.

Stopping and stillness can require large-scale organisation and coordination (e.g. stopping a train or landing an airplane), whereas in other cases stopping and stillness can be fleeting and unnoticeable. Whatever the setting or situation, stillness and stopping are the outcome of participants' concerted attention and action. They are accomplished relative to emerging local contingencies and to the state and progress of the social actions underway. Participants need to determine and realise together when, why, and for how long, occasions of stillness are appropriate for their jointly conducted activities, and then how they are acceptably to initiate or return to mobility.

We can see from contributions in this book that periods of stillness, as occurring relative to a flow of mobile activities, may share some characteristics with silence, as occurring within a flow of talk. Just as silence does not indicate that nothing of interactional significance is happening (e.g. participants might be engaged in some embodied action, gesture etc.), stillness does not indicate that nothing of significance is happening for mobility. Instead, stillness, like silence, can be interpreted as meaningful action, to be doing something, to be noticeable and accountable, and can thus contribute to the real-time conduct and understanding of unfolding activities (see Hirschauer 2005 for an analysis of unacquainted people in elevators). Within mobility studies, researchers have also begun to reflect on the experience and practice of stillness (e.g. Bissell and Fuller 2011). By examining interaction and mobility we can see how stillness, like silence in the flow of talk, can be a significant and available resource for social action. The chapters in this volume address some of the following issues on stillness and immobility:

- how participants organise stillness in and around mobility, and for constituting some larger activity;
- how participants cooperate to accomplish moving into and out of stillness;
- how participants orient to the value or demands for continued mobility, when stillness might somehow be problematic, or even impossible;
- how stillness contributes to, or allows for, particular social actions;
- how participants embody and accomplish stillness relative to salient features of the material and spatial surround;
- how stillness is remarkable and accountable to others;
- what influences the timing of stillness and its duration.

4.2.3. Timing and ordering mobility

Mobility can be examined and understood for its temporal and ordered realisation relative to processes of social interaction. Participants coordinate their contributions to interaction with the demands, resources and practices of being mobile. That is, participants time and order their mobility activities relative to their talk and embodied conduct within and for the sequential development of social actions, and also relative to features and changes in the material and spatial surround. In simplest terms, some actions occur before mobility, other actions may be concurrent with mobility, and still others may occur after mobility.

Before mobility, participants' talk and embodied conduct can anticipate and prepare for, and enable, mobile conduct and events. Interaction can get people moving: participants can orient to projected mobility as requiring particular interactional work. For example, giving directions to someone for getting to a location, perhaps including instructions for how to move or orient the body along the way, can occur prior to any actual mobile activity. Psathas (1979, 1986, 1991) examines the language and other resources (e.g. maps) for direction-giving as an organised and collaboratively produced activity (see also Mondada 2009a). He shows how participants' utterances, emerging sequentially over the course of interaction, affect and shape the development of the route to the destination. In a related study, Psathas (1992) considers interaction between an instructor and a visually impaired learner for a lesson on long cane mobility. In a very different setting, airline pilots interact to perform tasks before initiating new movements for their aircraft (e.g. changing altitude or direction), including before flight by completing checklists to start their engines, and talking with externally located parties (controllers), before 'pushing back' from the terminal, or beginning to taxi (Neville 2004a). As a