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Shared background and repair in German conversation

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Content

Theory of interpretation is the business jointly
of the linguist, psychologist and philosopher
Donald Davidson (1984: 141-142).

1 Introduction

The present investigation approaches social interaction from two different research perspectives. In doing so, it integrates concepts that, in the field of interactional studies, so far have not been considered closely related: *shared background*[1] as analyzed by psychologists (Gibbs 1987, Gibbs/Mueller/Cox 1988; Sperber/Wilson 1995, 1987a,b,c) and philosophers of language (Lewis 1969; Grice 1989), and *conversational repair* as investigated by conversation analysts (Schegloff/Jefferson/Sacks 1977; Selting 1987a-c). The former concept has inspired *theoretical* re ections on its cognitive status, its structure, and the role of shared background as a prerequisite to social interaction. The latter, in contrast, addresses a family of discourse phonomena that conversation analysts, on the basis of a radically *empiricist* research attitude, have described minutely and shown to be ubiquitous in everyday conversation. Accordingly, these researchers have given observation priority over theorizing.

The two approaches, on first sight, appear opposed to each other in regard of both their respective theoretical bases as well as their methodologies. The present investigation, however, argues not only that they are compatible if applied to the study of shared background. It is, furthermore, suggested that combining them also neutralizes particular weaknesses that the two approaches respectively have been attributed in the research literature: on the one hand, empiricists have charged "armchair philosophers" to be unable (and unwilling) to account for real life phenomena of natural language use. On the other hand, CA has been fundamentally criticized for relying on single case analyzes, for paying too much attention to marginal interactional phenomena, and for selecting both, the cases and the phenomena, on unprincipled, contingent grounds.

In this study, the respective strengths of theory and of empirical analysis are combined by analyzing conversational repair as a family of procedures that, in specific variants, re ect an essential property of social interaction, namely its twofold nature as routine activity (Weber 2002) *and* "risky task" (Parret 1993: VII).

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[1] Other terms used to refer to this concept or closely related ones include *shared* (Kreckel 1981; Prince 1985), *common* (Lewis 1969), or *mutual knowledge* (Smith 1982; Gibbs 1987), *common ground* (Clark 1982; Gibbs/Mueller/Cox 1988; Lee 2001), *background and network* (Searle 1983), *mutually manifest cognitive environments* (Sperber/Wilson 1986, 1987a,b), etc.

The type of communicational risks put in focus here is illustrated by sequence (1) from a conversation among German graduate students at a US university.[2] Interactional trouble emerges from the nature of shared background when speakers mistakenly presuppose some specific knowledge on the part of their interlocutors. In the current exchange, Dirk reports on an exam that he once had to supervise as a teaching assistant and to which he refers as 'make-up exam' (line 5).[3]

(1)

```
   02   Dirk   ich hab- (.)EINmal hab ich n-
                    I have- (.) Once, I have a-
   (...)
-> 05   Dirk   so n ehm MAKE-up exam (-) beAUfsichtigt.=
                  supervised one of those make-up exams.
```

By speaking of 'n Make-up exam' (*a make-up exam*) without further explications, Dirk takes for granted that everybody in his audience is acquainted with the term. However, he mistakenly does so which is obvious from Susi's subsequent request for clarification:

(2)

```
   07   Susi   MAKE-up?
                  Make-up?
```

Dirk answers to Susi's display of puzzlement by providing a brief explanation.

(3)

```
   (...)
   10   Dirk   so NENNT man das,
                 That's what it's called
   11          wenn vier oder fünf LEUte (.) die-
                 when four or five people (.) who-
   (...)
```

Immediately after this sidesequence that resolves the interpretational problems on his interlocutors' side Dirk continues his narration. Trouble of this sort that surfaces in the form of repair initiations like the one in (2) I refer to as *shared background trouble*. I will demonstrate that phenomena occur in a number of variants and that it is both unavoidable and unforeseeable for the participants. The types of other-initiated repair that I look at can be characterized as a family of routines that

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[2] Section 3.2 below introduces the details concerning the data base as well as the conventions underlying the transcripts.

[3] As it turns out later in the conversation, a "make-up exam" is an exam by which students who have not been able to participate in a regular class exam are given the opportunity to make up for what they missed.

enable participants to overcome trouble in a way that, most of the time, preserves the routine character of everyday conversation.

In the following, the research program sketched so far is pursued in four steps that build up upon another in order to provide answers to three questions and to summarize those answers in a final chapter:

- Theory: What is shared background (chapter 2)?
- Methods and data: Why is shared background best studied in conversation by looking at repair sequences of a certain kind; and: what kind of data coded in what particular ways is looked at in order to investigate shared background empirically (chapter 3)?
- Empirical analysis: In what ways do participants in German everyday conversation display their orientation towards shared background; and: what are the repair strategies by which they deal with shared background trouble (chapter 4)?

It will be easier for the reader to appreciate the considerations presented in the following from the very beginning if s/he is in the position to contextualize them within an entire line of argumentation. A brief preview on the study as a whole, thus, seems in place. Chapter 2 lays the theoretical groundwork. An obvious starting point for an elucidation of *shared background* is David Lewis's classical account of *common ground* in the context of his work on *Convention* (1969) (2.1). Following this, the perspective of cognitive psychology is taken where the focus is on Dan Sperber's and Deirdre Wilson's (1995, 1987a,b) work and their notion *mutual cognitive environment* (2.2). This choice is justified not only because the proposal takes up Lewis's considerations from a novel point of view but also because it has stimulated a broad debate (cf. the contributions to volume 10/4 of *Behavioral and Brain Sciences*). As a third approach to the topic of shared background, Donald Davidson's theory of interpretation (1984a-e) is appreciated (2.3). It is argued that his analysis of verbal interaction and the role he attributes to what he calls *the principle of charity* are in line with and support indeed the proposal defended in the present study. The chapter closes by summarizing the arguments put forward so far (2.4).

At this point, a claim is put forward on the nature of shared background and it is maintained that it follows as a conclusion from premises adopted in the contributions reviewed in this chapter: shared background is a matter of structural impossibility, and social interaction between rational interactants is a matter of practical impossibility unless the participants—counterfactually—take the sharedness of their backgrounds for granted. This conclusion is consequential with regard to the issue of how shared background should be approached empirically. The task of the following chapters, hence, is to determine what questions can be answered and what data, tools, and methods have to be employed for this purpose.

Accordingly, the basic methodological idea developed in the first part of chapter 3 is that participants' orientation towards shared background is re ected by their attempts at restoring it when they perceive of its breakdown. It should be expected that such attempts will occur because, as argued in chapter 2, rational individuals will not engage in interaction unless they trust in the sharedness of the background. One interesting feature of such evidence is that it is very specific. That is, it is not *the* shared background as a whole that is treated as problematic by interactants; rather, a *certain* item of the background, a particular assumption or expectation, becomes the object of explicit negotiation and is thus brought into the interactional foreground. This means, however, that the evidence indicating the relevance of a particular item of shared background for the interactants is both negative and retrospective. It is negative because, first, by virtue of becoming *fore*grounded, the item in point loses its status as a part of the *back*ground and, second, the manifestation of doubt concerning a particular background item makes manifest that this item is indeed *not* shared at this stage of the interaction. The evidence is retrospective because interactants can treat shared background trouble only *after* they have noticed that a particular item they had taken for granted to be shared was indeed not.

At this point, the notion of conversational repair is introduced. Repair, *functionally* defined as "practices for dealing with problems or troubles in speaking, hearing and understanding talk in conversation" (Schegloff 1997a: 503), is interpreted as providing exactly the kind of negative and retrospective evidence described above. The analyst, however, will only be able to interpret repair as evidence indicating that shared background is relevant to the interactants under observation if tokens of repair can be identified in a given database. This, in turn, is possible only if the defining *structural* features of repairs are available as criteria for searching the database.[4] After some general remarks on the CA method of conceptualization (3.1.1), a definition of repair in terms of its characteristic formal properties is proposed. First, the relevant CA literature on the sequential organization of repair is reviewed and it is argued that repairs of a particular type, *viz.* so called *other-initiated self-repair*, is most pertinent with respect to the issues in focus (3.1.2).

Further, it is asked whether certain linguistic and non-linguistic means that interactants employ to perform repairs can be correlated with particular types of conversational trouble (3.1.3). An interest in the interactive purposes that motivate repair in conversation brings with it what Margret Selting (1987a) calls a "shift in perspectives" from a primary concern for sequential structure to the processes

[4] A definition of repair in terms of its interactive *function* is formulated already in early studies (cf. the quote above and Schegloff/Jefferson/Sacks 1977) and has been repeated many times since. A comparably concise explication of the defining *structural* features of repair has, to my knowledge, not been offered yet. (Cf., however, Fox/Jasperson 1995: 80 for their definition of self-initiated self repair.)

involved in the joint construction of sense in interaction. The shift implies a move away from anti-mentalism[5] as typical for CA. The researcher, then, is in the position to take literally the functional definition of repair quoted above and to consider repair as the participants' treatment of interactional trouble they *perceive* and *consider* in need of treatment.

Again, it is Schegloff (1987a, 1992) as well as Selting (1987a,b,c, 1988, 1995) in her studies on repair in German who point out several form-function correlations in the realm of repairs. Based on these results, the two authors distinguish types of repair, independently of each other and without claiming exhaustiveness or completeness. It is proposed here that Selting's and Schegloff's work complement each other and can be integrated into a single repair typology that later (cf. section 4.2.1) is expanded on the basis of additional empirical evidence. For the data-analyses to follow, it is equally important that this discussion leads into a structural explication of repair. In contrast to the canonical functional definition, this account specifies three operational criteria to search a database for tokens of repair: retrospectivity, discontinuity, and autonomy (cf. also Weber 2002, 2003).

The remainder of the chapter is devoted to elaborating on the exact kind of other-initiated self-repair the analysis of which is relevant with regard to shared background (3.1.4). First, an exemplificatory analysis of an ideal shared background repair sequence from the database is presented. Then, it is demonstrated that the repairs studied here can be distinguished from activities that display on orientation of participants to their own *individual* background assumptions as opposed to background assumed to be *shared*.

The second part of chapter 3 concerns itself with the data base used in chapter 4 as well as with technical issues of transcribing the data. A corpus of German everyday conversational data is introduced and brie y characterized (3.2.1). Furthermore, the process of coding and the conventions adopted to transcribe the data are described (3.2.2). Following these preliminaries, a number of questions are put forward that, on the one hand, have emerged from the theoretical discussion in chapter 2 and, on the other hand, are within the reach of the methods, the tools, and the data introduced in the previous sections (3.2.3).

To answer these questions by way of empirical analyses is the objective of the final main chapter 4. Here the analyses are presented that demonstrate what specific linguistic and non-linguistic means speakers and hearers employ to treat and display their orientation to shared background. It is also discussed why those means are employed at particular stages of an exchange. Furthermore, classes and sub-classes

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[5] In classical CA, however, there seems to be a tension between its programmatic anti-mentalism and self-restriction to the observable, on the one hand, and, on the other hand, the extensive use of concepts like "trouble," "problem," "preference" that—to say the least—"sound" mentalistic.

of those means are identified in the data along the lines of Schegloff's and Selting's proposals. Finally, it is pointed out how these sub-classes correlate with different aspects or levels of the shared background.

Chapter 5, eventually, summarizes the results yielded and the conclusions justified by this investigation on shared background and repair in German conversation.

To conclude this introduction I would like to point out the main contributions to the field of interactional studies that I hope to make by the present investigation:

- to add to an understanding of shared background as a prerequisite to social interaction that is necessary and, at the same time, always at risk to break down; shared background trouble, thus, is both an unforeseeable and unavoidable factor of conversation.
- to provide a typology of other-initiated repair in German conversation which is based on a detailed analysis of the functional and the formal aspects of repair as it occurs in everyday conversations.
- to demonstrate that conversational repair and shared background are to be considered closely related: from the participants' perspective, the former serves as a family of routine procedures enabling interactants to overcome shared background trouble and to avoid interactional breakdowns; from a methodological point of view, other-initiated repairs represent phenomena by which interactants display the relevance of shared *back*ground in the *fore*ground of their exchanges and, thereby, in ways accessible to the analytic tools of social scientists.

2 Shared background— necessary presumptions and structural impossibilities

The theme of the following sections is the theory of shared background. I will try to show, from a number of quite different theoretical angles, that the investigation of shared background necessarily must go along with a discussion of indeterminacy in interaction, a notion that either is explicitly central to the proposals to be scrutinized below or is a major cornerstone therein that carries much of the load of the argument while being invisible from the outside.

On the basis of the truism that social interaction requires shared background, the main hypothesis defended in this first chapter can be rendered in a nutshell: Since interpretation is irreducibly indeterminate—and all analysis of discourse involves interpretation—it is impossible to establish as a positive fact that a given assumption, piece of knowledge, attitude, etc. is shared by the participants in an arbitrary interaction under observation. This limitation is not just one that is contingent on the analyst's limited access to, say, the thoughts, intentions, etc., of the participants under observation. Neither analyses of the structural characteristics of natural discourses nor the knowledge of the individual interactants' propositional and non-propositional attitudes justify reliable conclusions about what background is shared among the participants at a certain point of the interaction.

If this position can be supported convincingly, the obvious problem arises of how shared background can be investigated empirically at all. A detailed answer to this question and a contribution towards the execution of the research program motivated by that answer and known by the name of ethnomethodological conversation analysis will be the concern of chapters 2 and 3.

Although this is certainly not the first time that the issues of indeterminacy or shared background have been raised, the hypothesis outlined above still is in need of in-depth theoretical reconsideration and justification as long as the research paradigm that is based upon it is not generally accepted as sound and necessary for the study of interpretation and interaction in linguistics, social psychology, sociology, and related fields. The exploration of shared background thus is a worthwhile theoretical enterprise in its own right. Beyond that, however, I intend to show in this chapter—eclectically where exhaustiveness cannot be achieved—that different approaches to interaction representing different scientific disciplines converge on a unified concept of shared background that is compatible with my central hypothesis. By accumulating outsiders' support for a premise of the ethnomethodological approach, I hope to reach its proponents as well as its critics and those who have more or less ignored it to date. The former may find the following arguments to be an occasion of (re)re ecting on presuppositions that once accepted cannot be permanently questioned in daily analytic work. The latter may find arguments showing that the deep analytic skepticism that underlies the ethnomethodological approach

to interaction not only is consistent with other premises and arguments adopted within this paradigm but is well embedded within the network of hypotheses, principles, and arguments that, in the Western rationalist tradition, define the field of interactional studies as a whole.

Following these remarks and the introduction of one of the focal terms of this study, *shared background*, the first one in series of reviews concerned with accounts of shared background revisits David K. Lewis' approach to this matter laid out in his seminal *Convention* (1967). While argument put forward in this work is exceptional in its clarity, it also represents a proposal that, being part of a radical materialist's œuvre in the philosophy of mind, seems a long way from supporting the skepticist premises of ethnomethodology. If, however, the attempt at deriving the latter foundations from Lewis's considerations succeeds, this should turn out to be a particularly powerful contribution to the ideas proposed here (section 2.1). Lewis, and others, has also inspired a debate on shared background that has evolved in the field of cognitive psychology in the last decades and culminated in Dan Sperber's and Deirdre Wilson's treatment of the topic in their book on relevance theory (1995). Although psychologists, unlike the theory-minded philosopher, concern themselves also with the empirical conditions that must hold to make shared background possible, I will show that the main points of controversy in their debate are related to conceptual consistency rather than psychological plausibility and dwell on exactly those problems that are critical in Lewis's exploration of *common knowledge* (section 2.2).

Thirdly, Donald Davidson's and, to a lesser extent, Willard Van Orman Quine's contributions to the theory of shared background will be considered. Davidson emphasizes one particular and seemingly trivial aspect of shared background in interaction when he describes the question of "how can it be determined that the language [any two individuals use in their interaction; T.W.] is the same?" as the form in which *the* problem of interpretation surfaces for interactants (Davidson 1984a: 125; emphasis mine, T.W.). The very fact that this question motivates an entire and in uential theory indicates the fundamental and challenging nature of shared background for an account of interaction. Furthermore, Davidson and Quine introduce the motive of indeterminacy into the study of interpretation, which, as I would like to demonstrate, is relevant also with regard to the theories of Lewis' and the cognitive psychologists' (section 2.3).

In this chapter's final remarks (section 2.4), I will propose a unified picture of shared background in the form of a concept into which the proposals and their implications discussed in the previous sections converge. On the broad basis of an understanding of shared background thus achieved, it will be possible to formulate interesting empirical research questions and make a promising attempt at answering them on the basis of conversational data.

An uncontroversial starting point for any investigation in social interaction seems to be the idea that in discourse much more is meant and understood by the participants than is explicitly expressed in the form of verbal utterances or other activities. Contributions to discourse make sense only if interpreted in the light of a wealth of assumptions, knowledge, attitudes, and skills that the partners rely on as given and to which I will henceforth refer by the metonymic term *background*. The concept of background, in this understanding, covers a very broad range of intentional and non-intentional phenomena that have been treated in the literature under a variety of labels.[6] It is but a small step from the above truism to the claim that social interaction is not even possible without the participants' *sharing* much of their backgrounds and taking for granted that this is the case.

This initial idea—in its generality a commonplace in most disciplines concerned with meaning, communication, and social interaction—soon leads into more controversial issues:

- In what forms *can* (different kinds of) background possibly be shared by interactants?
- In what form *must* background necessarily be shared to render social interaction possible?
- What aspects of the background must be shared by interactants in particular discourse situations?
- In what way does what is said, done, and understood depend on the background?
- What is the background? What kind of (mental) phenomena (assumptions, knowledge, skills, etc.) constitute the background and what are their domains (linguistic, practical, encyclopedic)?

By revisiting the contributions to those issues by authors from different theoretical and methodological backgrounds, I will try to answer the questions or, where this is not possible on mere theoretical grounds, develop the conceptual tools that make them amenable to empirical investigation.

2.1 Lewis on conventions and common knowledge

In *Convention* (1969), David Lewis seeks to demonstrate that conventions of truthfulness in a language *L* are a necessary prerequisite to language use and the emergence of linguistic meaning. The essay investigates a variety of intricate

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[6] John Searle, for instance, refers by the background to „a set of skills stances, preintentional assumptions and presuppositions, practices, and habits" (1983: 143). Here, also those intentional states like knowledge (knowing-that, in Ryle's terms), beliefs, assumptions that Searle calls the network (1993: 141) are subsumed under the concept of background.

philosophical issues in the realm of logical semantics (analyticity, synonymy) that are outside the scope of the present considerations. There are two aspects that make Lewis' book a relevant contribution in the context of the investigation of shared background. First, Lewis' linguistic conventions can be thought of as a very general type of background that all verbal interaction in a given language is based upon. Second, linguistic conventions *qua* conventions are common to or shared among the members of a language community. That is, in a nutshell, for a convention to be operative in social interaction it is necessary for the interactants to assume mutually that their respective partners know that convention. If thus a certain convention exists as an element of a common knowledge, then membership in a population in which the convention holds implies the knowledge of its existence. I suggest that what a reconstruction of Lewis' theory reveals about the role of common knowledge in the development of conventions, in many regards, is true of shared background in general.

2.1.1 The structure of common knowledge and its implications

Lewis' ultimate goal is it to defend "the common-place that there exist linguistic conventions" (1969: 207) and to elucidate, by way of a priori theoretical reasoning, the way in which any given "actual language of a population" (1969: 207) involves conventions. While he does not begin looking at language before he reaches the last third of his book, he immediately concentrates on those kinds of conventions that are not the result of metacommunicative agreements but evolve in the course of a gradual process of habituation in a community whose stability depends on the ability of its members to coordinate their activities in recurrent situations. The rationale behind this focus is obvious: any language whose conventions are based on agreements among the first speakers of that language presupposes a metalanguage used in the process of agreeing upon the conventions. While this is a viable procedure in order to create a novel language where others already exist as, for example, in the case of Esperanto, the philosopher is interested in the conditions of possibility that determine language on the whole. If one assumes that language is based on conventions by necessity, that conventions are always arrived at by agreement, and that agreements are the result of coordination by means of language, one runs into a regression that is obviously infinite. That potential fallacy is easily avoided by Lewis. His goal is to explain the emergence of (linguistic) conventions in a community that lacks (linguistic) conventions in the domain in which activities are to be coordinated.

In an attempt at elucidating the concept of shared background, it would lead us much too far afield to reconstruct Lewis's account of what it means for a sentence to express a meaning in a language L by virtue of conventions that establish that relationship (cf. his chapter V). It is more important to spell out in what regard conventions involve a particular kind of common knowledge in the Lewisean sense—and hence

shared background—and what it is that a population accordingly has to know for a certain convention to be valid in that community. The obvious starting point for that exploration is the author's definition of common knowledge:

> Let us say that it is common knowledge in a population *P* that ___ if and only if some state of affairs *A* holds such that:
> (1) Everybody in *P* has reason to believe that *A* holds.
> (2) *A* indicates to everyone in *P* that everyone in *P* has reason to believe that *A* holds.
> (3) *A* indicates to everybody in *P*, that ___.
>
> We can call any such state of affairs *A* a basis for common knowledge in *P* that ___ (1969: 56).

What that definition implies for the concept of shared background will not become clear until one reconstructs Lewis' view of

(1) what it means for someone to have reason to believe something

(2) what it means for A to indicate to somebody that ___

(3) the nested and distributed structure of common knowledge predicted by the definition.

(4) the nature of some "suitable ancillary premises" (Lewis 1969: 53) concerning rationality

(5) the nature of some "suitable ancillary premises" concerning inductive standards and background information that Lewis introduces as being necessary for common knowledge to emerge.

A suitable point for a discussion of those issues probably is Lewis' own scenario, a fictitious everyday incident of coordination by agreement. The state of affairs *A*, in that example, is instantiated by an episode in which two individuals (the population *P*), say Jean and Harvey[7] have met, have been talking to each other, and Jean has to leave before they have settled their affairs. In the course of the exchange, both of them have expressed their conditioned preference to return to their meeting-place, that is, their intent to return if the other one does so. Before departing, Jean (unconditionally) announces that she will be back the next day. Based on that incident, it is, according to Lewis, Jean's and Harvey's common knowledge that Jean will return to their meeting place the next day.

(1) *Having reason to believe that A.* Someone has reason to believe that *A* if there is some evidence that provides that reason. Without trying to be comprehensive, Lewis mentions different kinds of evidence that may serve that purpose. They include participating consciously or having participated consciously in *A* (as Harvey and Jean do in our example), perceiving or having perceived *A*, being told about *A*, inferring that *A* is/was the case on the basis of facts that one has perceived of

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[7] „Harvey" and „Jean" were substituted for Lewis' original protagonists „you" and „I" to facilitate unambiguous reference to the interactants in the discussions to follow.

or has been told about. The important implication to notice here is that, depending on the character of the evidence, one may have more or less good reasons to believe something. The personal participation in an unlikely event is a much more trustworthy reason to believe that the event has taken place than being informed about its occurrence by somebody whose source supposedly is an eye-witness.

(2) *A indicates to x that* ___. Lewis defines "indicating to x" in terms of "x having reason to believe". To quote him,

> [l]et us say that A indicates to someone x that ___ if and only if, if x had reason to believe that A held, x would thereby have reason to believe that ___ (1969: 52-53).
>
> That trivially implies that *A* indicates to Jean that *A*, if Jean has reason to believe that *A*. In our example, this is the case because Jean participates in *A*. And by the same token, *A* indicates to Jean that *A* indicates to Harvey that *A* because Jean knows that Harvey has participated in *A*. Because *A* indicates to x that ___ only if, on the basis of *A*, x has reason to believe that ___ and because reasons to believe may be more or less convincing, the strength of an indication is a matter of degree ranging from very strong to very weak.

(3) *The nested structure of common knowledge* We have already seen that the concept of common knowledge implies higher level knowledge/assumptions/ expectations, i.e., knowledge about knowledge, assumptions about assumptions, expectations about expectations about others on the part of everybody who participants in the sharing of the common knowledge. If Harvey believes that Jean does not believe that he will return, he does not have a reason to return, and will not do so (if he is a rational person; for that point, see below). Lewis refers to this kind of higher-level expectation as *replications*. If we apply Schiffer's (1972) analysis to the situation under consideration, we find that Harvey's and Jean's common knowledge that Jean will return implies an infinite number of replications of increasing and eventually infinite length:

> I. Jean has reason to believe that she will return. And:
> Jean has reason to believe that Harvey has reason to believe that she will return.
> And: Jean has reason to believe that Harvey has reason to believe that she has reason to believe that she will return. And:
> ... And:
> Jean has reason to believe that Harvey has reason to believe ___ (ad infinitum) that she will return.
> And:
> II. Harvey has reason to believe that Jean will return. And:
> Harvey has reason to believe that Jean has reason to believe that she will return.
> And: Harvey has reason to believe that Jean has reason to believe that he has reason to believe that she will return. And:
> ... And:
> Harvey has reason to believe that Jean has reason to believe ... (ad infinitum) that she will return.

(4) *Ancillary premises about rationality* For Jean to build up reliable expectations about Harvey's plans, she needs not only to expect that he *has reason* to believe

that *A* but she must expect that he *actually does* believe that *A*. Common-sense experience suggests that people, if they are in the appropriate position, usually make that transition from finding that some state of affairs holds according to objective criteria to actually making appropriate assumptions about that state of affairs. In specific possible, if unlikely circumstances, however, in which, for instance, Jean assumes Harvey to be a robot who is being tested by his designer and who will be taken out of operation immediately after she has left the meeting, she will not bother to build up higher-level expectations about Harvey's beliefs. What makes the difference here is that, in normal interactions, we impute to our partners a certain degree of rationality. Rationality, in this view, implies the disposition to make the transition from having reason to believe that ___ to actually believing that ___. In Lewis's own words,

> [a]nyone who has reason to believe something will come to believe it, provided he has a sufficient degree of rationality (1969: 55).

If, on the basis of *A*, it is Jean's and Harvey's common knowledge that he will return, she imputes rationality to him and expects him to impute rationality to her, and vice versa.

To be sure, the concept of *rationality* presupposed by Lewis as well as in the present study is a formal one in that it refers to a disposition towards drawing conclusions on the basis of perceived evidence in a systematic and consistent manner, towards trying to keep one's system of beliefs free of contradictions, etc. The concept does not imply objective external standards, e.g. "reasons understandable and verifiable by positive empirical science" (Parsons 1937, quoted after Heritage 1984: 24), relative to which individual activities could be judged "intrinsically" rational or irrational.[8] This leads to another set of premises that Lewis considers necessary for the coming about of common knowledge.

(5) *Suitable ancillary premises about inductive standards and background information* Even if Jean believes that *A*, that *A* indicates to her that Harvey will return tomorrow, that Harvey is a rational agent, and that he has participated consciously in their meeting, it does not necessarily follow that it is hers and Harvey's common knowledge that he will return. Participating in an activity that, from an external point of view, can be described as *A* (e.g., an announcement to return) does not necessarily mean for a particular participant to experience that activity *as A* (i.e., an announcement as opposed to a joke, a quotation, etc.). Applied to our example: while Jean's utterance of "I'll be back tomorrow. Same time, same place" may indicate to Harvey that Jean has announced her plans for the next day, Jean herself may have cited some novel in which exactly the formulation that she used was uttered by one of the protagonists who then left the place never to return

[8] Cf. Heritage's critique of a Parsonian concept of rationality in Heritage 1984 and 1987.

again. Against that background, Jean's utterance of "I'll be back tomorrow. Same time, same place" will indicate to her that she just announced that she will *not* return the next day; and, if she assumes that Harvey knows the novel, she will believe that he believes that she has just announced that she will not return.

In short, Jean's and Harvey's common knowledge that she will return the next day comes about only if the two agree, and assume that they agree, in their ways of interpreting their meeting and their utterances *as A* (not *B*, *C*, or *D*). For two people to expect of each other that they interpret some objective state of affairs *as* the particular state of affairs *A* means, in Lewis' terms, for them to impute to their respective partners inferential standards and background information that make him/her interpret *A as A*.

Premises (i) - (v) of common knowledge give rise to several additional considerations. As for the mutual imputations of rationality, inferential standards, and background information to the respective partners, Jean and Harvey will perform these imputations only if they are themselves rational agents and if they have reason to do so. Jean, for instance, may have reason to believe that Harvey is rational by virtue of her recollection of past joint activities in which Harvey behaved rationally. Her reasons to believe that he interprets her final utterance as an announcement *not* to return the next day may include her background knowledge, and her assumption that Harvey shares that knowledge, that it was Harvey who recommended to her the novel that she quoted when she said "I'll be back ... ".

The imposition of rationality to the respective partner guarantees the transition from the interactants' believing that the other has reason to believe that ___ to believing that the other *does* actually believe that ___. Applied to the chains of replication specified under (iii) above, Harvey's and Jean's common knowledge that Jean will return can be spelled out in the following way:

I. Jean believes that she will return. And:
   Jean believes that Harvey believes that she will return. And:
   Jean believes that Harvey believes that she believes that she will return. And:
   ... And:
   Jean believes that Harvey believes ... (ad infinitum) that she will return.

And:

II. Harvey believes that Jean will return.
   Harvey believes that Jean believes that she will return.
   Harvey believes that Jean believes that he believes that she will return. And:
   ... And:
   Harvey believes that Jean believes ... (ad infinitum) that she will return.

The number of each participant's replicative sequences (i.e., the number of lines in the reconstruction above) is infinite and so is the length or depth of the "last" ones (i.e., the last lines in the reconstruction above) because, as Lewis has shown, the three premises of the definition along with "suitable ancillary premises" generate

second-level beliefs about Jean's return which on the basis of premise (2) generates third-level beliefs etc. ad infinitum. According to Lewis, this aspect of the logical structure is, however, of little practical consequences. Rather in passing and without investing much argumentative effort into that thought, he remarks that, most of the time, the production of lower-level beliefs is a sufficient basis for the coordination of cooperative activities.

The picture turns out to be somewhat more complex when one takes into account that Lewis' "suitable ancillary premises" also are propositional objects in replicative sequences much like the interactants' expectation that Jean will return. Say that Harvey believes that Jean is rational, that she expects him to be rational, but, at the same time, does not believe that she expects him to expect her to be rational. In that unlikely but possible case, Harvey will not expect Jean to believe that he believes that she will return. This then, would be reason enough for him not to expect her to return. In the same manner, the replications involved in common knowledge include higher-level assumptions about inferential standards and background information.

2.1.2 Some further considerations concerning common knowledge

In his explication of the replicative sequence that is implied by the common knowledge that ___, Lewis uses the formulation "Each of us expects that the other expects that he expects that ___" (1969: 56). This is an appropriate as well as economical way of formulating the replicative character of common knowledge. Furthermore, this formulation itself can be taken as the object of a statement of the form "The individual *a* knows that everybody in *G* knows ___" which suggests that the knowledge that a certain common knowledge holds in a group can be held by a single individual.[9] Below, I break up Lewis's replicative sequence that specifies the common knowledge of "each of us" into separate, if mutually dependent, chains, one for each individual interactant. Thereby, I would like to emphasize two aspects of Lewis' concept that are responsible for the particular nature of common knowledge:

- Common knowledge is self-referential. It knows of itself.
- Common knowledge is distributed in the sense that it is common to at least two individuals.

[9] In a similar way, "collective memory" (Halbwachs 1985 (1950)), i.e. the cultural and communicative memory shared within a community or collective, has to be thought of as the "collectively moulded" memories of individuals (Assmann 1999: 36; translation mine, T.W.):"Halbwachs went as far as to take the collective to be the subject of recollection and memory. He coined concepts like "group memory" and "memory of a nation" that turn the concept of memory into the realm of the metaphorical. We do not have to follow him that far. *The subject of memory and recollection always remains the individual*, if in dependence on the 'frames' that organize his recollection" (ibid.; translation and emphasis mine, T.W.).

From those two premises follows that the notion of a single individual's having the common knowledge that ___ does not make sense. A comparison of the following sentences should make that point plain:

> (1)Harvey and Jean have a common property: they own a house in Boulder, CO.
> (2)Harvey and Jean have a piece of common interest: they both collect stamps.
> (3)Harvey and Jean have a piece of common knowledge: she will return tomorrow.

The self-referentiality of common knowledge implies that to share a piece of common knowledge means for all the share holders to know that they share that piece of knowledge with the other group members. As Lewis states with regard to conventions:

> So if a convention, in particular, holds as an item of common knowledge, then to belong to the population in which that convention holds—to be party to it—is to know, in some sense, that it holds (1969: 61).

This is not true of common property (or common interests or other things one may have in common): if Harvey knows that both he and Jean own a house that they inherited from a remote relative of theirs, he knows, by the very same token, that they have a common property. Maybe Jean does not yet know that her brother is her co-heir. In that case she does not know that they have a common property. The fact that the two have a common property, however, is absolutely independent of Jean's (and also of Harvey's) knowledge about that fact. That this is different with regard to common knowledge as has become apparent above when Harvey's and Jean's meeting was analyzed.

Lewis has pointed out that common knowledge depends, in various ways and on various levels of replication, on the interactants' having reason to believe that some state of affairs *A* holds. He goes on to state that those reasons to believe that *A* may be more or less strong. Let us, on that basis, compare the potential reasons for Harvey to believe (1) vs. (2) and (3). Harvey may have just received a letter from a lawyer who notified him of his and his sister Jean's inheritance. In that letter the lawyer, among other things, asks Harvey after the current whereabouts of Jean because he would like to notify her of the inheritance. Under normal circumstances, that letter and maybe a personal phone-conversation with the lawyer will provide reason enough for Harvey to believe that Jean and he own a common property.

But Harvey is a suspicious and greedy man. He starts wondering whether he really is obliged to share the house with his sister Jean, whom he never liked. What can he do to ascertain whether Jean is the co-owner; what evidence could he draw upon to find reason to believe that? For one, Harvey has the letter in hand and has talked to the lawyer on the phone. To be sure, he could go see the lawyer to have a look at the uncle's testament. He may even get a second expert's opinion on the testament and whether it really makes the house his and his sister's common property. In any case, there is a wealth of external evidence that can be drawn on to

ascertain that Harvey and Jean have a common property, even if Harvey—against all reason—remains skeptical after checking all of it.

Let us return to the circumstances of Harvey's and Jean's meeting, which she had to leave early. According to Lewis' analysis, it is Harvey's and Jean's common knowledge that Jean will return the next day. Of the various reasons Harvey has to believe that Jean will return, a necessary one is that he has reason to believe that Jean believes that he expects her to return. But again one may ask: what are his reasons to believe *that*? Assuming normal every-day conversational circumstances, it is plausible for Lewis to assume that two people who are engaged in a common cooperative activity assume and are right to assume of each other that their respective partners know of their joint activity and know that their partners know thereof. In our case, Jean has promised to return and Harvey has produced a recipient signal to the effect that he has understood. In most cases, that provides reasons strong enough for the interactants to build up their replications so that each one of them believes that they share the common knowledge, e.g., that Jean will return.

It is, however, easy to fabricate a context in which that is not true. Maybe Harvey thinks of Jean as a person who often is non-serious and unreliable (as part of his background information about Jean) and so is not sure that she will remember or feel obliged by her announcement once she has left the meeting. Hence he may ask her for explicit reconfirmation of her announcement: "So you will be back here tomorrow at the same time?" Jean's giving the confirmation now may provide a reason strong enough for Harvey to justify his expectation that she will really return. If he is very skeptical concerning Jean's reliability, he may express his strong interest in her coming back just to get a final and emphatic reconfirmation.

In a slightly modified scenario, Harvey considers Jean to be a person that tends to be non-serious but, before he is able to ask her for the reconfirmation of her plans, she is gone. Harvey is left alone with his doubts. Maybe they are not strong enough for him to expect that Jean will not return. But if one still is inclined to call "common knowledge" what Harvey and Jean know with regard to Jean's return the next day, this is quite a weaker form of common knowledge than what emerged in Lewis' original scenario.

Let us look at a final one of many possible modifications of the incident. After Jean's announcing that she will return and perceiving of Harvey's ratification of that announcement, the friends depart in different directions, Jean is hit by a car and has to spend the next three days in a hospital. As a result, she cannot return to Harvey's and her meeting place the next day.

I do not doubt that Lewis would consider his view of common knowledge consistent with all those variants of the episode in which both Jean and Harvey are more or less sure that Jean will return the next day. Before turning to those episodes in order to discuss Lewis' particular use of the term *common knowledge*, this may be

the right place to recall what the statement "Jean and Harvey share the common knowledge that Jean will return" seems to suggest to a common-sense interpreter: First, *to know* is a so called *factive* verb. If a speaker makes an assertion of the form "I V_{fact} complement clause" he presupposes that the proposition expressed by the complement is true (cf., e.g., Kiparsky 1970). Hence, to make the above statement about Jean's and Harvey's common knowledge and, at the same time, concede the possibility that, maybe, Jean will not return, would be—at the very least—very odd. Second, for two individuals to have an item of knowledge in common implies that they stand in an identical relationship to that piece of knowledge insofar as no one of them is privileged over the other with regard to her access to that knowledge. Against this background, the episodes make visible two particular properties of common knowledge in the Lewisean sense:

(1) By stating "Harvey and Jean share the common knowledge that Jean will return" the narrator of Lewis' story cannot be interpreted as presupposing that Jean will return. Between the moment of her announcement and the next day, too much may interfere with Jean's plans that just cannot be foreseen at the time of Harvey's and her meeting. It seems, however, consistent with Lewis' definition of common knowledge in terms of having reason to believe to say that the narrator's statement suggests that Harvey and Jean have—more or less strong—reasons to believe that they share the common knowledge that Jean will return.

(2) "Harvey and Jean share the common knowledge that Jean will return tomorrow" implies that both Harvey and Jean believe that they share the common knowledge that Jean will return the next day. The scenarios discussed above illustrate that these higher-level beliefs can be mistaken on the grounds of innumerable, if practically unlikely, factors. What is more, there is no conceivable procedure by which the interactants could reliably secure the status of their knowledge that ___ as an item of common knowledge. Unlike with common property, there is no external criterion available for them or for an outside observer to determine beyond possible doubt what a co-interactant knows, believes, etc. Among other reasons, this is because there are no external criteria available to them to determine beyond a possible doubt whether the co-interactant is rational, what inductive standards s/he applies, and what background information s/he considers relevant.

The concept of common knowledge that ___, thus, is well defined in terms of *what* mental states are involved on the part of those who share that knowledge—*if*, and only if, they share that knowledge. The reconstruction and discussion of Lewis' analysis, however, has shown that it is not possible to get to know, in the strong factive sense of the verb, whether two individuals share the common knowledge that ___. At best, each co-participant in an interaction is in the position of having very strong reasons that motivate her beliefs about the beliefs of the other interactants. Common knowledge, however, implies replications on the part of at least two participants. And Lewis puts some emphasis on his remark

> that replication is not an interaction back and forth between people. It is a process in which one person works out the consequences of his beliefs about the world—a world he believes to include other people who are working out the consequences of their beliefs, including their belief in other people who ... (1969: 32; Lewis' emphasis).

A little later, he goes on:

> In our subsequent reasoning we are windowless monads doing our best to mirror each other, mirror each other mirroring each other, and so on (1969: 32).[10]

If one cannot possibly *know*, in the emphatic sense, that a certain piece of common knowledge subsists among two (human) individuals, common *knowledge*, in the emphatic sense, cannot come about because of the self-referentiality of concept. This conclusion does not contradict Lewis' own account that, as was stated before, rests on a relativistic understanding of "having (more or less strong) reasons to believe that *A*".

At this point, it is worthwhile to remember Lewis' initial notion of conventions that served as the starting point for his analysis of common knowledge: conventions, for Lewis, are solutions to recurrent coordinative problems in a community. The theoretical problem for him, thus, was not to explain the possibility of the empirical emergence of an ideal form of common knowledge but of a system of assumptions and mutual replications that render coordination possible.

In the case of Harvey and Jean, Harvey will decide to return if he is more or less sure that Jean will do so. What degree of certainty about Jean's future activities is necessary for Harvey to do so depends on a number of factors including the subjective importance of the meeting to him and his alternative plans. Absolute certainty, however, about Jean's assumptions and higher-level assumptions about the common knowledge shared by him and her is neither achievable nor necessary for him as a basis for that decision.

If one is not willing to give up the concept of common knowledge altogether, one may ask what, if Harvey and Jean share the common knowledge that Jean will return, is their common knowledge. In the light of the preceding discussion, an answer is possible along the following lines: the common knowledge that ___ is a knowledge constellation rather than a simple proposition held true by an individual or two individuals. This constellation is distributed across two interactants. And this makes it impossible to reliably determine whether or not it holds in a given situation, because whoever makes an attempt at doing this, be it a co-participant in the interaction or an outside observer—has privileged access to the assumptions

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[10] The metaphor of juxtaposed mirrors that mirror each other infinitely in their mutual mirroring is a common one in the realm of the philosophy of mind. A brilliant example in support of his claim concerning the irreducibility of self-consciousness is provided by Hector Neri Castañeda in his *'He': a study in the logic of self-consciousness* (1966).

of maximally one of the interactants. The psychologist Jennifer Freyd has put this in the following manner:

> Only in the sharing do the forms [here: common knowledge, T.W.] exist; that is, no individual mentally represents the eventual outcome of the communication of thoughts (Freyd 1983: 192).

And that is why it is impossible for an individual to establish as an absolute certainty that a certain item of common knowledge is held as such by any two individuals.

Common knowledge, in its factive form, is a concept for which we can spell out what conditions would have to hold for it to come about; but it cannot be instantiated in this world of human beings. This is because its double nature is marked by self-referentiality and a distributed-intersubjective character. Only to a being that could access the mental states and processes of others in the same privileged manner as these others themselves do would it be possible to attribute justly a common *knowledge*. That is not to say that, for cooperative interactants and for an outside observer, there may not be very strong reasons to believe that certain items of knowledge are common to all interactants in the way outlined by Lewis. Insofar as the present argument serves to pave the way for an empirical study of shared background, it is, however, most relevant to emphasize that what may appear to be conclusive evidence concerning the state of the shared background at a particular stage of an interaction may become contradicted by subsequent empirical evidence.

In light of these considerations, two terminological strategies suggest themselves: one may continue to use the term *common knowledge* as an analytic tool and take it as understood that it refers to an ideal knowledge constellation not realized and not realizable in human interaction. Alternatively, one may proceed a step further, abandoning the term and substituting for it a new one that carries fewer epistemological and ontological implications. I opt for the latter and will, henceforth, use *shared background* to refer to the distributed and self-referential mental states that are in the focus of the present study. The term *common knowledge* will be reserved for citations or paraphrases of Lewis' own thoughts and of their discussion by other authors.

> It should have become clear by now that the arguments put forward in the preceding sections are not meant as a criticism of Lewis but as explicating implications that are in the line of thinking initiated by Lewis himself. I have pointed out that a key notion for an understanding of common knowledge is that of *having reason to believe*. Lewis himself emphasizes that one may have more or less strong reasons to believe something and he certainly does not reserve the label of common knowledge only for cases in which the interactants' reasons to believe that ___ are undeniable. To mistake the factive use of the term with its weaker use, which is much closer to its common sense meaning, would mean an equivocation that would be extremely consequential for an elucidation of the question of what it can mean for two individuals to share a particular item of their backgrounds or knowledge.

2.1.3 David Lewis and the study of shared background

There are several reasons that make David Lewis' analysis of common knowledge the obvious starting point for a study on shared background. His argument is clear and conclusive, it addresses the major theoretical aspects of the topic, and it has turned out to be a focal study for most philosophers and psychologists who have since turned their attention to the topic of shared background, if they were not directly inspired by Lewis.

While the previous discussion of Lewis' proposal is not primarily critical, I have certainly emphasized aspects of its theme which are not necessarily foregrounded in the original work. This latter characterization does not apply to the philosopher's discussion of the role of common knowledge as a premise to coordinative interaction, its nested structure, and its structurally infinite and empirically finite nature. Self-referentiality and distributedness across several individuals or "monads," to quote the term Lewis uses himself, were identified as the two properties that are responsible for the epistemically weak status of common knowledge or shared background.

In conclusion, it thus can be stated that coordinative interaction requires shared background. Shared background, however, is a constellation of several individuals' mutually related higher-level assumptions, which that are subject to the irreducible possibility of being mistaken and contradicted by novel evidence. To refer to this unstable constellation as common *knowledge* brings with it the risk of equivocation, as will become apparent soon.

2.2 Shared background from the point of view of cognitive psychology

David Lewis remains vague about the empirical aspects of common knowledge and he is justified to do so since his self-proclaimed concern is theoretical rather than empirical. An argument, however, that aims at providing the grounds for a data based linguistic study on shared background in conversation has to ask about the role of shared background in real interactions and about the empirical constraints on its emergence. Dan Sperber and Deirdre Wilson have formulated what is at stake:

> For those interested in constructing an empirical pragmatic theory, the question is not whether these [Lewis's and Schiffer's; T.W.] analyses are philosophically adequate, but whether they have any psychological correlates (1982: 63).

In order to check how far Sperber's and Wilson's self-confident outline of an empirical research program has proceeded beyond its announcement, their and their colleagues' contributions to the study of shared background from the point of view and on the methodological basis of cognitive psychology have to be scrutinized. It has to be discussed how philosophical adequacy and psychological plausibility relate to each other. Furthermore the work of psychologists is a potential source of suggestions as to how shared background can be investigated empirically and what

kind of predictions about actual interactive behavior of individuals in particular situations can be derived from psychological theories of shared background.

The most effective manner of making transparent the issues that are controversial within a research domain is for the protagonists to engage in a scientific dialogue in the course of which they confront each other directly with their respective arguments, critiques, counter-critiques, and replies. While this, in most cases, takes place in the form of face-to-face discussions or private correspondence, in the present case, we are in the fortunate position of being able to follow part of a debate on shared background as it is represented in Neil V. Smith's volume *Mutual Knowledge* (1982) and an issue of the journal *Behavioral and Brain Sciences* (1987). Both publications print focus articles followed by peer commentaries to which the authors of the focus articles had the chance to respond. I will, in the following, concentrate my discussion on these contributions, trying not to neglect others published in other places.

A cursory reading of that literature reveals that the discussion concentrates on a few interrelated aspects:

- common knowledge as a necessary prerequisite for cooperative interaction
- the psychological plausibility of the assumption that it is possible to share a background
- empirical predictions that follow from the theory of shared background.

While it is certainly important to see whether the cognitive psychologists have anything to add to what Lewis and other philosophers have proposed about the theoretical nature of common knowledge, it appears most relevant here to ask for suggestions as to how common knowledge, in whatever form, can be investigated empirically.

2.2.1 The infinity of shared background: logical structure vs. empirical requirements

Where Lewis touches on issues related to the realization of common knowledge he does so mostly in pursuit of the question of how the structurally infinite sequence of replications comes to a halt. For him, this problem does not seem to be a very threatening one and he thus limits his considerations to a few side-remarks. Psychologists have taken the issue more seriously. Since even to date there does not seem to exist a consensus upon the human computing capacities and their limits, a touchstone for psychological theories of shared background has instead been the issue of empirical processibility. From that point of view, numerous authors have taken issue with Lewis's and his followers' suggestion that the sequence of replications involved in common knowledge can be infinite.

The argument is put forward in two forms:

(1) The argument from plausibility: It is against all common-sense and introspective experience that interactants are engaged in long, much less infinite, replicative reasoning.

(2) The argument from possibility: If common knowledge was necessary for coordinative interaction AND if common knowledge required infinite sequences of replications, coordinative interaction would be impossible. We as rational scientists who try to elucidate the nature of coordinative interaction take it to be beyond doubt that this kind of social activity is possible. Hence, either common knowledge is not a necessary prerequisite of coordinative interaction or common knowledge does not require infinite sequences of replications.

Clark and Carlson (1982a,b), who maintain that common knowledge is a necessary prerequisite for interaction, summarize that criticism, quoting proponents of both kinds of argument:

> There is no logical limit to the number of levels that may be necessary to account for a given speech event. But there are psychological limits [...] Probably not even the most subtle mind ever makes replicative assumptions in speech events involving more levels than, say, six (Harder/Kock 1976, cited after Clark/Carlson 1982a: 4).
>
> Their [i.e., Lewis's and Schiffer's; T.W.] definitions are not limited to three levels of belief [...] but go on infinitely. Higher-level beliefs are in principle possible, and indeed among spies or deceptive intimates there could be divergence at the first three levels[11] but we think such higher-level beliefs are not possible for a whole community or large group (Bach/Harnish 1979, cited after Clark/Carlson 1982a: 4; omission mine, T.W.).

The two authors reject objections of these kinds to the psychological plausibility of Lewis's model of common knowledge. Their argument, at this point, remains at the level of conceptual explications and theory rather than empirical facts. A reconstruction of what they claim and against what charges they seem to defend themselves is appropriate here.

Clark and Carlson, building on Clark and Marshall (1981), put forward their rendition of the hypothesis that "for communication to be successful, speakers must share certain knowledge, beliefs, and assumptions with the people they are talking to" (1982a: 1) much in the same way Lewis does. They analyze cases of cooperative interaction, the joint performances of a violin duet and a quintet, and conclude that, without "mutual knowledge or beliefs," the coordination required in those activities would not be possible.

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[11] Furthermore, Bach and Harnish's example of higher-level beliefs is taken from the realm of non-cooperative interaction, where the success of one of the interactants depends on his ability to conceal his plans from his opponent or to mislead her rather than to establish a common knowledge concering those plans.

Without going into detail about their contribution to speech-act theory, I will summarize the main points of their article and their major statements on shared background as follows:

- "Mutual knowledge or beliefs" are a necessary prerequisite for cooperative interaction.
- The evidence that gives rise to higher-level beliefs about the beliefs of others can be of various kinds and provides, depending on its nature, more or less strong reasons to hold those beliefs.
- The higher-level beliefs involved in common knowledge as a real mental phenomenon do not lead to infinity because the three premises of Lewis's definition of common knowledge, along with a number of additional assumptions, provide sufficient reason to justify reliable mutual beliefs.

This corresponds very much to what Lewis has argued for already. We have seen that Lewis himself emphasizes that the replicative structure of common knowledge specifies a sequence of logical implications, not steps of actual reasoning. It would be logically inconsistent and appears unlikely—but it certainly is not impossible for a person to hold, at the same time, a third- and a fifth-level belief concerning a certain state of affairs that contradict each other. And the belief systems of all of us, if made explicit, would probably turn out to be partially inconsistent from the point of view of logic. The point to be emphasized, however, is that, in concrete interactions, we generally do not and cannot expect of our partners that they hold logically inconsistent beliefs. Lewis has shown, and Clark and Carlson agree, that the imputation of rationality and, along with that, logical consistency, to one's co-interactants is a prerequisite for every rational agent as well as every rational outside observer to engage in interpretation in the first place.

It would be absurd to assume that a person who, in a particular situation, consciously holds a certain belief (e.g., that Jean will return) also processes all logical implications of that belief (e.g., that Jean will return or Friday is the third day of the week). By the same token, one would expect the reasoning that an interactant entertains in search of shared background to be as concise as possible to provide a sufficient basis for her understanding of the ongoing discourse.

Clark and Carlson deviate from Lewis's formulations in two important respects: first, without intending to criticize Lewis and merely modifying his terminology rather than his theory, Clark and Carlson never speak of knowledge but instead of knowledge *and* beliefs or just beliefs that are shared by some interactants. Unlike Lewis, they take the term *knowledge* in its emphatic sense, implying a claim to the necessary truth of the proposition expressed by the clausal complement. Hence, in order to maintain their and Lewis's central insight that propositional attitudes concerning the mutuality of beliefs may be of varying strength, they have to supplement or substitute the term *knowledge* with others, referring to weaker mental states like beliefs, assumptions, or suppositions.

Secondly, they hypostasize a *mutual belief induction schema*. This schema includes Lewis's three conditions by which he defines common knowledge (see above) along with additional assumptions about rationality etc. and specifies the inductive steps that are necessary to arrive at a more or less certain belief about common knowledge. This amounts to a transfer of Lewis's structural account of common knowledge into the realm of psychological entities when they state:

> If Perlman or Zuckerman [the two protagonists of their example; T.W.] had to work out the logic of the schema each time, they might be forced to produce a set of iterated beliefs and to see that they can be iterated to infinity. But since they know the schema itself, all they need to do is find a grounds that satisfies conditions (1), (2), and (3), apply the schema, and infer mutual belief (1982: 5-6; authors' emphasis; cf. also Clark/Marshall 1981: 33).

Less obvious is why Clark and Carlson call that inferred belief, say, that Perlman will play the first violin in their next joint performance, a *mental primitive*. It is true that such a belief implies and therefore renders unnecessary the infinite number of higher-level beliefs. But it is also true that this belief held by one interactant is the result of an inferential process that involves a number of stages and is justified only if it is also held by the other participant. To call a concept that represents the outcome of a reasoning process "simple and unanalyzable" (Clark/Marshall 1981) seems misleading in the context of a discussion where psychological processing costs are at stake even if the logical consequences of that concept "do not have to be computed in order to establish its applicability" (Sperber/Wilson 1982: 64).

We have already found that the infinity of the inferential sequence of replications concerning, say, Jean's intention to return does not cause any major problems for Lewis's theory of common knowledge if knowledge is understood not in its factive sense but as a weaker propositional attitude that in the course of further discourse may turn out to be mistaken. Lewis as well as Clark and Carlson intend to elucidate the prerequisites of coordinated interaction; and common sense as well as the examples provided by Lewis and Clark and Carlson tell us that, as the basis for making a decision, it suffices, most of the time, for individuals to have pretty good reasons to believe (as opposed to being absolutely certain) that the conditions hold that justify that decision. What, then, is at the core of the controversy? To make this point plain, let us turn to Philip Johnson-Laird's response to Clark and Carlson, which takes issue with their concept of mutual knowledge and the role they attribute to that concept in the realm of the theory of communication:

> The major difficulty with mutual knowledge as a psychological entity is its infinite character (Johnson-Laird 1982: 41).

It seems thus that Johnson-Laird's main criticism rests on his interpretation of Clark's and Carlson's use of the Lewisean term *common knowledge*. He imputes to the authors of the focus article to which her answers the position that a prerequisite

for communication is common knowledge in the emphatic sense. On this basis, it is not surprising that he concludes:

> [... T]he question arises as to what Clark and his colleagues have been analysing. The answer seems to be: a necessary condition for a guarantee of successful communication. No misunderstandings can arise if mutual knowledge has been established, but in its absence, one cannot be certain that a definite reference [which is the focus of Clark and Marshall 1981; T.W.] will succeed (Johnson-Laird 1982: 41-42).

In different terms: in an ideal world where communication cannot but succeed, interactants would have to share an ideal form of shared background that implies infinite sequences of higher-level knowledge on the part of all interactants. Johnson-Laird goes on to state that, in everyday life, interpretations and decisions are made without the guarantee of perfect understanding and that this is a sufficiently safe ground for the coming about of interaction. This certainly does not contradict Lewis's claims, as I have tried to demonstrate previously. And so it is not surprising when Clark and Carlson rebut:

> Our arguments [...] have not been about mutual knowledge alone, but about mutual knowledge, beliefs and suppositions. Once this is understood, Johnson-Laird's counter-examples lose their force (1982b: 56; the authors' emphasis).

It is, however, a little early to call the matter completely settled. First, Clark and Carlson emphasize that their focus is on mutual knowledge, beliefs and suppositions which, again, underscores their factive understanding of the term *knowledge*. In claiming to elucidate *not only* the nature of mutual knowledge, they purport to shed light upon, among other issues, the nature of mutual knowledge. We have seen it following from Lewis's argument, however, that common knowledge in the emphatic sense may be a conceivable theoretical concept but is impossible for human interactants to achieve in real life. Johnson-Laird is right to insist upon that point.

We have to take more seriously Johnson-Laird's taking issue with Clark and his collaborators' *mutual belief induction schema* which they propose produces a first-level belief, i.e., a propositional attitude in which the object of the belief is not another belief, about the mutual beliefs of two interactants and thereby "just the mental primitive we wanted" (1982: 5). It is clear that this schema does not yield common knowledge in the emphatic sense. Johnson-Laird, however, asks a few empirical questions that transcend that issue:

> But, where does this inference rule come from; how do children acquire it, and when? If it is innate, then how did it evolve (1982: 41)?

A possible response to those questions is to take back Clark and his collaborators' hypostatization of a psychological entity *mutual belief induction schema* and

stay with Lewis's mode, which makes reference to general mental capacities like perceiving elements of one's environment, making inferences, complying with the rules of logic.

It seems as if Johnson-Laird consented to the claim that common knowledge is a necessary prerequisite for interaction. This is the case if *knowledge* was taken in the weaker and therefore broader sense employed by Lewis, which makes no claim to the necessary truth of the proposition that is the object of the common knowledge. And, indeed, his own example supports that interpretation of his standpoint. Johnson-Laird invites us to imagine him going up to a ticket vendor, asking for and being sold a ticket for that night's show of Macbeth. He comments on his expectations about the vendor's beliefs:

> I had no idea whether or not the ticket vendor knew that there was a performance of Macbeth tonight; I hoped that he did, but I didn't know (1982: 41).

What remains of the controversy between Johnson-Laird on the one hand and Clark and his collaborators on the other hand is that the former definitely and—as I have argued—on good grounds denies the possibility of common knowledge in its emphatic sense, while the latter do not commit themselves to that view and leave the issue undecided. Synthesizing the two views amounts to finding that common knowledge is a constellation where two or more participants hold more or less strong beliefs about each other's beliefs concerning certain states of affairs.

There is one other interesting consideration, an afterthought rather, that Johnson-Laird brings into play in support of his skepticism with regard to common knowledge:

> But if they [the interactants; T.W.] start with completely mutual knowledge there might not be much point in communicating: they might be stating the obvious. As in the old drive-reduction theories of psychology, mutual ignorance is a drive that is a spur to conversation which in turn, reduces it; sometimes completely (1982: 42).

Lewis has pointed out that a prerequisite for the coming about of common knowledge concerning the interpretation of a certain utterance is that the interactants share common knowledge about each other's inferential standards and relevant background knowledge. If one assumes that background knowledge to be of a holistic nature, it seems not too far fetched to conclude that interactants who know, in the emphatic sense, each other's background knowledge do not have much to communicate any more.

2.2.2 Common knowledge: cognitive benefits vs. processing costs

Unlike Johnson-Laird, Dan Sperber and Deirdre Wilson criticize the model of common knowledge in a more fundamental respect. They reject altogether the

hypothesis that the mutuality of certain beliefs or weak suppositions is a condition for the possibility of communication (1982: 62). Their argument, in brief, proceeds in the following way:

> Comprehension is a function of the context: that much is uncontroversial. [...] As regards the context, some recent work suggests that it is restricted to the mutual knowledge, beliefs and suppositions of speaker and hearer [...] We would like to develop three main arguments against this approach. First, the identification of mutual knowledge presents problems which [...] do not give rise to corresponding problems of comprehension. Secondly, mutual knowledge is not a sufficient condition for belonging to the context [...] Thirdly, it is not a necessary condition either [...] (1982: 61-62).

For our present discussion, the third argument that questions the status of common knowledge as a necessary prerequisite for comprehension and, thereby, for interaction appears to be the most critical one.

While the dispute between Clark and his collaborators and Johnson-Laird mainly hinges on the respective arguments concerning the cognitive and epistemic status of shared background, Sperber and Wilson take issue with Clark's epistemically weak notion of mutual knowledge, beliefs and suppositions and question the psychological plausibility of this concept. They state:

> If mutual knowledge is to play a role in the real-time production and comprehension of utterances, it must be very easily identifiable: there must be some straightforward method by which a speaker and hearer who both know a given proposition can discover that they mutually know it. But at first sight, it is hard to see how such a method could exist (Sperber/Wilson 1982: 63).

The argument here does not dwell on the threat that infinity poses to the concept of common knowledge. Instead, it points to the difficulties that arise from the assumption that common knowledge is the result of a finite but complex inferential process. In particular, Sperber and Wilson refer to the processing efforts involved in establishing common knowledge, and they define processing efforts in terms of the complexity of the utterance, the size of the context or mutual knowledge required, and the accessibility of the context (cf. Gibbs 1987: 577; Sperber/Wilson 1987: 703).

The cognitive costs of that process become apparent as soon as one makes an attempt at spelling out what is implied by Lewis's—at first sight innocent—notion of "suitable ancillary premises regarding our rationality, inferential standards, and background information" that, according to Lewis, are necessary components in the coming about of common knowledge. Sperber and Wilson try to show that those additional assumptions, especially those concerning background information and inferential standards, are so numerous that, in most circumstances, identifying their common knowledge should be extremely difficult for the interactants (1982: 65). This objection seems well justified considering that Lewis already points out that

each event, say Jean's utterance "See you tomorrow. Same time, same place", even if the interactants directly witness it, can be interpreted as a token of more than one type of event. Hence, to establish for each one of the partners that the other shares his/her interpretation of the situation, assumptions about shared previous experiences, about common sense, etc., etc. has to be brought to bear.

To establish common knowledge, thus, is cognitively costly and may, at best, result in a certainty that is a relatively reliable and normally sufficient basis for one's decision about what to do next in the course of an interaction. In the light of this consideration, Sperber and Wilson conclude that, if common knowledge is necessary for interaction, cooperative interaction should re ect—at least—all those problems that go along with the establishment of common knowledge:

> In particular, when the evidence required for mutual knowledge goes well beyond straight physical co-presence, there should always be some room for doubt in the hearer's mind about whether he has correctly understood. This is not born out by introspective evidence. It seems much easier to understand an utterance than it does to assess mutual knowledge [...] Of course, such introspective evidence is not enough to settle the issue (Sperber/Wilson 1982: 65).

The afterthought in the above quote is certainly in place especially, if "to understand an utterance" is supposed to mean "to understand what the speaker meant by an utterance". Nevertheless, Sperber and Wilson seem right when they find that Clark's "mental primitives" require the employment of considerable mental resources and the question remains of whether interactants in everyday circumstances have available the necessary cognitive capacities. An equally urgent question, however, is on the grounds of what empirical evidence the issue concerning humans' mental resources could be decided at all. So far, it seems that in the realm of cognitive psychology, too, that theory is favored that is more parsimonious, i.e., that is able to explain a maximum of established facts by reference to a minimum of minimally strong hypotheses.

At this point, we are in the position to summarize Sperber's and Wilson's position: (1) common knowledge can be at can best realized in the form of a strong belief held by interactants that a certain common knowledge holds among a group but can never be certainty beyond possible doubt. (2) Common knowledge, even if it is based on mental primitives in Clark's and his collaborators' sense, would be the result of a more or less complex and cognitively costly inferential process. But what conclusions are to be drawn from here? Does that mean that interactants make their contributions and interpretations without taking into account at all probable knowledge, assumptions, beliefs, and suppositions of their respective partners?

Common sense suggests that, say, a person's commentary on a certain event will turn out differently depending on whether it is addressed to an eye-witness to that event or to someone who does not yet know that the event has taken place. It seems a common place in social sciences and is confirmed by the analyses of

fictive scenarios presented so far and various empirical studies (cf., e.g., Gibbs 1987a) that interaction involves some kind of "recipient-design," that speakers and hearers orient in their activities to information that concerns the background assumptions of their interlocutors. If one rejects the hypothesis that the concept of common knowledge is needed to account for that aspect of interaction, one is then left with the obligation to offer an alternative account.

2.2.3 Mutual cognitive environments vs. shared background

Sperber and Wilson face up to that challenge when they acknowledge that, "[u]nless some alternative framework is provided, criticism of the mutual knowledge framework might force one to amend it, but surely not to abandon it" (1982: 71).

In Sperber/Wilson (1995) and (1987), they introduce the notion of mutual cognitive environments to account for the truism that interactants are able to design and interpret utterances successfully, adapting what they say and understand to their respective partners. The main theoretical innovation intended to overcome the problems involved in the common knowledge framework is that cognitive environments, unlike knowledge or beliefs, are defined as states of affairs external to the interactants; they are knowledge *sources* rather than knowledge or, to emphasize the parallelism with Lewis's account, they are the potential bases *for knowledge, beliefs, etc*. A cognitive environment, rather than existing in its own right and independently of the one whose environment it is, is

> [...] a set of facts that are manifest to him.
> A fact is manifest to an individual at a given time if, and only if, the individual is capable at that time of representing it mentally and accepting its representation as true or probably true (1987: 699).

Whether or not we find that a person is capable of arriving at a particular mental representation and hence what we consider to be that person's cognitive environment in a particular situation, is not a trivial matter of fact. Rather, this depends largely on our assumptions about the person's perceptive abilities, her level of attention, etc. It seems, thus, fair to conclude that Sperber's and Wilson's concept of manifestness implies some premises about what "normal" individuals perceive and infer in normal circumstances. This, of course, resembles much of what Lewis has called ancillary premises concerning rationality, inductive standards, and background assumptions that are a precondition for a rational individual to enter an interaction with somebody else. Here it becomes apparent that these assumptions, on the part of the psychologist or other investigator, are a precondition for the empirical analysis of interaction as well.

Beyond that, it is an important consequence of Sperber's and Wilson's proposal that a fact need not necessarily be perceived or inferred by a person to be part of that person's cognitive environment. What is necessary is merely for the circumstances

to be such that the fact in question is within a range accessible to the perception or inferential capacity of the person about whom the observer and analyst holds certain common-sense assumptions. The claim that a certain cognitive environment is manifest[12] to somebody thus is much weaker than the claim that that individual holds a certain belief about her environment. If Harvey, for instance, enters Jean's room to meet her, he might not immediately be aware of the arm chair in the corner. Nevertheless and unnoticed by him, the arm chair belongs to his manifest cognitive environment. Only on that ground can Jean invite him in successfully by looking in the appropriate direction and saying: "Why don't you sit down in that arm chair over there?" The moment Jean directs Harvey's attention to the furniture, he has no problem doing the right thing, namely, sitting down.

This weak conception allows an observer to justly call a scenario a case of successful communication, in which Harvey sits down in the arm chair although he—unbeknownst to the observer—has not even become aware of what Jean said nor of the direction of her look. Maybe, immediately upon entering, he looked around the room in search of a seat and took the first opportunity that came to his sight. Both he and Jean are happy with what has happened, and Jean even assumes that Harvey has followed her suggestion. While Sperber and Wilson consider themselves to be proponents and developers of a Gricean tradition of pragmatic thinking, Clark and Carlson seem right when they state that, at this point, their opponents clearly deviate from the classical program. For Grice and the proponents of the common knowledge framework, communication succeeds only if the recipient understands correctly what the speaker has *m-intended*. According to Grice's (1957) famous definition, a speaker m-intends to achieve a certain effect in an audience if he intends to achieve that effect in part by virtue of his audience's recognizing that he has that intention. In our case, Harvey sat down in the arm chair which Jean intended him to do. But Harvey did not act because he recognized that Jean wanted him and actually asked him to do just that; his motives were of a totally different and non-interactive kind unrelated to Jean's intentions and invitation.

Sperber and Wilson are well aware of their transcending Gricean pragmatics. Still, they characterize cases like the one just described as successful communication (cf., e.g., 1982b: 128). What appears to be the blurring of a crucial difference from a conceptual point of view makes sense in the perspective of an empirical, that is, necessarily outside observer of interaction. Grice and his followers have made the conceptual distinction between acting on the grounds of having understood the m-intentions of a speaker and acting in accidental accordance with the m-intentions of a speaker. It is easy as well to construct plausible scenarios where that difference becomes clearly visible for the omniscient narrator or observer. In practical

[12] Sperber and Wilson also speak of manifest *beliefs*, a notion difficult to pin down if it is meant to refer to a mental state that exists independently of a subject whose state it is.

interaction, however, neither co-participants nor analysts are omniscient. This in-principle opacity of the interactants' minds—Lewis (1969: 32) evokes Leibniz' image of the windowless monad—prevents the psychologist from determining beyond doubt what motivates the behavior of the observed and to what degree and exactly what m-intentions are involved. Sperber and Wilson close this part of their argument:

> We do not want to deny the existence or importance of m-intentions in communication: however, we feel it is both legitimate and necessary to question whether a pragmatic theory whose sole concern is the recovery of speaker's m-intentions has any chances of success (1982b: 128).

Various conclusions can be drawn from here: cognitive environments are not necessarily mentally represented by the individuals whose environments they are. To the extent that cognitive environments are external to their subjects, they are accessible to their co-interactants and the analyst. What aspects of the cognitive environment are actually perceived or inferred by the interactants remains a matter of more or less plausible speculation.

This characterization of the cognitive environment of a *single* individual is but the first step in a reconstruction of Sperber's and Wilson's proposal meant to solve the problems that go along with the common knowledge paradigm. In a next step, their view of mutual cognitive environments of *several* persons has to be elucidated. It is hardly possible to summarize what mutuality means in this domain in a more concise form than its authors themselves do it:

> The same facts and assumptions may be manifest in the cognitive environments of several people. In that case, these cognitive environments intersect, and their intersection is a cognitive environment that the people in question share. One thing that can be manifest in a shared cognitive environment is a characterization of those who have access to it. [...] Any shared cognitive environment in which it is manifest which people share it is what we call a mutual cognitive environment (1987: 699).

Again, from an observer's standpoint, the mutuality of a cognitive environment can be accessed without making complex and tentative assumptions about complex inferential processes on the part of the interactants. Mutual cognitive environments are sets of facts, one of which is the fact that the whole set is available to all interactants. What is needed, of course, are assumptions including those that the interactants are sighted, rational, etc. members of the same cultural community.

Returning to the issue of mutually manifest environments, it can be followed that an environment that is manifest to an individual is not necessarily mentally represented by her. As the ipside of that fact, manifest cognitive environments, by virtue of being defined in terms of facts external to the persons whose environments they are, are accessible to interlocutors and outside observers without requiring cognitively costly, much less infinite, inferential processes.

Manifestness, like strength in Lewis's conception of reason to believe that ___, is a matter of degree. Interactants can make a fact more manifest to their interlocutors, e.g., by explicitly verbalizing that fact. The manifestness of some belief that involves the presence of an arm chair in Jean's room is increased when Jean points to the arm chair while inviting Harvey to sit down.

At this point, Sperber and Wilson define mutual cognitive environments independently of the mental states and processes of the interactants that act in those environments. From the standpoint of common knowledge theorists, one will certainly grant that mutual cognitive environments are a necessary prerequisite for interaction even in the weak sense that does not limit correct understanding to an understanding of m-intentions. If, however, one's goal is to explain how hearers arrive at an interpretation of their interlocutors' utterances, and given that mutual cognitive environments are infinitely rich with mutually manifest facts and assumptions, many of which are quite trivial, Sperber and Wilson are right to ask:"Which of these assumptions will the individual actually make?" (1987: 699). And one has also to agree with them when they emphasize that the participating interactant and the observing psychologist share an interest in that question (1987: 699). The latter is true because their epistemic positions are quite similar in that the intentions, assumptions, knowledge of other interactants are opaque from there and only the cognitive environments are accessible.

Sperber's and Wilson's answer to their own question after an individual's actual background assumptions is the theory of relevance (1995 (1986)). In a nutshell, this theory predicts that an individual, in her interpretational efforts, will search her cognitive environment for those assumptions and facts that are most relevant, where relevance is defined in terms of a maximum of contextual effects and a minimum of processing costs (1987: 703). Common knowledge, in this view, is not a prerequisite to understanding but a potential result. The authors try to demonstrate this point by reference to examples in which one participant enters the interaction holding false beliefs about his partner and only gradually learns better in the course of the conversation (1982: 69-70).

From a methodological point of view, it should be noticed that there is no in-principle problem for the analyst in determining what is and what is not part of the mutual cognitive environments of interactants in a given situation. This is because mutual cognitive environments are defined in terms of external observable facts rather than psychological states or activities that are inaccessible to the analyst of interactions and certainly of natural interactions occurring in their natural environments.[13]

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[13] A problem arises, though, from the fact that the analyst has to rely mainly on common sense rather than a strict scientific method in his decisions about what is part of two interactants' mutual cognitive environments.

In contrast to that, Sperber's and Wilson's account of interaction emphasizes that individuals' beliefs, assumptions, etc. about their cognitive environments are not accessible to direct psychological analysis. Like the co-participant whose interpretations of her partners' utterances depend on more or less well grounded beliefs about these partners, the analyst's judgments about the interpretations of observed interactants rest on observable facts and common-sense assumptions about the interactants, their beliefs, inferential standards, etc. To the extent that these latter assumptions are impossible to verify, the analyses remain insecure.

2.2.4 Are mutual cognitive environments mutually shared?

All proponents in the debate on shared background seem to agree that some kind of common ground is a necessary prerequisite for cooperative interaction. We have seen in section 1.2.3 that the assumption that this ground is provided in the form of common knowledge implies the prediction of inferential processes on the part of interactants. One may acknowledge that, in principle, a weak form of shared background can be established without running into an infinite progression of higher-level assumptions. Still, the process of establishing a belief that common knowledge holds to a sufficient degree would be cognitively costly because the assumptions that have to be assumed to be shared mutually are numerous and related to each other in complex ways. This problem, as I have argued above, emerges from two properties that characterize shared background: its self-referentiality and its being distributed across several monadic participants whose minds are opaque to each other.

Sperber and Wilson attempt to retain the insights argued for thus far while avoiding the difficulties involved in the common knowledge hypothesis by locating the establishment of mutuality or sharedness in the realm of external facts. This seems a promising strategy at first sight. The touch-stone of its tenability is the question of whether mutuality can be a property of external cognitive environments and, therefore, directly perceived or inferred by the interactants on the basis of external facts that can be directly observed.

It is Raymond Gibbs (1987a,b) whose defense of the mutual knowledge hypothesis and critique of the concept of mutual cognitive environments hinges on that very question:

> My main contention, then, is that Sperber and Wilson are 'sneaking' mutual knowledge in the backdoor of their theory of conversational inference by appealing to the idea of mutual cognitive environments which can be manifest but not known. At a psychological level, it appears that Sperber and Wilson have adopted a framework for describing verbal communication which crucially depends on the very concept that they wish to abandon (1987a: 569).
>
> After all, if there is a problem establishing some knowledge or beliefs as being mutually known, then there are likely to be similar problems in recognizing that some cognitive environments are mutually manifest (1987b: 718; author's emphases).

Sperber and Wilson maintain that mutuality at some level is necessary for communication. In their view, mutuality of facts and external, impersonal beliefs—a concept hard to make sense of—is a property of the participants' interactional environment. But even if that was granted that property would present itself as a quite complex one. According to Sperber and Wilson a shared cognitive environment is a mutual one if it is manifest to each one of the alleged share holders. One may ask now what conditions must hold such that it is manifest to several individuals that they share a cognitive environment. For the latter to be the case, it must be manifest to everyone that certain facts and beliefs about necessary background information, inductive standards, standards of rationality, etc., etc., are "perceivable or inferable" (Sperber/Wilson 1987a: 699) for all interactants.

At this point, Gibbs' claim seems to be verified that mental states and processes are "sneaked into" the definition of *mutual cognitive environment*. Furthermore, the recognition of what, according to Sperber and Wilson, is an external property of the interactive environment would be as complex and cognitively costly as the establishment of common knowledge. They are certainly not of the opinion that it is sufficient for communication to come about that an individual is, physically, in the midst of a certain cognitive environment. Rather, he must at least be assumed to hold beliefs about that environment and to base his interpretations of his interlocutor's activities upon those beliefs that may be quite complex if they concern the mutuality of the environment.

Gibbs, thus, is right when he suggests that the substitution of *mutual cognitive environments* for *common knowledge* is part of a psychological theory that is no more parsimonious than mutual knowledge approaches and predicts mental processes that are as cognitively costly as those based on the common knowledge hypothesis. Beyond pointing out the amount of cognitive effort predicted by a full-edged theory in the manner of Sperber's and Wilson's, Gibbs emphasizes that the common knowledge approach, if qualified in a particular regard, fares better in that regard than acknowledged by its critics. All that is necessary to assume is that common knowledge is not a kind of mental representation that the ones holding it are conscious of but is "tacit" and often difficult to make explicit.

While this suggestion gives rise to a number of new questions—e.g., about how tacit and conscious knowledge interact—, Sperber's and Wilson's response to this clarification of Gibbs' shows what the true point of dissent is:

> As we discuss and illustrate our theory (p.40) [of Sperber/Wilson 1995; T.W.] we point out that humans can be said to believe tacitly or virtually, what they are capable of inferring demonstratively from their mentally represented beliefs. The problem with mutual knowledge is not just that humans are incapable of having an infinity of beliefs explicitly represented in their mind. It is also that the infinitely many beliefs which together make up mutual knowledge are not demonstratively inferable from a finite set of premises. Hence they cannot even be held as tacit or virtual beliefs (Sperber /Wilson 1987b; authors' emphasis).

Sperber and Wilson acknowledge the possibility that certain beliefs may be tacit, meaning that they are accessible to but not actually accessed by an individual. What they charge their opponents with is the supposition that mutual knowledge must be of infinite depth. After everything discussed in the previous sections, this clearly is a misreading.

One may ask thus to what degree the controversy rests on misunderstanding and to what degree on actual dissent concerning psychological theory. It seems that both parties assume that certain assumptions must be shared in some form or other. Mutuality of beliefs is taken to be necessary for communication by Sperber and Wilson as well as Clark and Gibbs. While the latter assume common knowledge to be the result of a complex but finite inferential process, the former propose the recognition of mutuality to be achieved by direct perception or inference of an external property of the interactional environment, a property, however, that in itself has turned out to be as complex as the inferential process that Gibbs and others assume to take place. Parallels are also to be noticed with regard to the insecure status attributed to common knowledge and to assumptions about the mutual cognitive environment respectively. Hence, it is certainly compatible with the mutual knowledge account of interaction when Sperber and Wilson find:

> [... W]e don't need to be sure that a remark is, say, in English, but only to have sufficient ground for assuming that it is. The fact that it could be an utterance in English is, in almost every case, sufficient reason for thinking that it is one. It is not just that we do not need to be sure: in fact, we could not be sure, since mutual knowledge itself cannot be established with absolute certainty (Sperber/Wilson 1982: 69).

Here lies a noticeable difference in emphasis, rather than theory, between the two parties. Sperber and Wilson, at various occasions, emphatically point out that interaction is a necessarily risky enterprise and take that to be evidence against the common knowledge hypothesis; but that insight is only implicit and by no means contradictory to the reasoning within the common knowledge framework.

This is certainly a significant dissent. I have argued that the fundamental hypotheses proposed by authors like Clark, Carlson, and Gibbs on the one hand and the followers of Sperber and Wilson on the other hand converge on a concept of common knowledge—the term is to be understood in its epistemically weak sense—that allows us a number of characterizations:

- Common knowledge or, as I prefer to call it, shared background is a necessary prerequisite to interaction.
- It requires tacit or conscious mutual higher-level assumptions about the assumptions of others.
- Shared background can, in principle, be achieved by means of a complex but finite inferential schema.

- Assumptions, whether tacit or conscious, about the background shared in a particular situation are more or less insecure.
- To the extent that mutual understanding rests on the adequacy of the interactants' assumptions about the shared background, interaction is a risky enterprise that has along with it the possibility of misinterpretations.

2.2.5 Empirical studies on common knowledge

When we reconsider the arguments put forward in favor of and against the various approaches to interaction from a cognitive psychology perspective we find that the debate has been mainly led on the level of theory and conceptual explication. Experimental evidence is referred to only occasionally; most of the time, the basis of the discussion is provided in the form of thought experiments, of fabricated scenarios designed to develop and clarify, ex post, certain theoretical lines of argumentation. This kind of research strategy is that pursued by the philosopher Lewis, and the boundaries of his realm of reasoning are transcended by the psychological debate mainly where accounts of logical implicative chains give rise to hypotheses about psychological inference schemata and a concept of cognitive efficiency is invoked. At the beginning of the preceding discussion I cited Sperber's and Wilson's announcement that their inquiry will ask "not whether these analyses are philosophically adequate, but whether they have any psychological correlates" (1982: 63). As far as the debate has been followed here, it seems to have yielded mainly a reconstruction and hypostatization of the philosopher's concept. Turned positively, one may say that Lewis's notion of common knowledge carries a number of implications that are relevant for an empirical theory of interaction, too.

When the focus remains on the empirical implications of the theories under scrutiny, what deserves additional attention are Sperber's and Wilson's more or less anecdotal observations and intuitions that in spite of their unsystematic character suggest some insights into the consequences that follow from the indeterminacy of common ground in interaction. At one point, the authors criticize the enormous complexity of their opponents' examples and conclude:

> In real life, if any such unnaturally complex situation arose, either the hearer would ask for clarification, or as likely as not misunderstanding would occur (1982: 68).

And later on they add:

> Moreover, if the speaker has been significantly wrong in his assumptions, what is likely to happen is not that the hearer will understand something other than the intended propositions: it is rather that the hearer will fail to arrive at a plausible interpretation at all, and will, if he cares enough, ask for repair (1982: 81).

It is worthwhile noticing that these statements seem much in accordance with common sense and are, at the same time, well founded in the *theory* of shared background discussed thus far. On the one hand, we have seen that interaction is

always threatened by the possibility of misunderstanding and non-understanding; on the other hand we know from experience that only in very rare cases does interaction break down completely. These considerations justify and motivate a research program that asks for means and interactive strategies, for kinds of clarification questions and techniques of repair that allow interactants to overcome perceived and therefore real communicational impasses in an efficient manner. Sperber's and Wilson's remark made in passing also indicates the limits of such an approach: it is sufficient to observe that an individual treats her problem explicitly to conclude that she "cares enough" about that problem. The absence of an explicit problem treatment, however, may re ect, at least, one of two possible causes which are impossible to keep apart from each other on empirical grounds: there may be no problem at all or the interlocutor just does not care about the problem, and "waits and sees" (Garfinkel 1984) how the interaction proceeds. Where none of the interactants treats a problem of common knowledge that she actually perceives neither her interlocutors nor the analyst has a chance to realize that there was one.

While the latter observations concern indeterminacy—an aspect of common knowledge which, thus far, has not been discussed systematically—there are a considerable number of experimental studies that show how speakers and hearers take into account in their contributions and interpretations respectively what they assume to be the knowledge, the intention, etc. of their interlocutors. Sperber's and Wilson's own work (1995) has to be mentioned here as well as Clark and Marshall (1981) and Clark, Schreuder, and Buttrick (1983) studies on the in uence of common knowledge on definite and demonstrative reference. Gibbs' and his collaborators' study (Gibbs/Mueller/Cox 1988) aims at the intuitions of subjects about the degree of common knowledge shared by the protagonists of narratives the subjects were asked to read.

All of those investigations have in common that they prove their subjects to have strong intuitions about what assumptions are shared and have to be shared in some way or other in particular situation. Even Sperber's and Wilson's experiments seem to indicate that shared background is a category that plays an important role in the subjects' understanding of what was going on in the interactions they were asked to assess. It is true that subjects, if asked to give an account of how understanding comes about between interactants in a given situation, resort to assumptions about the background shared by the interactants. This, however, should not be mistaken for reliable evidence that certain items of the background are shared by the interactants indeed. Even psychological experiments with their controlled research environments, their reproducibility, and their optimized observational tools cannot provide direct access to the mental states and processes of those whose backgrounds and shared background are at issue. What, then, can be achieved by way of experiments is the accumulation of evidence making it extremely likely that a certain item of the background is shared by observed interactants. Establishing

this kind of intuition as a positive fact is beyond the reach of the methods available to experimentalists.

2.2.6 Conclusions on shared background in cognitive psychology

Two reasons motivated the consultation of cognitive psychologists in preparation for a linguistic study of shared background in conversation: first, it was assumed that psychologists would approach the theme from a different theoretical angle than philosophers like Lewis and, second, I was looking for empirical tools that allow an analyst to support hypotheses about the background shared by interactants in a particular situation independently of intuition and common sense.

With regard to the latter point, it was found that various experiments designed to investigate shared background can be interpreted as providing evidence that makes it appear very unlikely that a certain item is not shared by the interactants under observation. To state that an assumption very likely is held by others, however, amounts to an appeal to the reader's common sense assumptions about normal interactions. None of the experiments seems to draw on evidence that would establish the existence of a specifiable body of shared background as a positive fact. While positive evidence appears to not be available, Sperber and Wilson hint to the possibility of negative evidence that might provide systematic access to the realm of shared background: once an interactant's presumption that he shares all the necessary background with his interlocutors is no longer tenable, he might—under certain conditions—take measures to reestablish common ground, measures that an outside analyst then would be able to observe.

It is not empirical observations and the conclusions to be drawn from them but conceptual differences that are the focus of the debate among cognitive psychologists on shared background. It has become apparent in the previous sections that the arguments put forward by various authors concern mainly the same issues that proved central in the reconstruction of David Lewis's account of common knowledge. These issues may be represented by the keywords *nestedness*, *finiteness*, *implicitness*, and *indeterminacy*.

Nestedness: In contrast to what is proposed by Sperber and Wilson, mutual understanding seems to require of the participants higher-level assumptions about each other. While this certainly goes along with the prediction of considerable cognitive effort such effort must also arise in an approach that assumes that mutuality takes place in the realm of external cognitive environments rather than individual minds or brains.

Finiteness: Shared background involves higher-level assumptions of a finite depth only.

Implicitness: Most of the higher-level assumptions involved in shared background are implicit for the interactants. That is, interactants are not aware of those assumptions in most circumstances but they can re ect on them if necessary.

Indeterminacy: Shared background is nothing but several individuals' assumptions about the background they share. Discourse participants may have very good reasons to believe that a certain item is part of the backgrounds of all those involved in the discourse; experimentalists may accumulate evidence not available to normal interactants to support their hypotheses about the background shared among the subjects under observation. But most of the psychologists cited above seem to agree that it is not possible to establish with certainty that a particular item belongs to the shared background in a group of interactants.

Indeterminacy, even though not at the center of the considerations of Lewis, Sperber and Wilson, Clark and other, has proven a central aspect of shared background. As will become apparent in the following sections, Donald Davidson and Willard Van Orman Quine not only contribute to the study of shared background in an elucidating manner but also have focused more than others on the effects of indeterminacy for interpretation and interaction.

2.3 Shared background and the indeterminacy of interpretation

Thus far, it has been argued that, in a theory of social interaction that is both conceptually sound and psychologically plausible, shared background must be considered a necessary prerequisite to interaction. As a consequence, the concept of interaction turned out to be linked with that of potential misunderstanding and failure. The authors whose proposals were discussed previously treat their own insight that interaction is a "risky enterprise" as being of only marginal relevance to their theories. I will nevertheless return to this issue later when I discuss the empirical implications of indeterminacy for the analysis of actual interaction. As for empirical matters, it may simply suffice at this point to allude to Sperber's and Wilson's general remark that the irreducible possibility of misunderstanding does not cause much harm to interaction because, if interactants become aware of misunderstandings, they have discursive means at their disposal to "repair" the damage.

Before dealing with indeterminacy on the basis of empirical data, I would like to approach the issue from yet another theoretical angle. Various reasons make the reconstruction of Donald Davidson's theory of interpretation a worthwhile enterprise in the context of the present investigation. I hope to demonstrate that my characterization of shared background up to this point can be supported also from within another conceptual paradigm that approaches the issue of verbal interaction and interpretation against the background of theoretical traditions different from those scrutinized so far. It seems remarkable that the notion of indeterminacy

and its implications for a theory of interaction emerge in a line of thinking whose venture points, research questions, and methods are those of logical semantics in the tradition of Frege, the early Wittgenstein, Tarski, and Carnap—that is, authors who by adopting a "therapeutic" perspective on language hoped to control indeterminacy within the realm of semantics.

Second, it is obvious that Davidson, like Quine—who much inspired his work—is not an interactional skeptic. We will see that Davidson takes seriously the potential problem for a theory of interpretation that follows from the emergence of the concept of indeterminacy at the very heart of that theory. His strategy in showing that the problem does not really threaten his proposal is to show that the very premises that force him to characterize interpretation as indeterminate entail that this indeterminacy cannot be absolute but is limited by narrow constraints.

From the point of view of pragmatic theory, objections of various kinds can and have been raised against the premises of truth functional approaches to meaning.[14] I will not follow through the arguments and counter-arguments that could be put forward to resolve the dispute between the two paradigms at this point. Rather than pursuing the unrealistic goal of reconciling two approaches whose proponents have argued against or mutually ignored each other for decades, my intent is to demonstrate that they, in spite of proceeding from two partially different sets of premises, lead to very similar conclusions with respect to questions of interpretation theory that are at issue here.

In a series of articles collected in the volume on *Inquiries into Truth and Interpretation* (1984), Donald Davidson develops a theory of interpretation as an extensional semantic theory and investigates the relation between the concepts of truth, meaning, beliefs, and state of affairs. What he suggests is a modified Tarskian theory of semantics (cf. Tarski's classical 1956 paper) that defines interpretation in terms of truth while altogether eliminating the concept of meaning as an independent entity. On first sight, it may appear that this truth functional view of semantics does not have much in common with Gricean theories of pragmatics as, for instance,

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[14] An eminent example is the objection by speech act theorists that truth conditions are but one particular form of felicity conditions for a particular type of speech acts, namely representatives (cf. Searle 1976). According to this doctrine, the semantics of, say, declaratives or commissives cannot be accounted for in terms of truth conditions (cf. Levinson 1983: 246-51 for a summary of this position). Davidson, like others who are aware of this problem, claim the priority of truth in semantic theory along the lines of the following quote:"There is no reason to rule out other attitudes towards sentences, such as wishing true, wanting to make true, believing one is going to make true, and so on, but I am inclined to think that all evidence of this kind may be summed up in terms of holding sentences to be true" (Davidson 1984 a: 135).

proposed by Sperber and Wilson.[15] If, however, one takes seriously Davidson's own formulation of what he is aiming at, his goal is to elucidate "what would serve to make interpretation possible" (Davidson 1984a: 127). By pursuing this, he takes seriously the interactant in natural interaction and thus goes beyond the realm of context-free semantics. In order to reconstruct the manner in which the concept of indeterminacy emerges from Davidsonian reasoning, it is necessary to sketch the questions that motivate this program and what standards of adequacy Davidson adopts.

2.3.1 Background assumptions at the basis of Davidson's truth functionalism

Like Lewis, Clark, and others, Davidson asks the fundamental question of what makes interpretation possible. The focus on interpretation is remarkable because framing a truth functional theory of semantics as a theory of interpretation directs attention not only to words and sentences whose meanings are to be defined in terms of truth conditions independently of their use, but also to speakers, recipients, and the relation between the interactants. At the outset, I should quote Davidson himself to illustrate that his reasoning can indeed be understood as making a relevant contribution to the present issue. Connecting back to Quine's (1960) theory of radical translation and putting forward a more general claim, Davidson writes in his introduction to *Radical Interpretation*:

> The problem of interpretation is domestic as well as foreign: it surfaces for speakers of the same language in the form of the question, how can it be determined that the language is the same? Speakers of the same language can go on the assumption that for them the same expressions are to be interpreted in the same way, but this does not indicate what justifies the assumption (Davidson 1984a: 125).

Two ideas stand out here: Davidson implies that a shared language is a prerequisite to verbal interaction. Establishing that two people do speak the same language, however, is not a trivial matter of fact but a "problem" that has to be solved anew for every novel interaction and at every stage of an interaction. Furthermore, this "problem" is normally not one that is treated overtly and explicitly but lies below the "surface" of interaction, i.e., is part of the necessary and necessarily shared background taken for granted as such by the partners.

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[15] Davidson's anti-inten*t*ionalism becomes especially apparent in the introduction to his *Reply to Foster* (1984d) where he, before responding to Foster's objections, defines the ground that he shares with his critic:"I especially applaud Foster for what he passes over: just as Lear gains power through the absence of Cordelia, I think treatments of language prosper when they avoid uncritical evocation of the concepts of convention, linguistic rule, linguistic practice, or language games" (1984d: 170).

As we will see later, Davidson, far from being a semantic relativist, nevertheless holds that of two "speakers of the same language," say Spanish, it is not necessarily true that for them "the same expressions are to be interpreted in the same way". Whether or not that is the case cannot be answered in advance of discourse or on absolute reliable grounds. In the light of these familiar considerations, Davidson lays the foundation of his semantic theory in the form of the claim that

> [a]ll understanding of the speech of another involves radical interpretation (1984a: 125).

Radical interpretation means interpretation that starts from zero, i.e., is totally ignorant of the specifics concerning the language in focus and the beliefs of the other whose utterances are to be interpreted. The radical interpreter has to acquire the knowledge that she needs in a process of interaction with her interlocutor and/or observation of his behavior. The radical interpreter, however, is a Cartesian construct that, in theoretical reasoning about language, exposes to doubt every bit of knowledge until it is confirmed empirically or on the grounds of transcendental reasoning, or is implied by what has been thus confirmed. Radicalism is a methodological attitude adopted by an interpreter to avoid superimposing the categories of his own thinking on the objects of investigation. It seems quite obvious that even Quine's fictitious (and quite unrealistic) field worker is neither a radical translator nor an interpreter in the ideal sense of the term. He knows, i.e., relies upon as true, that the members of the speech community he observes use oral utterances intentionally, that those people, if rational, use similar utterances to achieve similar goals under similar circumstances, etc.

Speakers do not share the Cartesian attitude under normal circumstances. When Davidson, nevertheless, maintains that all interpretation *involves* (not *is*) radical interpretation he means that interpretation is only possible against the background of assumptions, which cannot be proven true in advance of the utterance to be interpreted. Everyday conversants and philosophers of language differ in that the former are not aware of and, therefore, do not care about the risk of misunderstanding, while the philosopher contemplates it to some extent when he philosophizes about the problem of interpretation. This sounds familiar, and, indeed, Davidson's claim about radical interpretation rests on prerequisites that are much like Lewis's necessary "ancillary premises," which he assumes in explaining the coming about of common knowledge and which, at the same time, are responsible for its preliminary and insecure nature.

Now that we have seen the idea of a background of shared assumptions—e.g. about the language used by the interactants—emerge at the heart of Davidson's semantic theory, this framework may be outlined in its rough structure. In doing this, I will pay special attention to the way in which Davidson proceeds from his claim about the irreducibly radical character of interpretation to his doctrine concerning the

indeterminacy of interpretation and his attempt to explain, within a truth-functional semantics, why that indeterminacy does not lead to semantic relativism. Sperber and Wilson (and others before and after them) have marginalized the truism that interpretations in natural situations are always insecure to some extent and that hearers, most of the time, do not bother much to gather additional evidence. On an intuitive basis, they suggest that discourse participants, in case they notice some misunderstanding, have repair mechanisms at their disposal to handle that problem interactively. I will later (cf. chapter 4) go into empirical detail to show exactly what these mechanisms are in German conversation. Davidson, on the other hand, provides a systematic theoretical argument suggesting that the effects of the indeterminacy of interpretation should be expected to cause interactional trouble only within narrow limits.

2.3.2 Davidson on radical interpretation

What could we know that would enable us to interpret the words of another? How could we come to have knowledge that would serve to yield interpretations? (Davidson 1984a: 125) These are fair, if fairly general, formulations of problems that all pragmatic theorizing has to answer to. And at the same time, they are the questions that Donald Davidson undertakes to answer by proposing a theory of interpretation. From the very starting point of the argument, it is apparent that Davidson's intention is not to develop a theory of context-free meaning. By asking for the preconditions of interpretation, he pulls into the focus of attention the interpreter, the setting within which interpretation takes place, and, thereby, the issues traditionally associated with the concept of deixis.

Before Davidson proceeds to lay out his own theory, he turns to alternative approaches including Quine's analysis of radical translation and intentionalist pragmatics. These reviews are worth a few summarizing remarks because they define the intellectual environment of Davidson's reasoning, which considers itself a part of a long standing philosophical tradition. Also, Davidson's ideas become more clearly visible in their originality when considers in what respects they diverge from other accounts of meaning. The argument against Gricean approaches to interpretation, in a nutshell, goes as follows: a theory of interpretation has to assume as its point of departure an interpreter for whom the utterances of his interlocutor are uninterpreted, that is, an interpreter who has to do some non-trivial cognitive work to arrive at interpretations. Otherwise, the theory would be unnecessary or circular. That is to say that the task of the interpreter involves radical interpretation, and, therefore, she has, in forming her meaning hypotheses, to rely on evidence that is non-linguistic. Because "interpretable speeches are nothing but (that is, identical with) actions performed with assorted non-linguistic intentions [...]" (Davidson 1984a: 126), the evidence apt to support meaning-hypotheses has to come from the observation of such actions by speakers. According to Davidson, the attempt

to analyze meaning in terms of intentions in the process of radical interpretation is doomed to fail, because

> [...] we cannot hope to attach a sense to the attribution of finely discriminated intentions independently of interpreting speech. The reason is [...] that interpreting an agent's intentions, his beliefs and his words are parts of a single project, no part of which can be assumed to be complete before the rest is (1984a: 127).

If it is granted that belief/intentions and meaning are two sides of the same coin, neither of which can be elucidated without knowledge of the other, it follows that the radical interpreter is as ignorant of the speaker's intentions as he is of the meaning of the speaker's utterances. Hence, it means no theoretical progress to define the latter in terms of the former.

In the second chapter of *Word and Object*, Quine (1960) introduces his theory of radical translation. According to that account, an adequate theory "would consist in the statement of an effective method for going from an arbitrary sentence of the alien tongue to a sentence of a familiar language [...]" (1984a: 129). While Davidson's idea of radical interpretation explicitly invokes that of radical translation, the crux of the latter is that "a theory of translation involves three languages: the object language, the subject language, and the metalanguage" (1984a: 129.). What renders this account insufficient as a theory of interpretation is that it leaves unspecified whether or not the translator who proceeds from a sentence of one language to a sentence of another understands either one of the sentences.

Quine does not discuss what it means for an individual to understand an utterance of a subject language.[16] He takes it as a given that the translator is a competent speaker of the metalanguage. This assumption seems justified by common sense and sufficient for a theory of interpretation especially in the case assumed by Quine in which the metalanguage is the native language of the translator and identical with the language into which the object sentences are to be translated. The point of Davidson's argument, however, is not to put into doubt that a translator is capable of interpreting utterances of his native language but to shed light upon what exactly a translator knows, what evidence he makes use of, that enables him to do the interpretation. This question is not addressed by Quine.

In his review of alternative proposals, Davidson expresses clearly what he demands of a theory of interpretation: it should spell out what evidence hearers

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[16] A modified version of Searle's (1980) Chinese room thought experiment would demonstrate that a monolingual translator is not an inconsistent concept. To adapt Searle's original scenario to the present purposes, Searle's "answerer" who is ignorant of both the language in which the questions are asked and the language he uses for his responses would have to be replaced by a "translator" who is ignorant of both the source and the target languges. Provided the translator has at his disposal an appropriate manual written in his native tongue, he may still yield correct translations.

may draw on that enables them to interpret the utterances of others. To avoid circularity in the explanation, it is critical for Davidson to exclude all kinds of evidence from consideration that involve the interpretation of linguistic behavior. Linguistic behavior is exactly what is to be explained. Davidson charges theories of intentionality of failing to cope with this requirement.

After having characterized a potential theory of interpretation in a negative manner, Davidson goes on to formulate his own proposal in the form a theory of truth in the tradition of Alfred Tarski. The central idea underlying such an approach is surprisingly simple:

What characterizes a theory of truth in Tarski's style is that it entails, for every sentence s of the object language, a sentence of the form: s is true (in the object language) if and only if p (1984a: 130).

To quote Tarski himself in defining *Convention T*:

> In other words, the following equivalence holds: (T) *X is true if, and only if, p*. We shall call any such equivalence (with *'p'* replaced by any sentence of the language to which the word *"true"* refers, and *'X'* replaced by a name of this sentence) an "*equivalence of the form (T)*."
>
> [...W]e wish to use the term *"true"* in such a way that all equivalences of the form (T) can be asserted, and *we shall call a definition of truth "adequate" if all these equivalences follow from it* (Tarski 1944: 344; author's emphases, T.W.).

Davidson puts particular emphasis on some of the salient features of Tarski's solution to the problem of meaning: convention T is designed to define *The Concept of Truth in Formalized Languages* (cf. the title of Tarski 1956) for which neither deixis nor vagueness or ambiguity are urgent issues. While this does not adequately describe natural languages, Davidson suggests that deixis can be easily accommodated by defining "truth for a language relative to a time and a speaker" (1984a: 131). Accordingly, T-sentences for natural languages have to be formulated along the lines of the following example:

> 'Es regnet,' if uttered by x at t, is true if and only if it is raining near x at t.

In this view, an interpreter may be said to have understood another's utterance if he, for every sentence uttered by the other, is able to identify the state of affairs that makes that sentence true. What is not necessary for interpretation is the ability to form any kind of T-sentence. T-sentences belong in the realm of the theory that explains what interpretation is.

The transfer of convention T to natural languages, however, brings with it another problem. Tarski defines truth for artificial languages in terms of translation:

> In Tarski's work, T-sentences are taken to be true because the right branch of the biconditional is assumed to be a translation of the sentence truth conditions for which they are being given (Davidson 1984a: 135).

That, of course, is not applicable to the scenario adopted by Davidson. The situation of the radical interpreter is characterized by his radical ignorance of the object language and the object sentences thus are uninterpreted for him. By the same token, he is not in the position to know whether the right branch of the biconditional translates the object sentence, an assumption that is admissible in the realm of ideal artificial languages.

The solution Davidson offers for this problem is to reverse the roles of explicans and explicandum in Tarski's theory, that is, to define translation and interpretation in terms of truth instead of proceeding in the opposite direction. In doing so, it is presupposed that truth is a concept sufficiently understood to serve as the basis of semantic theory. If that is granted—and arguments that point in that direction are pondered in the following—"the theory is tested by evidence that T-sentences are simply true; we have given up the idea that we must also tell whether what replaces '*p*' translates *s*" (1984a: 134). We will see later that the question of whether '*p*' translates *s* does not completely vanish as an issue but that the answer to it "falls out" of the theory as one of its secondary consequences.

While this looks like an amazingly simple account of interpretation, there are obvious objections and questions. First, one has to ask how T-sentences can be verified if the sentences in the object language are uninterpreted, i.e., not understood. It seems impossible for an interpreter to decide whether or not an object sentence *s* he does not understand is true;[17] much less can he know whether this sentence is true *if and only if* a certain state of affairs *p* holds. Second, even if it could be established that a certain uninterpreted object sentence *s* is true, there would follow an infinite number of adequate T-sentences with '*s*' in their left branches. This is because a radical interpreter who does not understand more of an object sentence than that it is true and who abides by the laws of logic will have to consider every T-sentence adequate whose right branch is true. This includes all T-sentences whose right clauses are tautologies or contingent empirical truths in the interpreter's view like, for instance, "It is raining or it is not raining" or "Today is Monday" (if the interpreter assumes it to be Monday at *t*).

In answer to the first question, Davidson regards it as possible even for a radical interpreter to decide whether or not a person *holds* a sentence true. That is because holding true, in spite of being a kind of belief, is an attitude that, unlike the complex and differentiated beliefs figuring in intentionalist approaches, can be identified by an interpreter independently of further interpretation: the individual "may know that a person intends to express a truth in uttering a sentence without having any idea *what* truth" (1984: 135; author's emphasis). If that is granted, it still remains

[17] An even more fundamental problem for the interpreter is to identify sentences in the first place, i.e., to segmentize the utterances of the interpretees into sentences.

unclear what justifies the transition from the recognition of a person's *holding s* true to the insight that *s* actually *is* true or rather appears true to the interpreter.

The key to this problem is what is commonly referred to as *the principle of charity* (cf. Quine 1974: 328):

> What makes interpretation possible, then, is the fact that we can dismiss a priori the chance of massive error. A theory of interpretation cannot be correct that makes a man assent to very many false sentences: it must generally be the case that a sentence is true when a speaker holds it to be. [...] But of course, the speaker may be wrong; and so may the interpreter. So in the end what must be counted in favour of a method of interpretation is that it puts the interpreter in general agreement with the speaker [...] (1984c: 169)
>
> Charity is forced on us; whether we like it or not, if we want to understand others, we must count them right in most matters (1984d: 153).

This, again, resembles Lewis's "ancillary premises" concerning inductive standards and rationality. If someone does not take for granted that she lives in a world that is similar in most respects to the one as perceived by her interlocutors and that she shares with them a set of inductive standards, interaction simply will not make much sense to that person, provided she herself is rational. Hence, in radical interpretation, the transition from observing someone holding true *s* to concluding that *s* is true is *generally* justified.

That last qualification gives rise to the next step in Davidson's reasoning. Even if people are right in what they hold true in the overwhelming number of cases, common sense suggests that no guarantee can be given that they are not mistaken in the particular case that is at issue in a particular interactive situation. Human beings are susceptible to error even if they are right most of the time. Applied to Davidson's example, the German native speaker of "Es regnet" may be mistaken about the weather near him at the time of the utterance. Hence, the radical interpreter may observe him uttering that sentence while the sun is shining brightly and thus be inclined to agree that a T-sentence like (A) "'Es regnet' is true if uttered by *x* at *t* if and only if the sun is shining near *x* at *t*". Furthermore, the interpreter herself may be mistaken with regard to the state of affairs that is at issue, e.g., she may assume it to be raining near *x* at *t* while it is actually not. Her interpretation thus could be adequately captured by the inadequate T-sentence (A) that she would be willing to consent to on the basis of her perceiving the speaker holding true the German sentence "Es regnet" that itself is indeed true to the facts.

Davidson suggests accommodating this problem by a holistic theory of interpretation. From a holistic point of view, the adequacy of one T-sentence depends on the adequacy of all others entailed by the theory for a particular language. It is thus impossible to verify (or falsify) individual T-sentences in isolation. Ideally, the theorist has to check all the T-sentences of her theory; "in practice," Davidson remarks in parentheses, "an adequate sample will confirm the theory to a reasonable degree" (1984a: 133).

Why, then, is the verification of "an adequate sample" of T-sentences not just equivalent to a series of tests each of which is subject to the same difficulty as the one isolated example discussed above? The idea of *compositionality* figures centrally in Davidson's answer to that question.

> We decided [...] not to assume that parts of sentences have meanings except in the ontologically neutral sense of making systematic contribution to the meaning of the sentences in which they occur (1984e: 22; emphasis mine, T.W.).

That amounts to the—from the point of view of linguistics—plausible stance that the interpreter having been exposed to a plethora of utterances in the object language understands these utterances not as monolithic entities but as displaying syntactic structure. It is assumed that the contributions made by syntactic entities of a finite number of types to the meaning of an infinite number of possible utterances are constant. Now it can be explained that occasional factual errors either by a speaker of the object language or by the theorist need not lead the theorist to accept false T-sentences. If the theorist, for instance, ponders T-sentence (A) "'Es regnet' if uttered by *x* at *t* is true if and only if the sun is shining near *x* at *t*" he will, in the process of setting up more and more interrelated T-sentences, notice an incompatibility of (A) with other T-sentences involving the expression "regnet". In that case, the theorist, rather than accepting an inconsistency in his own theory or attributing inconsistency to the language use of the speaker, will dispense with applying the principle of charity that urges him to hold all object sentences true that are held true by the speaker to be interpreted.

The general goals of preserving one's own rationality and of upholding the imputation of rationality to the interlocutors under observation have priority over the attribution of factual correctness to another person with respect to particular utterances. The imputation of rationality to others is justified by the truism that, for a rational individual, an attempt at interpretation appears promising only against the background of the assumption that the one whose utterances are to be interpreted generally is rational; and rationality implies a high degree of consistency. Thus, on the basis of a holistic view of language and a sufficiently large sample of T-sentences for the object language, the theorist is able to sort out T-sentences motivated by utterances that are factually wrong or trivially true.

Let us sum up the premises that lead up to Davidson's holistic view of interpretation:

(1) All interpretation involves radical interpretation.

(2) It is possible for a radical interpreter to determine, on the basis of non-linguistic evidence, whether or not a speaker holds a certain sentence true without being able to interpret that sentence.

(3) The assumption that another person holds a certain sentence true generally justifies the conclusion that the sentence is true.

(4) Syntactic units make invariable contributions to the meaning of those sentences whose constituents they are (compositionality).

(5) The system of T-sentences entailed by an appropriate theory of interpretation for a certain language must be consistent. That means, among other implications, that the T-sentences must be related to each other in such a way that the assumption of compositionality can be upheld. As a "side effect" of this requirement the number of adequate T-sentences for each sentence of the object language is reduced to an extent that the right branches of T-sentences turn out to be translations of the respective object sentences.

The prime reason, thus, for excluding T-sentences like (B) "'Es regnet' if uttered by *x* at *t* is true if and only if the morning star is the evening star" from the set of acceptable T-sentences for German is not the fact that "The morning star is the evening star" fails to be a translation of the German sentence "Es regnet". The prime reason is that, on the same evidential basis, the trivial truth of the right branch of (B), T-sentence (B') "'Es regnet *nicht*' if uttered by *x* at *t* if and only if the morning star is the evening star" would also have to be considered true. Once the theorist, in the course of his trying out his large sample of T-sentences, has identified "nicht" as the German sentence negator, he has to conclude that, for the speaker whose language he investigates, one and the same kind of state of affairs makes true contrary sentences. Rather than imputing irrationality to the speaker, the theorist will be well advised to abandon his interpretation and try to arrive at a more appropriate T-sentence, i.e., a T-sentence that is compatible with the others he has formed for the object language thus far. By reducing inconsistencies in this manner, he will, as a secondary effect, arrive at a set of structurally interrelated T-sentences for which the right branches happen to be translations of the respective object sentences. To conclude his argument, Davidson quotes the classical paragraph from Frege's *Die Grundlagen der Arithmetik* :

> Frege said that only in the context of a sentence does a word have meaning; in the same vein he might have added that only in the context of the language does a sentence (and therefore a word) have meaning (1984e: 22).

At this point, it seems, an extensionalist theory of interpretation has taken shape that neither employs the concepts of meaning nor of intention or belief but directly relates uttered sentences to states of affairs. I do not want to pass over the fact that Davidson's proposal rests on a number of critical, if controversial, assumptions that have to be justified logically prior and independently of the theory built on them. As a crucial one I should mention only the hypothesis that the theoretician's task of designing a theory of interpretation for a given language and the process of the infant's acquiring her native language are identical with respect to all factors relevant to a general theory of interpretation. According to this view, "the central track to learning a language, whether a foreign language as a field linguist or one's

mother tongue as a small child" is "the method of query and assent" (Quine 1974: 325).

In consideration of the controversial status of a number of Davidson's theoretical premises, it should be remembered that the prime motive of my concern for Davidson's anti-pragmatic approach is to clarify the role of indeterminacy in interpretation. In what follows, I would like to demonstrate that, in the perspective of Davidsonian truth functionalism, the prediction of interpretational indeterminacy follows from very similar assumptions to those in the accounts by Lewis, Sperber and Wilson, and others. In conclusion, Davidson's answer to the question of why indeterminacy of interpretation does not mean arbitrariness of interpretation will be relevant for a general theory of interpretation whether truth functional or intentionalist.

2.3.3 Indeterminacy of interpretation and its limits

So far, I have reconstructed the line of argument in the course of which Davidson introduces the concept of interpretation on the basis of a concept of truth. A major goal of this discussion was to show that the holistic character of language makes it conceivable that an interpreter who is radically ignorant of a given language, in a long process, reduces the range of interpretations for the object utterances up to a point where he yields adequate understandings. In the following, I will shift the focus from Davidson's attempt to explain the reduction of vagueness and ambiguity to the theme of *indeterminacy of interpretation*. This keyword stands for the doctrine that, even if a holistic view is adopted, any given utterance gives rise to more than a single interpretation that is compatible both with the empirical facts as perceived by the interpreter and all other elements within a consistent system of interpretations for a particular language.

I will soon turn to Quine's and Davidson's holistic views of language competence and acquisition that lead into the core of their specific doctrine of indeterminacy. First, however, I should summarize some premises introduced in the previous section and point out to what extent they suggest interpretation to be an enterprise always at risk of failure:

- Both Davidson and Quine presuppose that, generally, interactants have to consider themselves rational, i.e., among other things, they believe their systems of beliefs and interpretations to be, at the least, sufficiently consistent for the purpose of interaction.
- According to both Davidson and Quine (and Lewis and all the others), the imputation of rationality to one's interlocutors is a necessary prerequisite for a (rational) individual to engage in interaction.
- Trivially, interpreters have to take for granted that they can trust their own perceptions and reasoning.

- The principle of charity implies that interpreters have to assume by default that their interlocutors are right about the facts by the interpreters' standards. This latter qualification amounts to what Lewis has called ancillary premises concerning inductive standards and background information. Davidson derives from here the requirement that interactants have to strive for a maximum degree of mutual agreement concerning the facts rather than "true" recognition of the reality.

Neither Davidson nor Quine conceive of any of these suppositions and imputations to be conscious mental states or activities on the part of the interpreter. The same applies to the predicates "striving for consistency," "adapting one's system of interpretations," etc. Characterizing these "assumptions" and "activities" as real but implicit, virtual, or taken for granted is appropriate on the grounds that they are characterized by the potential of becoming explicit or actual, e.g. in contexts where they cause problems or turn out to be mistaken. It is obvious that the premises listed above are largely identical with those presupposed by Lewis and the cognitive psychologists whose work was examined previously.

While, on the one hand, these premises necessarily—in the transcendental rather than the normative sense of the word—have to be taken for granted by rational interpreters of their interlocutors' contributions, any one of them may prove not to be met in given interactions. And what is worse, this misconception and the need for reinterpretation may become obvious to the interpreter at any time long after an interaction took place; there is no *structural* "expiration date" beyond which past interpretations lose their repairability. In actual discourse, to be sure, it may seem increasingly unlikely for an interactant to take issue with a previous interpretation of his the further this interpretation lies back in the past (cf. Schegloff 1992). But this does certainly not mean that it is impossible for him to do it any time and I will later (cf. chapter 5.1.1) cite sequences from natural conversation in which a participant self-initiates and completes repair long after the trouble source was produced.

What we find here, thus, is that the interpreter is faced with a tension between two extremes: the necessity of trust (of imputing rationality to herself and to her interlocutors) and the irreducible possibility of error and thus doubt. A concern for this tension, by the way, has been inherent to Western thinking since René Descartes. While, for the philosophical purposes of epistemology and metaphysics, Descartes systematically adopts a stance of (almost) fundamental doubt, he pragmatically emphasizes the importance of trusting "probable opinions" in daily life:

> I shall never get out of the habit of confidently assenting to these opinions, so long as I suppose them to be what in fact they are, namely highly probable opinions—opinions which, despite the fact that they are in a sense doubtful, as has just been shown, it is still much more reasonable to believe than to deny (Descartes 1996: 15, meditatio I, 22).

The theme of indeterminacy in the form to be scrutinized in the following has been introduced into the discourse on interpretation by Willard Van Orman Quine (1960). It lies already in the line of Quine's argument that indeterminacy of translation does not mean arbitrariness of interpretation and that the range of possible translations is kept within narrow limits by a network of relations that structure the translation manual in the manner also assumed by Davidson. Hence, when Quine ponders potential translational variants of his fictitious indigene's utterance "Gavagai," he contrasts "Rabbit" with "Rabbit stage," "Rabbithood," etc. as reasonable alternatives (1960: 52-53), rather than "What time is it?". It was, however, also Quine who pointed out at an early stage of his argument that, in translation, there always exist several mutually exclusive manuals, holistic systems of translation for a given language that nevertheless are adequate in the Tarskian sense (see above):

> There can be no doubt that rival systems of analytical hypotheses can fit the totality of speech behavior to perfection, and still specify mutually incompatible translations of countless sentences insusceptible of independent control (1960: 72).

Davidson applies Quine's reasoning also to interpretation. The holistic character of interpretation renders impossible the existence of two adequate systems that differ from each other only with respect to one sentence while being identical otherwise. A possibility, however, that can be rejected neither by theoretical argument nor by empirical testing is that several interpreters may yield adequate but mutually contradicting interpretations of the same utterance on the grounds of differences in their language use and belief systems as a whole, or large section thereof.[18] As for the empirical implications of this view, these divergences remain inaccessible to *systematic* discovery because it is impossible to predict in what kind of situation they would be re ected by divergences in behavior.

This latter point, with its emphasis on the attribute *systematic,* deserves particular attention since it is directly relevant to an understanding of the indeterminacy hypothesis. According to this hypothesis, any translation or interpretation of a given utterance is indeterminate. This is to say that there are indefinite numbers of appropriate yet mutually exclusive candidates that fit the empirical facts as perceived by an interpreter or translator and are compatible with the translation manual or interpretational system within which they make sense. Hence, a hearer may arrive at an interpretation of an utterance that is incompatible with what the speaker intended. And since both interpretations accommodate the facts as perceived

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[18] This constellation bears resemblances to the difference between a normally sighted and a color blind person prior to the detection of his condition. It seems easily conceivable that there exist particular forms of sightedness (or other kinds of sensual ability) that have not been identified as deviating from the "normal" manner of perceiving colors (or other sensual data) because we know of no procedures or circumstances under which these conditions would make for a difference in behavior.

respectively by the interactants, what would appear to be a misunderstanding from the point of view of an omniscient observer need never become apparent. What is more, there is no procedure conceivable for the interactants to make sure that their respective interpretations coincide to an extent that some divergence will not, in the future and in particular circumstances, lead to actual problems of understanding between them. Indetermin*acy* implies indetermin*ability*.

That does not mean, however, that two individuals who, without immediate interactive consequences, misinterpreted one another in one situation cannot become aware of their different understandings of a past utterance when confronted with novel facts. It is easy to imagine, for instance, that Quine's field linguist, whose translation of "Gavagai" by "rabbit" was compatible with the circumstances of the utterance, as was the speaker's intended interpretation "Rabbithood," dismisses his original translation as soon as he tries to elicit a plural form of "Gavagai." The counterpart to indeterminability as a property of translation and interpretation thus is correctibility. It is a fact about interpretations in general that an interpreter, in the light of some fact as perceived by her any time after the utterance at issue, may feel urged to give up or modify her interpretation.

Quine (1960: chapter 2) has made the rather abstract idea of indeterminacy more palpable in the form of a scenario in which a linguist goes on a field trip to compile a translation manual for an unknown jungle language, without the help of an interpreter or the even faintest knowledge of the language. During the initial stages of his research this radical translator, has a large number of options in translating an utterance of, for instance, the sentence "Gavagai" that one of the native speakers of the object language utters in a particular situation. The linguist will have to take into consideration any translation that is compatible with his previous translations of other utterances in the object language and does not force him to assume that the speaker is grossly mistaken about the empirical facts as perceived of by the translator (1960: 72).

By this account, Quine ascribes to a radical translator the ability of gradually arriving at an adequate translation manual to the effect that every sentence of an object language is matched by one or—in the case of ambiguity—a few counterparts in a subject language. The main methodological equipment Quine grants to his fictitious linguist is the procedure of query, on the part of the researcher, and assent or dissent, on the part of the native speaker of the object language (1960: 28-30). Presupposing a similar model of acquisition but arguing from an extensionalist perspective, Davidson requires of a theory of interpretation to specify, for each sentence of a language, a non-linguistic state of affairs that makes this sentence true. Both philosophers assume that the language learner is able to acquire gradually a high degree of competence in that language within a relatively short period of time and by exposure to an "adequate sample" (Davidson 1984a: 133), i.e. a final number, of utterances.

Later, the knowledge acquired thus far remains the more or less unaltered basis for all further translations and interpretations of novel utterances. The acquisition period is characterized by a dialectic relationship between the manual or system of interpretations having emerged at a certain point and novel translations/ interpretations. Utterances are understood, whenever possible, against the background of the language competence developed thus far. If that does not yield acceptable interpretations, the manual or interpretation system is modified, within the limits of internal consistency and factual plausibility, to accommodate the new utterance. The preparedness to take into account or even consider adequate interpretations that contradict previous understandings will be much less, at a later stage when the interpreter's knowledge of a language and his interactive experiences with the members of the speech community is quite profound.

Let us compare, from the perspective of Davidson and Quine, the early stage of language acquisition and the later stage of developed proficiency on the part of the interpreter. During acquisition, it is assumed, the language learner's competence permanently develops. Development here does not just mean a linear growth and elaboration but a process that also involves the abandoning, correction, and modification of earlier interpretational knowledge as the result of novel interactive experiences and the perception of non-linguistic facts that can not be integrated on the basis of the language mastery acquired thus far. It is to be expected that con icts between the learner's perceptions and experiences and his attempts to hold his interlocutors' utterances true will become rarer the longer his membership in a linguistic community lasts. By the same token, the number of occasions at which he feels compelled to revise his system of interpretational competence and the degree to which adaptations appear necessary will dwindle.

According to Davidson and Quine, the tendency to impute factual correctness and rationality to co-interactants is balanced and sometimes in con ict with the even stronger drive for internal consistency within the interpreter's overall interpretational system. The further acquisition has progressed and the more complex the acquired system, the more far reaching will be the consequences caused by a revision of the understanding of, say, a single noun or verb. Hence, while, in the beginning, acquisition will proceed relatively unimpeded by the inertia of prior knowledge, later there will be trade-offs between relying on perception—even if that necessitates major changes in the individual's otherwise reliable linguistic system—and the tendency to avoid major reorganizations of that system even at the cost of being forced to question and reevaluate a critical perception.

This model does not propose a qualitative criterion that would justify the distinction between two phases of language acquisition and proficiency and would enable us to identify a unique point of transition from the former to the latter. Rather, the transitional process seems gradual and there is no way to tell when it is completed; the construction of a translation manual, the acquisition of an interpretational system

for a given language and a stable linguistic community have to be conceived of as infinite enterprises. The following qualification is in place here: the longer an individual's membership in a particular stable interactive community lasts the fewer interpretational problems that person will experience that would justify a restructuring of his linguistic knowledge and the less salient (frequent, inalienable) will be the linguistic expressions and constructions concerned.

The infinite process of acquisition can be characterized by the metaphor of a curve that approaches but never reaches an asymptote. Because of that, it may very well be admissible and advisable for certain practical purposes to call the process of acquisition finished at some arbitrary point on the basis of what Davidson refers to as an "adequate sample". The field linguist invoked by Quine is an example in point. The manual that he will bring back from his research trip at the end of his time and financial budget will allow him to formulate, for every sentence of the object language that he has encountered, a translation in the subject language and thus present a holistic system with a claim to completeness. But at the same time, the thoughtful linguist will concede that additional research would probably have given rise to a manual that would have diverged from and been in partial con ict with the one he takes away at the actual end of his work.

The discussion of language acquisition from the point of view of Davidson and Quine sheds light on a source of interpretational indeterminacy that is related to a very particular one of the interlocutors' assumptions that were characterized above as necessary and, at the same time, problematic prerequisites for interaction: "the assumption that for them [the interactants, T.W.] the same expressions are to be interpreted in the same way" (Davidson 1984a: 125). As long as language acquisition is not completed, the differences in the interactive biographies of the members of a linguistic community, in "the individuals' past experience of [linguistic] forms" (Hopper 1987: 142) make for the possibility of divergences in the interpretation of particular utterances. If the acquisition of interpretational knowledge is an infinite process, this possibility is an irreducible fact about interaction within a community.

Having started from Quine's and Davidson's premises, we are now in the position to draw a conclusion on the theme of indeterminacy: there is no criterion or procedure available to interpreters that could guarantee that two individuals agree in their interpretations of a given utterance. This, I suggest, would only be the case if it were impossible to conceive of circumstances under which the interpretation would cause practical problems of understanding. The previous discussion has shown that various aspects of the nature of interpretation, interaction, and language acquisition lead to indeterminacy:

(1) The indeterminacy hypothesis in the narrow sense as proposed by Quine and Davidson: every utterance can be interpreted in several ways that are incompatible with each other, while being equally adequate. An

interpretation is considered adequate if it is compatible both with the facts as perceived by the individual holding the interpretation and with the holistic system of interpretations against the background of which the critical interpretation only is possible.

(2) Language acquisition and indeterminacy: the interpretation of a particular utterance is contingent on the system of interpretations available to the interpreter at the time of the utterance. Since linguistic biographies differ from each other and the acquisition of interpretations is an infinite process, the interpretational systems of any two individuals will differ from each other in some way that, under appropriate circumstances, will lead to problems of understanding.

(3) Premises to interaction and indeterminacy: interpretations can only be successful if certain conditions are met with regard to the interactants' attitudes and implicit assumptions. Among other things, they have to be rational and mutually impute rationality to each other; they have to be correct with regard to the relevant facts and impute to each other factual correctness, etc. Interpretation will fail when one of the interactants is mistaken about one of these premises and in many, but not all, cases this will cause interactive trouble.

To elucidate the indeterminate nature of interpretation in the way just done above is, of course, not to doubt that interpretation is possible and is successful in the vast majority of cases in which it serves as the basis for joint activities that all participants *consider* successful. Like Descartes, participants in daily life behave very reasonably by just relying on their interpretations as being shared by all others and by taking them for granted as "what in fact they are, namely [...] opinions which, despite the fact that they are in a sense doubtful, [...] it is still much more reasonable to believe than to deny" (Descartes 1996: 15, meditatio I, 22). People are entitled to do that because, as we will see in detail later, they have means at their disposal to deal with the problems that are caused by the relatively rare cases in which their or their partners' interpretations turn out to be inadequate.

At the end of this section, Quine's and Davidson's approaches to interpretation should at least brie y be confronted with a few obvious objections from the point of view of other disciplines of language studies. Students of languages other than the Indo-European ones might protest that Quine's "field linguist" does not have much in common with real field linguists who never are radical translators. In the same way, not even the new-born baby can be considered a radical interpreter. What is more severe, the behaviorist account of language acquisition as a process of query and assent/dissent that plays a critical role in Quine's and Davidson's argument has been proven inadequate by a wealth of research providing evidence for inborn structural and procedural knowledge that determines language acquisition in humans.

Davidson's answer to those challenges will very likely include a self-quotation from the beginning of his *Radical Interpretation:*"All understanding of the speech of another *involves* radical interpretation" (Davidson 1984a: 125; my emphasis, T.W.). Quine's extreme thought experiment isolates this one aspect of understanding to make it more easily amenable to theoretical investigation. The fact that makes the indeterminacy hypothesis so relevant for interpretational studies in general is that it is compatible with empirical findings on language acquisition. Anyone who takes it as an established fact that much of human interpretational knowledge is native does not have an argument against the indeterminacy hypothesis. The common wisdom that the people's ability to acquire languages does not remain equally strong during all periods of their lives and tends to decrease rapidly beyond a certain age does not contradict the hypothesis that the acquisition of an interpretational system is an infinite process.

The nature of the human mind and brain and their development imposes multiple constraints on the kinds and structures of interpretations that individuals may arrive at. To discover these constraints means to discover limits of indeterminacy. But while these limits exist beyond doubt, the experience of interpretational uncertainty, freedom, and choice is known to every speaker of a natural language. This is because an interpreter is not just faced with the task of identifying the objective properties of a physical entity, i.e., an utterance, on the basis of what she considers factually correct and compatible with her linguistic intuition. Beyond that, she has, as Davidson puts it, to strive in her interpretations for maximum agreement with her interlocutors. At this point, it becomes obvious that this section's discussion of interpretation and indeterminacy from a truth-functional point of view has not lost its focus on the prime object of the present study: shared background. Interpretation involves implicit higher-level assumptions about the interpretations of others. Indeterminacy comes into play as a crucial factor in the assessment of the state of the shared background because the interpreters themselves can and have to decide which interpretations they share with their interlocutors. Davidson has shown that there is no external criterion that could serve the individual to decide this issue reliably.

Now, it seems justifiable to state that what has been argued so far on the indeterminacy of interpretation is constrained by but cannot be in con ict with empirical findings in the fields of psychology or linguistics. This is exactly what the characterization of interpretation as irreducibly indeterminate means.

What, then, are the consequences of the theory just outlined for the empirical study of shared background? Certainly, the argument developed here cannot be falsified on empirical grounds because the predictions it implies about actual interactive behavior are not specific enough and are not meant to be so. In the view of some this will be an important weakness. They should consider, however, that empirical study must lack orientation if the conceptual and methodological tools it employs

are not specified ahead of the data analysis. This exactly is an important function of this first main chapter in the structure of the present study as a whole, namely to lay a conceptual ground, to define the research space within which research objects become visible and reasonable empirical questions can be formulated in the first place. From the point of view of linguistic study, the subsequent chapters have to demonstrate that the indeterminacy hypothesis is inspiring beyond the realm of the philosophical argument, that it opens up and justifies interesting research perspectives and provides a basis for the analysis of actual instances of interaction and interpretation.

2.4 The concept of shared background and its empirical implications

The goal of the present investigation is the analysis of shared background in conversation from point of view of linguistics. This first chapter serves to lay the foundations for this enterprise by defining the central concept in a way that is both theoretically sound and explicit in terms of how shared background surfaces in actual interaction and hence in observable linguistic behavior.

The basic theoretical questions were approached from three different directions: David Lewis's interest in the structure and the role of common knowledge as a prerequisite to interaction; the debate among cognitive psychologists on the nature of common knowledge and its processibility, and by Davidson's doctrine concerning the indeterminacy of interpretation with its implications for a theory of shared background.

The theoretical conclusions presented above were derived from premises developed by authors whose primary interest is not the empirical study of natural interaction much less conversation. By thus seeking external grounds for my own analyses of conversation to be presented later (chapter 4), I hope to avoid the kind of circularity that threatens approaches that emphatically claim to motivate their theoretical concepts, methodological procedures as well as research questions exclusively on the basis of data observations (cf. Weber 2003). Furthermore, I would like to argue in the following that independent theoretical considerations on shared background not only are compatible with but even suggest the use of conversation analytic methods and to look at phonomena of conversational repair to learn more about shared background. Especially to outsiders to CA, this argumentational strategy should be more convincing than one that justifies its choices exclusively from within a research paradigm that certainly has to be considered controversial within the overall field of social studies.

In this chapter, I have argued that, while the scientific backgrounds of the authors whose work was discussed are quite different, the various lines of argument converge on a unified notion of shared background. This concept is characterized

by a number of properties that have to be taken into account by anyone who is about to study the way it surfaces empirically. At this point, it can be considered uncontrovesial that cooperative interaction is impossible unless the participants share certain portions of their backgrounds. For interactants to share items of the background means, among other implications:

- to know or take for granted that these items are shared; shared background is self-referential
- an item of the background is shared only if several interactants assume this item to be shared; shared background is *distributed across* several interactants.

The two properties of self-referentiality and distributedness make for the indeterminacy of shared background from the point of view of the interactants as well as the outside analyst. This means that it is, in principle, not possible to prove positively that a certain assumption, item of knowledge, or attitude is shared by the participants in a given interaction.

Shared background is necessary and, at the same time, impossible to be established beyond doubt? There seems to be an inacceptable contradiction here. My proposal at resolving this problem that I have developed above is akin to Levinson's (2000) interpretation of Grice's cooperation principle and maxims:[19] social interaction among rational participants is impossible unless all of them presume ore take for granted that all assumption that are necessary as a background for the current joint activity are shared among everybody involved. The fact that this necessary presumption may turn out to be mistaken any time makes "communication [...] a risky task" (Parret 1993: VII). And since communication is a risky tasks interactants are to be expected to have procedures at their disposal, to deal with cases in which the virtual risks turn into actual problems. As we will see later, the procedures of conversational repair do exactly serve this purpose.

The same idea can be arrived at from a slightly different angle: Sperber and Wilson have pointed out that, in natural interaction, assumptions concerning the shared background will only be treated interactively if the participants have reason to

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[19] The parallelism of my argument with (Neo-)Gricean approaches becomes apparent in the following way: it is suggested here that certain meta-assumptions by the individual participants concerning their interlocutors' backgrounds are a prerequisite for them to engage in interaction. Likewise, the role of the *cooperative principle* (Grice 1967 [1989]), of more general principles like the *principles of rationality* (Kasher 1976; Green 1990), or of Levinson's (2000) heuristics is not to predict (or even prescribe) that participants in interaction do always behave (or ought to behave) cooperatively or rationally. Rather, the Gricean approach is so theoretically powerful because—in a Kantian manner of argumenation—it specifies "conditions of possibility" of interaction, among them the participants', at times contrafactual, imposition of cooperativeness or rationality to their interlocutors.

do so. These assumptions, however, will hardly be consciously re ected upon by the interactants and much less be dealt with explicitly as long as they prove unproblematic. More common, however, is it for tacit assumptions about the shared background to turn out to be wrong in the light of novel facts perceived by one of the interactants. If, then, that individual "cares enough," she will take measures to reestablish the (presumption of) shared background to an extent she considers sufficient. Sequences of problem treatment like this provide the outsider with evidence concerning the state of the shared background at a particular stage of the interaction, evidence that goes beyond the linguistic, cultural, and common sense intuitions of the analyst and the participants themselves. This evidence is negative and, in the overwhelming number of cases, retrospective in character; an utterance cannot deal explicitly with its own background. Negative evidence, then, provides access to a participant's insecurity or trouble concerning the shared background and thereby—because of the self-referentiality of assumptions about the shared background—its break-down.

In terms of conclusions for an empirical investigation of shared background this means that a first step has to be the identification of instances of such break-downs. Before this task is approached in the final part of this study, chapters 3 and 4.1 will be concerned with the questions of what the abstract notion of *negative evidence* means in terms of concrete conversational phenomena, what data base is appropriate for an empirical study of shared background, and how the data have to be coded to make all those aspects of shared background amenable to analysis that are re ected by observable behavior on the part of the interactants.

3 Methods and data

3.1 Shared background in conversation—conversational repair as negative evidence

In the previous chapter it was argued that shared background—i.e., interactants' assumptions about what assumptions, knowledge, attitudes, etc. they share with their interlocutors in an ongoing interaction—becomes accessible to an outside observer only at points at which the background collapses. Certainly, it is true that doing the next appropriate action in a conversation (e.g., answering a question) is a way for an interactant to display her *general* taking for granted of all items that have to be shared by the participants in order to allow for their mutual understanding. In order to decide, however, if a *particular* item is assumed to be shared by the participants one can only rely on negative evidence, a research strategy which Gumperz and Tannen characterize in the following manner:

> By studying what has gone wrong when communication breaks down, we seek to understand a process that goes unnoticed when it is successful (Gumperz/Tannen 1979: 308).

Evidence of this kind is provided by sequences in which one participant displays his problems (insecureness, doubts, lack of trust) with regard to a particular item of the background that he assumes his interlocutor to take for granted or that he himself had considered to be shared up to that point. In these circumstances, the individuals under observation may bring into the foreground, in retrospect and ex negativo, what they treat as their assumptions about the shared background at an earlier stage.

In the light of the previous discussion on the theory of shared background, it is now necessary to consider in a more concrete form what kind of negative evidence in what circumstances and on the basis of what kind of data is available to the linguist. The focus, in the following, will be directed to the concept of *conversational repair*. In the realm of social and linguistic studies, this term refers to a class of discourse practices "by which interactants in some way treat trouble" (Schegloff et al. 1977)[20] and that, after what has previously been argued, seem a promising domain within which to study shared background. From the point of view of ethnomethodology,

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[20] Cf. Schegloff 2000: "207 By 'repair' we refer to practices for dealing with problems or troubles in speaking, hearing, and understanding the talk in conversation (and in other forms of talk-in-interaction, for that matter). I want to underscore the phrase 'the talk' in my reference to 'problems in understanding the talk'; for we did not mean to include within the scope of 'repair' all practices addressed to problems of understanding (like understanding exactly how the Internet works), only the narrower domain of 'understanding what someone has just said'—though there can on occasion be only a fuzzy boundary between these. (Nor, I might

repair sequences provide evidence from natural interaction that is of a similar kind as the one elicited by Garfinkel in the somewhat artificial setting of his famous breaching experiments (cf. Garfinkel 1984a):

> In particular, he [i.e., Garfinkel; T.W.] sought to show that actions which breached the fundamental presupposition of the reciprocity of perspectives would result in the kind of bewilderment, anger and vigorous attempts to restore the situation [...] (Heritage 1987: 234).

For now we can say that *repair*, in spite of its being a long-time focal object of investigation, on first sight, confronts the empirical researcher with a dilemma: on the one hand, the inductive, "naturalistic" (Schegloff 2000), anti-introspective nature of the conversation analytic approach requires of concepts and categories of a theory of interaction to be justified and defined as *outcomes*, as (provisional) *results* of data analyses rather than being presupposed as starting points for empirical investigation. On the other hand, data analysis is only meaningful and its results convincing if the target of the analysis and the search criteria according to which this target can be identified is specified. So conversation analysts seem forced to choose between scanning data in an undirected and arbitrary manner for something they themselves do not know what it looks like, and engaging in a vicious circle of presupposing what later is presented as the result of the analysis. It may be added, that this dilemma, following from the ethnomethodological presuppositions of conversation analysis, is not limited to the investigation of repair alone (cf., e.g., Wichmann 2001 for a discussion of the same problem in the domain of parentheticals).

With regard to the present study, the problem is quite fundamental: we do not really know what exactly repairs are. To the least, it seems difficult to *say* what exactly repairs look like and how to distinguish them, as a class, form other kinds of discourse phenomena. There certainly can be found statements on the discourse *function* of repairs as, e.g., the one cited above to the effect that repairs are sequences that deal with conversational trouble (Schegloff et al. 1977; cf. also Schegloff 1997, 2000). This functional definition, however, does not specify any structural properties that would allow the researcher to separate tokens of repair from non-repairs in a corpus of conversational data. The extensive work that has been presented since 1977 on structural distinctions *within* the domain of repair addresses this problem only indirectly. How, then, should it be possible to describe the defining structural properties of something of which we cannot say how to find it and on the basis of what criteria we have identified it in the past? But then, if we knew all the structural properties of repairs, what sense would it make to investigate these properties empirically?

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add, did we mean to refer to efforts to deal with tension or breakdown in the interaction, or violations of its so-called ritual order—what Goffman (1971) termed 'remedial interchanges'."

The above discussion suggests the next steps in the line of research to be pursued here: before it is possible to argue that repair is a promising empirical domain to investigate shared background, it has to be specified what repair is, what tokens of repair look like and according to what criteria candidate repairs can be identified in a database. And in doing this, both horns of the dilemma have to be avoided.

In the following, Schegloff's (2000) remarks on the conversation analytic method are extensively quoted and discussed with regard to their relevance to the research dilemma sketched above. In a next step, Schegloff's methodological considerations are applied to the study of repair and it is asked what consequences follow from them with regard to a research project that, in regard to the discourse phenomena to be analyzed, intends to build up and elaborate on previous work.

It, then, will be argued that *repair* has been investigated from two opposite, if complementary, perspectives: from the point of view of the *sequential organization* of repair types, an interest predominant in the work of authors in classical CA, including Schegloff, Jefferson, and Sacks; and with a focus on its role in interactional processes of *interpretation* adopted by Margret Selting and Schegloff in some of his later reports, which investigate individual participants' experiences of conversational trouble and their treatment by means of repair. The differences between the two approaches will be pointed out and conclusions will be drawn from there concerning the use of the term *repair* in the present study. In particular, it is suggested that a particular structural type of repair, *viz.* so called other-initiated self-repair, is more than others indicative of shared background for reasons to be laid out later. I will also ponder brie y whether there are other types of negative discourse evidence that provide an analyst access to interactants' assumptions about the shared background at a given stage of an interaction.

3.1.1 On *conversation analysis* as a method and the investigation of conversational repair

In his report on *Practices and actions. Boundary cases of other-initiated repair*, Schegloff (2000) provides a concise summary of the CA research strategy. Since the persuasive power of what follows in the remainder of this study depends much on whether its manner of argumentation is accepted as conclusive, a methodological discussion of this strategy is in place here (cf. also Weber 2003). By way of summarizing Schegloff, the investigative process can be characterized as proceeding through four major consecutive stages:

(1) "One notices something" that becomes the target of the inquiry and this *something* "presents itself as 'Oh, I've seen something like that before!'."

(2) One "find[s] those earlier 'cases,' and see[s] whether they hold up as relevantly similar."

(3) "[...I]f the current observation and the remembered precedents cohere [...], a common next step is to assemble a collection of candidate other instances". If one "has quite a clear idea of what one is collecting [...], the effort to collect more 'specimens' may quickly muddy that 'clear idea,' or transform it. If one does not [...]"—as obviously is the case with *repair*— one includes generously in one's collection also "occurrences which prima facie appear different from the target instances—the initial observation(s)."

(4) We discard instances as not included into the target category and, in this process, "make explicit just what it is which makes them different from our targets, and thereby [...] specify progressively just what (if anything) is distinctively going on in the fragments which set us off" (all quotes from Schegloff 2000: 501/2).

While steps (1) and (2) have to be taken on a more or less intuitive basis, at stages (3) and, especially, (4) the researcher has to give an account for his including and excluding particular tokens into his target category. Schegloff emphasizes that, in this process, one may be forced to revise one's initial, often implicit and vague understanding of the target, go back to the original or to new data and (re)consider cases previously overlooked or prematurely excluded. The process involving steps (3) and (4) is recursive and open-ended in that it is sensitive to being "informed by subsequently encountered material" (ibid.). Put differently, all revisiting of material already included in the data base and all examining of novel material brings with it the possibility of evincing a need for the researcher to revise his understanding yielded so far.[21] In turn, a transformation of the concept under scrutiny makes it necessary to reconsider old and to look at novel material, etc.

With regard to a particular target category, say repair, this means that every utterance will count as an instance of that category to which applies what has been found out about that category up to the time the research is done. Boundary cases confront the analyst and theoretician with the decision either to exclude them from the category or to accommodate them by modifying the category's extension—and the need to justify whatever decision he makes explicitly and convincingly thus increasing our knowledge of the category under investigation.

This procedure may appear unsatisfactory from a deductionist point of view. Within the phenomenological tradition of CA, however, it is consistent to apply the insight that (linguistic) sense and coherence are joint and local constructs of partipants in interactions also to the metalevel of describing and analyzing interaction. Seen thus, the analysis of conversation is a particular, a second-order or meta-interactional type of social activity. From Schegloff's remarks follows that

[21] It may be noted that the gradual manner of developing categories thus described resembles very much the gradual process of acquiring a holistic system of interpretations that Davidson assumes in his theory as discussed above (cf. section 1.4).

studies in conversation analysis, rather than representing the final word about a certain empirical domain, are meaningful only as contributions to an open scientific dialogue. This meta-discourse not only yields new insights into certain domains but the analytic categories that define the limits of the domains themselves are the objects of permanent renegotiation.

If this nature of empirical analysis and categorization in the social domain is appreciated, the dialectical character of the approach described by Schegloff becomes apparent and the danger of it getting trapped in a vicious circle seems controllable thus avoiding both horns of the dilemma sketched in the introduction to this chapter. The investigative process starts off with a certain non-arbitrary, if fuzzy, intution of what its target is. This intuition is, at first, unconscious of itself and implicit and is explicated only in the course of the investigation. From this starting point, the process leads beyond a mere reconstruction and confirmation of initial intuitions. This is due to the fact that an explicit account of the target and its confrontation with novel data will motivate revisions and transformations to the potential effect that the (preliminary) results of the analyses may broadly deviate from the original intuition.

What, however, can be learned from this reasoning for the present project of investigating shared background via an analysis of or repair? Schegloff describes the research strategy of an investigator who stands at the very beginning of his study guided by intuitions and without relying on any systematic research on his target (cf. step (1) above). The case of the present study, like of any one conducted since the first analyses of conversational repair in the 1960s, is different. Students of conversation already "have noticed something" (stage (1)) and termed it "conversational repair." They have assembled collections of specimens of the category, they have given accounts of repair types and descriptions of their discourse function and sequential structure (stages (2)-(4); cf., among others, Schegloff/ Jefferson/Sacks 1977; Schegloff 1997, 2000; Selting 1987a-d, 1995).

A prerequisite to joining successfully this ongoing research process is to take account of what has been achieved thus far. With regard to the initial step in the particular project of empirically analyzing shared background in German conversation, *viz*, compiling a collection of candidate repair tokens (cf. stage (3)), this means that all research findings have to be exploited that "make explicit just what it is which makes [... repairs] different from [...]" (Schegloff 2000: 502) other phenomena. And since it does not suffice to *say* what the differences are but it is necessary to *use* these differences as a tool, as criteria in order to separate tokens of repairs from non-repairs, we are looking for "sequence- and turn-organizational features of conversation" (Schegloff/Jefferson/Sacks 1977: 362 FN4), i.e., for distinctive structural properties that make repairs observably and demonstrably different from other types of practices. Developing this tool for the compilation of a collection of repair tokens is the objective of the subsequent sections.

3.1.2 Repair from the point of view of its sequential organization

The concept of repair was first introduced into the study of verbal interaction by sociologists in the tradition of ethnomethodology. A series of papers by Gail Jefferson (1972, 1975, 1983, 1988) and, most prominently, Schegloff, Jefferson, and Sacks' widely cited work *The preference for self-correction in the organization of repair in conversation* (1977), have drawn the attention of other scholars in pragmatic theory and practice to phenomena like self- and other-correction, false starts, and word searches. In chapter 5 below, interactive repair in conversation will be interpreted as a kind of evidence that allows interactants and analysts to identify and subsequently deal with interlocutors' troubles concerning shared background.

In the following, the relevant literature is searched for specifications of structural criteria that distinguish repairs as a class of discourse phenomena from other interactive practices and thus can be used as a tool in the collection of repair tokens from a novel data base. Bearing Schegloff's *caveat* (see above) in mind, one has to understand that these criteria are necessary as a starting point of the search but preliminary in nature and open to revision and transformation in the ongoing investigative process. Before concrete suggestions by various authors are considered, a general qualification can be made: a structural definition (i.e., determination of the external boarders) of the category of repairs—even a preliminary one—does neither aim at a description of the internal structure of the category in terms of types and subtypes of repair nor does it pursue an account in terms of mental, functional, cognitive aspects that are not directly accessible to observation.

This last remark is motivated by the observation that, while a lot of work seems to be focused on a minute description of repair *types* and there seems to be consensus on the general *function* of repairs as dealings with conversational trouble, the focus here is directed on statements on the *structure* of repair *in general*. In the following, I would like to demonstrate that, in the relatively short research career of *repair*, the term has undergone a development whose stages will be reconstructed. At the end of this section, a concept of repair should have emerged that is fit to serve as a basis for identifying an interesting class of interactional phenomena, i.e. candidate repairs, and for excluding other phenomena that are outside of the conceptual scope.

In the way characterized above as typical of ethnomethodological conversation analysis, Schegloff, Jefferson, and Sack's study (1977) proceeds on the basis of an inductive and empirical research attitude. While presenting and referring to a large number of single case analyses and arriving at fine structural distinctions *within* the category of repair, an explicit definition, i.e. a specification of the *external* boarders of the category *repair*, in terms of its distinctive structural properties is not provided either as a starting point or as a result of the analyses in the conclusion of

the paper.[22] Subsequent papers (cf., especially, Schegloff 2000) are more explicit with regard to this point without, however, offering the consise working definition from which a search criterion for a "generous collection" of candidate repairs could be derived. Schegloff's presentation of the CA research strategy, however, does not only justify but calls explicitly for reconstructing what it is that—as far as we can say at the present stage of investigation—makes repairs phenomena of a structurally particular type.

As for the research history, the starting point for the conversation analysts' work on repair was the investigation of conversational *corrections*. In this domain, one may be inclined to accept the tacit assumption that "one has quite a clear idea of what one is collecting" (Schegloff 2000: 502) as a target at the beginning of one's studies. The interpretation of the term *correction* may be considered sufficiently uncontroversial because its uses in the study of conversation and in everyday talk respectively are closely related. In both realms, corrections imply replacements of and/or additions to something that the corrector or the one asking for correction consider deficient in some way or other (Jefferson 1975). In subsequent work, however, Schegloff, Jefferson, and Sacks (1977: 363) found that the structural and distributional regularities attributed to corrections can also be observed with other conversational phenomena that are not contingent upon errors in any obvious way. Elements of an open list of *repair* types include, besides corrections, false starts, word searches, and others.

It may be noticed, in passing, that the extention of the perspective from a concern for corrections to the investigation of repair is typical of the CA type of conceptualization as described above:"it is allowed to grow and be informed by subsequently encountered material" (Schegloff 2000: 502). It is because of this property that the approach avoids circularity.

An attempt at accounting for the technical use of *repair* from the perspective of its everyday use is hardly promising even though *repair* was introduced to supplement *correction* as a term whose meaning is broad enough to cover the whole domain in focus. Not every token of conversational repair does "repair" something in any common understanding of the verb.

The formulation that comes closest to a definition states that repairs are "mechanisms for handling the troubles" of social language use (Schegloff/Jefferson/Sacks 1977: 381). In two later papers, Schegloff (1997: 503 and 2000: 207) reemphasizes and elaborates on this view:

> By "repair," we refer to practices for dealing with problems or troubles in speaking, hearing and understanding talk in conversation (and in other forms of talk-in-interaction, for that matter). I want to underscore the phrase "the talk" in my

[22] In contrast to this, Schegloff, Jefferson and Sacks (1977: 362 FN 4), following Pomerantz (1975), add a footnote to their 1977 paper in order to define their key concept of *preference* in explicitely structural terms of "sequence- and turn-organizational features" (ibid.).

> reference to "problems in understanding the talk;" for we did not mean to include within the scope of "repair" all practices addressed to problems of understanding (like understanding exactly how the Internet works), only the narrower domain of "understanding what someone has just said" (though there can, of course be a fuzzy boundary between these).

This passage specifies what repairs *do* in discourse, what their interactive *function* is. It does not provide a structural criterion suitable to identify repair tokens in a database. Put differently, the insight that repairs deal with interactional trouble leaves unanswered the questions of what "trouble" or "problems" are and what they and their treatments look like when they occur in conversation. Furthermore, "trouble" and "problem", like "preference", are mental concepts in the first place. Nevertheless, these terms can be used "technically to refer not to" mental states of the participants, "but to sequence- and turn-organizational features of conversation" (Schegloff/Jefferson/Sacks 1977: 362 FN 4). To explicate what exactly these features are, however, still seems to be a desideratum.[23]

Focusing on structural issues, Schegloff states that

> [e]pisodes of repair activity are composed of parts, for our purposes most importantly a repair *initiation*, marking possible disjunction with the immediately preceding talk, and a repair *outcome*—whether solution or abandonment of the problem (Schegloff 2000: 207).

By initiating repair, a discourse participant *displays* a problem. Repairs are manifestations of problems, that is behavior that can be interpreted as indicative of a particular problem, and make the treatment of this problem by speaker him-/herself or by another participant a relevant next or close to next conversational move. Repair initiations—more or less strongly (cf. Schegloff et al. 1977: 369 FN 15 and Drew 1997) and depending on various aspects of the context—typically relate back to and "locate" a bit of behavior that is treated by the one who initiates repair as causing the present trouble, as being the "trouble source", the "repairable" and, therefore, in need of "repair".

As Schegloff, Jefferson and Sacks (1977: 363) note, "nothing is, in principle, excludable from the class 'repairable.'" Since the possible distance between trouble source and repair initiation seems limited (cf. Schegloff 1992), it follows that repair

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[23] Schegloff offers the following extensional account of the concept:"'Trouble' includes such occurrences as misarticulations, malaproprisms, use of a 'wrong' word, unavailability of a word when needed, failure to hear or to be heard, trouble on the part of the recipient in understanding, incorrect understandings by recipients, and various others. Because anything in talk can be a source of trouble, everything in conversation is in principle, 'repairable' (Schegloff 1987b: 210, vgl. auch Schegloff 1997: 503, 2000: 209).

The fact, however, that this list of problem types is wide open highlights the need for an intensional definition of the concept.

represents a type of activity that underlies very few, if any, restrictions as to where in discourse it may occur. As Schegloff points out:

> Its actions [i.e., those of repair; T.W.] can supercede other actions, in the sense that they can replace or defer *whatever else* was due next [...] It is the only action type that we know of now which has this property (Schegloff 1997: 504; my emphasis, T.W.).

At the end of this discussion, a picture has emerged in which candidate repairs are demonstrably separated from phenomena of other kinds like embedded correction (Jefferson 1987) or certain types of reformulation (Gülich/Kotschi 1987). Accordingly, candidate repairs can be characterized by means of three key concepts: *retrospectivity, autonomy* and *sequential dicontinuity.*[24] They are to be identified as utterances and parts or sequences of utterances that retrospectively relate to aspects of the (phonological, morphological, syntactic) form, the meaning, or the interactive function of a previous activity, the repairable. They interrupt in a manifest way whatever activity currently is being done by repeating it, accounting for it, correcting it, etc. The relation of repairs to their repairables, thus, can be characterized as meta-interactive.

The direct counter-part to the fact that every activity is potentially subject to being repaired, i.e., that a repair may occur any moment in an ongoing interaction, is that repairs cannot be projected by the participants as sequentially relevant at a particular stage of a conversation. In most cases, therefore, the activity interrupted by a repair is resumed after the completion of the repair sequence. Their relative autonomy as they are manifestly separated from the surrounding activities distinguishes repairs from what Jefferson (1983) calls "embedded corrections:"

> Thus, while in the initial collection [the 'repair collection'; T.W.], correcting has the status of 'the interactional business', in the latter collection [the 'consecutive reference' collection; T.W.], correction occurs, but is not what is being done, interactionally. What we have, then, is embedded correction as a by-the-way occurrence in some ongoing course of talk (Jefferson 1983: 95).

Sequentially, repairs are typically composed of two parts: initiation and completion. Repairable and ratification are potential activities surrounding the core repair components. In the case of other-initiated self-repair that will be of particular interest in the following, those components are distributed across several turns and discourse participants (vgl. Schegloff et al. 1977; Schegloff 2000: 207-209).

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[24] In their study on same-turn self-repair, Fox and Jasperson (1995) have highlighted discontinuity and retrospectivity as distinctive properties of repairs: "We define repair here, then, as any instance in which an emerging utterance is stopped in some way, and is then aborted, recast, or redone" (ibid.: 80). At the same time, the very fact that the authors consider it necessary to introduce explicitly a term that has been used by conversation analysts for some 20 years seems indicative of their intuition that this explication is necessary.

To reemphasize a point already made earlier, the explication of the concept of repair given is not intended to nor could potentially function as a criterion that determines for *all* utterances whether or not it is a member of the class of repair. The purpose of the working definition achieved so far, rather, is to serve—on the basis or earlier empirical work on repair—as a search criterion and a tool to collect tokens of repairs that, in turn, serve as a data base for the empirical investigation of shared background. With reference to what I—summarizing Schegloff (1997)—have described as a recursive four-stage process, the understanding of repair proposed here is a preliminary result at stage (4) that "is allowed to grow and be informed by subseqeuntly encountered material" (ibid.: 502).

Anticipating a premise that will be crucial for the analysis of shared background in chapter 5 below, I would like to point out why it is so important to limit the concept of repair at this stage to structural features and not to consider the discourse functions of repair as a means of dealing with interactional trouble. Only if we collect the tokens in the data base on non-functional grounds, it is possible to investigate the question of whether the selected sequences deal with a particular type of interactional problems, *viz*., ones related to the status of the shared background, in a non-circular way.

3.1.3 Repair sequences as interactive problem treatments

Margret Selting is one of the leading scholars who have applied and developed the CA approach to repair in German conversation (cf. also Egbert 2002). Like her American colleagues, Selting adopts the ethnomethodological research strategy whose central analytic tool and, at the same time, object of study are participant categories. That is, analytic categories are not derived from a theory assumed to be valid prior to and independently of particular empirical data but are adopted only to the extent that they can be shown to be relevant for the individuals whose interaction is to be analyzed. Since Selting's perspective on repair, her concepts, and the results of her research will serve as a basis for the analyses and empirical investigations to be presented later, it is in order to discuss her framework here in some detail.

3.1.4.1 From the linguistic system to interactants' interpretations and problems: a shift in perspectives

Unlike the early conversation analysts', Selting's understanding of concepts like *repair*, *preference*, and *trouble* is explicitly *interpretational*. This term I use to characterize an approach to interaction whose focus and main interest is the discourse participants' attempts at making sense, at arriving at understandings of each other's contributions. Selting interprets *trouble* as referring to "local conversational

problems" (Selting 1988: 295[25]) experienced by the interactants and motivating their conversational activities. As a consequence, issues of discourse function, motivation, and interpretation are analyzed from the perspectives of speakers and hearers. The structural and distributional facts and regularities observed by the practitioners of CA are of interest not so much as aspects of a "system of rules" (Schegloff et al. 1977: 381) but, rather, insofar as they serve interactants as local resources in their interpretational efforts in specific interactions. Selting herself describes this shift:

> Die Analyseperspektive bleibt jedoch bei den meisten dieser Arbeiten [d.h. die der klassischen Conversation Analysis; T.W.] auf das Funktionieren der Interaktion als System gerichtet, auf die Aktivitäten der Teilnehmer aus der Perspektive der Aufrechterhaltung oder Reparatur der geordneten Interaktion. Die Perspektive der Teilnehmer, ihre Interpretation dessen, was sie da reparieren, kommt—obwohl gerade die Ethnomethodologie sonst die Teilnehmerbezogenheit von Kategorien stets hervorhebt—nicht in den Blick (Selting 1987a: 37).
>
> 'In most of these studies [in classical CA; T.W.], however, the perspective of analysis remains directed at the functioning of the interaction as a system, on the participants' activities from the perspective of the maintenance or repair of ordered interaction. The participants' perspective, their interpretations of what they repair does not come into focus, although ethnomethodology, more than any other approach, always emphasizes that categories are relative to the participants' stand points' [translation mine, T.W.].

Here, Selting's claim to being part of the long standing ethnomethodological tradition that reaches back to the phenomenological theories of Husserl and Schütz emerges very clearly. By performing an "interpretational (re-) turn" in her approach to repair in particular and conversation in general, she purports to connect back to, rather than deviate from, fundamental ethnomethodological assumptions and research interests. Independently of futile quarrels about who is the true representative of a certain venerable theoretical tradition, by taking her stance, Selting avoids the tension that must arise between an overall sequential view of language and the dynamic implications that already shine through Schegloff's and his colleagues' way of talking about repair. For Selting, the results presented in the 1977 paper are of primary interest as accounting for cues that participants in conversation make use of in their local interactive attempts at producing sense and coherence.

Unlike sequential properties of discourse, interpretational attitudes and activities of interactants cannot be observed directly; the analyst and the co-participants can get to know about them on the basis of observable behavior only indirectly and with a certain degree of uncertainty. Here, the discussion of Selting's work has led us back to a central motive of my theoretical account of shared background, i.e., its inaccessibility to direct observation. Selting's shift away from the conversation analysts' structural perspective, therefore, also is consequential from a methodological point of view.

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[25] In her German writings, Selting refers to these problems as *Verstehens- und Verständigungsprobleme* (1987a,b,c) a term that focuses problems of interpretation *and* production.

One may object that Selting, by reintroducing interpretational categories into her analysis, gives up the strictly empirical character that characterizes conversation analysis as a specific research method. A first answer to this potential critique has to point out, as I have done before, that even the investigations by Schegloff, Jefferson, and others are not "radically" empirical in nature. Rather, their categories and research questions are motivated by pre-theoretical intuitions that are dependend on the individual knowledge, experiences, etc. of the researcher and can be justified empirically only in retrospect. Furthermore, if the inner tension between the empirical attitude and the implicitly interpretationalist nature of concepts like "problem," "trouble," "preference," etc. described above is accepted as a problem that an conversation analyst account of interaction should respond to and if a return to the original ethnomethodological interest in interactants' joint construction of *meaning* is considered a worthwhile enterprise, the challenge of relating the interpretational to the observable ought to be accepted as well.

Within the limits thus defined by the nature of interpretation, Selting draws on and analyzes empirical evidence in a way similar to and to the same extent as it is common for the proponents of classical CA. In doing this, one hopes that the more the collection of empirical facts in support of a given interpretation or hypothesis grows the more difficult it will be for a critical recipient to reject the hypothesis on intuitive grounds. In Selting's case, this means that she identifies instances of *local conversational problems* in "a corpus of conversations between clients and officials in various municipal administration offices in North-Rhine-Westfalia, West Germany" (Selting 1988: 294). A reader, however, who obstinately doubts that the fragments cited by Selting represent treatments of conversational problems cannot be forced to believe otherwise by means of a systematic argumentative procedure. This is because the identification of a conversational sequence as a problem treatment, where *problem* is understood in terms of the interactants experience rather than structural features of the discourse, is a matter of linguistic and interactional intuition and common sense which, thereby, turn out to be the bedrock of all interpretation.

Once one has accepted, however, Selting's categorization, her analysis proceeds as systematically and empirically as one would expect of a conversation analyst investigation. The first step in the research process is the analysis of the data. Analytic categories gradually emerge in that process, and are adopted—at a more or less arbitrary cut-off point determined on grounds of plausibility and by the practical research circumstances rather than by internal criteria—only if they have been proven relevant, i.e., participant categories, to the individuals whose interactions are represented in the data base.

3.1.4.2 Repair sequences as interactive trouble treatments

At the beginning of her study on the internal structure of repair sequences (1987b), Selting ties back to Schegloff, Jefferson, and Sacks' characterization of repair as a self-righting mechanism by interpreting their remark on potential "intrinsic sources of trouble" (Schegloff 1977: 381) in an explicitly psychological sense:

> Reparaturen bearbeiten damit ganz allgemein Störungen der Interaktion, die durch verschiedene Typen von Verstehens- oder Verständigungsproblemen, u.a. ein unzutreffendes Partnerdesign ("recipient design"), ausgelöst wurden (1987b: 129).
>
> 'That means that repairs, put generally, treat interactional trouble caused by various types of problems of understanding including an inappropriate recipient design' (translation mine, T.W.).

Selting's data analyses hinge on her understanding of the concept *conversational problem.* She herself proposes the following definition:

> Aus der Perspektive eines Interaktionsteilnehmers liegt ein Verständigungsproblem vor, wenn er relativ zu seinen Erwartungen oder den von ihm aufgebauten Erwartbarkeitsbeziehungen die folgenden Aktivitäten des Interaktionspartners nicht so interpretieren kann, daß sie seine Erwartungen erfüllen. Diese Definition trägt der Tatsache Rechnung, daß auch eine Einschätzung des Erfolgs der Verständigung durch die Interaktionsteilnehmer eine Interpretation ist, bei der vermutlich so lange wie möglich die Unterstellung von Verständigung aufrecht-erhalten und in diesem Sinne nach Interpretationsmöglichkeiten gesucht wird, die die eigenen Erwartungen erfüllen [...] (Selting 1987c: 48-50).
>
> 'From an interactant's perspective, a conversational problem occurs, if, against the background of the interactant's expectations or of what he has come to consider expectable, he is not able to interpret the subsequent activities of the other participant in a way that meets his expectations. This definition takes into account the fact that also an interactant's assessment of the success of an interaction is an interpretation. In interpreting, the imputation of mutual understanding will probably be upheld as long as possible and, accordingly, potential interpretations will be searched for that meet the interpreter's expectations' (translation mine, T.W.).

We have seen previously that what Selting calls *expectations* includes domains ranging from fundamental assumptions about the co-interactants' rationality (cf. Lewis's "suitable ancillary premises"; 1969: 53) to their use of certain words or phrases (cf. Davidson's way of framing "the problem of interpretation [...]: how can it be determined that the language is the same?"; 1984a: 125), and issues of factual correctness. Also it should be understood that expectations in Selting's use of the term are not meant to refer to explicitly held beliefs about future events but, rather, to implicit assumptions that are just taken for granted such that an individual is irritated when she realizes she is mistaken about them.

As part of a study on shared background, it is in place to add that, for Selting, a problem of *mutual* understanding primarily is defined, from the participant's perspective, as a problem of a *single* individual. This is in accordance with the proposal made previously according to which *shared background* has to be

understood as background that every one of the individuals involved in the sharing assumes to be shared by him-/herself and his/her co-participants (cf. 2.1.2 above; Lewis 1967: 105). Only if a participant initiates repair can her or her interlocutor's problem become the object of several participants' higher-level assumptions by being interactively treated by them *as* a certain problem of understanding. Selting touches brie y on another property of interpretation in interaction that figured prominently in Donald Davidson's account of how systems of interpretation are acquired, namely that, once an individual holds certain expectations, e.g. about what an interlocutor will say or mean if he utters certain forms in a certain way, those expectations are rather inert and resistant to modification such that they will be given up only in the face of strong evidence against them.

Interactional strategies like "wait-and-see" (what will happen later) or "nod-and-smile"[26] (without having fully understood what the other said) that are commonly applied in interaction make for the fact that not all problems of understanding are re ected by observable conversational activities. As a consequence, an undelimitable subset of interpretational problems on the part of interactants remain inaccessible to ethnomethodological investigation. This exclusion, however, in spite of being forced upon the investigator by the private character of interpretational states and activities, does not mean that aspects central to the coming about of interaction remain hidden from the analyst. From an ethnomethodological point of view, only those problems of understanding are of interest that are functional in the joint efforts by the participants to construct sense and coherence. For an interactant's problem to become interactively relevant it has to become noticeable to the co-participants. That is, the problem must be re ected in some way by the behavior of the one whose problem it is or who attributes a problem to one of his interlocutors.

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[26] Cf. also Schegloff's work on "continuers" (e.g. Schegloff 1982).

The term "smile and nod" is inspired by one of the figures in Max Frisch's play *Andorra. Stück in zwölf Bildern.* "The Idiot" is a silent part. Whenever talked to, he just "nods and grins." Serious doubts occur to the reader if the idiot understands anything to which he reacts to by nodding and grinning; the other figures, more often than not, seem to take his behavior as meaningful responses to their own contributions. Cf., for instance, the following sequence from the end of the first *Bild* (roughly: *scene*):

SOLDAT: Was hat er da gesagt?	'SOLDIER: What did he [i.e., you] just say?
Idiot grinst und nickt.	*Idiot grins and nods.*
Ein Vieh? Ich bin ein Vieh?	A beast? I am a beast?
Idiot nickt und grinst.	*Idiot nods and grins.*
Der macht sich nicht beliebt bei mir.	He doesn't ingratiate himself with me.'

(Frisch 1981: 23; translation mine, T.W.)

In natural conversation, a strategy like that adopted by the *Idiot* in the scene above is treated as "idiotic" only on the rare occasions in which a participant is caught in pursuing it. It seems that nodding-and-*smiling* (rather than *grinning* idiotically) is a quite efficient way of keeping conversations going in cases of minor interpretational trouble.

At this point, Selting's perspectival shift from interaction as a system of interrelated verbal and non-verbal activities to interactants as interpreters who, among other goals, deal with problems of understanding brings with it a shift in the role of repair as the object of investigation: Selting's main interest is directed to the problems that interactants try to solve in their attempts at making sense of each others' activities. Repair, then, is not only a research object in its own right, but is primarily taken as a particular kind of evidence that re ects interpretational states and activities in a systematic way and thus provides indirect access to a domain that is withdrawn from direct observation.

And yet another consequence follows from Selting's adopting her particular point of view. For Schegloff, Jefferson, and Sacks, repairs are defined as such by their relationship to other preceding utterances, the repairables or trouble-sources. If, however, one takes seriously the proposal that repair sequences make manifest attitudes, motives, etc., the question of what is treated by repairs arises anew. Insofar as linguistic interaction is regarded as the joint construction of *sense*, it appears plausible, in many cases, to interpret repairs not primarily as correcting, commenting on, repeating, retrospectively treating, etc. utterance *forms*. What many repairs aim at are—mostly implicit—*assumptions* on the part of interactants that are (taken to be) re ected by verbal utterances or other kinds of activity. Exactly that is meant when Selting refers to repairs as "treatments of problems of understanding" rather than the redoing of utterances.

From this interpretational position, Selting, in her studies on other-correction, other-initiated self-repair, and problems of understanding (1987a,b,c), develops a detailed picture of the various aspects and types of repair. She welcomes Schegloff, Jefferson, and Sacks' findings on other- and self-initiated other- and self-repair as identifying resources that individuals use in their interactive activities. However, aspects of the category *repair* unaccounted for by the conversation analysts come into focus if the categories "problem carrier" (*Problemträger*; 1987b: 130), i.e., the one participant who is (supposed to be) experiencing the problem, and "types of problems" are taken into account. In sum then, types of repair can be distinguished on the basis of (i) typical structural, mainly sequential, syntactic, and prosodic, features of repair sequences and along the lines of (ii) who initiates and completes repair respectively (self or other), (iii) who is the "problem carrier," and (iv) of what type is the problem the initiator attributes to another participant or makes manifest as his own.

It would lead too far to present and analyze tokens of every one of the combinatorily possible types of repair sequences. For the purpose of illustrating brie y that Selting's interpretationalist approach does indeed allow her to describe conversational facts that were in the main focus of the classical CA categories, the exemplary comparison of two sequences has to be taken as sufficient evidence. Sequences *Schegloff 01*

and *Selting 01*[27] below both present instances of other-initiated self-repair. The fragments, while being alike with regard to which participant initiates and completes the repairs respectively, diverge from each other with respect to who, *self* or *other*, is the problem carrier.

Schegloff 01[28]

A:	->	Hey the first time they stopped me from sellin cigarettes was this morning.
		(1.0)
B:	->>	From <u>sell</u>ing cigarettes?
A	->>>	From buying cigarettes. They // said uh
C::		Uh huh (Schegloff et al. 1977: 370; ex. (43))

In *Schegloff 01*, *other* (*B*), by initiating repair upon *self*'s (*A*'s) preceding utterance, treats that trouble-source as displaying a problem of production on the part of *self*. In Selting's terms, this is to say that *B* attributes or ascribes a problem to *A*, namely the problem of having used a word that *A* did not mean to use. *A* ratifies this imputation of an error to him by way of executing self-repair. Of the two sequentially appropriate alternatives, treating a problem of understanding on *B*'s part and treating a problem of producing the trouble-source on his own part, *A* executes the latter by redoing the critical turn constructional unit with the appropriate intonation and with the correct expression substituted for the one thus treated as inappropriate. Unfortunately, the transcript is cut off at this point but it can be assumed that *B* ratifies *A*'s self-repair at least implicitly by not getting back to it when speaking next.

In *Selting 01* below, *K* (line 237), by his other-initiation, makes manifest a problem of *other*, i.e., on his own part, namely the problem of identifying the referent of *hier* 'here'. This is what *K*'s utterance (line 237) is treated as by *S* who repeats the deictic and then explicitly specifies its referent (line 238).

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[27] Examples quoted from the work by other authors are marked out in the following way: <name of author> <*n*> where *n* is a number that stands for the n^{th} example quoted from that particular author.

[28] Instead of using the usual simple arrow, I follow the convention more recently adopted by Schegloff (cf., e.g., 1997: 507) of marking the repairable by a single-headed, the other-initiation by a double-headed, and the repair completion by a three-headed arrow. Otherwise, I assume a certain familiarity on the part of the reader with the CA conventions (cf. Sacks et al.: 731-735) that enables him/her to follow the transcripts.

Selting 01

234	S:		has denn ma náchgefracht eventuell
235			ob die nich so báld ma:l wieder- . son
236		->	Arbeitsbeschäffungsprogramm hábn híer?
237	K:	->>	. wó.
238	⌈S:	->>>	. hier bei der Stádt.
239	⌊K:		.. ach der Díngs wollt mir do immer besorgn [...]

(cf. Selting 1987b: 135)

Selting 01: gloss

‘234	S:		Did you ask them, by any chance,
235			whether they don’t have one of those
236		->	job creation schemes here, one of these days?
237	K:	->>	. Where?
238	⌈S:	->>>	. Here, with the city administration.
239	⌊K:		.. Oh well, this what’s-his-name always wanted to get me [...]’

(translation mine, T.W.)

In both of the sequences above, we encounter instances of other-initiated self-repair. The disparity between them with regard to who it is (*self* or *other*) whose problem is treated by the participants supports Selting’s suggestion that her “shift in perspectives” brings into view other aspects of repair activities than are accessible from the sequential point of view.

In her corpus-based studies on other-initiated repair (1987a,b,c), Selting, first, makes the two-way distinction that was just exemplified by *Schegloff 01* and *Selting 01* above: problems of understanding that become interactionally relevant by virtue of being made manifest by a participant as her own, on the one hand, and problems attributed or ascribed by a speaker to another interactant, on the other hand. Within both of these classes Selting distinguishes three problem levels. Summing up Selting’s elaborations on this point (1987a: 51, 1987b: 131-142), the levels can be labeled:

(i) form-based: problems concerning the “material” form of an utterance; acoustic problems of understanding/articulatory or other production problems in formulating an utterance

Sacks 01

	Desk:	What is your last name	⌈Loraine.
->	Caller:		⌊Dinnis.
->>	Desk:	What?	
->>>	Caller:	Dinnis.	

(Sacks et al. 1974: 702, fn 12; arrows mine, T.W)

(ii) semantic: problems[29] concerning the meaning of single elements of an utterance or expressions referring to particular entities, including problems of word search and of reference tracking

Sacks 02

->	Fern:	Well they're not comin',
->>	Lana:	Who.
->>>	Fern:	Uh Pam, unless they c'n find somebody.

(Sacks et al. 1974: 702, fn. 12; arrow mine, T.W.)

(iii) expectational/inferential: problems concerning/caused by (mistaken) inferences or (unmet) expectations. When expectational/inferential problems are dealt with, the *reciprocity* of certain factual assumptions expressed explicitly or inferably by one interactant are treated as being incompatible with one of the other participants' *frame of knowledge* ('Wissensrahmen'; Selting 1987b: 139).

Schegloff 02

	Ken:	Is Al here today?
->	Dan:	Yeah.
		(2.0)
->>	Ken:	He is? hh eh heh
->>>	Dan:	Well he was.

(Schegloff et al. 1977: 364)

Connecting back once more to one of the original goals of Schegloff, Jefferson, and Sacks' (1977), Selting suggests a preference hierarchy in which the three problem types are ordered with regard to each other (1987a: 152-155, 1987b: 145). *Preference*, here, is understood in an explicitly psychological sense as a disposition of interactants to treat problems as trouble of a lower-level type rather than a higher-level type, i.e., form-based rather than semantic rather than expectational/inferential problems. In her attempt at elucidating what motivates this preference hierarchy, Selting refers to Goffman's concept of *face* (1967). Accordingly, rational interactants are assumed to treat problems in a way that allows them to maximally preserve their own face and—in most kinds of talk—their interlocutors' face as well. On this basis, it appears less costly to display an acoustic problem than making manifest a semantic problem of understanding which is still less embarrassing than having to confess that one is missing one of the crucial background assumptions (e.g., that it goes without

[29] Cf. Selting's term *semantische Zuordnungsprobleme* ('problems of semantic reference;' 1987b: 134). Schegloff discusses a subset of these problems (*mis*understandings—excluding total *non*-understandings—on the part of the recipient of the trouble source) by the label of *problematic reference*:"Problematic references are addressed when a recipient's response to an utterance displays a to-its-speaker-acceptable understanding of what that prior utterance was doing [...] but reveals a 'misunderstanding' of some reference in that turn" (Schegloff 1987: 201).

saying that the previous utterance relates in a particular way to the present topic of conversation) that seem to underlie the speaker's utterance.

It is fundamental to Selting's approach to repair that the three problem subtypes are meant as participant categories on the level of social but not necessarily psychological reality (cf. Selting 1987b: 132). That is, while she aims at showing that interactants *treat* different problems of understanding *as* problems of different types which implies that they make manifest or impute to each other the experience of trouble, it can remain undecided whether or not the individuals do actually experience or have experienced the problems they deal with interactively. And, of course, that makes for the possibility that one participant may be mistaken in his attribution of a problem to another participant. Hence, while the issue of what problems interactants experience in a particular situation is both undecidable and irrelevant to the interaction itself, Selting's taxonomy of problem types represents a helpful analytic tool because she is able to demonstrate that interactants produce different typical prosodic and/or syntactic cues that correspond to the three types of problem treatment respectively (for details, cf. 1987a: 51; 1987b: 132-142). An intuitively plausible categorization thus is borne out by observable differences in interactive behavior.

As a tool in her study on other-initiated other-repair, Selting suggests *reconstructing* the attributions of problems of understanding to co-participants in the form of meta-interactional statements like "You got me/something wrong" or "There is something wrong with your utterance" (cf. 1987a: 38) or, to use a more concrete example with regard to fragment *Schegloff 01* above, "I doubt that you really meant '*sellin* cigarettes' when you said it". Reconstructions of this kind do not imply claims about what interlocutors "mean" by or have "in" their minds when initiating repair. Rather, they have to be taken as an analyst's account of, a manner of talking about, the interactive functions or effects that repair initiations observably yield in actual conversational contexts. The analyst must support these accounts by finding empirical evidence indicating that the interactants under observation *treat* problems of understanding *as* the very problems referred to in the reconstructions.

Following this analytic procedure, it is possible to distinguish types of repair initiations and, hence, of repair sequences in three dimensions according to:

- whether the initiator makes manifest a problem of his own or attributes a problem to another participant (cf. the y-axis in table 1)
- whether the problem treated is one of interpretation or one of production (cf. the x-axis in table 1)
- what kind of problem (form-based, semantic, expectational/inferential) is treated (cf. (*i*) vs. (*ii*) vs. (*iii*) below)

Table 1: Types and subtypes of repair initiations reconstructed in terms of Selting's categories

initiation type x.y	1.y a speaker's manifestation of his/her own problem	2.y a speaker's attribution of a problem to an interlocutor
x.1 interpreting an utterance	1.1 subtypes: (*i*) "I'm having acoustic/parsing problems understanding what you are saying/said"[30] (*ii*) "I'm having problems understanding what you mean/meant by '...'." (*iii*) "I'm having trouble with one of your apparent background assumptions that you presuppose/presupposed when you say/said '...'."	2.1 subtypes: (*i*) "You may have/have had acoustic/parsing problems understanding what I'm saying/I said." (*ii*) "You may not understand/not have understood what I meant by '...'." (*iii*) "You may not share with me a certain background assumption that I presupposed when I wanted to say/said '...'."
x.2 producing an utterance	1.2 subtypes: (*i*) "I'm having/had problems expressing what I want to say in the right form." (*ii*) "I'm having/I had trouble expressing what I want/wanted to say." (*iii*) "When I said/wanted to say '...,' I was mistaken in presupposing as a back-ground assumption that ..."	2.2 subtypes: (*i*) "You are having/had problems expressing what you say/said in the right form." (*ii*) "You do/did not mean what you express/expressed by saying '...';" "You are/were mistaken in assuming that your recipients know/do not know who/what '...' is." (*iii*) "Your apparent background assumption that ..., when you say/said '...,' is problematic."

In the light of Selting's claim of pursuing and developing rather than abandoning the conversation analyst tradition in her work on repair, the proposal outlined above should be put in relation to the concepts of her American colleagues:

Trouble-sources and *repairables*: Selting explicitly adopts Schegloff, Jefferson, and Sacks' notion of repair as the local treatment of trouble that deals with (elements of) utterances, *repairables* or *trouble-sources*, that are "sequentially immediately

[30] The present tense and past tense versions of these reconstructions express the difference between repair initiations in same turn or transition space vs. repair initiations in (by other) or after (by self) next turn respectively (cf. Schegloff et al. 1977).

prior" (Selting 1987b: 130; translation mine, T.W.) to the repair initiation. *Trouble-source* and *repairable* both are terms compatible with a interpretational approach to interaction where the former focuses on the troublemaking effect of an utterance or part thereof whereas the latter refers to that utterance as being in need of conversational treatment in order to overcome that effect.

Repair initiation: Selting's preferring the terms *problem manifestation* and *problem attribution* to *repair initiation* is a consequence of her perspectival shift from issues of sequential structure to the interactants' collaborative attempts at making sense of each others' activities. While Selting thus focuses terminologically on the aspect of repair that is most salient for her, she is interested in problem manifestations and attributions only insofar as they stand in a sequential relationship to problem treatments. This interest she shares with the proponents of classical CA who adopted the terms *repair initiation* and *completion* to express this very relationship between repair activities.

The terminological opposition of *manifestation* vs. *attribution* allows Selting also to address a functional difference between kinds of repair initiations. In conclusion, Selting's introducing a new terminology re ects her development rather than abandoning of insights gained by the conversation analysts. This also is clear from the fact that the CA distinction between self- and other-initiation can be accounted for in terms of Selting's dimensions of *manifestation/attribution* and *problem of understanding/problem of production* (see table 1 above: types 1.1 and 2.2 vs. 1.2 and 2.2) that allow for a functionally motivated four-way differentiation in the realm of repair initiation.

Repair completion: Again, the substitution of *problem treatment* for *repair* and *repair completion* is a move by which Selting emphasizes her functional perspective on repair. Table 1 represents four types (with three sub-types each) of directing the focus of interaction to conversational problems, i.e., *initiating* repair, while being neutral with regard to *completion* types. This seems to be in line with Schegloff and several others who have emphasized that the organization of repair is absolutely independent of the source of the trouble treated by it (cf., e.g. Schegloff 1987a: 201), i.e., of whether the problem dealt with is one of production or understanding and whether it is a form-based, semantic, or expectational/inferential one. This claim will be reevaluated in the light of the data analyses presented in chapter 5.

At this point of the discussion, the concept of repair has become sufficiently clear to allow us to define it from the participants' point of view as a basis for the remainder of the study: repairs are activities that aim at dissolving *trouble* of understanding or producing utterances that interactants perceive with respect to (certain elements of) their own previous or ongoing contributions or contributions by their interlocutors. An utterance is to be characterized as a *source of trouble* if discourse participants observably focus on one of the *pre*conditions that must hold for the activity to be successful and if they signal that this condition seems not to

be fulfilled. Selting has pointed out three types of such preconditions and related kinds of conversational problems (form-based, semantic, expectational/inferential). Repairs thus are conversational activities that are *not* sequentially projected by preceding troublesome utterances but are concerned with negotiating problematic aspects of the trouble-sources that prevent them from being felicitious.

3.1.4 What makes shared background repair activities special

Selting brie y addresses the relation between repair and shared background when she characterizes the treatment of *expectational/inferential* problems as the "'filling of a knowledge gap' of the problem carrier" (*'Füllung einer Wissenslücke' des Problemträgers*; Selting 1987b: 139; Selting's quotation). She defines problems of that type as being due to a lack of reciprocity with regard to the interactants' background assumptions, "prerequired knowledge" (*Wissensvoraussetzungen*; ibid.), or "frames of knowledge" (*Wissensrahmen*; ibid.). We have seen in previous chapters that shared background or, to use Selting's term, knowledge assumed to be reciprocal comes into play when an interactant relies in his/her activities on, mostly implicit, higher-level assumptions about what his/her interlocutors know, assume, take for granted, and what assumptions they, in turn, impute to him/her. The repair activities that are the focus of the present study and that, for reasons of brevity, will henceforth be referred to as *shared background repair activities*, thus are repair initiations and completions that speakers perform in consideration of what they assume to be the shared background in a particular interactional situation.

What, then, distinguishes shared background repair activities from other types of repair activities? This question presupposes that an individual may engage in repair without a concern for the background he shares with his interlocutors. The majority of the self-initiated self-repairs presented in Schegloff et al. (1977) are of that kind indeed, including false starts and non-interactive word searches. This assessment seems generalizable for conversation and can be confirmed by a cursory look at a random fragment of conversational data.[31] Nevertheless, no obvious negative or positive correlation holds between any given sequential types of repair and shared background activities that would allow the analyst to identify the latter simply on the basis of recognizing which participant initiates and completes the repair and at which stage of the interaction.

If shared background repair activities cannot be identified from an outsider's standpoint, the obvious procedure is to approach them from the participant's point of view and define *shared background repair activity* as a participant category. The

[31] A count in a randomly chosen 4.5-minutes' fragment of my own data yields 14 cases of non-interactive self-initiated self-repair where the speaker first makes manifest and then fixes a problem producing his or her utterance. In the same fragment, only four repair sequences occur that, as I will try to show later, treat aspects of the shared background.

question of whether or not an utterance or other activity is to be *interpreted* as a shared background repair activity then is turned into the question of whether or not the interactants *treat* it as such. That is, the analyst will orient to the understandings displayed by the interactants he observes even if these understandings are counter to his own intuitive interpretations. An understanding displayed by an interactant will only be identified as, for instance, a misunderstanding concerning an item of the shared background if it becomes demonstrably problematic for the participants in the course of the interaction.

From this perspective, a "misunderstanding" that remains untreated by the participants or a "repair-initiation" that is not followed by a repair completion or an attempt at completing repair are inconsistent concepts. In brief and in ethnomethodological terms, contributions to interaction are fundamentally indexical (Garfinkel 1969) in that the kind of contribution they make depends, among other factors, on the other activities that form the context of that utterance; interpretation, hence, is *contextualization* (Fox 1994, Auer 1992, Gumperz 1992) in that determining the meaning and function of an utterance means to recognize or even establish its relation with all aspects of its interactional context.

The problem of interpreting discourse, however, is not that of interpreting a single utterance against the background of an unproblematic understanding of its context. Like the individual knots in a net, every utterance is defined by its context and, at the same time, is part of the context of those very utterances in relation to which its function and meaning emerge. Hence, for an attempt at identifying instances of shared background repair activities, it seems of little help just to refer to preceding and subsequent utterances that are treated by and treat the contribution in question and thus are indispensable for its categorization and contextualization from the participants' perspective.

Rather, the interpreter's intuitions, being beyond his control and ability to re ect upon them explicitly, will, for every given utterance, suggest to him interpretations, "locate fields of" possible interpretations (Heritage 1994), that are constrained but not fully determined by what he knows about its context. The fewer facts he knows about the context the more he has to infer or presuppose; and chances are that he will do this based on what he intuitively considers "normal" circumstances. In principle, however, there is, for every conceivable utterance, an infinite number of possible interpretations that are compatible with an interpreter's intuitions if he makes appropriate, possibly complex and—according to the common sense—unrealistic, assumptions about the context.

There are no systematic limits to making contextual assumptions, and one can never know to what extent one's interlocutors or the individuals whose activities are to be analyzed for the purpose of linguistic study are "normal". Because this is so, to investigate the ways interactants treat each other's activities as shared background repair activities in real interactions, that is, to ground one's contextual assumptions

about interactional activities in specific observable behavior rather than thought experiments is an interpretative strategy that binds the analyst's uncontrollable yet non-excludable intuitions back to what can be observed and accounted for intersubjectively.

In order to make those rather abstract considerations about how the identification of shared background repair activities may be possible from an outside observer's standpoint more concrete, I present and analyze four sequences both from my own data and cited in Schegloff's work on repair to demonstrate how a contextualizing analysis is able to distinguish in practice between an ideal case of shared background treatment and repair sequences in which shared background is not at issue.

3.1.4.1 An ideal case of shared background treatment

The analysis of the sequence presented below aims at demonstrating what it means for interactants to *treat* an assumption *as* an aspect of the shared background. Furthermore, I would like to contrast shared background repair activities with conversational activities of other kinds and show that it is not the sequential properties of an utterance alone that determine whether it is an instance of a category of the former or the latter type. If one takes seriously the idea of participant categories, an interpretation of what an utterance means and does in interaction must depend on the relation between that utterance, the activities preceding it, and the way it is followed and taken up by its speaker and the other interactants.

The fragment *Fahrenheit* below represents an instance of what Schegloff (1992) refers to as third position repairs:

> Third position repairs are done in the turn after a turn containing an utterance analyzably built to be "next" to some prior.

In third position repair sequences, that is, a trouble-source (*T* 1) is followed, in the turn immediately succeeding it or at some time later, by another participant's utterance (*T* 2) that is designed as a response to *T* 1. *T* 2 is taken by the producer of the trouble-source as evidence of a mistaken understanding on his interlocutor's part and thus followed by self-repair in *T* 3 which, in turn, is ratified by *other* either implicitly or explicitly. Schegloff (1992) has proven the concept of *position* to be useful in pointing out general organizational properties of repair after next turn that are independent of whether the repair occurs in the serially third or some later turn. The term also is useful for the analysis of multi-party interactions like the one exemplified by the fragment *Fahrenheit* in which several participants respond to a contribution in *T* 1, that is, they all design their utterances to be next to the trouble-source (*T* 2a,b) rather than the turn that serially precedes them immediately.

Consider the following example from a dinner table conversation among friends. *Fahrenheit* is a side-sequence to a report by Hans about his previous weekend's

skiing trip, which is interrupted at this point and resumed later. The side-sequence is initiated by Hans when he turns to Tom to ask him how skiing was when he went the last time. As part of his answer, Tom gives a weather report of his trip.[32]

Sequence 01: *Fahrenheit (03_09t)*

- trouble-source: '... acht GRAD oder so ...' (07)
- item that Tom mistakenly treats as if it were shared by Hans at the time the misunderstanding becomes apparent (09-11): 'acht GRAD' refers to eight degrees on the Fahrenheit scale (cf. 14).

01	Tom	und es war EINfach nur kAlt.
		And it was just cold.
02	Hans	hm.
		hm.
03	Tom	also auch blauer HIMMel,
		I mean, blue skies, too,
04		tolles WETter,
		great weather,
05	Hans	EM=m
		EM=m
06	Tom	aber halt (.) hundeKALT.=
		But (.) very cold.=
07		=also ich schätze so (.) acht GRAD oder so.
		=I'd guess about (.) eight degrees or so.
08		(---)
09	Hans	a:h.
		Ah.
10		is ja in ORDnung.=
		Well, that's alright.=
11		=acht grAd [(.) is] ja (TIE[risch).
		=Eight degrees. that's quite (amazing).
12	Rolf	((-> T)) [PLUS?]
		above zero?
13	Carl	((-> H)) [ne=ne [ne=ne NE::.]
		no=no no=no NO::.
14	Tom	((-> H)) [FAHrenheit.]
15	Carl	k(h)ein C(h)ELsius. [((lacht))
		n(h)ot centigrade. ((laughs))
16	Hans	[↓FAHrenheit.
17		((schüttelt den Kopf)) (...)
		((shakes his head)) (...)
18		ja ich WEIß nich also,
		Well, yes, I don't know,
19		(also) ICH fands nIch so kalt.
		(Well) it didn't feel that cold to me.

[32] For the transcription conventions adopted here, cf. below, section 4.2.

```
20          war alles in ORDnung.
              Everything was okay.
21   Carl   vielleicht war es (.) WÄRmer als acht grad.
              Maybe it was (.) warmer than eight degrees.
22   Hans   ich DENK mal es war wÄrmer.
              I think it was warmer.
23          (1)
24   Tom    wie war der SCHNEE?
              how was the snow?
```

In the initial phase of his narrative, Hans asked Tom what the weather had been like when he, Tom, went skiing. Tom replies (01-06) that the weather was cold but great otherwise. He produces the source of the ensuing trouble when he estimates the temperature at 'acht Grad oder so' (*about eight degrees*) which he characterizes as 'hundekalt' (06; *biting cold*). At this point, he presupposes as unproblematic that everyone understands *eight degrees* on the Fahrenheit as opposed to the Centigrade or some other scale. Or rather: Tom himself retrospectively *treats* his estimate as having taken this presupposition for granted when he, in response to Hans's uptake of the weather report, executes third position self-repair to the effect that the referential misunderstanding displayed by Hans is solved. Tom achieves this by turning to Hans with a smile, nodding brie y, and uttering 'Fahrenheit' in a low pitch register and with falling terminal intonation. Hans treats Tom's utterance as a self-repair, *viz.* as supplementing his prior utterance, by expressing surprise and irritation about the unexpected information (16-19). This is re ected by what Hans says and by the way he says it in a hesitant manner of speaking (pause, self-repair), accompanied by a confused gaze, facial expression, and gestures.

The problem that is treated by the interactants in the sequence above is a semantic one that Tom ascribes to Hans which, in response, is ratified as correct by Hans. Put in Schegloff's terms, Hans and Tom engage in a third position repair sequence in which they deal with a misunderstanding due to the *problematic reference* of a deictic element (1987a: 204, 1992). The aspect of the background that turns out here to have been mistakenly assumed by Tom to be shared among all participants is the referent of 'acht Grad'. But one can be more specific: Hans's problem is not one of not knowing at all what to make of the phrase 'acht Grad.' The misunderstanding, rather, arises because he succeeds in interpreting the trouble-source against a background that, however, was demonstrably not intended by the speaker.

This analysis exemplifies a way of interpreting a given utterance with reference to the verbal and non-verbal elements in whose context it occurs. What follows a given first utterance, in turn, only makes sense if understood relative to preceding or succeeding activities or—if the data base is not rich enough to tell—potential activities. Here an infinite progression emerges to the effect that a definite interpretation of a contribution to an interaction cannot be achieved before everything is said and done. Progressions of a similar kind were encountered in

the context of Lewis's model of common knowledge and its reception by cognitive psychologists. Then, it was argued that implicit third-level replications of common knowledge provide the necessary and, for most cases, empirically sufficient basis for interactants to interpret each other's activities. It was also argued, however, that common knowledge both in the accounts by Lewis and by various psychologists implies the possibility of failure due to its structural finiteness.

In the same manner, I suggest that a contextualizing analysis, by way of relating conversational activities to each other and their local environment, allows the analyst to support higher-level interpretations and thus to restrict the range of plausible understandings for a given isolated utterance that his linguistic and cultural intuitions suggest to him with reference to observable facts that are accessible to him. The preliminary nature of such an analysis is a consequence of the nature of discourses that are open rather than clearly defined by structural beginnings or endings. To characterize discourses as open implies—as I have done explicitly above (cf. section 3.1)—that, in the light of novel evidence, the participants in and the analyst of a past interaction may have to abandon or modify their interpretations of any given utterance or activity that they arrived at on the basis of all the facts available to them earlier.

A retrospective analysis also finds its justification in the observed interactions themselves. In our present example, it is of no relevance for the coming about of a successful exchange between Tom and Hans whether or not Tom "really" "meant" the Fahrenheit scale when he mentioned the eight degrees (cf. *Fahrenheit*: 07). The data do not warrant claims about interpretational states and activities of the individual participants, even if they are strongly suggested by common sense. But then, it does not matter for the progress of the conversation what Tom meant by a given utterance as long as it is taken up by his interlocutor in a certain way and Tom subsequently ratifies this uptake by his behavior.

In *Fahrenheit*, the trouble-source as well as the item of the background that Tom as the speaker of the trouble-source—mistakingly—treats as an item of the shared background by leaving it implicit are easily identified:

- trouble-source: '... acht GRAD ...' (07; *eight degrees*)
- item that Tom mistakenly treats as if it were shared by Hans at the time the misunderstanding becomes apparent (09-11): 'acht GRAD' means eight degrees Fahrenheit.

Furthermore, the fragment provides evidence for the participants', Hans's and Tom's, orientation to each other's mutually related higher-level assumptions about the shared background whose sharedness is at issue. Those implicit assumptions may be reconstructed in a Lewisean manner:

> In the context of the present sequence, Tom's self-repair (14) indicates that he (Tom) assumes that
>
> Hans's response to the trouble-source re ects Hans's assumption that

he (Tom) assumed the Fahrenheit scale as an item of the shared backgroundagainst which his utterance of 'acht grad' was to be understood.
And:
In the context of the present sequence, Hans's expression of surprise and irritation (16-19) indicates that
he (Hans) assumes that
Tom, as indicated by his self-repair, assumed that
he (Hans) assumed that
Tom assumed as an item of the shared background a reference point other than the Fahrenheit scale when he uttered 'acht GRAD'.

Let us be strict: a speaker can never, by an utterance, deal explicitly with the background of this very utterance. Background treatment *qua* treatment is explicit and explicit activities *qua* explicitness occur in the foreground. What is possible, however, is that an utterance brings into the foreground of interaction a particular assumption, retrospectively and meta-interactively, as a background assumption that underlay a past utterance or activity. The present sequence is typical for shared background treatments in that it deals with an item of the background whose sharedness has become problematic for one of the participants and then is treated as problematic by both of them. While it is not impossible to bring into the foreground assumptions which everyone assumes are unproblematic, this is not what interactants usually do or even tolerate.[33]

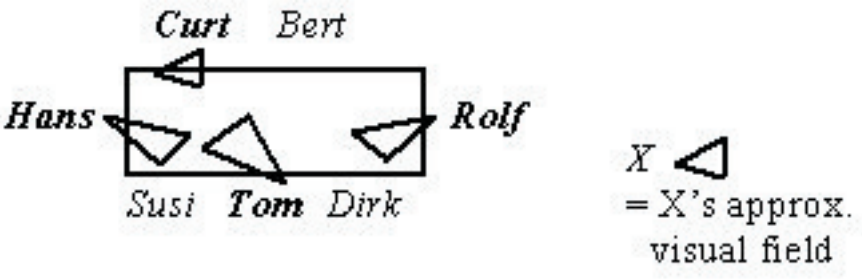
Sequence 01: *Fahrenheit* also makes apparent that an utterance that is not taken up and thus interpreted by its speaker or another participant leaves the analyst, in his attempt at interpretation, alone with his intuitions devoid of intersubjectively accessible support. Overlapping Hans's response to Tom's weather report, Rolf (12) utters 'PLUS?' (*aBOVE zero?*) with rising terminal intonation that characterizes summonses for confirmation. Rolf, when taking the turn, brie y gazes at Tom thus indicating that Tom is his intended recipient. This is also suggested by the fact that Rolf's utterance seems designed to be next to Tom's (under-)specification of the previous weekend's temperature. In the data, however, we do not find any interactive support for this intuitive interpretation. Rolf's utterance leads into an interactional dead end; it is neither responded to by anybody—Tom's subsequent 'FAHrenheit.' is clearly addressed to Hans—nor followed up upon by Rolf himself.

The data certainly suggest reasons for why Rolf's utterance remains unsuccessful as a contribution to the conversation: Rolf has not been involved in the exchange for some time, and his position is outside the visual field of Tom who, on and off, is maintaining eye contact with Hans (cf. Table 2):

---

[33] Cf. section 4.2.4 below, where shared background treatments will be discussed from the perspective of the second clause of Grice's quantity maxim.

Table 2: The participants' visual fields in the sequence Fahrenheit



At this point, the ethnomethodological concept of participant categories provides a useful guideline for the analysis. Accordingly, categories are invoked only if their relevance for the participants under observation is displayed by these very participants' interactive behavior. On this basis, then, it is not warrented to characterize Rolf's 'PLUS?' as a question of any kind and certainly not as a failed other-repair initiation. Could it not have been a mere expression of surprise? There is no way to tell.

The situation is similar, if somewhat more complex, with Carl's (13, 15) response to Hans's uptake of the weather report. Here, the intended addressee is Hans. But again, there is no indication whatsoever that Hans even takes notice of Carl's utterance. We do find evidence for Carl's higher-level assumption about Hans's interpretation of Tom's preceding contribution. Shared background, however, requires a mutual relationship between the share-holders' higher-level assumptions, and there is no evidence provided by the data that Hans is entertaining any higher-level beliefs about Tom. Hans's being silent and, more than that, being completely non-reactive with regard to Carl is not an unmarked way of ratifying what Carl said but renders it a futile utterance and unsuccessful as a contribution to the ongoing exchange.

3.1.4.2 Treating background without treating *shared* background: fourth position repair and similar cases

Another approach to delimiting the category of shared background repair activities is to look at boundary cases in Schegloff's (1997) sense that, in many regards, are similar to the ones in the focus of this study but clearly not cases of shared background treatments. This is the case with regard to an entire subclass of repairs that Schegloff refers to as *fourth position repairs* (Schegloff 1992: 1320):

> What third position repair is to the speaker of a trouble-source turn, fourth position repair is to its recipient's understanding of it. Third and fourth position are "self's" and "other's" (i.e., speaker's and recipients') post next turn position for dealing with problematic understandings of some turn (*T* 1) (1992: 1324).

Two of Schegloff's own examples may serve to make evident why they are not indicative of the state of shared background at the stages of the exchanges at which they occur respectively. In excerpt *Schegloff 03*, fourth position repair (*T* 4) is completed in the serially fourth turn of the sequence:

Schegloff 03

T 1		Marty:	Loes, do you have a calendar,
T 2		Loes:	Yeah ((reaches for her desk calendar))
T 3		Marty:	Do you have one that hangs on the wall?
T 4	->	Loes:	Oh, you want one.
T 5		Marty:	Yeah (Schegloff 1992: 1321)

In the fragment represented above, the trouble-source is produced by Marty in *T* 1, Loes initiates and completes the repair in *T* 4 . The problem treated by Marty and Loes is not easily subsumed in one of the classes proposed by Selting; Schegloff's own category of *problematic sequential implicativeness* (1987a) represents a fourth type of trouble and is more appropriate to account for the present case in which Loes deals with his having missed the interactive point of Marty's troublesome utterance (*T* 1) by initiating and completing self-repair in *T* 4. After having responded to Marty's first utterance as to a request to borrow a calendar, *T* 3 provides evidence that Loes has abandoned his initial understanding and reanalyzed *T* 1 as a request by Marty to provide him with a calendar of his own.

A second example demonstrates that fourth *position* need not coincide with the fourth *turn* in a repair sequence:

Schegloff 04

		Phil:	Hello?
T 1		Lehroff:	Phil!
T 2		Phil:	Yeh.
		Lehroff:	Josh Lehroff.
		Phil:	Yeh.
T 3		Lehroff:	Ah:: what've you gotten so far. Any requests to dispatch any trucks in any areas,
T 4	->	Phil:	Oh you want my daddy
		Lehroff:	Yeah, Phi⌈l,
		Phil:	⌊Well he's outta town at a convention. (Schegloff 1992: 1322)

|

Excerpt *Schegloff 04* shows an instance of fourth position repair much alike *Schegloff 03* except that in the present case there is some intervening talk unrelated to the organization of repair between *other*'s, i.e., Phil's, initial response to the trouble-source (*T* 2) and Lehroff's utterance which triggers his reinterpretation of the trouble-source (*T* 3).

Both examples have in common that *T* 3, which is not to be analyzed as a repair initiation, provides evidence indicating to the repairer that s/he misinterpreted some prior trouble-source, namely *T* 1. Schegloff describes in detail the way in which fourth position repair is performed by a speaker:

> [...T]he basic format of fourth position repair has two components. First is what Heritage (1984b) has termed the 'change-of-state' token, 'Oh.' This is for the most part followed by a recharacterization of the *T* 1, the trouble-source turn [...] The proffered reanalysis is confirmed by the *T* 1 speaker, and the repairer then offers a new response to the *T* 1. In one case, the proffered reanalysis is omitted, and the fourth position repair consists only of the 'oh' and a revised response to the trouble-source turn (Schegloff 1992: 1323).

Unlike third position treatments of misunderstandings, participants in the fourth position repair sequences presented by Schegloff seem not to be engaged in interactively treating a problem of understanding *as* a problem of understanding. When Schegloff, thus, states that "the proffered reanalysis is confirmed by the *T*1 speaker," this is a plausible characterization in the light of the knowledge that he has available as an analyst. However, what we, from our outsiders' position and Loes, the problem carrier, identify as a *re*analysis is not treated as such by the producer of the trouble-source. Marty does not give an indication that he perceives a problem at all.

As was suggested previously when self-initiated self-repairs in same turn were discussed, fourth-position repair—at least the examples presented to us—serve the unilateral treatment of a *problem* of understanding by the recipient of a trouble-source that is not acknowledged as such, i.e., as problematic, by its producer. Higher-level assumptions, i.e., *R*'s assumption about *S*'s assumption about *R*'s assumption ... that ___, are not re ected by the participants' contribution to this kind of repair sequence; statements about the state of the shared background thus cannot be supported on the grounds of conversational evidence here. In support of this conclusion third and fourth position repair may be schematically compared to each other with regard to the participants' assumptions as they are re ected by their respective activities (*S*/*R* = speaker/recipient of the trouble-source):

Third position repair:

- By completing self-repair in *T* 3, *S* indicates that he assumes that *R*'s utterance in *T* 2 re ects her mistaken assumption that *S* meant ___ by his utterance in *T* 1.
- By ratifying the self-repair, *R* indicates that she assumes that *S* self-repair re ects her assumption that she mistakenly assumed that *S* meant ___ by his utterance in *T* 1.

Fourth position repair:

- By performing other-repair in *T* 4, *R* indicates that she assumes that *S* by performing *T* 1, meant ___ rather than ... .
- By confirming *R*'s "reanalysis," *S* indicates that he assumes that *R* understands that her point is ___.

Fourth position repair thus is a kind of unilateral treatment of his/her own problem by the recipient of a trouble-source that retrospectively makes manifest one of his/her tacit assumptions, namely an understanding of a previous utterance that has become problematic to him/her. To be sure, the exchange in its structural organization is interactive by the very fact that the various contributions stand in sequential relationships to each other. If one, however, takes "problem" to be a participant category, neither Marty nor Lehroff, in the examples above, indicate that they are perceiving any kind of trouble *as* trouble on their respective interactants' part.[34] Their assumptions about the state of the background shared at the time of the exchange cannot be reconstructed on this basis.

The format "change-of-state token & recharacterization of the trouble-source" is not contingent on fourth position repair as sequence *Vegetarier II* below demonstrates. This multi-party exchange—taken from the same dinner table conversation as the sequence Fahrenheit above—follows Carl's warning Bert that the food served for dinner is not vegetarian. Rolf, Bert's roommate, is obviously surprised, turns to Bert and asks him if he was a vegetarian (02). Bert, somewhat embarrassed, answers: 'EIgentlich JA.' (03; *Strictly speaking, yes.*) which later turns out to be the trouble-source. What, according to Schegloff's analysis, it a repair completion, namely Tom's exclaiming '!DAS! meint der mit eigentlich. geNAU.' (13; *That's what he means by 'eigentlich.' Exactly.*), follows after several intervening contributions by other participants. Most notably among them is Dirk's jocular elaboration on Bert's troublesome remark. Assuming Bert's role, Dirk repeats Bert's answer to Rolf's question and "completes" it in a way that clearly and jokingly shows the inconsistency between Bert's self-characterization as a vegetarian and his eating meat (08; *but I can't say 'no' when offered a good steak*). After having received this "information," Tom indicates (13) that now he has understood what Bert really meant when he said 'EIgentlich JA.'.

Sequence 02: *Vegetarier II (02_17t)*

- trouble-source: '... eigentlich ...' (03)
- item that Tom treats as problematic to him prior to the repair (13): the meaning of 'eigentlich' when uttered by Bert (03).

```
01   Rolf    ((|-> B)) wieSO?
                ((|-> B)) Why?
02           bis du vegeTArier?
                Are you a vegetarian?
03   Bert    eigentlich JA. ((schaut vor sich hin))
                Strictly speaking: yes. ((looks down))
04   ((Everyone, except Bert, laughs))
05   Dirk    ah=das sin die BESten vegetarier.=
                Ah=those are the truest vegetarians.
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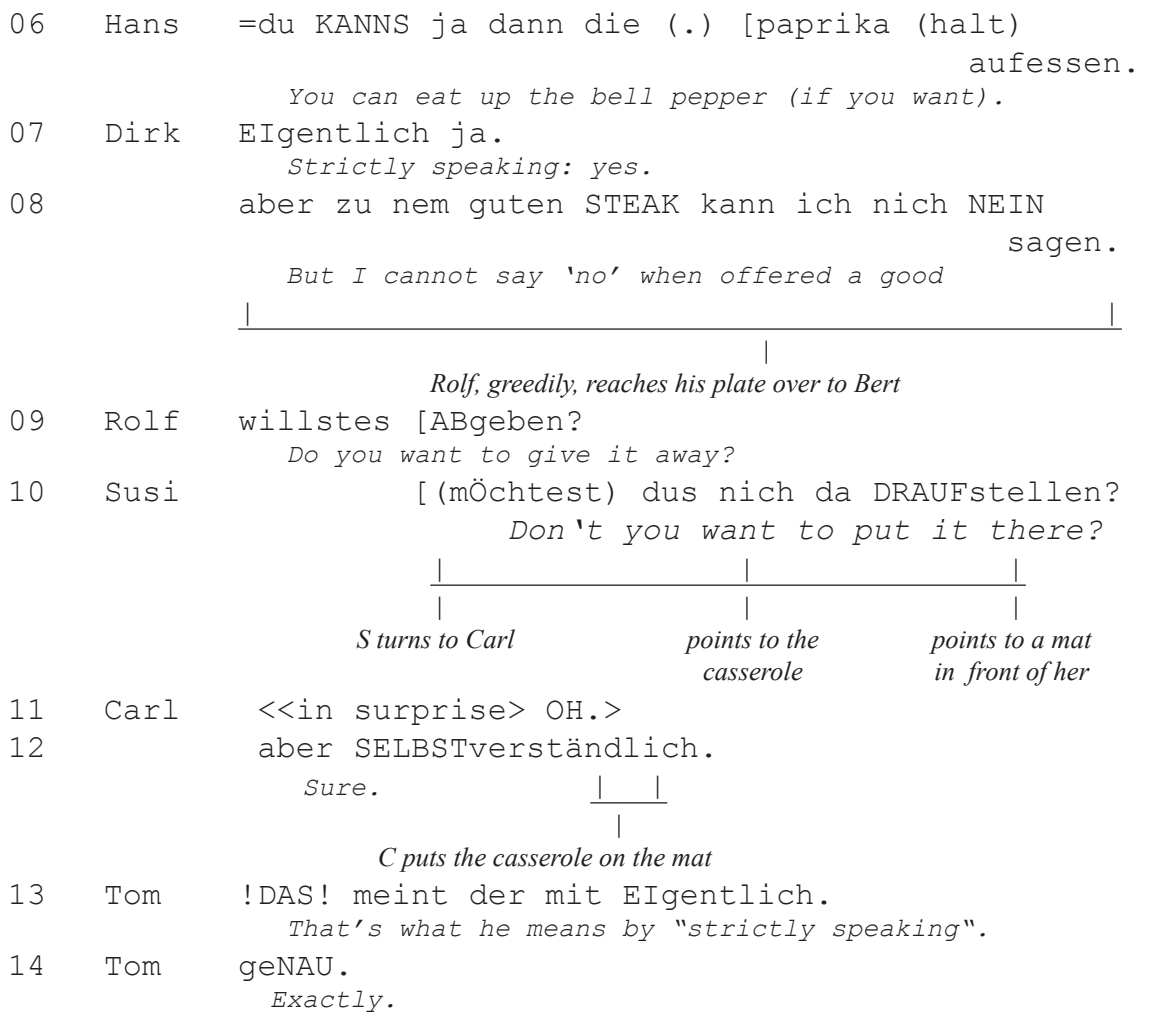

Tom's repair (13) is designed as a (re)interpretation treating Bert's utterance (03) as the source of a semantic problem concerning the meaning of 'EIgentlich'. The repair does not include a typical change-of-state token like 'AH' or 'ach SO.' Functionally speaking, however, there are various ways in German to indicate what, according to Heritage, change-of-state tokens are manifestations of, *viz.*, that the speaker "has undergone some kind of change in his or her locally current state of knowledge, information, orientation or awareness" (Heritage 1984b: 299). In the present case, Tom achieves this by putting an extra strong accent on '!DAS!' (*that*), and by underscoring his interpretation at the end of the turn ('geNAU.' *Exactly*.). Given this indication of a change in his understanding of Bert's use of 'EIgentlich,' Tom's repair, in its particular sequential placement, may be interpreted as indicating that he arrived at an interpretation of the trouble-source for the first time or after

[34] The fact that excerpt *Schegloff 03* exemplifies the treatment of an expectational problem can be taken as evidence that, contrary to Selting's characterization (1987b: 138), expectational problems do *not* always concern the reciprocity of interactants' assumptions. Selting, however, does not consider cases of fourth position repair.

having discarded his original understanding in the light of novel evidence provided by Dirk in the previous turn (07-08).

The fragment *Vegetarier II* shares several features with Schegloff's instances of fourth position repair sequences: there is the trouble-source (03), the turn that provides the evidence triggering Tom's (re)analysis (07-08), and the other-repair/(re)analysis (13) executed in a way that re ects Tom's change in understanding and can be characterized structurally as instantiating a variant of Schegloff's fourth position repair format. Not present is the repairer's immediate response to the trouble-source that would re ect his original interpretation.

The elaborate discussion of the sequence leads up a number of conclusions:

- Tom's utterance in (13) can be analyzed as an instance of repair to the same extent as Schegloff's cases of fourth position repair. This is worth emphasizing because Tom's as well as Loes' and Phil's (re)analyses seem marginal members of the class of repairs that, given the lack of an operational definition, are not obviously subsumed into the same category with false starts and corrections. This supports a view according to which repair is a radial category in the sense of prototype theory with central and peripheral members rather than an Aristotelian category with regard to which all elements are equally "good" examples of the entire class.
- Schegloff's examples as well as the fragment *Vegetarier II* represent kinds of problem treatment that *as* such are not mutually acknowledged by the interactants. The speaker upon whose utterance the repair is executed does not provide any indication that he is aware of the repair *as* the treatment of a problem. Since an empirical study of shared background has to refer for its evidence to manifestations of the interactants' higher-level assumptions about each other, these displays of (re)analysis are outside the scope of this study.

In addition to what was demonstrated by the analyses above with regard to what characterizes shared background repair activities as a special case of repair activities in general, it can be concluded that shared background repairs are interactive problem treatments by which the participants display their awareness of a problem concerning a particular item of the shared background. Trivially, this implies that shared background repairs are complex activities involving the interrelated contributions of at least two interactants. This criterion allows the analyst quite easily to exclude from consideration the vast majority of self-initiated self-repairs in same turn and, thereby, the large part of repair tokens in general. Not all complex and interactive repair sequences, however, deal with shared background and it was demonstrated above how, for instance, Schegloff's fourth position repair sequences can be shown not to be included in the class that is in the focus of the present study.

While it may seem desirable to have in hand more specific criteria that would allow an analyst to clearly identify tokens of shared background repair sequences, to provide them would mean to present the results of the analysis before the study is done. As with Schegloff, Jefferson, and Sacks' investigation of repair (1977), a dilemma becomes apparent here that is a consequence of the conversation analytic research strategy defended earlier: prior to the empirical study of a (participant) category of conversational phenomena whose characteristics are to be determined by study, the extension and definition of that category can only be specified in a vague and preliminary form. On the basis of the tentative understanding of the concept of shared background repair activities sketched above, the data base was searched for conversational sequences that appeared to be candidates of shared background treatments.

In chapter 5, each candidate will be analyzed as to whether the participants' contribution re ect higher-level assumptions about each other's interpretations and assumptions. In a dialectic process in the course of which the picture of the category *shared background repair activity* becomes increasingly more distinct, several or even many of the original candidates will be discarded while sequences not included in the first set of candidates will be considered as the result of repeated searches in the data base. Generalizations about typical properties of shared background repair activities are an end product at any given cut-off point in this open ended process

It was demonstrated that not all repair activities are shared background activities and it should also be added that not all possible shared background activities involve repair. Following Selting's definition, repair is understood here as treating local conversational problems including trouble related to the background. It seems possible, however, that shared background is dealt with in interaction without problems of any kind being at issue. It is conceivable, for instance at the end of a controversial argumentative sequence, that one participant, by way of summarizing the results jointly achieved in the discussion, explicitly reconstructs his understanding of the previous exchange including his own interpretation of his interlocutors' activities and his higher-level assumptions about their interpretations which may be either ratified or objected to by the other participants. Furthermore, certain aspects of the shared background may come into the conversational focus when *global* problems are treated by the interactants that do not concern the understanding of a particular single utterance or parts thereof but "larger complexes of activities" (Selting 1987c: 169; for examples, cf. loc. cit.: chapter 4).

As in many projects in functional linguistics, the most general way to formulate the guiding question of the raiminder of this study is to ask by what interactive and, in particular, linguistic means do speakers and listeners realize certain interactive

functions, goals, etc. Two main reasons then justify an exclusive focus on repair activities in a study on shared background: from a practical research perspective, phenomena can only be investigated on an empirical basis such that generalizations are possible if they are well represented in the data available to the researcher. This is certainly the case with regard to repair. In contrast, treatments of global problems of understanding or explicit reconstructions of the state of the shared background at a particular stage of an interaction are hardly found in my data at all. From the point of view of research systematics, investigating repair as a means employed by discourse participants in order to deal with issues of the shared background is justified as a contribution to research providing the counterpart to the extensive body of work on the structural and sequential properties of repair as an interactive resource.

3.1.5 Repair sequences as structural evidence for the relevance of certain mental states to interactants

The goal of the preceding sections was, first, to define a consistent notion of repair as the manifestation/attribution of interactional trouble in the light of its conceptual history, and, second, to point out that the empirical domain of repair is particularly suited to indirectly providing insights into interactants' background assumptions that are inaccessible to direct observation. Margret Selting's perspectival shift in investigating repair primarily as an interpretational and functionally motivated activity rather than a phenomenon of sequential discourse organization brings with it methodological implications that shine through in Sperber and Wilson's remark from the end of their paper on mutual knowledge and relevance:

> Moreover, if the speaker has been significantly wrong in his assumptions, what is likely to happen is not that the hearer will understand something other than the intended propositions: it is rather that the hearer will fail to arrive at a plausible interpretation at all, and will, *if he cares enough*, ask for repair (Sperber/Wilson 1982: 81; emphasis mine, T.W.).

While the italicized parenthesis may be meant by its authors to marginalize the issue of potential error with regard to shared background rather than to put it in focus, it touches on several aspects that I have argued to be of importance to the study of shared background in conversation. From an ethnomethodological perspective, the remark directs our attention to the function of repair as an interactive resource that individuals have at their disposal to deal with their interlocutors' apparently mistaken assumptions about the shared background and, one may add, to deal interactively with their own problems concerning the shared background.

At the same time that they point out the potential methodological value of repair phenomena, Sperber and Wilson indicate the limits of repair as an indicator of trouble. The way they put it, repair can only be expected to be initiated if the

individual perceiving the problem "cares enough". As everybody knows who has participated in small talk party conversations or has entered a foreign speech community, we do not always care enough to clarify our misunderstandings or failures to comprehend, be it for the sake of not interrupting the ow of interaction, to preserve our face, or because we hope to gain an understanding in the course of further talk. This means that repair sequences will mark an uncertain, maybe a large, subset of the entirety of cases in which discourse participants experience trouble with regard to their assumptions about the assumptions of others.

Problems that are successfully dealt with by the strategies of "waiting-and-seeing" or "smiling-and-nodding" will hardly be treated interactively and thus remain hidden to the analyst as well as the co-participants. This latter point, however, makes repair a nice type of evidence in the context of ethnomethodological study. If, as suggested in previous sections, interaction is a collaborative effort by which participants jointly attempt to construe their interaction as a meaningful and coherent activity, it is justified for us to focus only on those background related troubles that are mutually acknowledged as such by at least two participants and in the course of a joint effort.

3.2 The data and their representation

The background shared by participants in a given interaction is a network of implicit and explicit assumptions whose individual "nodes" or elements an observer or analyst cannot established positively much beyond common sense intuitions. I have argued before (cf. 2.4) that the relevance of a particular assumption as an item of the shared background at a given stage of an exchange is only demonstable by reference to *negative* evidence from cases in which the interactants make an explicit effort at reestablishing a common ground where they consider it to be imperiled yet necessary. After a general elucidation of the nature of shared background and its accessibility to empirical study, the concept of conversational repair was introduced in the previous sections as referring to a type of interactional phenomenon that provides exactly and in a natural manner the kind of negative evidence that allows conclusions about the relevance of particular items of the background from the point of view of the participants under observation.

The last step to be taken before the interactive relevance of shared background can be investigated on the basis of analyzing repair sequences in natural German conversation is to introduce the data base used in the present study (3.2.1) and to discuss issues of data coding and transcription, the status of transcripts, video and audio recordings for the study of conversation (3.2.2). I argue that what may seem to concern mere technical questions is directly related to the theoretical premises that also motivate the choice of a method of analysis and of the data base. Furthermore, the conventions underlying the transcripts are introduced. Finally, conclusions about the relationship between conversational repair and shared background will

be drawn and specific research questions will be formulated (3.2.3) which then are approached on an empirical basis in the final chapter of the study.

3.2.1 The data-base

In search of participant categories, i.e., categories that interactants demonstrably orient to in actual discourse,[35] the analyst has to adopt a data-base that is as independent as possible of his individual biases. This excludes from consideration constructed examples or thought experiments.[36] Laboratory experiments like those conducted by cognitive psychologists (cf. Gibbs 1987a) or Garfinkel's (1963) breaching experiments are arranged by the researcher to control for certain aspects of the environment; the behavior of the subjects thus re ects, among other results, those assumptions that gave rise to the experimental set up in the first place. Natural interaction in its natural setting is largely free of this kind of bias. For the purpose of investigating shared background as a participant category, hence, a corpus of naturally occurring conversation was chosen in spite of some other problems that this type of data base brings with it (cf. 3.2).

The conversational sequences analyzed in chapter 4 are taken from two dinner table conversations (90 minutes each) among friends and acquaintances. Discourse of this type is defined by a number of typical features: the relationships between the participants are characterized by social symmetry; there is no preset "goal" to be realized by any one of the interactants that would define a structural end of the interaction; topic choice is relatively free and a huge number of seemingly unrelated topics may be treated in the course of the conversation; talk is but one factor of the interaction together with various non-verbal activities that go along with having dinner (cf. Keppler 1995: 69 and following).

Although a comparative study on repair in different discourse genres is a desideratum at this point, it is obvious that the properties just listed have consequences for the way repair activities are performed by the participants. One would certainly not expect, for instance, to find certain jocular or "head-on" forms of repair that are relatively frequent in my corpus in more formal settings in which the interactants

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[35] To the extent that "orienting to something" is a mental predicate and that participants' mental states are inaccessible to direct observation, the term "participant categories" is used here and in the following to signify the following: "Participant categories are categories to which participants, by their ouvert behavior, demonstrably display an orientation to." For individuals to "demonstrably display" an orientation to something (or, for that matter, to "be" in some other kind of mental state) means here to behave in such a way that the analyst "has reason to believe" (for the problems regarding this Lewisean concept cf. my discussion in 2.1.1) that they do orient to something (or "are" in a particular mental state).

[36] This, of course, does not lead us to doubt their value for theoretical arguments in terms of possibility and necessity.

are of very different social statuses, as in the therapy sessions analyzed by Schegloff (1987) or the conversations between local officials and clients in Selting's database (1987a,b,c; 1988). Even though it would go too far to assume that repair activities are, in all regards, contingent on the discourse genre,[37] it will eventually be necessary to discuss the results of the analyses in the light of the question of how far they may apply to repair and shared background in general as opposed to a dinner table or similar form of everyday conversation only.

Some remarks are in place concerning the size of the corpus (ca. 180 minutes) and the number of speakers accounted for. The major aim of the present study is conduct and present a complex argument and an investigation on the relation between the mental entity of shared background and the discourse structural phenomenon of repair. This implies three equally important reasearch steps that build up on one another: (i) the clarification of theoretical foundations, (ii) the development and justification of a method of analysis and (iii) the principled selection of a research object and the empirical analysis of data that proves the theoretical and methodological considerations to be fertile and apt to lead the investigation to interesting results. For this study seen as a whole, the main value of the data analyses presented in the next chapter, thus, consists in their making a necessary contribution to the overall argument to be developed here. Evaluated outside of this global argumentational context and in their own right as an empirical study of a particular conversational phenomenon, the analyses have to be understood as exploratory. They are meant to lead up to conclusions that are substantiated by the empirical findings as far as they reach but invite further elaboration and critique on the basis of a broader spectrum of conversational material.

In the remainder of this section, I will brie y provide some background information about the data base—information that will make it easier for the reader to follow the transcripts, fragments of which will be discussed in chapter 4.

The Boulder dinner

Carl, whose own apartment is too small for this occasion, has invited six friends for a dinner at the home of the three housemates Rolf, Bert, and Susi. The dinner takes place in mid December close to the end of the fall semester at the University of Colorado (CU), Boulder, which is re ected in some of the topics of conversation (air fares Denver-Germany, final exams, skiing).

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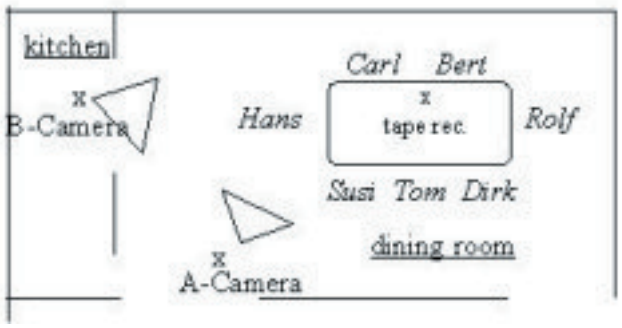
[37] I do not see, for instance, in what way the preference hierarchy for repair types proposed by Selting (1987a,b,c) could be contingent upon the social asymmetry and goal-orientedness that characterize Selting's data base, *viz*., conversations between consultants/social welfare employees and clients.

- Place: Rolf's, Susi's, and Bert's[38] house in Boulder, CO
- Date and time: 12/11/94; 10:00 p.m. -1:00 a.m.
- Recording period: 10:56 p.m. 00:27 a.m. (91 minutes)
- Transcripts: 01_12/11/94 - 08_12/11/94
- Participants: Carl, Bert, Dirk, Hans, Rolf, Susi, Tom.

Carl, the host, invited everybody for a dinner at his friends' house. At the time of the dinner, all but Hans, a visiting physicist from Germany, are current or former Ph.D. students at the University of Colorado at Boulder. Everyone but Bert, a US-American who spent several years in Germany during childhood, is a native speaker of German.

- The setting: the dinner was taped by two cameras, A-Camera positioned in the dining room and B-Camera set up in the open kitchen, and an audio tape recorder placed on the table.

Table 3: The setting for the Boulder dinner



- What happened before the tapes set in: the friends have been sitting together and talking for quite a while waiting for the meal to get ready.

The Dresden dinner

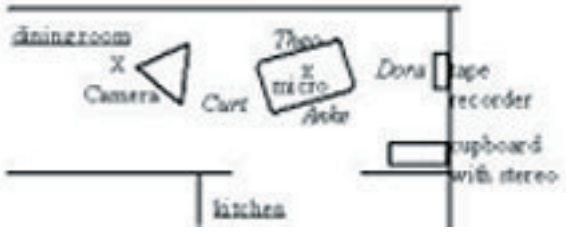
Anke and her husband Curt have invited their close friends, Theo and Dora, a married couple living in the Rhineland, a Western part of Germany, for dinner at their apartment in Dresden (in the East of Germany). The guests have just arrived after a six hours' drive across the country. All four are Rhineland natives and have known each other for decades. The couples have not seen each other in a long time.

- Place: Anke's and Curt's apartment in Dresden, Germany
- Date and time: 11/22/95, 9:15 p.m. - 12:00 a.m.

[38] All names of persons and places used in this study are pseudonyms.

- Transcripts: 10_11/22/95 - 20_11/22/95
- Participants: Anke ∞ Curt, Theo ∞ Dora, all of them Rhineland natives
  Theo: on a business trip to Dresden
  Dora: accompanying her husband; pregnant
  Anke and Curt: the hosts
- Setting: The camera is positioned in back of Curt, the tape recorder on a window sill behind Dora, and a microphone is hanging from the ceiling.

Table 4: The setting for the Dresden dinner



- What happened before the tapes set in: Theo and Dora have just arrived at their hosts' apartment on the second oor of an apartement building. They have greeted and hugged each other. The guests have taken their seats. Anke and Curt are busy serving first drinks and setting up the first course of the dinner.

3.2.2 The Transcripts

In search of participant categories for the analysis of discourse, the only adequate material basis obviously is discourse itself. The dynamic and ephemeral character of conversation, on the one hand, and the analytic needs for a lasting and analyzable research object, on the other hand, require a method of repeating or rather, reproducing, the conversational sequences to be put in focus. The method that preserves the original data in a format that is as authentic as possible is that of video and audio taping. But although lens and microphone, once put into place, treat visual and acoustic phenomena alike without abstracting certain aspects from the original data as irrelevant and emphasizing others as of particular importance,[39] we know from more than a century of documentary movie making that there are several factors that introduce subjectivity and a special technical perspective into every recording. First of all, the person planning to do the recording has to decide what kinds of conversations within what settings involving what personnel etc. etc. s/he considers apt to tape. Other variables include the position of the camera(s) and the microphone(s); the definition of the beginning and end of the fragment to be accounted for out of the continuous ow of interaction with its lack of natural

[39] This property of the recording equipment is appropriately expressed by the German term for 'lens', *viz.*, *Objektiv*.

boundaries; the "democratic" nature of the tapes that, unlike the human perceptual apparatus, treat the wind whistling through a window crevice in the same way as remarks, questions, and answers by the observed interactants.

Conversational transcripts lead a further step away from the original data. This is because they are mainly based on tapes and, what is more severe, they provide a different mode of representation. Unlike with tapes, where the interpretative decisions are made before the recording starts, and, subsequently, images are produced more or less automatically according to the rules determined by the set up and the technical equipment, transcripts are the results of permanent conceptualizations by the transcriber. That is, transcripts re ect a particular person's decisions about what aspects of the event in the focus of the recording devices are relevant and what not. As Selting puts it:

> [... A]lso [ist] jede Transkription in einem sehr elementaren Sinne theoriegeleitete Daten*konstitution* (Selting 1995: 21; emphasis mine, T.W.).
>
> 'In a very elementary sense, every transcription is a theory-governed *construction* of data' (translation and emphasis mine, T.W.; cf. also Ochs 1979; Bucholtz 2000).

In different words, transcription is both selection and exclusion and thereby involves both of the two complementary components of abstraction. Hence, transcripts are an implicit form for the analyst to present *results* of his theorizing and analyses. It would be outright circular to search for participant categories on the basis of transcripts that cannot but re ect the transcriber's decisions about what kind of phenomena are relevant for his investigations. From this, it also follows that the nature of all transcripts is preliminary to the same extent that there is no structural limit to the interpretative process. That is, transcripts represent the transcriber's understanding of the data base at a certain stage of his investigation. A deeper or just different interpretation of the data in the course of further study necessarily will lead to modifications of the transcripts. (Cf. also the remarks on those points in Selting 1995: 28.)

But if video and audio recordings are the optimal compromise in reconciling the ideals of authenticity and availability, what then are transcripts good for? Two research-pragmatic factors are to be considered here: (1) for the purpose of analysis, the data have to be available—in addition to the tapes—in a form that easily allows for comparisons of multiple sequences, in-depth looks at selected fragments, quick reference to and retrieval of certain utterances, etc.; (2) for the purpose of communicating one's findings in the course of a scientific dialogue, the data base has to be made available in a form that renders it accessible to a wider audience, mostly of readers and certainly of people with a limited time budget.

All a transcript can possibly achieve thus is, first, legibility with regard to its intended audience that more often than not will be lacking a specific knowledge of scientific coding conventions and, second, the systematic and exhaustive representation of

the facts the transcriber considers important and has specified as such beforehand. In practice, these two goals often collide and a good transcript is characterized by a good compromise between them. Since readers have to form their assessments of an analysis on the basis of transcripts that are the results rather than the basis of the analyses in question, even the most carefully executed transcript is an appeal at the goodwill of its audience to trust, without an actual chance of going back to the original data, the author and his implicit claim that there exist a systematic correlation between the transcript, the tapes, and the original conversation. Here lies a potential dilemma for both the analyst and his addresses: only those readers will be convinced by the analyses to be presented below who a priori accept some of the major premises from which they follow and that are re ected by the transcripts.

Legibility is furthered by conventionality. If all those who compile transcripts held on to the same coding conventions, it would certainly be possible and worthwhile for an audience to acquire some competence with regard to those conventions. Unfortunately, one may say, there exist a whole lot of conventions many of which have come about ad hoc in pursuit of very particular research questions on the grounds of very particular data bases. In the realm of German *Gesprächsanalyse*, two major approaches to transcription have met wider acceptance. HIAT (*H*alb*I*nterpretative *A*rbeits*T*ranskription; Ehlich/Rehbein 1976, 1979; Ehlich 1993) is a score notation format for social interaction generally established among those who refer to themselves as *Diskursanalytiker/innen*[40] (discourse analysts) and practitioners of an approach to language generally known as *Funktionale Pragmatik* (functional pragmatics; cf. Ehlich 1996; Brünner/Fiehler/Kindt 1999).

As a platform for further discussion, *Konversationsanalytiker* (conversation analysts) in the tradition of Schegloff, Sacks, and others have presented standardizations by the title of GAT (*G*esprächs*A*nalytisches *T*ranskriptionssystem; Selting et al. 1998) based on the classical system developed by Gail Jefferson (Sacks/Jefferson/Schegloff 1974). Besides issues of data transferability and software compatibility, the main difference between HIAT and GAT seems to lie in the use of a score notation with virtually[41] infinite parallel (utterance, commentary, video, etc.) lines for each participant (HIAT) vs. a script notation where each line represents a prosodic unit[42] and the activities by the participants are accounted for alternately (GAT) rather than simultanously.

---

[40] The practitioners of *Diskursanalyse* share most of the theoretical tenets that Levinson (1983: 286) introduces in his section on *Discourse Analysis*.

[41] For practical purposes of presenting them in print, the HIAT scores are cut off at the right margin of the page and ordered in consecutive "blocks", i.e. score sections. The particular cut-off points, however, are a mere function of page width without further theoretical implications (e.g., concerning the identity of linguistic or interactional units).

[42] This means a major difference also with regard to Jefferson's system.

This is not the place to discuss the advantages and disadvantages of either system. Some brief remarks should suffice to introduce the transcription mode adopted in the following. In compiling the transcripts, I followed the conventions suggested by Selting and her colleagues (Selting et al. 1998) that were modified where this seemed to be necessitated by the data and my particular research interests. Data presentation is a different task from data analysis. The transcripts presented in the following are, accordingly, much "poorer" in information than the working transcripts that were used in the process of analyzing the material. For the sake of legibility I have omitted all information from these working transcripts that are not referred to explicitly in the analyses in support of conclusions drawn from the data.

The conversations included in the data base were both taped and transcribed by the author of this study. Below, the notational conventions are introduced in detail and discussed brie y where it appears necessary:

(1) *Citation of and reference to the data*: Each of the two conversations has been fully transcribed in transcripts 01_12/11/94 - 08_12/11/94 (henceforth 01 - 08) and 10_11/22/95 - 20_11/22/95 (henceforth 10 - 20). In this study, only fragments of these transcripts are cited. These are headed by titels (e.g.; *Fahrenheit*) and codes in parenthesis (e.g., (01_25d)) that refer to the lines in the transcript where the respective sequence was extracted from. The lines of the fragments cited are numbered always beginning at 01.

(2) *Beginnings and ends of the transcripts* The transcripts of this study represent *fragments* of larger conversational *episodes*. Whereas the latter can be considered elements marked by a certain unity of place, topic, and participants, and are often noticeably separated from each other by structural features, the fragments are defined mainly by the purpose of displaying the shared background activities in focus. In addition, I tried to settle on a compromise between providing as much context as seemed necessary for the orientation of readers not familiar with the entire data and the need not to overwhelm them by large amounts of contextual information that is not of primary interest. Where necessary, I will introduce the transcripts by a short summary of the episode from which a fragment is taken.

(3) *Segmental linguistic transcription*: In transcribing phonetic and morphological features "a phonetically oriented notation of non-standard features of the spoken language" known by the term of *literary transcription* ('literarische Umschrift'; Selting et al.: 96) and the general use of lower case letters is adopted on the basis of standard German orthography.

Three manners of transcription: an example

Literary transcription:	*ich würd gern wissen, woran liecht dat?*
Orthographic transcription:	*Ich würde gerne wissen: Woran liegt das?*
English gloss:	*I'd like to know: why is that?*

(4) *Sequential structure*: The presentations of new turns that do not overlap with previous ones start at the beginning of a new line. The vertical order of the lines—with a few exceptions (see below)—iconically renders the temporal sequence of the contributions.

Example 01:[43]

```
01   John   ah. this is eh GROUND meat, you knOw?
02   Paul   SURE.
03   John   thats not vegeTArian.
04   Paul   thats oKAY.
```

Parallel talk—its beginning and, where this is necessary, its ending—is symbolized by square brackets. The simultanous stretches of talk or other behavior are vertically synchronized in the transcript.

Example 02:

```
01   John   eight de[GREES. that's] quite aMAzing.
02   Paul           [above ZEro?]
03   John   FAHrenheit.
```

In *example (02)*, Paul (02) produces a token of "above ZEro?" in parallel with Hans's turn. John does not orient to Paul's contribution and goes on speaking. In cases like this—others include recipient signals—the iconic structure, the vertical-temporal-isomorphism of the transcript, is suspended and the reader has to read, exceptionally, in upward direction. In the present case the sequential order follows the schema: 01 > 02 > 01 > 03.

Where parallel speech continues beyond a single pair of lines, those lines that are to be synchronized are linked to each other by reduced and separated from other lines by wider line spacing. Cf. *example 03* below:

Example 03:

```
01   John   [i have to aGREE.
02   Dave   [the town of WERnesgrün is (.)
03          [in the-
04   John   [it's called "WERnersgrün"?
```

[43] For the purpose of this example and the following ones is to illustrate some formal features of the transcripts presented in this study, only the English glosses of the German exchanges are reproduced here.

(5) *Intonation units:* it is assumed that turns are internally structured into one or more intonational units. Most of the time, these units feature a single primary accent (symbolized by capital letters) and are terminated by a characteristical intonational contour (symbolized by punctuation marks; for details, see below). The lines of the transcripts in this study, generally, coincide with single intonation units.

Example 04:

```
01   Dora   and suddenly Folker began:
02          "↑Well,"
03          he's been wondering all the time
04          whether he had done something wrong,
```

(6) *Para- and non-verbal activities*: transcribing means selecting. This is particularly true with regard to phenomena other than the interactants' verbal activities. Prosody, gestures, facial expressions, the bodily activities that go along with engaging in natural interaction—the totality of the non- and para-verbal aspects of any given conversation is much too complex to be comprehensibly represented in a textual modus.

The transcripts presented in this study provide a standardized minimum of information equivalent to what, in the GAL format, is considered a *basic transcript* ("Basistranskript"; Selting et al. 1998: 96 and following). On a more detailed level (cf. Selting et al.'s "Feintranskript"; 1998: 102 and following), features and activities are accounted for that are explicitly argued to be manifestations of what is relevant with regard to shared background activities. This, of course means, that the transcripts, first of all, re ect *results* of analyses. Their value as a basis and starting point for an unbiased scrutiny of the data and for a critical evaluation of the findings depends on the degree to which the reader trusts the analyst to have made the right decisions. And this—to be sure—is not a particular limitation of the present study but pertains to all work that makes use of (re-)represented data.

A comprehensive list of the various symbols and abbreviations used in the transcripts is given at the end of this section (cf. (8)). As for the way the individual pieces of information concerning non-verbal activities are integrated into the transcripts, the default case is that all this information is given within one line together with the information on verbal activities:

Example 05:

```
01   John   ((nods)) the SAlad is very good. ((sits down))
```

Two cases can be distinguished here: non- and para-verbal activities that take their "own" time rather than accompanying verbal activities are conveyed within double

parantheses (cf. *example 05* above). If they occur in parallel to what a speaker says or if the information to be given characterizes what is said in a certain way, double angle brackets are used. The inner pair of brackets includes the information to be given, the outer pair marks the beginning and the ending of the stretch of talk to which the information pertains. Cf. *sequence 06* below:

Example 06

```
01   Paul   <<smiles ironically> after all we've worked
                                                    HARD.>
02          that's for SURE.
03   John   <<noddingly> exACTly, exACTly!>
```

Paul's ironical smile in *example (06)* lasts only until the end of his first intonation unit (1). John's nodding accompanies his entire confirming Paul's statement (03).

Where more space is required than provided by a single line, information on visible activities is given on extra lines in proportional italics; instead of the full names initials are used. The lines are sychronized with each other by underscoring (duration of the visible activity) and vertical strokes (beginning and ending points of the visible relative to the audible activities). For an illustration, cf. *example 07* below. Here, John's reaching out for the butter commences in the moment he utters the stressed syllable of "deLIcious." (01) and ends at the end of Theo's turn (02; "[...] HERE."). Theo's holds on to the plate while he utters "better stay HERE." (02).

Example 07:

```
01   John   deLIcious.
               |    |
                |
        J reaches out for and makes a grip at the plate with the butter
                |_____________________________________
                                                     |
02   Paul   the hErb butter better stay HERE.
                                  |_____________|
                                        |
                        P holds on to the plate with the butter
```

(7) *Glosses*: The English glosses of the German utterances are rendered as italicized translations that are intended to follow the original utterance within the limits of meaningful and grammatical English sentence and phrase structure. Glosses in angle brackets interpret para- or non-verbal utterances by a participant or provide

additional background information that seemed necessary for the utterance to be comprehensible for the reader. Cf. *examples 09* and *09*:

Example 08:

```
01    John    HEM=m
                 <Delicious!>
```

Example 09:

```
01    John    WERnesgrün.
                 <The town of> Wernesgrün.
02    Paul    das is ja nich weit von hier WEG.
                 That's not at all far away from here.
```

(8) Miscellaneous symbols and conventions:

=	Equal signs indicate latching within turns or between turns in which latter case two equal signs mark the end of the first and the beginning of the second turn respectively:
	`01 John a HANDkerchief.=`
	`02 Paul =well=NO.`

Pauses:
`(.)`
`(-), (--), (---)`
`(2.0)`
	micro pause
	short, medium, and longer pauses of about 0.25 -0.75 seconds
	estimated pause of more than one second (in seconds)
	Pauses are accounted for in the utterance line of the first participant acting after the pause.

:; ::; ::: ...	Colons indicate lengthening of the preceding segment: `so:; so:: ; un::d`
`eh; e:h ...`	"filled" pauses
'	glottal stop at the beginning ('EM=m) or at the end (ich hab geda') of a syllable

Laughter:
`so(h)o`
`hahaha; hihihi;`
`...`
`((laughs))`
	laughing particles within a word
	brief and "syllabic" laughter
	transcription of lengthy sequences of laughter

Breathing:
`.h ; .hh ; .hhh`
`h ; hh ; hhh`
	inbreath, depending on estimated duration
	outbreath, depending on estimated duration

Recipients' signals hm; ja; nä: ja=a; nei=ein; 'EM=m; 'm=HM 'hm'hm	 monosyllabic recipient's signals bisyllabic recipient's signals negation
Accents: acCENT accEnt ac!CENT!	 primary accent secondary accent extra strong accent
Extraordinary pitch leaps: ↑ ↓	 extraordinary upward leap: (↑NO.) extraordinary downward leap (↓WHAT?)
Terminal pitch contours: ? , - ; .	 high rise medium rise level medium fall low fall
Nonverbal activities: ((sneezes)) ((coughs))	 characterizations of para-linguistic and non-linguistic activities or events
Comprehensibility: ( ) (solche)	 incomprehensible (part of an) utterance presumed wording
Comment range: <<smilingly> > <<all> > <<ironically> > etc.	 characterizations of the mode of speaking or information on non-verbal behavior accompanying the talk are included in angle brackets. An inner pair frames the kind of information given, e.g. "<smilingly>", an outer pair marks the range, the beginning and the ending, of the talk to which the information pertains.
Relative intensity, speed, pitch register: <f> >; <ff> > <p> >; <pp> > <all> > <d> > <h> >	 loud; very loud low; very low fast deep pitch register high pitch register
Pitch movement: `m=´HM ´m=`HM	 fall-rise rise-fall

Direction of gaze:	
`-> X`	gaze in the direction of X (not specifying its beginning or ending)
`|-> X`	gaze in the direction of X beginning in the moment marked by the vertical stroke

3.2.3 Repair activities as interactive evidence

The investigator of shared background faces a dilemma: from an ethnomethodological point of view, an assumption can only be identified as an item of the shared background if it is treated as such by the interactants and is, thereby, re ected by their behavior. On the other hand, shared background qua *back*ground is implicit, is assumed or taken for granted by the discourse participants to be shared among them and is therefore a prerequisite for rather than a topic in the foreground of interaction. If shared background is defined as a participant category, the only direct criterion to approach this domain empirically and without relying on speculation is via negative evidence. This way of approaching the mental realm is viable because the background shared by the participants in any given interaction has collapsed as such as soon as one of the participants assumes this to be the case. If, therefore, the participants display their problems with regard to the shared background, this not only is sufficient evidence that this background has broken down with regard to a crucial item but this item that usually would have been taken for granted and, thus, remained in the background of the conversation is made the object of explicit negotiation. And explicit negotiation is what the analyst can observe and from which he can draw his conclusions.

In this chapter, the main focus was directed to the issue of how shared background can be investigated empirically. As an analytic tool that previously had been referred to rather vaguely as *negative evidence* the concept of *interactional repair* was introduced. Following Selting, I proposed to approach *repair* and its subtypes from the participants' perspective as an interactive means to deal with trouble and to define the concept with reference to psychological concepts including *trouble*, *intentions*, *motives*, etc. Furthermore, it was pointed out that not all repair involves shared background repair activities and that interactants may observably orient to shared background by conversational means other than repair. While the nature of participant categories renders it impossible to define them prior to their empirical investigation, it was proposed that an analysis of whether the interactants' interrelated activities display their respective orientation to higher-level assumptions about each other can provide the key for the analyst to decide whether or not a given candidate sequence is to be classified as a shared background repair sequence. The analyst's preliminary understanding of the category may undergo modifications

in the course of that process (cf. for that kind of research process Schegloff 1997: 501/502 and Weber 2003).

Beyond defining the research domain and the analytic tools that make it amenable to empirical investigation, I argued that the analyst's linguistic, interactional, and common sense intuitions are an irreducible and uncontrollable factor in the analysis of repair. In the light of this limitation, I outlined the way in which a data-based and contextualizing approach to conversation is able to yield insights into the domain of shared background that are maximally supported by and reconstructable on the basis of observable and thereby intersubjectively accessible facts.

The final prerequisites that had to be established before the data analyses can be taken up in the following chapter 4 concerned a brief characterization of the data base, a discussion of the tension between authenticity and availability with regard to tapes and transcripts as modes of data representation, and the introduction of the coding conventions that were adopted for the transcripts whose readability will be essential for the reader's ability to follow the analyses below.

The overarching goal pursued by the empirical part of this study is to demonstrate that and how shared background is not just a theoretical category but one oriented to by participants in interaction themselves. In particular, I will propose answers to the following questions on the basis of natural conversational data:

- In what manner is it possible to motivate the concept of shared background as a participant category that interactants *demonstrably* orient to?
- Do shared background repair sequences represent a particular type of repair sequence?
- What interactive functions do shared background repair activities perform for participants in interaction given the indeterminacy of shared background?
- Conversational trouble of what types do interactants deal with and in what ways?
- Can Selting's and Schegloff's mutually independent proposals of trouble-source typologies be integrated with each other and with the findings yielded by the analyses of yet another set of data?
- What are the specific interactive linguistic and non-linguistic means that interactants make use of depending on the type of problem they are treating and the kind of shared background item they deal with by their repair activities?

As a byproduct of the following analyses, certain claims about interactional repair, e.g. concerning the independence of its organization from the kinds of trouble treated by it (Schegloff et al. 1977), Selting's typology of problem types, etc. will be checked.

4 Shared background treatments in natural conversation: an empirical investigation

The first main chapter of the present study served to arrive at an understanding of shared background by reviewing, synthesizing and drawing conclusions from various debates on this fundamental theoretical concept. On this basis, methodological problems were raised. It was argued that the role of shared background in social interaction should be studied with reference to what I have described as *negative evidence*. As a result of this, conversational repair was established as a research object that—far from being limited to problematic and, thereby, exceptional or marginal talk—allows for an empirical investigation of the function of shared background as a prerequisite to interaction. Within the overall argument laid out in this study, the following serves to actually conduct the analyses the theoretical and methodological foundations of which have been introduced earlier.

In a nutshell, the line of argument up to this point can be reconstructed in the following manner: because of its holistic, self-referential, and distributed nature and the fundamental possibility for individuals to behave irrationally in a given situation, shared background is indeterminate and indeterminable. Hence, there is neither a theoretical nor an empirical way to establish as a positive fact that a given item is shared by interactants at a particular stage of a conversation. The relevance that interactants ascribe to an assumption as an item of the shared background can only be observed in negative form and in retrospect, namely when the participants make manifest by their interactive activities that they abandoned the presumption of sharedness with regard to a particular item and take measures to reestablish a common ground. The conclusion that shared background can be approached empirically only via negative evidence, has directed the focus of attention to conversational repair, i.e., activities by which discourse participants treat interactional trouble in a way that allows their interlocutors as well as the analyst to identify the sources of the trouble and, in the case of shared background repair activities, those items of the background that the interactants retrospectively treat as mistakenly assumed to be shared by them.

Section 3.1 provided a review of the research on repair by American conversation analysts and by Margret Selting, and on forms of and relations between repair activities and types of problems treated by repair. Section 3.2 presented the data base and discussed the mode of data representation and transcription. The current chapter presents analyses of those shared background repair sequences identified in the data and suggests generalizations about the treatment of shared background and interactive repair as the results of the analyses.

In particular, I will argue that

- shared background is a participant category that interactants observably orient to and shared background repair sequences represent a particular type of repair sequence

- the adoption of a Gricean perspective allows us to interpret shared background repair activities as a way for interactants to deal with the consequences of their inability to know what items of the background they share with their interlocutors
- Selting's typology of conversational problems and problem treatments and Schegloff's (1987a) findings on "sources of misunderstandings" are complementary to each other and can be integrated into a unified typology that distinguishes five types of conversational problems.
- interactants make use of specific interactive linguistic and non-linguistic means depending on the type of problem they are treating and the kind of shared background item they deal with by their repair activities; this amounts to a strong qualification of Schgloff's (1987, 1991) and others' (Drew 1997 and ibid.: 74 for additional references) suggestion "that the organisation of repair—*including forms of repair initiation* [...]—has a certain independence or autonomy with respect to the source of the trouble which repair is implemented to resolve" (ibid.; emphasis mine, T.W.).

It is typical of ethnomethodological studies that the categories used for the analysis of interaction only gradually emerge in the process of looking at a larger number of single cases. The nature of research reports, on the other hand, is such that they do not reconstruct an entire research process but present its final stage by subsuming particular instances in classes that appear to be independent of the data under scrutiny. In the following, it may thus appear as if fragments of conversation and repair sequences were subsumed in mutually related a priori categories. The actual analytic process summarized here, however, was very different from pursuing the task of identifying conversational activities as tokens of certain types. The dialectic nature of the ethnomethodological approach to interaction brings with it that the processes of developing a general typology and subsuming particular cases in the individual categories proceed in parallel and in uence each other mutually. As an effect of this, the overall shape of the typology was in ux as long as the single case analyses were not brought to a—preliminary—end, while candidates were excluded from the class of shared background sequences and others included up to the point at which the typology and its categories were finally established. At the stage of the work represented in the following, I hope to suggest generalizations that make sense as such and allow us to account exhaustively for an interesting class of individual conversational phenomena that provide insights into the domain of shared background as the primary focus of the present investigation.

Finally, it should be remarked that the conclusions to be drawn in a study that rest on a relatively small data base and that, furthermore, is confined to one particular discourse genre must remain tentative and exploratory if they stand on their own and in isolation. When I, notwithstanding the limited number of empirical examples, define categories of conversational trouble and specify "typical" interactive means of dealing with those problems, this has to be evaluated in the light of and as a

continuation of the research on the treatment of conversational trouble to which the present work is meant to contribute and one of whose aims it is to point out directions that deserve further exploration.

4.1 Shared background activities from a Gricean perspective

I have argued in previous chapters that rationality in general and, by implication, interactional cooperativeness as a special form of rationality in particular discourse genres (cf., e.g., Kasher 1976) must be a central component of a theory of interaction. The imputation of rationality to their co-interactants is a necessary prerequisite for rational individuals to engage in interaction in the first place. Of course, this does not mean to say that all individuals behave rationally all the time. Like participants in mundane conversations, however, the conversation analyst whose goal it is to draw conclusions and propose generalizations on the basis of his observing participants in natural interaction cannot but hold true certain "ancillary premises concerning the rationality" (Lewis 1967) of the individuals he observes; and he is, generally, justified in doing so.

When I propose to examine shared background repair sequences from a Gricean perspective, this is, however, not primarily motivated by theoretical considerations. The framework, or, rather, a specific aspect thereof, seemed an obvious way to capture observable differences with regard to shared background treatments that emerged in the gradual process of data analysis and provided a criterion according to which the data presentation can be organized in the sections to follow. I would like to show in some detail and on the basis of natural conversational data in what ways participants' expectations concerning quantity in s Gricean sense are re ected by repair activities performed in order to treat conversational trouble of five different types. At the same time, the analyses presented below will provide the empirical evidence that support claims concerning the participants' assumptions about the background they assume to be shared at a given stage of an exchange.

I would like to suggest that Grice's maxim of quantity can serve as a starting point from which differences between classes and subclasses of shared background repair activities become visible. This is Grice's formulation:

> The category of Quantity relates to the quentity of information to be provided, and under it fall the following maxims:
>
> 1. Make your contribution as informative as is required (for the current purposes of the exchange.
>
> 2. Do not make your contribution more informative than is required (Grice 1989: 26)

The aim of the following analyses it to demonstrate that interactants, in particular circumstances, make their expectations concerning the "informativeness" of discourse contributions explicit to their interlocutors. This can be observed in two

complementary variants that correspond to the two clauses of the Gricean maxim: on the one hand, participants initiate repair by displaying their experiencing trouble caused by their interlocutors who have presupposed background knowledge as being shared that indeed was not shared; on the other hand, they make manifest their sense of over-informativeness or redundancy.

Following Grice[44] and others (e.g. Levinson 2000), I do not assume that interactants' discourse behavior is based on norms like "Don't presuppose too much" and "Don't say what's obvious to everybody" that derive their legitimacy from outside with reference to some general law or moral. Rather, it is argued, that it is in the very interest of rational interactants to hold certain default quantity expectations concerning their interlocutors as well as second (and higher) level expectations concerning these interlocutors expectations (cf., for a similar approach, cf. Levinson 2000). And because it is, normally, in their own interest, they, normally, hold these expectations by default and act accordingly. Only when these tacit background expectations are not met problems of understanding arise that the trouble experiencers, in some cases, treat explicitly and observably by way of repair.[45]

A concept of a quantity that thus is inspired by Grice is applicable to the analysis of shared background activities in that it defines two boundaries within which interactive behavior is treated by the participants as routine and unmarked. With regard to shared background, their task may be described as staying on the middleground between not presupposing too much on the one hand (cf. 4.2) and, on the other hand, to consider the obvious and not to say what goes without saying or what is in con ict with what goes without saying (4.3).

According to the view just outlined, unmarked discourse behavior is delimited in two opposite directions. This means that keeping the balance between them is a non-trivial accomplishment. While it is—for reasons outlined in chapter 2—impossible to establish *all* items of the background necessary for an understanding of a given utterance explicitly and in advance, this is possible with regard to *single* presuppositions that the speaker considers to be especially important and doubtful in terms of their sharedness. In section 4.4, I illustrate this point by looking at a

---

[44] It is very clear from Grice's original writings that he doesn't think of the maxims as of norms. Rather he considers them to function as a basis on which rational interactants form certain expectations about what their interlocutors will do and, reciprocally, what they expect to expect their interlocutors of them. Cf., e.g., Grice 1989: 28 where he illustrates the nature of the quantity maxim from a field outside of talk exchanges:

> "If you are assisting me to mend a car, *I expect* your contribution to be neither more nor less than is required. If, for example, at a particular stage I need four screws, I expect you to hand me four, rather than two or six" (my emphasis, T.W.).

[45] Therefore, the sequence analyzed in the following with reference to the quantity concept are notably different from the ones Grice (1989: 24 and following) had in mind because here no conversational implicatures are generated.

single sequence in which one of the participants anticipatively treats a referential problem before it occurs.

4.2 Troublesome presuppositions and lack of background knowledge

In sequence 01 *Fahrenheit* (cf. 3.1.4.1), we saw Tom executing self-repair after next turn. By doing so, he made explicit an aspect of the background as underlying his previous utterance and he did so in response to Hans's—non-intentionally—displaying to him a misunderstanding with regard to this very aspect. That is, Tom took over the responsibility for making sure that his interlocutor arrived at the intended interpretation of what had turned out to be a source of referential trouble.

In the cases put forward below, the recipient of the trouble source initiates repair rather than accidentally indicating that she is experiencing a problem. By doing this, she summons the speaker of the problematic turn to make explicit particular items of the background that the speaker apparently had expected to be shared. Both, the way repair is initiated by *other* as well as the manner in which repair is completed by *self*, are indicative of the twofold nature of the shared background as a necessary prerequisit to interaction and something that, in normal circumstances, is taken for granted by the participants who only orient to it when it breaks down. These repair activities, initiation, completion, and, frequently, ratification by the initiator, provide interactive evidence for the participants' interrelated higher-level assumptions about a particular aspect of each other's background and thus for the relevance of that aspect as an aspect of the background they assume to be shared.

In exchanges of the kind to be analyzed below in which repair is initiated by a problem manifestation of the trouble-source recipient, the interactants' higher-level assumptions can be represented schematically in the following manner:

> By initiating repair, *other* indicates that she assumes that *self*—mistakenly—assumes that she, *other*, takes for granted some item of the background presupposed by *self* when uttering the trouble-source.
>
> By answering to the repair initiation, *self* indicates that he, when uttering the trouble-source, assumed that *other* took for granted an item of the background that he, *self*, presupposed as given.

In the remainder of the section, I will present appeals to and compliances with the *first quantity clause* on the basis of the typology of problem treatments proposed by Selting. Sequentially speaking, this includes cases of, mostly other-initiated, self-repair by the producers of the trouble-sources. One effect of applying Selting's conclusions to data other than the conversations that gave rise to her (participant) categories is an independent check of Selting's results. I will propose that most instances of shared background repair sequences naturally fall into one of the three classes of problem treatment discussed in section 3.1.3.2. In addition, however, I

will present evidence that justifies an extention of the problem typology by two categories which will, among other things, make it possible to integrate Schegloff's (1987a) class of problematic sequential implicativeness into a unified account of trouble-sources.

The first sub-class of problem treatments to be discussed in the following includes cases of form-based trouble.

(i) The treatment of form-based trouble

Under the heading of form-based trouble, I subsumed those problems that the participants treat as concerning the formulation and "decoding" (Selting 1987b: 132) of the utterance *form* regardless of its meaning or interactive function (cf. section 3.1.3.2). To be sure and as Selting is right to emphasize, the mere observation that interactants *treat* conversational trouble *as* form-based trouble is not to be mistaken for reliable evidence that the problem perceived by the initiator or imputed to his interlocutor *is* "only"[46] one of articulation or acoustic understanding.

It was argued previously that form-based conversational trouble, because it can be treated as independent of the speaker's assumptions, in most cases does not concern the reciprocity of assumptions and, thereby, the state of the shared background. This may be different in certain, relatively complex circumstances. In the data base, there is only one case in which such circumstances seem to hold.[47] In sequence 19: *Noch Salat?*, the problem carrier, Tom, initiates repair by proffering what he assumes the producer of the trouble-source, Carl, to have said. The repair completion is performed as a disconfirmation and correction which is not just a treatment of a form-based problem made manifest by the repair initiator but also a negative assessment of the initiator's assumption about the form of the trouble source. Tom's ratification of the repair then signals that he has undergone a change in his assumption about the form of the trouble-source as the result of the repair.

In the exchange *Wernesgrün* below, the friends are talking about the beer Curt and Anke are serving their guests.

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[46] Cf. Selting's discussion of a preference hierarchy for kinds of problem treatments (1987a 52, b: 146). To be sure, it should be emphasized that finding interactants treat a problem as a problem of a certain type does not imply any cognitive claim whatsoever about of what kind the problem is they experience or whether they perceive of trouble at all.

[47] One reason for the infrequence of form-related shared background sequences is mentioned in the following remark by Schegloff/Jefferson/Sacks (1977: 370, FN 17): "Thus, when 'errors' of grammar are made and repaired, the repair is usually initiated by speaker of the trouble source, and rarely by others." The latter, however, is typically the case with shared background sequences.

Sequence 03: *Wernesgrün (11_23t)*

- Trouble-source: '... WERnesgrün ... ' (13)
- Item Curt mistakenly treats as if it were shared by Theo at the time of the repair initiation (15): the lexical (phonological and morphological) form of the item 'WERnesgrün'.

```
   01   Anke   das Is das (gute) OSTbier.
                  That's the good East(ern German) beer.
   02   Theo   ↑EM
   03   Curt   WERnesgrün.
                  <The town of> Wernesgrün.
   04   Theo   die (.) HEImat des pilseners,
                  The home of the Pilsener beer.
   05          das is ja nich weit von hier WEG.
                  That's not at all far away from here.
   06   Curt   NÖ:.
                  Not at all.
   07          das is RICHtig (.)
                  That's right.
   08          und e:h
                  and e:h
   09   Dora   HEM=m
                  <Delicious!>
   10   Curt   das BIER schmeckt richtig gut.
                  The beer tastes really good.
   11          (-)
   12   Theo   [<<-> vor sich><p> muss ich OCH saren.>
                  <<-> down><p> I have to agree.>
   13   Curt   [WERnesgrün (.) is (.)
                  <The town of> Wernesgrün is
   14          [im-]
                  in the-
-> 15   Theo   [<<|-> C > wErnersGRÜN] heißt das?> ((lächelt))
                  [<<|-> C > It's called "Wernersgrün"? ((smiles))
   16   Curt   ↓WERnesgrün.
   17   Theo   ach SO.
                  Ah, got it.
   18          ich hab geDACHT,
                  I thought:
   19          <<imitiert Bremer Tonfall> wEana=s GRI:N.>
                  <<imitating the accent from the city of Bremen>
                  "Werner is green">.
   20   Curt   hehehe nee=nee=NEE
                  hehehe no=no=no.
   21   Dora   ((laughs))
```

While Theo (12) is still expressing his agreement with Curt's appreciation for the excellent local beer, Curt (13/14) makes an attempt at explaining the whereabouts of the town from whose name the brand name is derived. Theo (15) initiates repair upon Curt's (03/13)[48] mentioning of the brand name and thus makes a confirmation or a disconfirmation/correction relevant next moves. Curt (16) complies with the summons by completing repair and correcting Theo's reproduction of the trouble-source in a way that focuses its form.[49]

Let us recapitulate: The form of the brand name specified by Theo as 'WERnesgrün' (03/13) turns out to be problematic when Theo (15) initiates repair. This treatment of a form-based problem, which includes Curt's repair completion and, most importantly, Theo's ratification thereof, is a case of shared background treatment because it is possible to reconstruct both interactants' higher-level assumptions about the form of the brand name. Curt, by completing repair on Theo's proffering a candidate of the name, indicates that he assumes Theo to assume that he, Curt, had specified a name other than *WERnesgrün*. Theo, by producing a change-of-state token, signals that he has just received a piece of information that overrides a prior assumption of his. What this abandoned assumption is, according to Theo, becomes apparent in the remainder of his utterance: he thought that Curt had said 'wEana=s GRÜN' (*Werner is green*).

In sum, Curt displays his assumption about what Theo assumes him, Curt, to have said; Theo makes manifest his assumption about what Curt assumes him to have understood. All the ingredients that make for an instance of shared background treatment thus are present here: the trouble-source (03/13); the problematic item (i.e., the form of the brand name); and both interactants' display of their mutually related higher-level assumptions about each other indicating that they consider the brand name a relevant item of their shared background at the current stage of their interaction.

(ii) The treatment of referential trouble

While treatments of form-based conversational problems only rarely re ect higher-level assumptions of the participants about each other, another type of conversational problem whose treatment is indicative of the interactants' assumptions about the state of the shared background is well represented in the data. This class includes those cases that Schegloff refers to as *problematic reference* and Selting subsumes in the category of semantic problems. In the data, treatments of referential trouble are initiated in one of three ways:

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[48] The question of which one of the two tokens of *Wernesgrün* (03 or 13) is the actual repairable is of no particular import to the present analysis and, thus, may remain undisussed here.

[49] Cf. Selting 1987b: 133 who lists "repetition with modified prosodic structure" (translation mine, T.W.) as one of the procedures by which repairers treat indications of acoustic trouble.

(a) The recipient of the trouble-source initiates repair by displaying her total inability to make out the referent of a problematic item.

(b) The recipient of the trouble-source initiates repair by offering a candidate understanding of a problematic item.

(c) The producer of the trouble-source initiates and completes repair in response to an utterance of her interlocutor that made evident a referential misunderstanding on his part.

The way in which any of these three sub-classes is represented depends to some extent on whether the source of the referential trouble is an anaphoric element or an item (name, definite description, etc.) that refers independently of an antecedent. I now turn to examine instances of these three types.

(a) Repair initiations designed as displays of total inability to make out the referent of the trouble-source

Referential problems caused by anaphoric elements are made manifest by the recipients of the trouble-sources in the form of wh-questions, in some cases just wh-words produced with rising intonation. Interactants signal problems interpreting referring expressions by repeating the trouble-source with rising question intonation or equivalent gestures and gaze. The trouble-source speakers comply with summonses of these kinds by specifying the referent of the troublesome expression.

I found seven instances of type (a) in the data-base. The first fragment presented below is typical for the entire set. Dora is reporting about a phone conversation she had with a mutual friend of the dinner participants. This friend, Folker, had expressed to Dora his concerns with regard to another friend, Jan, who, at the time of the dinner, has been studying in Los Angeles for more than a year. Prior to sequence 04: *Folker*, Dora mentioned that Jan had neither written to nor called Folker in a long time. Now Folker wondered if Jan was mad at him because of some reasons Folker did not know (cf. 03/04). The trouble-source in this sequence is the pronoun ‘er’ (03/04; *he*) which is coreferential with ‘Folker’ (01). Curt (05) initiates repair by exclaiming ‘WER.’ (*Who?*). Dora completes the repair by naming the referent of the anaphoric pronoun which Anke responds to by a token of surprise.[50]

[50] *Dora*’s continuation of her report about Folker re ects a second instance of referential problem, from a meta-interactive standpoint. As part of her narrative, she reconstructs her response to Folker’s expression of scruples (09/11) in direct speech as a surprise token ‘WIE?’ (*What?* lit.: *How?*) plus a wh-question focusing the referent of ‘was’ (04; *something*). This reconstruction seems especially interesting because it can be interpreted as display of her implicit knowledge of a certain format of problem manifestation.

Sequence 04: *Folker (13_32c)*

- Trouble-source: '... ER ... er ... ' (03/04)
- item that Dora mistakenly treats as if it were shared by Curt at the time of the repair initiation (05): 'ER' and 'er' refer to Folker.

```
   01   Dora   und auf EINmal fing der folker An;
                and suddenly Folker began:
   02          ↑JA:.
                  "Well,"
   03          ER überlegt dauernd,
                  he's been wondering all the time
   04          ob er was FALSCH gemacht hat,
                 whether he had done something wrong,
-> 05   Curt   ↓WER.
                  Who?
   06   Dora   [der !FOL!ker.
                  Folker.
   07   Theo   [FOLker.
                  Folker.
   08   Anke   ↑WA:S?
                  What?
   09   Dora   ich sach ↓WIE.
                  I go: "What do you mean?
   10          WAS falsch gemacht haben.
                  Done what wrong?
   11          was sollste denn FALSCH gemacht haben.
                  What could you have done wrong?"
   12          (-) ja. .hh 'em er- 'em ja.
                  (-) Well, .hh 'em he- 'em well.
   13          sons hätte doch der-
                  Otherwise he <i.e., Jan> would have-
   14          der hätte doch wenigstens ma ne KARte
                                              geschrieben.
                  He would have written an occasional postcard, at
                  least.
```

In the data, two instances occur in which an interactant indicates his total ignorance with regard to a definite description whose meaning the speaker took as an item of the shared background. Both sequences are discussed brie y in the following because they represent two different ways for repair initiators to show that a particular element, which the initiator reproduces in either case, is problematic to them: by repetition in a particular intonation and by gesture plus facial expression.

In the first case, *Make-up exam*, Dirk starts a narrative on an exam he once supervised as a teaching assistant (02) while Hans has not yet finished his own exam story (01, 03). After Dirk's opening remark (02, 05), first Susi (07) and, then, Hans (08) summon Dirk for an explanation of the term 'make up exam', thereby overlapping Dirks attempts at continuing his turn. Dirk (10-15) responds to Susi's and Hans's

behavior as to a display of trouble by self-interrupting his ongoing talk and providing a very explicit account of what is meant by the troublesome expression.

Sequence 05: *Make-up exam (08_04h)*

- trouble-source: '... MAKE-up exam ...' (05)
- item that Dirk mistakenly treats as if it were shared by his interlocutors at the time of the repair initiation (08): 'MAKE-up exam' refers to a particular form of exam (cf. 10-15).

```
   01   Hans   ((-> T)) (das KENnen [die doch schon) so n code]
                                                    of HOnor
                  ((-> T)) (They know that all right) a code of honor
                                                      like that.
   02   Dirk             ((-> C,H)) [ich hab- (.)EINmal hab
                                                       ich n-]
                                        I have- (.) Once, I have a-
   03   Hans   ((-> D)) (das mErken die doch schon) wenn de
                                                  R(h)EINkommst.
                  ((-> D)) (They realize it anyway) the moment you
                                                      come in.
   04          [((-> D)) .hh he .hh he]
                   ((-> D)) ((laughs))
   05   Dirk   [so n ehm MAKE-up exam] (-) beAUfsichtigt.=
                  supervised one of those make up exams.

   06          =[das warn so] VIER [o- ((|-> S)) so VIER oder
                                                        fünf-
                  There were about four o- ((-> S)) about four or five-
   07   Susi    [MAKE-up?]
                  Make-up?
-> 08   Hans                        [MAKE-up [exam.((guckt
                                                 erstaunt))
                                       Make-up exam. ((looks in
                                                   surprise))
   09   Susi                                [ehehehe]
                                              ((laughs))
   10   Dirk   ((-> S)) so NENNT man das,
                  ((-> S)) That's what it's called
   11          wenn vier oder fünf [LEUte (.) die-
                 when four or five people (.) who-
   12   Susi                        [M(h)AKE-up. he[hehe
                                       Make-up. ((laughs))
   13   Hans                                    [(was wIllsen
                                                        DA?)
                                            (What does she
                                                   want there?)
   14   Dirk   das examen NICH zrr-(.)
                  cannot take the exam at th-(.)
```

```
15          NICH zur richtigen zEIt schreiben können
               not at the scheduled time
```

In the following fragment, *Treppenhaus*, it is a rising question intonation that marks the repeated item as problematic to the initiator. Prior to the repair sequence, Dora put on her long-sleeved shirt whereupon Curt (01), the host, asks her whether she is cold. Dora (02-09) replies that she was just getting back to normal after having felt hot when she did the exhausting 'ascent' up to Curt's and Anke's apartment on the second oor. Anke (11) initiates repair on Dora's use of the noun 'AUFmarsch.' (*ascent*). While Dora is still laughing and catching her breath, Anke makes a second attempt at initiating repair (12) paralleled by Dora's compliance with the first summons: 'im TR(h)EPpenhaus' (13; *In the staircase.*).

Sequence 06: *Treppenhaus (18_25a)*

- trouble-source: '... AUFmarsch ...' (07)
- item Dora mistakenly treats as if it were shared by Anke at the time of the repair initiation (11): 'AUFmarsch' refers to Dora's ascent to the second oor of Curt's and Anke's house.

```
01   Curt   is dir KALT dora?
               Are you cold, Dora?
02   Dora   e:h ja ich HATte (.) nur s T-shirt.
               Eh. Well, I only had the T-shirt.
03          also-
              You know-
04   Curt   hm.
              Hm.
05          (1)
06   Dora   Eben.
               A minute ago,
07          von dem schweren AUFmarsch. ((lacht))
               from the exhausting ascent, ((laughs))
08          .hh da is mein BLUT in wallung geraten,
               .hh my blood got moving
09          und jetzt,
               and now,
10          ts ((     [  lacht              ))
              TS ((laughs))
-> 11  Anke            [↓AUFmarsch?]
                         A-scent?
12          [hier ↓HOCH?
               Up here?
13   Dora   [.hh im TR(h)EPpen[haus- ((lacht))
               .hh In the stair case- ((laughs))
14   Tom                      [(AB)marsch.]
                                (De)cent.
15         (1)
```

(b) Repair initiations designed as displays of insecurity with regard to the interpretation of a problematic item

One way of making manifest interpretational trouble was exemplified by the one treatment of form-based trouble, sequence 03: *Wernesgrün*, discussed above. I will get back to this exchange later. In the fragments to follow, the problem carriers proffer interpretation candidates in such a manner that their insecurity with regard to their assumptions about the referents of the trouble-sources, all of which are anaphoric expressions, becomes manifest to their interlocutors. In doing this, rising question intonation is mandatory while an initial puzzlement token ('WAS.' *What?*; 'WIE.' *What?*, lit.: *How?*) seems optional. The producers of the trouble-sources treat the repair initiations as summonses for confirmation or correction.

Sequence 07: *Atomkraftwerk* stands for a set of five cases in which this format is used to make manifest a problem of interpreting an anaphoric element. The fragment represents the beginning of extensive talk about the failed power plant project.

In the early stage of the episode, Dora and Theo allude to a final court ruling according to which the electricity supply company that had the plant built would definitely not be permitted to run it (01-04). The entire exchange, taking place during a dinner, is accompanied by activities like cutting up bread, spreading butter, etc. After a general expression of surprise and joy about the development in the power plant case, the topic is temporarily suspended when Dora reaches out for the home-made herb butter placed in front of Theo and thus initiates a jocular side sequence about the short supply of butter.

Sequence 07: *Atomkraftwerk (11_49d)*

- trouble-source: 'das ...' (29)
- item Curt mistakenly treats as if it were shared by Dora at the time of the repair initiation (31): 'das' refers to what happened to the nuclear power plant that was the topic of conversation prior to the side-sequence about the herb butter.

```
01   Theo   apropos a↑TOMkraftwerk.=
               Apropos nuclear power plant:
02   Dora   [=habt=er] geHÖRT?=
               Have you heard <about that>?
03   Curt   [<<nickt> 'EM=m>]
            <<nods> 'EM=m>

04   Theo   [=gute] ↑NACHrichten.
            Good news!
05   Anke   [ja=ja.]
               Right. Right.
```

06 Curt [=ich habs] geHÖRT.
I've heard about it.
07 Dora [<<h, triumphatingly> HA:::>]
Ha!
08 Curt WOW.
WOW!
09 Dora geNAU.
Exactly!
10 wir ham geBRÜLLT im auto.
We screamed with laughter in the car.
11 wUnderBAR.
Wonderful!
12 Curt ((räuspert sich)) JA.
((clears his throught)) Yeah.
13 Anke <<smiles ironically> wir hAm uns
<<smiles ironically> After all, we engaged
14 ja auch sEhr dafür EINgesetzt.
ourselves very much for that cause.
15 haben (wir) von nah und fern dafür geKÄMPFT.>
(We) fought for it from nearby and far away.>
16 Theo ((lac[ht))
((laughs))
17 Curt [((räuspert sich)) ↑HEM=m.
((clears throught)) HEM=m <delicious!>
18 Theo <<kaut ein Butterbrot> hm=↑HEM.>=
<<chewing on a buttered slice of bread> <Delicious!>>
19 Curt =LECker.
Delicious!
|_____|?
|
C reaches out for the plate with the butter
|_____|
20 Theo ((|-> D)) die krÄUterbutter bleibt besser HIER stehen,
((|-> D) the herb butter better stay here
|_____|
|
T holds on to the plate with the butter
21 damit alle DRAN kommen.=he
so everyone can reach it.=he
22 Dora/Curt ((laugh))
23 Anke ich HAB mir meinen vOrrat
I've made sure that I have
24 schon auf meinen TELler gesichert gehabt. [hehe
my supply <i.e., of butter> on my plate. hehe
25 Theo [aHA.
<Got it.>
26 Dora ↑'EM
27 (-)

```
   28   Curt    <<f> JA:.>
                   <<f> Yeah.>
-> 29           das hat mich Echt überRASCHT.
                   That really took me by surprise.
   30           (1)
                |___
                 |
          C takes a bite and chews
                   |_____________________
                                         |
-> 31   Dora     mit dem aTOMkraftwerk?
                   With the nuculear power plant?
   32   Curt     'Em=m
                   <Yes.>
   33           (-)
   34   Dora     ↑'EM.
                   'EM.
   35           oh GOTT.
                   Oh Lord!
   36           wie- wie kanns du JUbeln;
                   How- How can you rejoyce?!
```

Curt resumes the original topic of the power plant by remarking: 'JA:. das hat mich Echt überRASCHT' (28-29; *Yeah. That really took me by surprise.*). Following a one second's pause during which she gazes at Curt in puzzlement, Dora initiates repair (31) in the way described above. Curt, the producer of the trouble source, complies with her summons for confirmation (32 whereupon Dora pursues the general theme thus reintroduced in a slightly different direction (34 and following).

In sum, sequence 07: *Atomkraftwerk* shows a referential problem of understanding arising in a case where the producer of the trouble-source mistakenly takes for granted the referent of a deictic expression he uses. What makes this instance special in comparison to the cases subsumed in class (a) above is the specific kind of referential problem the repair initiator makes manifest: rather than being at a total loss with regard to what Curt refers to by 'das' (29; *that*), Dora proffers a candidate interpretation which Curt confirms. Dora's subsequent utterance (34-36) indicates that she considers the shared background reestablished to a degree that is sufficient for a continuation of the exchange.

(c) Self-initiated self-repairs in response to misunderstandings on the part of *other*

Sections (a) and (b) above both dealt with sequences in which a recipient designed his response to a trouble-source as a manifestation of a referential problem which in turn was treated by the speaker of the trouble source by way of self-repair. In typical cases of misunderstanding, however, the recipient does not herself perceive

a problem and initiate repair in order to summons her interlocutor for clarification. Rather, it is only from the point of view of the speaker that the recipient's response to an initial utterance reveals a misunderstanding which is treated and made manifest to the recipient as well as to the analyst by the self-initiated self-repair. In sequences like that, the participants who caused the trouble for their recipients take over the responsibility of making fully explicit those items of background that they mistakenly took for granted.

While there are no reasons in principle that would limit the occurrence of such third position repair sequences to particular ones of the five problem levels (i) - (v), only treatments of referential misunderstandings are found in my data. For third position repair in English conversation, Schegloff has described in detail the form in which repair is initiated and completed in order to treat misunderstandings of various kinds. He distinguishes four components none of which seems to be mandatory:

> a turn-initial particle that initiates repair, a response (agreement/acceptance) component to certain types of preceding turns, a rejection component in which the trouble-source speaker (and repairer) formulates the problematic understanding that has engendered repair, and the repair proper [...] (Schegloff 1992: 1313).

Schegloff's most central findings are corroborated by the five instances in which referential misunderstandings are treated in my data. The "repair proper" that according to Schegloff is the "component most likely to be present in any turn that is the locus of third position repair" (1892: 1308) is found with all the examples while the agreement/acceptance component is missing throughout. The latter observation is not too surprising in the light of Schegloff's remark that this element "occurs virtually exclusively when the *T* 2 (the next turn) has treated the *T* 1 (the trouble-source turn) as a complaint" (1992: 1305) which is not the case with any of the five relevant sequences in my data.

In sequence 01: *Fahrenheit*, which was analyzed above (cf. 3.1.4.1) as an ideal case of shared background treatment, Tom treats the problem he perceives of on the part of Hans by just performing the repair proper. In the following sequence 08: *Nikolaus*, one finds realized the three components initiation, rejection, and the repair proper. At the beginning of the exchange, Dirk's attention is drawn to Rolf's handkerchief that Rolf is just using to wipe off his hands. Dirk, first, expresses his enthusiasm for 'that' and then asks Rolf what 'that' is (01-02). The ambiguity of the deictic immediately turns out to be the source of trouble.

Sequence 08: *Nikolaus (07_65d)*

- trouble-source: '... das ... das ...' (01-02)
- item Dirk mistakenly treats as if it were shared by Rolf at the time a misunderstanding is displayed (03): 'das' refers to the motif shown on Rolf's handkerchief (rather than the handkerchief itself).

((While Carl and Hans were talking about the meal, Dirk was watching Rolf producing his handkerchief from out of his pants' pocket and cleaning his hands from sauce, when the following exchange started:))

```
   01   Dirk   das is ja PUTzisch.
                  That's cute!
   02          was IS das denn.
                  What is it?
   03   Rolf   en TAschentuch.
                  A handkerchief
-> 04   Dirk   ja=NEIN.
                  Well, no!
   05   Rolf   phh hehe[he
                  PHH hehehe.
-> 06   Dirk          [s mo!TIV!.
                        The motif.
   07        (--)
   08   Rolf   OH.
                  Oh!
   09          [das is was ganz] (SELTsames)
                  That's something really (strange).
   10   Carl   [en NIkolaus.]
                  A Santa Claus.
   11   Rolf   das ist [(          )
                  This is (       )
   12   Bert          [<<ff> hahahaha>
```

When Rolf answers to Dirk's question in a mocking way (cf. his ensuing laughter) by uttering 'en Taschentuch' (03; a handkerchief), he states what Dirk considers obvious. Dirk, visibly and audibly annoyed, executes third position repair upon Rolf's display of a referential "misunderstanding" by initiating repair (04; 'ja=NEIN.'), rejecting Rolf's answer as re ecting a mistaken understanding of Dirk's troublesome use of the deictic 'das' (*that*), and completing the repair explicitly specifying the intended referent by uttering ''s mo!TIV!' (06; *the motif*) which he articulates with a strong contrastive stress and on a high pitch level. After a pause during which he is still busy cleaning his hands with the handkerchief, Rolf produces a change-of-state token (08; 'OH') indicating that now he has understood what Dirk is after and then makes a second attempt, or, rather, a mocking pseudo-attempt, at answering Dirk's inquiry.

All instances discussed in this section involve conversational trouble that occurred when speakers mistakenly assumed the referents of particular expressions to be items of the background they share with their recipients. The sequences subsumed in the sub-classes (a) and (b) involved recipients who made manifest their problem of understanding to the producer of the trouble-source by initiating repair. In contrast to these patterns, the misunderstandings in (c) are made observable as such first by the producers of the trouble in the turns after the one in which the recipients, unnoticed

by themselves, displayed their mistaken interpretation of the trouble-sources. Only when the recipients ratify the correction of their original understanding do they indicate that they have become aware of their referential trouble; and only because of that are the sequences in (c) instances of shared background treatments.

(iii) The treatment of expectational/inferential trouble

In the two previous sections, we saw that the participants in our dinner table conversations treat form-based problems rarely but referential problems relatively frequently as trouble concerning their shared backgrounds. When Selting characterizes problem treatments of her third and final type as indicating the interactants' awareness of discrepancies between their "frames of knowledge," this suggests that treatments of expectational/inferential trouble also re ect the state of the background shared among them. That this is not necesserily the case was shown above apropos a discussion of fourth position repair and other unilateral problem treatments.[51] In spite of these occasional counter-examples, however, it seems generally true that the interactants, when treating expectational/inferential trouble, also make manifest their assumption about the state of their shared background with regard to a particular item.

When a recipient of a trouble-source summons her interlocutor to treat an expectational/inferential problem, she initiates repair by displaying surprise or doubt about a fact another speaker just mentioned or implied by what he said. Selting specifies two formats of making manifest problems of this type:

- *wieso*-inquiries (why-inquiries) that repeat the repairable or refer back to it anaphorically and show falling terminal intonation
- problem manifestations that are prosodically marked and are frequently followed by an explicit account of a clash between what a speaker said and what the experiencer of the problem expected ('Problemträger;' Selting 1987b: 140).

Of the former kind, no instance is found in my data; the only sequence that comes close to a realization of Selting's format will be discussed later (cf. section (iv) below) in a different context. As "prosodically marked" Selting describes problem manifestations whose prosodic characteristics were intuitively coded by her transcribers as "'amazed,' 'skeptical,' 'doubting,' etc." (1987b: 141; translation mine, T.W.). In my data, prosodically marked problem manifestations either

(a) take issue with the entire trouble-source turn by a general expression of surprise or

(b) focus on a particular aspect of the trouble-source.

---

[51] As emphasized earlier, it is the *problem*, in these cases, that is unilateral, i.e., perceived as such by a single participant only, not the *treatment* of the problem which is interactive.

All manifestations of trouble that initiate treatments of expectational/inferential problems have a high rising question intonation in common.

As for the treatment of shared background by the nine sequences subsumed in this sub-category, the interactants' higher-level assumptions can be reconstructed from their repair activities as follows (other = recipient/experiencer of the problem; self = speaker of the trouble-source turn):

> By initiating repair, *other* indicates that she assumes that *self* assumes his assertion to be true.
>
> By completing repair, *self* indicates that he assumes that *other* assumes that his, *self*'s, assertion might not be true.
>
> By ratifying the repair, other indicates that she assumes that *self* assumes that she, *other*, assumed that *self*'s assertion might not be true.

(a) General expressions of surprise

By generally expressing surprise about something said in preceding utterances, interactants display their experiencing a con ict between a piece of information they just got and their expectations or other aspects of their knowledge. What the initiators take issue with, however, seems not to be the surprising fact itself but whether or not the speakers of the trouble-sources really mean to assert it and are sure about it.

Typical indicators of trouble of this type are adverbials like 'echt?' (*truly*), 'ehrlich?' (*honestly*), 'im Ernst?' (*seriously*), 'wirklich?' (*really*) uttered with high rising question intonation. On first sight, these one word repair initiators are reminiscent of those items that Paul Drew (1997: 69) calls "'open' class repair initiators". Like Drew's tokens 'Sorry?,' 'Hmm?,' 'Wu:t?,' etc. they are produced "in response to sequential sources of troubles in conversation" (ibid.). Other than the elements form English conversation, my German instances belong to a particular lexical class, *viz.* that of epistemic adverbs. And other than Drew's claims for his 'open' class repair initiators, the expressions in sequences like *09* and *18* do not seem to "leave 'open' what is the repairable trouble which the speaker is having with the prior turn" (ibid.: 72). On the contrary, the speakers who caused the problem and were summonsed by their interlocutors for repair unanimously responded to initiations of this kind by reaffirming their original statement.

Another way of repair initiation that is equally general but, by the use of anaphoric expressions, refers more explicitly to the immediately preceding statement as its trouble-source is realized in the form of questions like 'gibts das WIRKlich?' (*Is that real?*) or 'das GING bei euch?' (*You could do that?*). There seems to be a tendency to the effect that the more emphatic and elaborate—in terms of wording, multiple repair initiation and, especially, markedness of prosody—a recipient's expression of surprise is, the more emphatic and elaborate is the speaker's confirmation of

the trouble source. There was not a single instance observed in which a general expression of surprise and summons for confirmation was answered by the speaker's taking back or relativizing his original utterance.

Sequences 09: *900 Dollar,* 10: *Jeder hat seine Aufgabe*, and 11: *Nach Niederwerth* are typical representatives of the group of nine fragments in which participants treat a general expectational problem with different degrees of intensity:

Sequence 09: *900 Dollar (04_27d)*

- trouble-source: 'ich HAB (.) glaub ich:: (.) neunhundert DOLlar bezahlt ...' (02)
- item Hans mistakenly treats as if it were shared by Dirk at the time of the repair initiation (03): he (Hans) honestly believes that he paid 900 dollars for his ticket to Germany.

```
   01   Hans   wo ich geFLO:N bin im SOMmer,
                  When I flew this summer,
   02          ich hAb (.) glaub ich:: (.) neunhundert DOLlar
                                                   bezahlt.
                  I paid, I believe, nine hundred dollars.
-> 03   Dirk   ECHT?
                  Really?
   04   Hans   KLAR.
                  Sure.
   05   Dirk   na=ja (.) also-
                  Oh well. Anyway-
   06          (---)
   07   Susi   JA.
                  Right.
   08          hab ich AUCH bezahlt.
                  I paid that, too.
```

When Hans reports having paid 900 dollars for his ight the summer before, Dirk expresses his surprise by uttering 'ECHT?' (Really?). Hans treats that contribution as a repair initiation to which he responds by a brief confirmation of the troublesome assertion. Dirk ratifies the repair by down-grading its relevance expressed by 'na=ja' (05; oh well).

The argument could be made here, that what Dirk—like the initiators in the following examples—takes issue with is not so much a precondition for the felicitous performance of a report or assertion but he questions the assertion itself. This would make his contribution a weak form of objection rather than the initiation of repair. The brief form in which the speakers of the trouble-sources in sequence 09 and in similar cases reassert their statements without providing additional evidence in support of the facts they just mentioned suggests a different interpretation. What

the repair initiators want to make sure is that the speakers—to use John Searle's term—have fulfilled the sincerity condition for making assertions, namely, really believe in what they said (Searle 1969: 66). If they would not, their report, statement, or assertion would not be false but "infelicitous."

In the following *sequence 10*, the summons for confirmation also takes issue with the trouble-source turn as a whole, which is an entire narrative, but does so in a more emphatic manner. Hans reports about a particularly blatant instance of cheating in which he took part during his time as a graduate student. The trick was that a test made up of five exercises was collaboratively done by five friends each of whom provided the solution of one exercise which then was distributed among the other collaborators. Susi expresses her surprise by asking 'das GING bei euch?' (11; *That was possible in your classes?*) which Hans responds to by confirming his narrative:'das GING.' (*That WAS possible*'). Rather than ratifying Hans's self-repair explicitly or implicitly, Susi repeats her summons for confirmation: 'JA?'[52] (13; *Really?*; lit: *Yes?*), she asks whereupon Hans answers more emphatically (cf. the adverb 'sicher' (*certainly*)) and supported by Rolf whose 'na LOgisch.' (*Of course!*) very strongly rejects Susi's expression of doubt.

Sequence 10: *Jeder eine Aufgabe (08_44s)*

- trouble-source: Hans's narrative about a particularly blatant instance of cheating in an university exam (01-09)
- item Hans mistakenly treats as if it were shared by his interlocutors at the time of the repair initiation (11): he (Hans) honestly believes that an instance like the one he just reported was possible and, actually, did occur when he was a graduate student.

01	Hans	von VORNherein, (.)
		Right at the beginning,
02		kriechte jEder eine AUFgabe.
		everyone got one exercise.
03	Rolf	he
		ha
04	Hans	JA.
		Yes.
05		jEder löste EIne.
		Everyone did one.
06		JA. (.)
		Yes.

[52] Unlike in other cases of multiple repair in which the treatment of a lower-level problem, say, acoustic trouble, is followed by the treatment of a higher level problem, e.g., an expectational problem, 'JA?' is a very common form of redoing a request for confirmation, i.e., doing a repair initiation of certain type a second time. In my data, the same use of 'JA?' is also found in two other sequences.

```
   07          un dAnn kamen die nachher wieder alle zuSAMmen.
                  And then, afterwards, all of them <i.e., the
                                          exercises> came together again.
   08   Susi   tchhh hehehe hehe
                  ((laughs))
   09   Hans   un das WARS dann.
                  And that was it.
   10   Carl   ((räuspert sich)) das WARN aber dann eh-
                  ((clears throught)) But those were eh-
-> 11   Susi   das GING bei euch?
                  That was possible in your exams?
   12   Hans   das GING.
                  That WAS possible.
   13   Susi   JA?
                  Really?
   14   Rolf   [na LOgisch.]
                  Of course!
   15   Hans   [((nickt))SIcher] geht das
                  ((nods)) Certainly that works.
   16          .hh und eh eh EINmal sind wer eh eh (...)
                  .hh And, eh eh one time, we got eh eh (...)
```

The last example to be cited here as an instance out of a set of nine sequences also follows the general format outlined above. In this case, the initiator makes use of prosodic means to underscore and emphasize her summons for confirmation and expression of surprise. In the ongoing episode, the four friends have been talking about a number of mutual acquaintances who moved to the same village of Niederwerth in the Rhineland where Dora and Theo live. At one point, Curt jokingly asks whether some other mutual friends of theirs would also plan to move to that village. To everybody's amusement, Dora responds that those friends actually planned on doing exactly that (02). Anke, with particular stress on the first syllable and beginning on a extra low pitch level, asks '↓EHRlich?' (05) which yields Dora's double confirmation 'im ERNST. WIRKlich' (05/06).

Sequence 11: *Nach Niederwerth (17_63a)*

- trouble-source: Dora's double confirmation ('WOLLten se ...' (02, 04)) of Anke's non-serious suggestion
- item Dora mistakenly treats as if it were shared by Anke at the time of the repair initiation (05): she honestly believes that that two particular mutual friends of the dinner participants planned on moving to *Niederwerth*.

```
   01   Anke   un dIE sind noch NICH nach niederwerth gezogen.
                 And those guys haven't moved to Niederwerth yet?
   02   Dora   .hhhh hehe [WOLLten se.
                  ((laughs))They wanted to.
   03   Curt   ((nickt))  [ja=ja geNAU.
                  ((nods)) Yes yes. Exactly.
```

```
   04   Dora   WOLLten se hehehehe. hh
                  They wanted to. ((laughs))
-> 05   Anke   ↓EHRlich?
                  Honestly?
   06   Dora   im ERNST.
                  Seriously.
   07          WIRKlich.
                  Really.
   08          ((-> A)) DAmals haben die [(.) gesagt-]
                  ((-> A)) At that time, (.) they said-
   09   Theo                              [(WÜSST ich nich.)
                                             (I wouldn't know that.)
   10   Dora   ((|-> T)) das haus NEben uns; WEISSde?
                  ((|-> T)) The house next to ours. You know?
   11          der HORST.
                  Horst.
```

(b) Expressions of surprise or doubt about a specific aspect of the trouble-source turn

In order to signal surprise about a particular aspect of the preceding utterance and to summon the producer of the trouble-source for confirmation of or comment on that aspect, recipients initiate repair by repeating the part of the utterance that caused the trouble or, if the problematic assertion was inferred by the recipient rather than directly expressed by the trouble-source, by producing a phrase that focuses the problematic aspect. In either case the intonation contour is a global rise. In three out of seven cases, the summons is preceded by an emphatic surprise token 'WAS.' (*What!*).

In the sequences discussed in section (a) above, the repairs are completed in the form of more or less emphatic confirmations of the trouble-sources, i.e., the facts with regard to which the initiators indicated surprise or even doubt. By making manifest their trouble concerning a particular aspect of the preceding utterance, the initiators in the examples below do more than just express surprise and ask for the speakers' general confirmation of what they said before: the initiators proffer a candidate interpretation of the trouble-source or they signal doubt, i.e., surprise plus availability of counter-evidence with regard to the information expressed by the trouble-source. By completing self-repair, the producer of the trouble-source thus does not just underscore his/her original utterance or correct it but s/he also confirms or disconfirms the repair initiator's interpretation displayed by the problem manifestation.

In our first example, Dora's summons for confirmation focuses on the referent of 'da' (*then*) in Anke's remark (07) about her sister's birthday. Anke, having two sisters, first specifies which one of the two she meant, namely *Bea*, and then confirms Dora's interpretation of the trouble source.

Sequence 12: *Siebter Dezember (20_90d)*

- trouble-source: Anke's statement that her sister's birthday is 'then,' i.e., December 7 (07)
- item Anke mistakenly treats as if it were shared by Dora at the time of the repair initiation (08): the birthday of Anke's sister is December 7.

```
   01   Dora   Genau.
                  Exactly.
   02          momenTAN- nein.
                  Right now- No.
   03          feiert e=ja ↑PLANT er seinen sechzigsten
                                                GebUrtstag.
                  He's celebrating- well, planning his 60th birthday.
   04          (-)
   05   Anke   der WANN is?
                  That is when?
   06   Dora   thh e:h sIEbter (.) deZEMber.
                  thh eh seventh of December.
   07   Anke   da hat meine SCHWESter geburtstag.
                  That's when my sister's birthday is.
-> 08   Dora   am SIEBten deZEM[ber?
                  On the seventh of December?
   09   Anke                  [die [BEa.]] 'EM=m
                                 Bea. (Right)
   10   Theo                    [BEa.]
                                  Bea.
```

The fragment *Siebter Dezember* resembles those cases that previously were discussed as treatments of referential problems (cf. section (ii) (b) above). Accordingly, Dora's utterance of 'am SIEBten deZEMber?' could be analyzed as making manifest a problem understanding the deictic expression 'da' (07) by proffering a candidate interpretation. Anke, in turn, could be said to ratify that candidate which would make the present sequence appear to be very similar to sequence 09: *Atomkraftwerk* above. While this interpretation certainly makes some sense, I am inclined here to follow Selting, who specifies prosodic markedness as a cue by which interactants indicate expectational rather than referential trouble (Selting 1987b: 140/1). In the present case the two prosodic peaks on 'SIEBten' and 'deZEMber' characterize Dora's utterance as an expression of surprise about a fact that appears extraordinary to her rather than the manifestation of insecurity with regard to the referent of 'da' (07; then).

In the following fragment, Hans is talking about a transfer of video recordings from the German video format PAL into the US-American NTSC format. He (04) suggests that having it done by the university will probably be cheaper than with some regular local photo store where they charge 70 dollars for a single copy. Susi (05 '↑WAS:::' (What?!)) is the first one to express surprise which, however, is not

treated by Hans as a repair initiation. He just pauses brie y and then brings his turn to a completion (07). Now, Dirk (08/09) summons Hans for confirmation by producing a surprise token and a paraphrase of the item that appears problematic to him. Hans provides this confirmation of Dirk's interpretation by uttering 'ja.' (Right.) which he underscores by an emphatic nod. He, then (10), restates his original report in a condensed form.

Sequence 13: *Siebzich Dollar (01_46d)*

- trouble-source: Hans's assertion that they, i.e., the local camera store, charge 70 dollars for making one copy of a German 90 minute video tape (03/04)
- item Hans mistakenly treats as if it were shared by his interlocutors at the time of the repair initiation (08/09)): it is a fact that, at the local camera store, they charge 70 dollars 'for one tape'.

```
   01   Hans   also wahrscheinlich BILliger als bei e:h=
                  Well, probably cheaper than with e:h-
   02   Carl   =JA:.
                  Yes.
   03   Hans   mick's CAmera.=
                  Mick's Camera <<a local photo store>>.
   04          =die nehm nämlich ↑SIE:Bzich DOLlar für ne
                                      [(.)umspie]lung
                  Those guys charge seventy dollars for one copy.
   05   Susi                          [<<gehaucht> ↑WAS:::?]>
                                          <<breathy> What!>
   06   Carl   das is LÄcher[lich.
                  That's ridiculous.
   07   Hans                [<<-> S> Anderhalb STUNden. >=
                             <<-> S> One hour and a half.
-> 08   Dirk   =WAS.=
                  What!
-> 09          =für EIne kasSETte?
                  For one tape?
   10   Hans   ja=an- anderderthalb STUNden, siebzich DOLlar.
                  Right. One- One hour and a half, seventy dollars.
                |
            H nods emphatically
   11   Dirk   <<lacht kehlig> kchhhh>
                  ((guttural laughter))
```

The final example to be presented here involves the expression of doubt as opposed to mere surprise on the part of the repair initiator. The conversation is deals with the whereabouts of a village in Saxony, Stolpen, where Theo and Dora are based during Theo's business trip. Curt, having been a resident of Dresden for one year, seems to know roughly where this is.[53] In the course of their collaborative attempt at exactly

locating the village, Theo (03-05) puts forward his guess partially overlapped by Curt's proposal (06). In response to Theo, Curt produces a surprise token with strong emphasis (08; '!WAS!?') followed by a prosodically marked repetition of the critical item. From Curt's contribution to the interactive attempt at locating Theo's and Dora's hotel (06), it is obvious that his knowledge contradicts Theo's suggestion as to where Stolpen is. Theo, after having uttered a token of hesitation or re ection ('EM), completes the repair by correcting his troublesome utterance rather than underscoring it.

Sequence 14: *Im Osten (14_45c)*

- trouble-source: Theo's statement that 'it,' i.e., the town of *Stolpen*, is South West of 'here,' i.e., *Dresden*.
- item Theo mistakenly treats as if it were shared by Curt at the time of the repair initiation (08/09): *Stolpen* is located South West of Dresden.

```
   01    Curt    ↑STOLpen.
                    <The village of> Stolpen.
   02            n=jA ich ↑HAB dat schon=ma gehÖrt,
                    Well, I ↑have heard that name before.
   03    Theo    das [IS hier irgendwo-
                    That's somewhere here-
   04            (-)
   05            <<-> vor sich>[(das liegt)] südWESTlich von
                                                        hier.>
                    <<-> down>    That's South West of here.>
   06    Curt                    [im OSten.]
                                     In the East.
   07    Dora                    ['EM=m]
                                    'EM=m <Right.>)
-> 08    Curt    !WAS!?
                    What!?
-> 09            ↓SÜDwestlich?[54]
                    In the South West?
   10    Theo    'EM.
                    'EM,
   11            südÖSTlich eher.
                    in the South East, rather.
```

[53] As a matter of fact, the village of Stolpen is right in the East of Dresden which both interactants are mistaken about. *Sequence 19* illustrates nicely that interaction is about what interactants *assume to be* the case rather than what *is* the case.

[54] From an observer's point of view, Curt's putting stress on 'SÜD' rather than 'westlich' is odd in the context of the present repair sequence since the relevant contrast here obviously is between '(süd)WESTlich' and '(süd)ÖSTlich'. For Curt's co-participants this oddity, however, is not treated as a source of (form-based) trouble.

As the above analyses show, Selting's category of expectational/inferential problems accounts for a particular class of shared background repair treatments found in my data. This class is defined by the common conversational means used by interactants in order to deal with conversational problems. Making manifest an expectational problem involves the expression of surprise or, even stronger, doubt. Furthermore, a sequence of this kind takes issue with an entire troublesome statement in a general way or puts into focus a particular aspect of it. For realizing each one of the two options, interactants seem to have available specific means that were exemplified above.

In the three preceding sections (i) - (iii), sequences were presented in which the repair initiator summons the producer of a trouble-source to treat shared background problems that we were able to subsume into one of the categories *form-based, semantic*, and *expectational/inferential trouble* that Selting proposes in her various studies. In the following sections (iv) and (v), I propose supplementing Selting's typology by two additional problem types and, accordingly, types of problem treatments: problems concerning the sequential relevance or implicativeness of a contribution at the time of its utterance (cf. Schegloff 1987a) and fundamental trouble related to "ancillary premises" (Lewis 1969, cf. above 2.1) of interaction.

(iv) The treatment of problematic sequential implicativeness

In his study on *Some sources of misunderstanding in talk-in-interaction* (1987a), Schegloff refers to a class of conversational trouble by the term *problematic sequential implicativeness* (1987a: 201), which does not fit Selting's three categories (i) - (iii), either with regard to the interactive means employed by the participants or the problems treated by those means.[55] Schegloff investigates sequences in which the interactional relevance of an utterance, the point the producer of the trouble source wants to make, is treated as problematic. In Schegloff's cases of third position self-repair, the misunderstanding becomes evident to the speaker by the recipient of the trouble-sources' response to the troublesome utterance.

In my data, however, misunderstandings due to the problematic sequential implicativeness of a trouble-source treated by third position *self-initiated* self-repair (cf. the examples in section (ii) (c) above) are not to be found. What can be observed, however, is that recipients of contributions make manifest their problems understanding the points speakers intend to make and hence summon

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[55] Several of the sequences Schegloff subsumes under his sub-category of "joke first" may have to be excepted here. Under the perspective adopted in this study, the interactional problems dealt with in those sequences are treated by the interactants as trouble of another kind than problematic sequential implicativeness, e.g. as acoustic problems (cf. sequence 03: *Fahrenheit*; Schegloff 1987a: 212-3) or as a problematic reference (1987a: 213-4).

the speakers for repair. They, thereby, ask the producers of what thus turns out to be trouble-sources to contextualize[56] their previous utterances explicitly and make up for what they seem to have mistakenly assumed to be obvious. The recipients, that is, indicate that they are able to interpret the trouble-sources to some extent but are missing their general interactive relevance. At the same time, the initiators ascribe to the producers of the trouble-sources the responsibility of accounting for their contributions. This is done in second position, which is typical for what may be described as appeals to the first clause of the quantity maxim. As with problem treatments of the types (ii) and (iii), two formats for repair initiation can be distinguished here along the lines of how specifically the initiator identifies the source of her/his problem and of how active s/he is her/himself in treating it:

(a) the *richtig.-und?* format (*right.-so what?* format) used by initiators to question the relevance of the trouble-source in a general way and

(b) the *wieso.*+suggestion format (*why.*+suggestion format) by which the initiator proffers a way of contextualizing the trouble-source with rising intonation and thus summons the speaker of the previous turn for confirmation or correction.

A final instance of problem manifestation in which a participant signals a problem of sequential implicativeness in next turn does not fit either of the two ways (a) or (b) of initiating repair and will thus have to be discussed in its own right (c).

(a) The richtig.-und? *format: general manifestations of problematic sequential implicativeness*

By the term *richtig.-und?* format I refer to a form of problem manifestation consisting of two components:

- a ratification in response to the trouble-source utterance, e.g., a recipient signal ‘’m=HM.’
- a general summons for the speaker to provide what the initiator treats as being unsaid but presupposed by the trouble-source: ‘UND?’ (*So what?/And what else?*).

In the data base, this format is realized by sequence 15: *Avocado*. At the beginning of this exchange, Dirk wants to know what the green ingredient is he just noticed in the salad (01). While Susi proffers a serious answer to Dirk’s question, Carl (04) sets the mocking tone that characterizes the entire exchange when he repeats Dirk’s phrase ‘das GRÜne’ (*the green stuff*) preceded by a series of alarmedness tokens in an anxious tone of voice and underscored by a warning gesture.

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[56] The term is used here according to Auer’s (1992: 4) “most general” understanding of Gumperz’ concept:“In most general terms, contextualization therefore comprises all activities by participants which make relevant, maintain, revise, cancel [...] any aspect of context which, in turn, is responsible for the interpretation of an utterance in its particular locus of occurrence.” Cf. also Gumperz (1992).

Sequence 15: *Avocado (01_25d)*

- trouble-source: Tom's elaborate account of the avocado's color (09-12).
- item Tom mistakenly treats as if it were shared by Dirk at the time of the repair initiation (16): the point he, Tom, wants to make by his account of the avocado's color.

01	Dirk	is das KIwi das grüne?=	
		Is this kiwi, the green stuff?	
02		was is das GRÜne?	
		What is that green stuff?	
03	Susi	<<-> D> av[oCAdo.>	
		Avocado.	
04	Carl	[<<grinsend> ʻoʻoʻoh [dat ↓GRÜne,>	
		<<grins> Ohohoh The Green stuff,>	
		C raises his right hand with a warning gesture	
05	Dirk	[avoCAdo?	
		Avocado?	
06	Susi	[tschehehe]	
		((laughs))	
07	Rolf	[<<gespielt ungeduldig> JA eh.	
		<<pseudo-impatient> Sure.>	
08		sEI nich so PICky.>	
		Don't be so picky.>	
09	Tom	<<-> D> normAlerweise wenn die FRISCH sin,	
		<<-> D> Normally, when they are fresh,	
10		sin die WEISS.>	
		they are white.	
11		(-) wenn man die vIEr wochen lang STEhen lässt,	
		(-) If you let them sit around for four weeks,	
12		kriegen die so n grünlichen SCHImmä.	
		they take on a kind of greenish shine.	
-> 13	Dirk	`'m=´HM.	
		<<Okay.>>	
14	Carl	<<-> vor sich> ach SO.> ((schmatzt))	
		<<-> down> Oh. Okay. ((smacks))	
15		(--)	
-> 16	Dirk	UND? ((lächelt provokant))	
		And what's more? ((smiles provocingly))	
17	Tom	((schürzt die Lippen)(schüttelt den Kopf)(isst weiter))	
		((purses his lips) (shakes his head) (continues eating))	
18	Dirk	<<immer noch lächelnd> hehe>	
		<<still smiling> hehe>	
19		(-)	
20	Susi	so WHAT?	
		So what?	
21		(2)	

22 Dirk da NIMMT sich jetzt einer von den pAprika?
So, does anybody get oneself one of the bell peppers or not?

After the interactants have established that the 'green stuff' is avocado, Tom, turning towards Dirk, explains in a mocking tone of voice why avocado is green, suggesting that the pieces in the salad probably are more than four weeks old and that means less than fresh. Dirk (13) ratifies this "information" and so does Carl (14), when, after a noticeable pause, Dirk (16) utters 'UND?' turning directly towards Tom with a broad and provoking grin.

Tom treats this utterance as summoning him to specify the point he wanted to make by his elaborate, but made up explanation for the avocado's color. He does this, however, in a minimal and low profile form. Rather than answering the summons or rejecting it as unjustified, Tom (17) signals embarrassment by looking down in front of himself, pursing his lips, and shrugging his shoulders. By signaling that he is not able to specify what his preceding utterance was meant to say and showing embarrassment about this inability, Tom indicates that he accepts Dirk's summons for an explication of the interactive point he, Tom, wanted to make. To this behavior on Tom's part, Dirk (18) responds by brief malicious laughter that terminates the exchange.

Susi—as a kind of coda or afterthought to the preceding sequence—analyses Dirk's repair initiation by paraphrasing his problem manifestation in the form of its English equivalent 'so WHAT.' (20). Doing so, she displays the playfully antagonistic character of the sequence in which issues of face and image play an important role. With regard to an analysis of shared background repair activities, however, it is important to see the *richtig.-und?*-format instantiated and to notice what kind of problem treatment is initiated in this form. In sequence 15, we find both components of the format: first, Dirk's tokens of ratification (13, 14) and, second, after an extended pause during which Tom does not take a turn, Dirk's summoning Tom to specify the point (16), to give an account, of what has become the trouble-source utterance. Tom demonstrably accepts the summons, which is particularly remarkable since he is not able to answer it. Dirk is the one who is successful in preserving his face at the cost of Tom's, which he expresses by brief laughter that concludes the sequence.

(b) The **wieso.+***suggestion format: indicating problematic sequential implicativeness by making an attempt at contextualizing the trouble-source*

We just saw that interactants may use the *richtig.-und?* format to summon producers of trouble-sources in a very general and unspecific manner to make explicit some aspect of the background. Problem manifestations according to the

wieso.+suggestion format function in a different way. In the two conversations analyzed, the format shows two elements:

- the question word 'wieSO.' (*Why? What for?*) uttered with falling terminal intonation by which the initiator makes manifest his problem understanding the relevance of the preceding utterance and thus identifies it as a source of trouble
- a suggestion to contextualize the trouble-source produced with rising question intonation and summoning the producer of the trouble-source for either a confirmation or some account for his troublesome utterance.

First, I would like to point out why exchanges instantiating the *wieso.*+suggestion format should be included in the class or repairs as it is understood in the present study: by initiating repair with a *wieso*-question, the recipient of the trouble-source performs an activity that is not sequentially projected by the trouble-source turn. Rather, the initiator questions one of the presuppositions made by the speaker, namely, that his/her contribution makes an obvious point at the current stage of the exchange that is not in need of specific explication (along the lines of, e.g., adding 'I'm asking/saying that because ...'). The fragments discussed below are repair sequences because the initiators make manifest to their interlocutors that they are having trouble understanding why the trouble-source was produced; they ask the speakers for an account for their contributions because these contributions—to put it in Garfinkel's terms—failed to account for themselves.

Sequence 16: *Northwest* is a first example showing how the *wieso*+suggestion format works. In the context of a discussion about air lines, air fares, etc., Hans (01) asks Susi if she has ever own with Northwest Airlines. Susi(02/03; ''hm='hm'), busy chewing and swallowing, answers negatively and then initiates repair. By uttering 'wieSO.' (04; *Why?*) she signals a problem concerning the relevance of Hans's inquiry followed (05) by a suggestion as to what could have motivated it.

Sequence 16: *Northwest (06_09s)*

- trouble-source: Hans's question (01).
- item Hans mistakenly treats as if it were shared by Susi at the time of the repair initiation (04/05): in the present conversational context, the relevance of his question is sufficiently clear to the other interactants.

```
   01   Hans   <<-> S> bist scho=ma geFLO:N mit northwEst?>
                          Have you ever flown Northwest?
   02   Susi   ((<<-> H> schüttelt Kopf; kaut und schluckt))
                  ((shakes head; chews and swallows))
   03          'hm'hm
                  <No.>
-> 04          (.) wieSO.
                       Why?
-> 05          is das SCHLIMM?
                  Is that bad?
```

```
06   Hans   hf:: ich WEISS nich.
               ((laughs)) I don't know.
07          also (mir hatte <<-> R> [jemand) erZÄHLT>]-
               Anyway, (somebody had told mir)-
08   Susi                            [(jetzt machen mich   )]
                                        (Now, make me     )
09   Hans   'ehm: mit der northwEst is=es am BILlichsten wie
                                                    man hört.=
               Ehm. With Northwest it's cheapest, they say.
10          =↑JA.
               Right.
11          ↑KLAR.
               Of course!
12          das IS aber so,=
               But it's like this:
13          =wenn de (.) en zweites geTRÄNK habn möchtest
                                                  auf dem flug,
               If you'd like to get a second drink on your flight,
14          (.) dann mUsste die schon (.) drum (.) !BIT!ten
               (.) you have to beg with them.
```

Hans does not directly reject Susi's suggestion but displays insecurity with regard to it (06; 'hf:: ich WEISS nich.' (*I don't know*)) and then (07-14) provides an elaborate narration of somebody else's bad experience with Northwest Airlines. Where the *richtig.-und?* repair type is of a mockingly confrontative character, here neither Susi nor Hans do anything to threaten the other's face. On the contrary, Susi's proffering a potential way of contextualizing Hans's troublesome question and Hans's very indirect form of negating Susi's proposal appear to be particularly cooperative moves apt to preserve the face of the respective partner.

Sequence 17: *Olive* is much like *Northwest* in its cooperative nature. Theo's (05/06;10) drawing Dora's attention to the olives in the salad and his troublesome invitation to share one with him is responded to by general laughter. Following this, Curt (13/14) makes manifest his problem understanding the point of Theo's invitation and summons Theo for repair instantiating the *wieso*.+suggestion format (13-15).

Sequence 17: *Olive (10_27c)*

- trouble-source: Theo's inviting Dora to share an olive (10).
- item Theo mistakenly treats as if it were shared by his interlocutors at the time of the repair initiation (13-15): in the present conversational context, the relevance of his invitation is sufficiently clear to the other interactants.

```
01   Anke   saLAT?
               Salad?
```

```
   02   Theo   ((nickt)) salat is GUT.
                  ((nods)) Salad is good.
   03          JA.
                  Yes.
   04   Dora   salat ist SEHR [gut.
                  Salad is very good.
   05   Theo                 [oh DOra.
                                Oh Dora!
   06          haste ((|-> D)) ↑DIE olIven gesehen.
                  Did you ((|-> D)) see these olives?
   07   Dora   ((nickt)) (-)
                  ((nods))
   08          JA=a.
                  Sure.
   09          (hab ich [Eben schon])
                  (I already did a while ago.)
   10   Theo           [O::h. da] ((|-> D)) ↑TEIlen wer uns
                                                  aber eine.
                        Oh. ((|-> D)) In that case, let's share one!
   11   Dora   ((-> T)) .hh he [.hh he .hh he
                  ((-> T)) ((laughs))
-> 12   Curt                  [hahaha
                                ((laughs))
   13          wieSO.
               Why?
   14          DÜRfen schwingere ((|-> T)) schwangere
                  Aren't prignant women ((|-> T)) pregnant women
   15          keine oLIven essen?
                  supposed to eat olives?
                   |__________|
                         |
```

T turns to D; flips lower lip; looks clueless

```
   16   Dora   ((|-> T; schaut irritiert)) theo HASST oliven.
                  ((|-> T; looks irritated)) Theo hates olives.
   17          (.) vielleicht DEShalb.
                        Maybe that's why.
   18          aber [waRUM will] er se [dann TEIlen.]
                  But why does he want to share it then?
   19   Theo      [ich:::]          [WOISS et nich.]
                                          ((|-> D; ratlos))
                     I::: don't know. ((|-> D; clueless))
```

When Theo (15) looks at Dora and non-verbally indicates that he is at a loss, Dora, thus "selected" as next speaker by Theo, makes an attempt at completing the repair on behalf of her husband (16-18). Like Hans (06) in sequence 16: *Northwest* above, Dora (16) does not explicitly reject Curt's proposal as to how to make sense of Theo's invitation. Rather, she makes an alternative attempt at contextualizing the trouble-source which she (17, 18), however, immediately marks as rather doubtful as well. The exchange has arrived at an impasse. Theo's makes manifest his uneasiness, when he—overlapping Dora's turn and rather to himself than addressed to anyone

else—utters ‘ich::: WOISS et nich’ (*I don’t know.*) and then turns to Dora again looking clueless. The episode is brought to an end when nobody insists on clarifying the problem and Dora and Curt continue the dinner activities by reaching the salad bowl over to Anke and switching to another topic.

In this case, the relevance of a shared background item and the display of the participants’ mutually related higher-level assumptions about each other can be reconstructed in the following manner:

> Curt, by addressing his repair initiation to Theo, the producer of the trouble-source, indicates that he, Curt, assumes that Theo assumed that his recipients would understand the point of his, Theo’s, utterance.
>
> Theo, by displaying embarrassment when conceding the pointlessness of his question, indicates that he considers Curt’s assumption that he, Theo, was pursuing a particular interactional point by his question justified.

It should be noticed, however, that, from the point of view of its sequential organization, the repair in sequence 17: *Olive* is particular. Structurally speaking, it represents a next turn repair sequence like *Northwest*:

T 1:	trouble-source (06)	by *self*
T 2:	repair-initiation/problem manifestation (13-15)	by a third participant
T 3:	display of inability to complete self-repair & selecting Dora as next speaker (15; nonverbal behavior)	by *self*
T 4:	(attempt at performing a) repair completion (16/17)	by *other*.

Here, however, the problem of understanding is not made manifest by *other*, i.e., the addressee of the trouble-source, but by Curt, a third participant and outsider to the exchange so far who has been overhearing the conversation at the time the trouble occurs. Curt addresses his summons to the producer of the trouble-source, Theo, who indicates in response that he is not able to comply with it. What makes this an unusual case of repair is that it is the recipient of the trouble-source, Dora, who, upon being selected by Theo to do so, makes an attempt to complete the repair.

In this example, the intended recipient of the trouble-source made an attempt at responding to the repair initiation not before she was selected to do so by the speaker of the problematic utterance to whom the summons for repair was originally addressed. Most importantly with regard to conclusions about the state of the shared background, Theo himself acted in a way that justifies inferences about his higher-level assumptions in the local context.

This case is different from the following example of the *wieso*+suggestion format, which, on first sight, just seems to represent another sequence in which a participant makes manifest a problem of sequential implicativeness. I will argue, however, that, in sequence 18: *Vegetarier I*, trouble of a different kind is treated and that, in particular, shared background is *not* at issue here. I nevertheless include this sequence in the current discussion because it might be helpful in identifying the

limits of the category of shared background treatments to discuss a case that is not one of its element while being similar to its central members in a number of regards.

Sequence 18 represents the beginning of a new conversational episode on the non-vegetarian nature of the food. After a pause and "out of he blue", Carl, the host, turns to Bert and points out to him that the food served for dinner is not vegetarian (02). Apparently, he just recalled (cf. the change-of-state token 'ah' (02) and his afterthought (06)) that Bert might not want to eat meat. As it turns out, the fact implied by Carl's warning, namely, that Bert is a vegetarian, is in con ict with Rolf's expectations about his friend and house-mate, which is indicated by Rolf's question (12/13).

Sequence 18: *Vegetarier I (02_13r)*

- trouble-source: Carl's (02; 04) informing Bert about the fact that the food is not vegetarian: '... das is (nich) (.) vegeTArisch ...'
- item Rolf treats as being problematic to him: the fact that Bert is a vegetarian (12/13).

```
   01          (1)
   02   Carl   ((|-> B)) 'ah=dAs is e:h HACKfleisch; ne?
                           Ah. This is eh ground meat, you know?
   03   Bert   <<nickt heftig> 'EM=m>
                  <<nods vigoriously> ((Right)).
   04   Carl   ((-> vor sich)) das is (nich) (.) vegeTArisch,
                  ((-> down))    That's (not) vegetarian,
   05   Bert   das is [oKAY.
                  That's okay
   06   Carl          [da hab ich nIch dran geDACHT.
                         I didn't think of that.
   07   Hans   vegetArisches HACKfleisch?
                  vegetarian ground meat?
   08   Carl   ((-> H)) n(h)(h)e.
                          ((laughs))
   09          ((schaut in die Runde)) das is [!NICHT!-]
                  ((looks around)) This is NOT-
   10   Susi                                  [hehehe]
                                               ((laughs))
   11   Carl   (-) [((schaut vor sich; für sich))[<<p> GUTch::>
                      ((looks down; all to himself)) All right.
-> 12   Rolf       [((|-> B))                    [wieSO?
                                                  Why?
-> 13          bis du vegeTArier?
                  Are you a vegetarian?
   14   Bert   eigentlich JA. ((schaut vor sich hin))
                  Strictly speaking: yes. ((looks down))
   15   ((Everyone, except Bert, laughs))
```

Two properties distinguish this exchange from the two instances of the *wieso.*+suggestion format discussed previously in this section. First, the trouble made manifest by Rolf (12/13) is an expectational/inferential problem—he is surprised about a fact implied by Carl's warning Bert—rather than problematic sequential implicativeness. Second, and more importantly for the decision to exclude the sequence from the class of shared background treatments: higher-level assumptions of the kind that is typical of shared background treatments are not re ected in the exchange above. In this case, a third participant—i.e., neither self, the producer, nor other, the intended recipient of the trouble source—addresses his summons for repair directly to the recipient of the trouble-source rather than to its producer (cf. sequence 18: *Olive* above):

T 1:	trouble source (02; 04))	by *self*
T 2:	repair initiation/problem manifestation (12/13)	by a third participant
T 3:	repair completion (14)	by *other*

As a result, Bert's repair (14) cannot be interpreted as evidence with regard to how the trouble-source was meant by its producer. As a matter of fact, the trouble treated in *Vegetarier I* is not one that concerns the meaning, interactive point, or other aspect of a troublesome utterance but, rather, a fact accidentally and unintentionally revealed by it, a fact that turns out to be surprising for the participant who initiates the repair. There is no indication on the part of Bert that he is treating Rolf's problem *as* an expectational problem as opposed to just answering an information question.

Unlike the repair initiators in *Northwest* and *Olive*, Rolf turns out to be correct with regard to his suggestion as to what item of the background remained implicit in the trouble-source. Rather than representing a more or less blind guess (cf. Susi's and Carl's problem manifestations in the two fragments above), Rolf's contribution appears to be a serious request for confirmation of an assumption with regard to which he displays insecurity or surprise.

Vegetarier I resembles the fourth position repair sequences discussed previously in which interactants dealt with unilateral, "private" problems of particular individuals. In the present case, information Carl addresses to Bert (02; 04) has the coincidental effect of notifying Rolf, a mere overhearer of the ongoing talk, of a surprising fact about his roommate. Rolf (12/13) turns towards Bert summoning him to confirm what Carl only seems to have presupposed without any concern for Rolf whatsoever. Bert then answers to the summons, even though hesitatingly (14). Higher-level assumptions on the part of Rolf, Bert, or Carl about each other's assumptions are not re ected by the repair activities in this case.

As an aside and to avoid potential confusion, it should be pointed out that repair initiations according to the *wieso*.+suggestion format are not to be mistaken for what Selting refers to as *wieso-inquiries* ('Wieso-Nachfragen;' 1987b: 140). Those she

characterizes as manifestations of con icts between an individual's understanding of an utterance and her general frame of (factual) knowledge that were discussed in the preceding section (iii). Cf. the following excerpt:[57]

Selting 02:

	256	S:	wie vorges Jahr hab ich nix gekricht,
	257	⎡‾K:	für den Jungn.
->	258	⎣_S:	ja war dat/ wieso hass
	259	⎡‾S:	enn da nix gekricht für den Jungn.
	260	⎣_K:	(leise) weiß i nich.

(Selting 1987b: 140, ex (10))

Selting 02: gloss

	256	S:	What do you mean, last year I didn't get anything.
	257	⎡‾K:	For the boy.
->	258	⎣_S:	Well, was that/ Why didn't
	259	⎡‾S:	you get anything for the boy.
	260	⎣_K:	(with low voice) I don't know.

(translation mine, T.W.)

The difference between Susi's problem manifestation (258) and the *wieso*+ suggestion format is obvious. Selting's *wieso*-inquiries are performed by wh-questions that take issue with a problematic specific aspect of the trouble-source rather than questioning its relevance in the local context of the conversation.

(c) "You mean ___, don't you?"

A final example in which the participants treat the problematic sequential implicativeness of a trouble-source utterance resembles the *wieso*.+suggestion format in that the initiator formulates an interpretation of the troublesome turn and summons his co-interactant for confirmation. Unlike the cases subsumed under (b), however, the initiator designs his proposal as one he considers likely to be correct, which he asks the producer of the trouble-source to "admit".

When Carl is about to get himself salad, he notices that there is only a little left and asks (02) the other participants if they would like to have some more. Eventually, he (06/07) directly addresses Bert, looking at him intently and asking 'saLAT?'

---

[57] In this version of the transcript, I have omitted all specifics from Selting's original that are irrelevant to my present argument.

(*Do you want*] *salad?*). Bert (08/09) turns towards Carl and, after some seconds of re ection, he initiates repair on Carl's offer.

Sequence 19: *Noch Salat? (05_18b)*

- trouble-source: Carl's offering Bert a bit of salad (06/07)
- item Carl mistakenly treats as if it were shared by his interlocutors at the time of the repair initiation (09): The offer was meant "literally," i.e., as one that makes accepting it the sequentially preferred next move.

```
   01          (1)
   02   Carl   mÖchte noch jemand (.) wat von dem saLAT? 'hh
                  Anybody else for the salad?
   03          (-)
   04   Hans   ['EM=m
                   ((Yes.))
   05   Carl   [(((|-> B)) (-)
   06          ((-> B)) saLAT?
                  ((-> B)) Salad?
   07          ((starrt B an)) (1)
                  ((stares at B)) (1)
   08   Bert   ((|-> C)) (1)
-> 09          !DU! willst es jetzt essen; ne?
                  YOU would like to eat it now, don't you?
   10   Carl   <<sehr artikuliertes Hochdeutsch>
                  'ch (.) WÜRde noch etwas davon nEhmen; ja.
                  <<very articulate Standard German> I (.) would take
                                                     some of it, yes.
   11          aber du KANNST AUCH noch e'>-
                  but you, too, can (have) some-
               |_____________________________|
               |     |               |
          R looks down  nods twice    turns to C
   12   Bert   ich NEHM vielleicht (.) nen lÖffel davon ma.
                  Perhaps, I'll just take (.) a spoonful of it.
   13   Carl   JO. also LOS.
                  All right. Let's go then.
   14   Susi   hehehe
                 ((laughs))
```

Once again, it should be pointed out why the sequence above is included in the class of repairs: typical for repair initiations, Bert's (09) utterance is not sequentially implied by Carl's trouble-source turn if one interprets this utterance as an indirect offer, which Carl himself obviously does (cf. 11). Rather, Bert expresses insecurity with regard to the kind of contribution Carl wanted to make. Only after completion of the side-sequence in which the status of Carl's utterance is negotiated, does Bert

perform the activity that is sequentially projected by what now has been established as an offer for all participants, namely, Carl's trouble-source turn (06/07).

By initiating repair on the offer, Bert imputes to Carl the desire of wanting the salad all for himself and summons him for confirmation of this assumption. Carl executes repair by confirming Bert's suggestion ('JA.' (yes)), but making the crucial qualification that he, Carl, would like to take some, i.e., not necessarily all, of the salad and adding that Bert may have some, too. Bert, after Carl's having reconfirmed that his original troublesome offer was meant to do exactly what it displayed, accepts the offer.

Both the *richtig.-und?* and the *wieso.*+suggestion formats specify ways by which interactants can make manifest their problems contextualizing and understanding the relevance of a preceding utterance and to summon the producer of the trouble-source to account for it. In the data, the two examples of *richtig.-und?* initiations are found in —playfully mocking—antagonistic contexts in which the face of the interactants is at risk and that seem similar to the circumstances in which English 'so WHAT.' is used.

When contrasted with the other form of signaling problematic sequential implicativeness, the *richtig.-und?* format appears well apt for the purpose of threatening the image of another. The initiator ascribes to his interlocutor full responsibility for accounting retrospectively for a trouble-source that failed to account for itself, i.e., be sufficiently clear with regard to its relevance at a particular state of the interaction. When, as a contribution to a shared background repair sequence, an interactant makes manifest his problem of understanding according to the *wieso*+suggestion-format, she makes an attempt of her own at contextualizing the trouble-source and thereby initiates a collaborative effort to deal with the trouble that does not threaten the other's face.

The interactional point pursued by a trouble-source was shown to be at issue also in *Noch Salat?*. Carl treats Bert's suggestion as an insult that he, Carl, might not have *meant* as an offer what he *designed* as one. In the course of a brief exchange (10/11) the status of Carl's troublesome utterance is negotiated such that it now seems to be sufficiently clear to all interactants. By eventually accepting what now has turned out to be a true offer, Bert (12) signals that he abandoned his doubt about the interactional point of Carl's utterance.

The final type of problem treatment to be discussed in this section concerns what I have called *fundamental* conversational trouble.

(v) The treatment of trouble concerning the fundamental premises of interaction

In a last subclass of repair sequences displaying the participants' default expectations concerning sufficient explicitness, problem treatments can be subsumed that deal with what I, for lack of a more specific term, will refer to as *fundamental* trouble. These repairs relate to the preconditions (or foundations) of interaction which Lewis refers to as *suitable ancillary premises* (cf. above 1.2). Here, the recipients of the trouble-source indicate in various ways that they are at a total loss with regard to the nature of a preceding utterance or other activity.

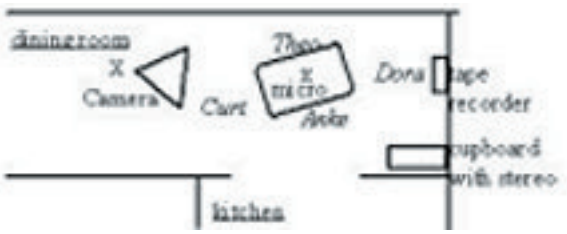
(a) Non-verbal trouble-sources and prefaced repairs

Three times in the data base, fundamental trouble is caused—at least partly—by an interactant's non-verbal behavior. In all of these cases, the producer of the trouble-source responds to his/her interlocutor's repair initiation not just by completing the repair. In addition she/he introduces or integrates into the repair an excuse for having behaved in a troublesome way or an expression of difficulty to account for the trouble-source. While in the latter case, the producer of the trouble-source emphasizes that she makes her attempt at complying with the summons for repair in spite of the obvious difficulty in doing so, the instances of completion+apology provide another kind of evidence indicating that the interactants orient towards an obligation to act in a way that can be fully understood by their interlocutors.

Two instances of apology in the context of repairs can be found in the data. In both cases the trouble-sources as well as the problem manifestations are non- or para-verbal and the individuals who perceive the trouble turn out not to be the intended recipients of the activities at issue but accidental overhearers/overseers of non-interactive activities.

In sequence 20: *Sieht gut aus*, Curt just managed to turn off an annoying beeping sound caused by the tape recorder on the window sill behind Dora. For the purpose of clarifying the setting including the exact locations of the participants relative to each other and relative to the spacial objects they refer to, the scheme introduced in section 3.2 is reproduced here:

Table 5 (= 4): *The setting of the Dresden dinner*



Theo is looking at the tape recorder and, therefore, in the rough direction of Dora when he states that everything (concerning the recorder) seems to have worked out fine (01-04). His utterance of 's(h)iet gut !A(h)US!' (04; *looks good*) that is accompanied by an obviously ambiguous gaze turns out to be the trouble-source upon which Dora initiates repair (05). Even though it is not likely that Theo intended his behavior as a contribution to the ongoing interaction he takes over the responsibility to account for it and completes the repair called for by Dora's display of puzzlement.

Sequence 20: *Sieht gut aus (16_05d)*

- trouble-source: Theo's (04) utterance including his gaze towards the tape-recorder and his statement that '[everything] is looking good'
- item that Theo mistakenly treats as unproblematic to his interlocutors at the time of the repair initiation (05, 07): his utterance and gaze are directed to someone/something other than Dora, so she neither is the intended recipient nor the object Theo is talking about.

```
   01   Theo   JO::.
                  Okay.
   02          sieht GUT aus.
                  Looks good.
   03          hört sich G(h)UT an; wollt ich sagen.
                  Sounds good, I meant to say.
   04          ((|-> D & Kassettenrekorder, lächelt)) s(h)ieht
                                                      gut!A(h)US!
                  ((|-> D & tape recorder; smiles)) "L(h)ooks good!"
-> 05   Dora   'eHE?
                  He?
   06   Curt   Dann isses- (--)
                  Then it is- (--)
                   |_______________|
                           |
                  [C walks up to the cassette recorder at the window
                  [D turns to T smiling irritatedly?
-> 07   Dora   ((-> T)) .hhe [.hh
                  ((-> T)) ((laughs))
                             |_______|
                                 |
                  T flashes a broad grin to D; D smiles in sudden understanding
   08   Theo   eh ich hab jetz [↑DArüber gekuckt dora;
                                          entSCHULdigung. .hh
                  Eh. I looked in that direction now, Dora. Sorry.
                          |_____________________________|
                                         |
                                  D laughs voicelessly
```

```
   09   Dora   ‘ehehehe
                  ((laughs))
(...)
   14   Dora   ER sagt aber, er MEINT mich nich
                  But he says he doesn’t mean me.
   15          ((          lacht         ))
                  ((         laughs       ))
   16   Theo   <<lächelt süss> in DEM fall nicht liebes.>
                  <<smiles sweetly> Not in THIS case, Dear.>
```

In the following exchange *Ein-Frau-Stück*, the trouble-source is Dora’s (05) extended laughter. When Anke opens a book with plays from which she is about to read, Theo (01/02) asks her if she has written an ‘einFRAUstück’ (*one woman play*). This neologism is obviously coined according to the model of the well established term ‘Einpersonenstück,’ i.e., ‘play that features only a single protagonist’. Dora, judging from the account she provides later, interprets Theo’s question as an allusion to a book that both of them read recently. It is obvious that Dora’s laughter is a reaction to Theo’s allusion rather then, for instance, Anke’s answer to the question. Anke (06), not knowing the Theo's and Dora's shared history with regard to the book and obviously irritated by the laughter, gazes towards Theo and then Dora. The latter first apologizes and then provides an account for her behavior (07 and following).

Sequence 21: *Ein-Frau-Stück (19_62a)*

- trouble-source: Dora’s laughter (05)
- item that Dora feels obliged to establish as an item of the background shared also by Anke when summoned to do so (06): Dora laughs about Theo’s coining the neologism ‘einFRAUstück’ (cf. her subsequent report about the book by the author Hera Lind)

```
   01   Theo   ((-> A))interesSANT.
                     Interesting.
   02          hast du ein (.) einFRAUstück geschrieben?
                  Have you written an (.) one-woman-play?
                  ____________________________________________|?
                                  |
              A silently reads in the book she just took from the shelf
   03          (-)
   04   Anke   NEI=ein.
                 No.
   05   Dora   ((lacht schallend 3.0))
                  ((bursts into laughter 3.0)
                    |_____________|________|
                    |             |        |
-> 06               A smiles irritatedly  |-> T     |-> D
```

```
07   Dora   ((|-> A)) .hh nein=TSCHULdigung.
                          .hh No. I'm sorry.
08          wir haben so=en BUCH gelesen.
               We've read this book.
09          eh DAS- eh die ZAUberin.
               Eh "The ((n.))-" eh "The ((f.)) magic woman".
10          .hh von HEra-
               .hh By Hera-
```

In the two sequences cited above, the producers of the trouble-sources accept the responsibility and provide accounts for their troublesome behavior when summoned to do so. This is remarkable, since, in both cases the non-verbal trouble-sources were obviously not meant as interactive contributions, i.e., as responses addressed to some other participants. Hence, refraining from accounting for them, e.g. by downgrading their relevance (*Oh nothing, Never mind*, etc.) would have been a sequentially relevant move. Rather than doing this, the producers of the trouble-sources respond to displays of maximal confusion by displaying their taking over the responsibility for making their own behavior comprehensible from their interlocutors' point of view.

As for the manner in which repair is initiated by Dora and Anke respectively, the role and form of gaze and facial expression should be emphasized. The recipients "formulate" their summonses by directly turning towards and gazing at the producers of the trouble-sources and smiling provocatively or irritatedly in expectation of a response.

Higher-level assumptions concerning the shared background become manifest here along the following lines (*other* = recipient, experiencer of the trouble; *self* = speaker of the trouble-source turn):

> *Other*, by initiating repair, indicates that she assumes that *self* by behaving in the way he did meant to express something that she, *other*, has a right to know.
>
> *Self*, by completing self-repair, indicates that he assumes that *other* assumes that he, *self*, meant something specific by his prior behavior and that he is obliged to account for it at least in retrospect.

A similar case of trouble caused by non-verbal behavior occurs in sequence 22: *Angepustet*, immediately following *Sieht gut aus* discussed above. Dora (01-03; 08-10), when recognizing that Theo's troublesome gaze was not addressed to her (cf. her own account in 12 and following), starts laughing vigorously. Anke, not having followed the preceding non-verbal "exchange" between Dora and Theo, turns to Dora and produces a token of '↑HM?' (02; rising intonation on a high global pitch level). Dora, still laughing, starts and breaks off an utterance (08 'ich- ehe'), while Curt (04-06) is still trying to answer a question about the video and audio set up asked by Theo a while back. Anke, turning to Dora once more, successfully initiates repair upon Dora's behavior by making manifest a problem of understanding in a very unspecific form: 'WAS denn?' (07; *What happened?/What's up?*).

Sequence 22: *Angepustet (16_07a)*

- trouble-source: Dora's laughter (01-03; 09-10)
- item that Dora feels obliged to establish as an item of the shared background when summoned to do so (07): She was laughing about Theo's behavior (rather than Anke).

```
01   Theo   eh ich hab jetz [↑DArüber] gekuckt dora;
                                        entSCHULdigung. .hh
               Eh. I looked in THAT direction now, Dora. Sorry.
                      |_____________________________________|
                                          |
                                   D laughs voicelessly
02   Anke                    [↑HM?]
03   Dora   'ehe[hehe
               ((laughs))
04   Curt       ['e:hm. NE::.
                   Ehm. No:::.
                  |_____________?
                          |
          C returns from the tape recorder to his seat
                    _____|___
                          |
05             die TONqualität is rel-
                  The sound quality is rel-
06             [(die is) ziemlich] [SCHLECHT.
                  (it is) pretty bad.
-> 07  Anke    [(((|-> D)) WAS denn.]
                            What's the matter?
08   Dora                        [ich- 'ehe ((|->vor sich;
                                                lächelt))]
                                  I- ((laughs; |-> down; smiles))
09             'ehe ((schüttelt Kopf; |-> T)) ich-
                  ((laughs; shakes head; |-> T)) I-
10             'ehe (jetz KOMMT irgendwas,)
                  ((laughs)) (Now there's something coming up,)
11             ich weiß SELber nich was ich da hab.
                  I don't know myself what I'm having here.
12             ich hab emPFUNden, dass der thEo mich anpustet.
                  I felt that Theo puffed at me.
13             hab IHn daraufhin ANgeguckt,
                  <I>, thereupon, looked at him
14             und Er sagt das sieht GUT aus.
                  and he says "That's looking good".
15   Theo      ↑ICH hab dich [nich Angepustet.
                  I didn't puff at you!
16   Dora                    [Er sagt aber, er MEINT mich nich,
                               But he says he doesn't mean me.
17             ((          lacht        ))
                  ((       laughs      ))
```

18 Theo <<lächelt süss> in DEM fall nicht liebes.>
<<smiles sweetly> Not in THIS case, Dear.>

The repair activities of both the producer and the recipient of the trouble-source in *Angepustet* display their expectations on what they consider to be the background that is necessary and sufficient for the interaction to proceed without trouble. The one making manifest her trouble not only summons her interlocutor for an account of the problematic behavior. She, furthermore, seems to insist on being offered an explanation for the laughter when she, after a first manifestation of a problem of understanding (02; '□HM?'), signals her puzzlement in a more outspoken form. The producer of the trouble-source provides her extensive account of her behavior (12 and following) only after having emphasized that this will be very difficult for her (10/11).

The three trouble treatments just discussed concern cases of a fundamental and unspecific kind of conversational problem that is caused by an interactant's non-verbal behavior and is made manifest, at least partially, by non-verbal activities. In all three instances, the producer of the trouble-source does not only provide an account for his/her behavior but also contextualizes it in a way that either indicates his/her feeling of obligation to do so or willingness to offer an explanation in spite of the difficulty this will cause for her.

(b) A verbal source for a fundamental conversational problem

A final sequence is to be mentioned under the rubric of repair sequences dealing with fundamental conversational trouble. As with the examples discussed above, the problem Theo makes manifest in sequence 23: *Pankow* does not concern the specific form, meaning, or interactive point of the trouble-source or parts thereof but rather an item of the background that is a necessary prerequisite for the meaning and point of an utterance to emerge to a recipient in the first place.

Sequence 23: *Pankow (20_82t)*

- trouble-source: Dora's asking Theo for confirmation: 'der Theo hatte se ja dann schon en bisschen BESser gesehn; ne?' (10/11)
- item Dora mistakenly treats as if it were shared by Theo at the time of the repair initiation (12/13): the current topic of conversation is Theo's and Dora's house in *Pankow*.

01 Dora jEde n- n ZIMmer.
Each one of them a- a bedroom.
02 Anke O:H.
Oh!

```
03          das is ganz SCHÖN; ne?
               That's pretty nice, isn't it?
04   Dora   [JA:.]
               Yes.
05   Anke   [isses] denn SCHÖN geworden, oder-
               So, has it turned out nicely or-
06   Dora   .hh also ich hAbs ja nich mehr geSEHN.=
               .hh Well, I haven't seen it since then.
07          =ich habs ja seitDEM ja-=
               Since then, I have it-
08          =also (.) wir HAM da ja halt da drin geARbeitet
               Well, (.) we just worked there
09          und .hh dann hat-
               and, .hh then, has-
10          der ((|-> T)) THEo hatte se ja dann
               Then, ((|-> T)) Theo had seen it.
11          schon ein bisschen BESser [gesehn; ne?
               a bit better, already, right?
12   Theo                             [ich WEISS überhaupt
                                                      nit
                                        I have no idea at all
13          wovon ihr SPRECHT.
               what you're talking about.
14   Dora   die wOhnung in PANkow.
               The flat in Pankow.
15   Theo   ((stutzt)) (-)
               ((hesitates)) (-)
16          ach SO.
               Oh, right.
17          <<|-> vor sich; p> oh JA.>
               <<|-> down; p> Oh yeah.>
18          die is ganz GUT.
               That's pretty good.
19          (.) ((|-> A; nickt; lächelt)) ach JA=a.
                    ((|-> A; nods; smiles)) Oh, right!
20          du warst ja DA=a.
               You were there, right.
21          ja=ja STIMMT.
               Yes yes. That's right.
```

In the episode that includes the sequence *Pankow*, Dora and Anke have been talking about a farm house Theo and Dora inherited some time ago and which they just renovated and rented to new tenants. Anke knows the house from a recent visit and now they are discussing how the renovation has turned out. Theo is present at the dinner table but has not been listening to the ongoing conversation, being busy scratching his leg. Then Dora (11) interrupts her report about the state of the house and turns towards Theo to summon him for a confirmation of what she just stated. Theo, in response and even before Dora has completed her turn, makes manifest that he is at a total loss ('ich WEISS überhaupt nicht wovon ihr SPRECHT.' *I have no idea at all what you're talking about.*) with regard to Dora's and Anke's

exchange and thus not able to comply with the summons which he seems to have understood quite well with regard to its form, meaning, and interactive point. Dora proffers the keyword 'die wOhnung in PANkow' (14; *the flat in Pankow*) whereupon Theo (15) hesitates and re ects for a moment, produces a change-of-state token (16; 'ach SO'), and answers (17/18) Dora's question without a further indication of trouble.

Theo's (17/18) compliance with Dora's request for confirmation makes apparent what item of the background he was missing and in what regard Dora's summons was troublesome for him. Obviously, he understood Dora's utterance quite well in the sense that she was asking him to confirm her previous statement. When Dora, in response to Theo's display of trouble, completes self-repair and thus establishes the element of the shared background necessary for her interlocutor to understand her request, Theo is able to invoke the broader context of Dora's trouble-source and subsequently to respond appropriately. That it is the general thematic context of Dora's request rather than just the referent of 'se' (10; a dialectal variant of the pronoun 'sie' (*it*)), an anaphoric pronoun correferential with "die wOhnung" (*the flat*), becomes apparent by Theo's (19-21) recalling and mentioning additional details concerning the house, Anke's relationship to it, etc., in subsequent talk. The item of the background that Dora mistakenly assumed to be shared and that she makes explicit after it proved troublesome, thus, is the general topic of conversation relative to which indexical expressions and interactional points of utterances only can be interpreted.

The four fragments discussed in this section represent repair sequences as well as treatments of trouble concerning the local background assumed to be shared by the interactants. In all of these cases, repair is initiated by participants who make manifest basic problems of understanding concerning the realm of what Lewis refers to as "suitable ancillary premises concerning background information" (1969: 53). The general and fundamental nature of the background items at issue is re ected by the various forms of repair initiation that share their generality and unspecificness: a puzzled or irritated gaze towards the producer of the trouble-source, the puzzlement token 'HM?,' the question 'WAS denn?' (*WHAT's up?*), or the simple statement of being 'totally' ('überhaupt') at a loss with regard to what the ongoing exchange is about.

In consideration of the three types (i) - (iii) of local conversational problems defined by Selting as well as Schegloff's cases of problematic sequential implicativeness (iv), the basic problems treated in the sequences above seem to form a class of their own. This also is suggested by a closer look at the interactive means employed by the initiators in order to make their fundamental trouble manifest to the producers of the problematic utterances. None of these initiations fits any one of the formats that Selting and Schegloff specify with regard to manifestations

of expectational/inferential problems or problematic sequential implicativeness. Unlike manifestations of fundamental trouble, those formats were shown to focus the problematic aspect of the trouble-source in a very specific manner (cf. Selting 1987b: 139-142 and sections (iii) and (iv) above). Without doubt, the fundamental problems treated by the interactants in the four sequences analyzed here are local rather than global in that they concern the understanding of particular utterances or activities in their particular local interactional environments.

An orientation to what previously was put in Gricean terms as the dimension of quantity could be observed in several ways on the part of the repair initiators as well as on the part of the producers of the trouble-sources. This was particularly obvious in those cases in which the latter not only complied with their interlocutors' summonses for explicitness but even apologized for having been opaque and incomprehensible.

From the point of view of the sequential organization of repair, we saw that non-verbal activities and behavior may become the target of repair initiations and also that problems can be made manifest non-verbally in a way that is interactively effective. What Schegloff and his colleagues have found out about the sequential organization of repair also seems to apply to the cases presented here in which one or several of the repair activities are non-verbal.

Conclusions on shared background and troublesome presuppositions

In this section, repair sequences were presented and analyzed in which the participants are concerned with the lack of explicitness, clarity, or interpretability of an utterance on five different levels of conversational trouble. In each of those sequences an utterance is treated as a source of trouble insofar as it turns out not to be sufficiently interpretable for the recipient. *Sufficiency,* here, is defined in terms of whether the recipient "cares enough" to make a problem, if she experiences one at all, manifest to her interlocutor and whether the speaker takes issue with the understanding displayed by his addressee. It was shown that, in all those cases, it was one particular item presupposed by the speaker as shared among him-/herself and his/her audience and thus left in the background that was treated as problematic and made explicit in retrospect. With regard to the main topic of the present study, it was these *retrospective* dealings that proved, *ex negativo*, the relevance of a particular item as an item of the shared background at a particular stage of the exchange.

I proposed that the participants in the repair sequences analyzed above display in various ways an orientation to expectations according to which speakers act such that their activities are interpretable to their recipients. It was demonstrated that recipients summon the producers of shared background trouble for explicitly

providing those items of the background that mistakenly were taken for granted and left implicit by the speakers. Speakers comply with those summonses, they accept a speaker's responsibility for the interpretability of their contributions. The strongest and most explicit form of displaying this are apologies in cases where activities cause fundamental interpretational trouble and confusion on the part of the—non-intended—receivers.

To analyze repair activities against the observation that discourse participants display an orientation towards certain expectations does not in itself open an interesting view on a particular class of conversational phenomena. This can only be achieved if these analyses are regarded in the context of what has been concluded before about the indeterminate nature of shared background and of what will be suggested in the following section about a complementary set of sequences in which interactants deal with overexplicitness with regard to the shared background. While it is necessary for each speaker to take for granted and leave implicit most of the holistic network of assumptions against which her contribution only makes sense, it is impossible for her to know reliably what her recipients assume, know, etc. and, hence, what the state of the shared background really is. Contributing to an interaction, thus, means to keep the balance between the poles of sufficient and excessive explicitness, poles that are not clearly visible for the interactants because of the indeterminateness of the shared background. The repair activities discussed above represent means for interactants to deal efficiently with instances in which the attempt at keeping the balance fails in the first of the two regards. Furthermore, problems of this kind cannot be avoided by striving for maximal interpretability. This will become apparent apropos the sequences to be discussed in the following section.

It was demonstrated that the interactants in my data base do not just make manifest conversational trouble in a general and unspecific way. Rather, they make use of a quite differentiated repertory of specific means to signal and treat particular problems. In particular, I proposed a typology of problems that are due to trouble-sources ranging from form-based to fundamental and that are treated by specific interactive means. The distinction between five types of conversational problems was shown to correspond to five types of repair activities, in particular, repair initiations. Problems of, say, sequential implicativeness are made manifest in a different way from, e.g., referential problems, which provides the producers of the trouble-sources and addressees of the summonses for repair with cues in their attempts at completing the repair. The typology proposed here, while being exemplified by sequences from my own data, could not be justified exclusively on the small data-base used in the present study. However, the proposal ties on to, develops, and generalizes findings by Margret Selting and Emanuel Schegloff who, using conversational data from different discourse genres, have identified independently of each other types of interactive trouble and trouble treatments that

I have argued can be integrated with each other and supplemented by one element (i.e., fundamental trouble) in a unified typology.

The findings presented in the previous sections suggest that Schegloff et al.'s (1977) and Drew's (1997) statement according to which "[...] the organisation of repair [...] has a certain independence or autonomy with respect to the source of the trouble which repair is implemented to resolve" (ibid. 74) does not apply to the correlation between the practices of repair initiation and the kind of troubles treated by these practices.

Although the number of examples per category to be found in my data-base is rather small, there seems to be, at least for problem treatments of types (ii) - (iv), two general ways of summoning a speaker for an item of the background that s/he left implicit and thus treated as unproblematic and given when producing the trouble-source: a general indication of trouble which is just specific enough in order to signal what kind of problem the initiator would like the speaker to treat and a collaborative way of trouble manifestation by which the initiator not only signals his/her problem but also proffers, and summons the speaker for confirmation of, a candidate as how to solve it.

Speaking in terms of sequential properties, it was found that shared background trouble is treated by self-repairs, i.e. by repairs consistently completed by the producer of the trouble source. While, in most of these cases, repair is other-initiated by the problem carrier, i.e., the one who experiences the problem of understanding, there are a few instances in which the producer of the trouble-source, i.e., *self*, takes the initiative. In my data, this occurred exclusively with regard to referential trouble of type (ii). That this limitation, however, is due to the nature of the data-base rather than to the nature of repair is evident from Schegloff's (1987a) examples of misunderstandings caused by problematic sequential implicativeness.

4.3 Troublesome redundancy and overexplicitness

In section 4.2, I presented sequences in which interactants in everyday conversation demonstrably orient to expectations concerning the "quantity" of their interlocutors' contribution. Where speakers left implicit items of the background that later turned out to be necessary for an understanding of their contribution *and* not to be shared by their interlocutors, repair was initiated in most cases by the experiencer of the trouble and executed by the producer of the trouble source. It was also suggested that expectations concerning *necessary* or *minimal* explicitness do not stand alone but go along with complementary expectations with regard to *sufficient* or *maximal* explicitness.

Expectations of this second kind are shown to be oriented to by participants in the conversational fragments analyzed in the following. In these exchanges, interactants take issue with utterances that the repair initiators treat a troublesome in one of two

related ways: the trouble-sources explicitly and redundantly express assumptions that the recipients treats as given; or they are in con ict with such obvious facts. In either case the producer of the trouble-source is charged with not having taken for granted an assumption as an item of the shared background that he should have.

Speakers are responsible for considering in their activities what their interlocutors do *not* know, yet it will become apparent below that speakers also are subject to objections if they underestimate what their recipients *do* know. In the context of conversation analysis, Harvey Sacks remarked in his 1973 paper that there seems to exist a "general rule that provides that one should not tell one's co-participants what one takes it they already know" (Sacks 1973, cited in Komter 1986: 248). Given the in-principle indeterminacy and indeterminability of other's assumptions about the shared background and, therefore, of the state of the shared background at a certain stage of an interaction, it is a non-trivial task for discourse participants to keep the balance between the two poles. The analyses in the previous section demonstrated that the way interactants treat problems of non-sufficient explicitness depends on the type of the problem at issue. Below, I suggest and illustrate by means of examples that the problem types (i) to (v) distinguished above also account for displays of expectations concerning overexplicitness. The value of the following analyses is three-fold:

- they provide evidence in support of the problem typology suggested above
- together with the findings in section 4.2 that are based on a broader set of examples, they elucidate the nature of shared background as a participant category demonstrably oriented to by interactants.
- they are exploratory in that they lay out and illustrate analytic categories that can be applied to further studies in shared background treatments

(i) The treatment of form-based trouble

There is one sequence found in the data in which a problem of production is not only treated by the interactants as a form-based problem but also as one for which the speaker is held responsible and sanctioned. This example, from the Dresden dinner, follows immediately upon Dora's apologizing for having behaved in a way fundamentally uninterpretable to Anke (cf. the discussion sequence 2: *Ein-Frau-Stück* in 4.2 (v)).When Anke started to read from a book that she had brought down from the shelf, Theo asked her if she had written a 'one woman play,' i.e., a play featuring only one female part. Dora bursts into laughter, which she obviously feels compelled to justify in response to Anke's irritated look. As part of her account for her troublesome behavior she reports about a novel that 'they' (i.e., Theo and Dora) read recently, the title of which she renders as 'die ZAUberin' (63d; *The female wizard*).

Sequence 24: *Die Zauberin* (19_63t)

- trouble-source: '... die ZAUberin ...' (05)
- item that Theo treats as one that should go without saying: the correct title of the novel in question is 'die ZAUberfrau' (07; roughly: *the magic woman*).

```
   01   Dora   [      ((lacht schallend 3.0))     ]
                          ((bursts with laughter 3.0)
   02   Anke   [((lächelt irritiert; |-> T |-> D))]
                    ((smiles irritatedly; |-> T |-> D))
   03   Dora   ((|-> A)) .hh nein=TSCHULdigung.
                                  No. I'm sorry.
   04          wir haben so=en BUCH gelesen.
                  We've read this book.
   05          eh DAS- eh die ZAUberin.
                  Eh „The ((n.))-" eh „The (f.) female wizzard".
   06          .hh von [HEra- ((|-> T)
                  By Hera-
   07   Theo   die ZAUberfrau ((|-> unter sich; den Kopf
                                                 schüttelnd))
                  „The magic woman" ((|-> down; shakes his head))
   08   Dora   die ZAUberfrau.
                  „The magic woman".
   09          VON-
                  By-
-> 10   Theo   ts hEra LIND.
                  Ts. Hera Lind.
-> 11          .hh e:h DOra.
                  Eh. Dora.
-> 12          das is schon ein FRAUenbuch.
                  This is a women's book allright.
-> 13          das is etwas PEINlich,
                  It's somewhat embarrassing
-> 14          wenn ich dir das alles VORsagen muss.
                  when I have to prompt you all that.
   15   Dora   [the hehehehe
                  ((laughs))
   16   Curt
        Anke   [((lachen))
                    ((laugh))
   17   Theo   ((|-> A)) schöne SCHREIbe.=
                               Nice writing style.
   18          DIE würd dir auch gefAllen.
                  You'd like her, too.
```

When Dora goes on to mention the author of the book (06), she is interrupted by Theo who executes repair on the (morphological) form of Dora's rendition of the book title by correcting her: 'Die Zauberfrau' (07; *The magic woman*). Dora, repeating the corrected title, ratifies the repair and now, rather than giving the

name of the author herself, summons Theo to provide it (09; 'VON?' *By?*). Theo, mockingly, utters a token of disapproval, 'ts,' before he answers the question. He then scolds Dora for having displayed ignorance with regard to 'all that,' i.e., the correct form of the title and the name of the author, pointing out that the novel is a 'women's book' after all and that he considers it embarrassing that he has to prompt Dora, who of course is a woman, with all this information that should be obvious to her. The others, including Dora, ratify this mocking by general laughter that terminates the side sequence.

Within the class of form-based trouble treatments, sequence 24: *Die Zauberin*, in several respects, is a counter-part to sequence 03: *Wernesgrün* discussed in section 4.2 (i). While in the latter case, however, the recipient makes manifest his trouble "*decoding*" the correct form of a name, i.e., *Wernesgrün*, the former is a form-based problem of *production* that Theo, an outsider to the ongoing exchange between Dora and Anke, attributes to the speaker, Dora. In both examples, it is the speaker who is held responsible for the emergence of the conversational problem. What is particular about Theo's attribution of a production problem to Dora is that he characterizes this trouble as one that should not have occurred and thus embarrasses Dora. Dora ratifies this jocular sanction by her laughter.

(ii) The treatment of referential trouble

When an interactant takes issue with a speaker's alleged overexplicitness with regard to the referent of a particular item, s/he indicates that an explanation, paraphrase, or other way of contextualization is super uous, redundant, or not in place because what the speaker thus made explicit was already known and, thereby, part of the background knowledge of the audience.

Sequence 25: *Der Klassenkamerad*, the one exchange in the data to exemplify this sub-class, represents the beginning of an episode in which Theo talks about an extravagant house that an architect and acquaintance of his, Karl Gerber, had built for himself in the neighborhood of a 19th century Hohenzollern castle near the four friends' home town. At the beginning of the sequence, Theo introduces the name of Karl Gerber into the conversation, explicitly characterizing him as a former class-mate of his. Dora, Theo's wife, turns to Anke even before Theo has completed his turn and eventually interrupting his narrative. She initiates a side sequence on what she treats as Theo's mistakenly presupposing that Curt and Anke do not know Karl Gerber (04). In Selting's terms, Dora treats a referential problem of production on Theo's part by displaying her assumption that Theo assumes that Curt and Anke do not know the referent of the name 'Karl Gerber'.

Sequence 25: *Der Klassenkamerad (18_52d)*

- trouble-source: '... en (.) KLASsenkamerad von mir [...] das is en KLASsenkamerad [...]' (01, 03)
- item that Dora treats as one that should be taken for granted by Theo: Curt and Anke know Karl Gerber.

```
01   Theo   nja en (.) KLASsenkamerad von mir.
                Oh well, a (.) class mate of mine.
02          der karl GERber.
                Karl Geber.
03          <<p> das is en KLASsenkamerad>-
                      That's a classmate-
04   Dora   ((|-> A)) DOCH; den KENNT ihr doch noch.
                           Sure. You still remember him, don't you.
05   Curt   och ↑KLAR kEnn ich den.
                Of course, I know him.
06          ((|-> D)) [der hat] doch IRgendwie- (.)
                    (          This guy had some kind of (.)
07   Dora   ((-> C))  [ja=JA.]
                           Yes yes.
08   Curt   wilde LIEbesgeschichten,
                wild love affairs
09          und HOCHzeiten,
                and weddings,
10   Dora   [ja=JA. geNAU.]
                Yes yes. Exactly.
11   Theo   [<<ff> haha> ((räuspert sich))]
                          ((laughs, clears throat))
12   Dora   ehm mit der MOnika.
                Ehm. With Monika.
```

By uttering 'DOCH; den KENNT ihr doch noch' (04; *Sure. You still remember him, don't you.*), Dora other-initiates—or, more precisely, since Dora is not Theo's intended recipient: third party-initiates— repair with Theo's previous turn and Curt completes repair by confirming Dora's suggestion. By doing so, Dora takes issue with Theo's explicitly anchoring Karl Gerber in the ongoing conversation as his former class-mate, a piece of information that Dora treats as part of the background already available to Curt and Anke.

The conversation in general, and Theo's narrative about Karl Gerber and his house in particular, does not proceed at this point in a sequentially projected manner. Rather, a side-sequence is inserted in order to clarify the status of Karl Gerber with regard to Curt and Anke. An orientation to the interruptive character of the side-sequence is displayed by Theo a few turns later (15) when he downgrades the relevance of the repair sequence by using the adverbial 'jedenfalls' (15t; *in any case*) in order to initiate his eventual resumption of his narrative thread:

15 Theo jedenfalls, DIEser karl der (.) die monika hieß die
In any case, that Karl who— (.)her name was Monika?
(...)

Dora accomplishes her repair initiation in a particular manner which also makes evident that it is an item of the background assumed by her to be shared by *self* (Theo) and *other* (Curt and Anke). She first produces a token of objection (04; 'DOCH'). This particle is typically used to reject negative assertions, assumptions, etc., as in the following example from a talk delivered by Krista Sager, a representative from the Green Party, in the German *Bundestag* (parliament):

Cosmas 01: Doch, natürlich

> [...] In der gleichen Ausgabe der „Bild"-Zeitung sagt sie: Subventionsabbau ja, aber niemandem in diesem Land irgendetwas wegnehmen. - Herr Stoiber sagt wiederum: *Doch*, natürlich, allen etwas wegnehmen [...] (COSMAS II: REI/BNG.00582).[58]
>
> '[...] In the same edition of the newspaper "Bild" she says: reduction of subsidiaries, yes. But we don't want to take away anything from anybody.—Mr. Stoiber, in turn, says: Yes, of course, we would like to take away something from everybody [...] (translation mine, T.W.).

In the present case, Dora takes issue with Theo's mistaken assumption that Curt and Anke do not know Karl Gerber. Then she goes on

04 Dora (...) den KENNT ihr doch noch.
(...) You still remember him, don't you?

Curt (05), as one of Dora's addresses, emphatically confirms her presumption and, as if to prove his knowledge, goes on to allude to a number of anecdotes he remembers about Theo's school-mate (06-09). Another feature of Dora's utterance worth pointing out in the context of a discussion of shared background treatments is her second use of the particle 'doch,' which has a significantly different function from the token of objection at the beginning of her turn. 'doch,' here, functions as a shared background marker. By the use of this marker, the speaker expresses her expectation that her assumption about her recipients' knowledge of Karl Gerber is correct and she indicates her preference for confirmation of that assumption. We will encounter similar uses of this particle in most of the sequences to follow below.

In sequence 25: *Der Klassenkamerad*, it is again a mere overhearer of the ongoing exchange, Dora, who ascribes and treats a referential problem of production. Theo's utterance is in need of repair because it states what, in Dora's opinion, is obvious

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[58] The example is cited from the "Reden und Interviews 2002-2005"-corpus of the Institut für Deutsche Sprache (IDS) Mannheim. The corpus is available for public use under http://www.ids-mannheim.de/cosmas2 (August 1, 2006).

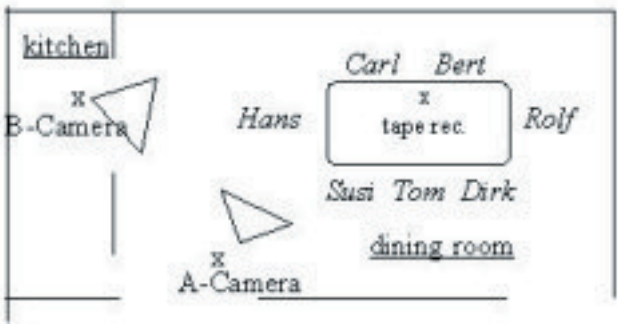
to his recipients. Theo's problem thus is not a lack of interpretability but, on the contrary, redundancy.

(iii) The treatment of expectational/inferential trouble

According to Selting's (1987b: 139) definition, expectational/inferential trouble is the focus of a problem treatment when interactants make manifest that they are assuming their frames of knowledge to be incompatible with each other with regard to a particular fact. In these cases they have abandoned the assumption of reciprocity with regard to this background item. As we have seen in section 4.2, this may be the case when a speaker mistakenly takes for granted a certain fact as generally known. The complementary case to be observed in the following fragments occurs when a recipient indicates to the speaker of the previous utterance that what he just said or asked is already known or should be known to all participants including the speaker him-/herself.

The following sequence 26: *Superplatz* occurs towards the beginning of the Boulder dinner when Hans is helping Carl in setting up the recording equipment. For a clarification of the entire arrangement, cf. the following reproduction of the setting presented for the first time in chapter 3.2.1:

Table 6 (= 3): The setting of the Boulder dinner



Hans is standing in the open kitchen at point x behind the *B*-camera and adjusting it for the purpose of the video-taping when he (01) makes the remark that opens the sequence.

Sequence 26: *Superplatz* 01_11r

- trouble-source: Hans's remark that he 'is not be seen' (01)
- item Rolf (08/09) treats as one that should be taken for granted by Hans: the fact that he cannot be "seen".

```
01   Hans   ich hab n SUper platz.
               I've got a super seat!
```

```
   02          man SIEHT mich nich.=
                  I'm invisible ((for the camera)).
   03          =das is astREIN=
                  That's great!
   04   Carl   =oh=go- AH.
                  Oh lo- <<lord>> Ah!
   05          DU bis auf dem (.) Anderen drauf
                  You are on <<i.e., in the range of>> the other one.
                          |____|
                            |
                       C points at the A-camera.
   06          oder SOLLteste jedenfalls drauf sein.
                  Or you should be on there, in any case.
   07   Hans   [<<p> dAs ist SCHLECHT.>]
                        That's bad.>
-> 08   Rolf   [((-> H, B-Kamera)) du STEHS] doch hinter der
                                                      kamera.
                                    You're standing behind the camera.
-> 09           wie soma dich da SEHN.
                  How could you possibly be visible there!? <<i.e., in
                                          the range of the camera>>
   10   Hans   [((lacht))]
                   ((laughs))
   11   Curt   [((-> H, B-Kamera |-> A-Kamera)) ((lacht))
                   ((-> H, B-camera |-> A-camera)) ((laughs))
   12          (.) na JA:.
                     Oh well.
   13   Rolf   ((-> H, B-Kamera)) EIne kamra kanns a(h)auf n
                                             kÜhlschrank richten.
                                  One camera you could point at the fridge.
```

Carl (04-06), who is the one videotaping the entire dinner, treats Hans's (01-03) statement as providing information about what is in the focus of the camera. After a moment of shock and hesitation, he adds that what is not taped by the B-camera is taken care of by the A-camera. This remark is ratified when Hans (07) answers to it with an expression of disappointment. According to the interpretation made manifest by Carl and ratified by Hans, Hans's utterance of 'man SIEHT mich nich' may be paraphrased as 'I won't be in the focus of the camera once I have taken my seat,' which is correct to the extent that the B-camera is positioned behind the chair assigned to Hans.

Having observed Hans's activities for a while and partly overlapping Hans's response to Carl, Rolf (08/09) makes his contribution in a way designed to be next to Hans's initial remark. Unlike Carl, Rolf treats Hans's phrase 'man sieht mich nicht' (*I'm not to be seen*) literally—in a jocular manner—as stating the speaker's invisibility. Rolf first expresses what he, by using the shared background indicator 'doch,' marks as obvious to himself and everybody else, namely that Hans is standing behind the camera, and, then, sanctions Hans's reporting his invisibility

as being out of place because, given what can be observed by everyone present, there is no way for Hans to be “seen”. The falling terminal intonation of what, syntactically speaking, is built as a question and the annoyed and impatient tone of voice underscores the jocularly sanctioning character of Rolf’s utterance, which is ratified by general laughter including Hans’s.

In a similarly jocular context, Hans’s response in the following sequence takes issue with Rolf’s question as asking for the obvious, i.e., for a fact that Hans treats as one that should be an item of the background shared by all participants.

Sequence 27: *In Schwaben* (07_60h)

- trouble-source: Rolf’s question (05/06)
- item Hans (09/10) treats as an item that should be taken for granted by Rolf: the fact that it is obvious to everybody what the answer to Rolf’s question is

```
   01   Rolf   <<ist dabei, mit viel Lärm die letzten Reste
                   <<is busy scratching the last bits of rice
   02          Reis aus dem Topf zu kratzen>>
                  out of the rice pot making a lot of noise>>
                                  |
                   ___________________________________________
                   |                                         |
   03   Hans   <<f> das ist der ROLF.> ((|-> -S)) [ehehe
                     That’s Rolf.> ((|-> S)) ((laughs))
   04   Susi                                      [((lacht))
                                                      ((laughs))
   05   Rolf   RAT ma,
                  Now, guess
   06          wo ich AUFgewachsen bin
                  where I grew up!
   07   Hans   ehe[hehe
              <<laughs>>
   08   Carl      [ha ha ha
                 <<laughs>>
-> 09   Hans   in !SCHWA!ben.
               In Suabia!
-> 10          wo denn SONS.
               Where else!?
   11   Everybody laughs (4).
```

At the beginning of the sequence, Rolf is making a lot of noise scratching the last bits of rice out of a metal pot while the others are attentively watching him doing this. Then, Hans speaks, laughingly and in a loud voice, to the audio recorder: ‘Das ist der ROLF.’ (03; *That’s Rolf.*) and thus sets the mocking tone of the exchange. The remainder of the fragment is to be understood in the light of the stereotype about Suabians and their greed, which Rolf, later in the conversation, illustrates

by citing the Suabian rule of life: „liebr d'mage v'rrenke als 'm wirt was schenke" (*Rather screw up your stomach than give anything away to the land lord*).

Rolf, still busy with the rice pot, now presents a „riddle" to the others summoning them to guess where he grew up (05/06). Hans not only answers the question but also characterizes it as trivial allowing only for the very answer provided by him. As before, this "sanction" is ratified by the audience in the form of general laughter.

The trouble treated in the two sequences discussed here is, once again, of the opposite kind from that encountered in the corresponding section 4.2 (iii) above, where problems of understanding, rather than production, were at issue. The facts mentioned or asked for by the producers of the trouble-sources are not surprising or in con ict with the recipients' knowledge frames, but they are obvious to them. Rolf's and Hans's—even though jocular—charging their respective interlocutors of being redundant can be successful only against the background of a shared expectation that redundancy is to be avoided in normal circumstances.

Let us now move to another set of problem treatments in which the participants deal with a fourth type of conversational trouble.

(iv) The treatment of problematic sequential implicativeness

In this rubric, sequences are to be discussed in which the recipients take issue with a trouble-source as making a contribution that is irrelevant at the current stage of the conversation for reasons that, according to the initiator, the speaker should have known. I will present three of the four examples in point.

In the sequence 28: *Schon gebucht*, the German graduate students are talking about inexpensive air fares. Dirk mentioned that he already booked a ight, when Hans reports that he has come across advertisements for very good deals for ights back to Germany. However—he quotes the qualification to the offer—"restrictions may apply". Brie y after this, the following sequence sets in.

Sequence 28: *Schon gebucht (04_18a)*

- trouble-source: Hans's (08) suggesting to Dirk to call the airline.
- item Carl (09) treats as one that should be taken for granted by Hans: Hans's suggestion is obsolete given the fact that Dirk has already booked his ight

```
01   Dirk   dEshalb würds mich echt ma intresSIEren
               Therefore, I would really like to know
02          WAS das für flüge sIn.
               what kind of flights are those.
03          WO de- wAs die reSTRICtions sind.
               Where the- what are the restrictions.
```

```
   04   Hans   ((-> D)) ja rUf doch AN.=
                            Well. Just give them a call.
   05   Dirk   ((-> H)) =jEtzt diese vierhunderfünfzich (.)
                            Now, those four hundred and fifty
   06          [DOLlar-]
                  dollars-
   07   Carl   [((-> H)) ↓JA-]
                            Well-
   08   Hans   [ruf-] ruf einfach AN. ((schüttelt den Kopf))
                  Call- Just give them a call. ((shakes his head))
-> 09   Carl   na ja=er hAt doch schon ge↑BUCHT.
                 Oh well. He's booked already, anyway
                   |
               C shrugs his shoulders
   10   Hans   ((-> D)) ich WEISS es.
                            I know it.
   11   Dirk   das bringt mir jetz AU nix mehr.
                  By now, that doesn't do me any good, anyway.
   12          hm.
                  hm.
```

Dirk (01-03, 05/06) expresses his interest in getting to know what the „restrictions" to the offer are that Hans mentioned before whereupon Hans (08) suggests to Dirk that he should just call the airline. Upon this proposal, Carl (09) initiates and completes repair by focusing on the fact that Dirk has already booked his ight and indicating gesturally (by shrugging his shoulders; 09) that this renders Hans's contribution out of place. Carl's using the particle 'doch' signals that he considers what he just said to be a fact that Hans should have known but did not take into account when making his suggestion. By answering defiantly 'ich WEISS es' (10; *I know it*), Hans rejects the charge of having missed an obvious *fact* (cf. problem type (iii)). Dirk then expresses clearly that the main problem with Hans's contribution is that it is pointless at the present stage of the interaction (11/12).

The following sequence 29: *Vogtland* provides another example of a speaker's rejecting a contribution by another as inappropriate on grounds that should have been considered by the producer of the trouble-source. The exchange, following immediately upon sequence 3: *Wernesgrün* (cf. 4.2 (i)), is part of an episode in which the conversation is about the local beer Anke and Curt are serving their guests, about its brand name and its whereabouts. The critical exchange begins when Curt (04; 12) informs Dora and Theo that the *Wernesgrüner* beer is brewed in the Vogtland, a region in Saxony and Thuringia.

Sequence 29: *Vogtland* (11_25a)

- trouble-source: Anke's indication that Theo and Dora, the recipients of Curt's report do not know where the Vogtland is

- item Curt treats as one that should be taken for granted by Anke: Anke's remark is pointless given the obvious fact that Theo and Dora just drove through the Vogtland and therefore do know where this region is.

01 Curt das BIER schmeckt richtig gut.
The beer tastes really good.
02 (-)
03 Theo [muss ich OCH saren.
I have to agree.
04 Curt [WERnesgrün is im-
<The town of> Wernesgrün is in the-
((...))
12 Curt ((räuspert sich)) aus m !VOGT!land.
((clears throat)) From the Vogtland.
13 Theo <<-> vor sich; isst; p> `'m=´HM.>
<<-> down; chewing; p> <got it/interesting>>
14 (1)
-> 15 Anke jetzt müsste man nur wIssen
Now, one would only have to know
-> 16 wo das [vogt]land <<singend; f> IhIs hehe
where the Vogtland <<singingly; f> ih-is>.
17 Curt <<p> ['em]>
<<p> 'em!>
18 Curt [<<p> (ei da] sind se ja) DURCH[gefahren (grad)>
Well, they just recently drove through there.
19 Theo [hehe]
20 Dora [↑'EM

D chews and swallows; looks at the ceiling

21 Theo alle <<nickt heftig; stülpt Lippen vor> ↓'EM=m>
Everybody is like <<nods; purses lips> "EM=m">.

T smiles; D looks at the ceiling; raises her right index finger

22 alle nicken intelligEnt ((hebt Brauen))
<<t> jo JO.>
Everyone is nodding intelligently ((raises eye brows))
<<t>"Sure".>
23 Dora DOCH.
Yes.
24 also ich wüsste überHAUPT nich wo es Is;
I wouldn't know at all where it is;
25 aber ich WEISS,
but I know
26 dass IRgend (.) ne (.) cousIne meiner m- ehm
that some (.) a (.) cousin of my m- ehm

```
27          meines VAters im vogtland wohnt.
               my father lives in the Vogtland.
28   Theo   WESTlich von hier.
               West of here.
29          (.)
30   Curt   geNAU.
               Exactly.
31          zwischen hIEr und HOF
               Between here and <the city of> Hof.
32          naja GROB.
               Oh well, roughly.
```

Upon Curt's specifying the origin of the beer, Theo (13) reacts by producing a token that signals his having received and understood Curt's information. This interpretation of "`'m=HM´" is corroborated by Theo's (cf. 21/22) behavior at a later point. Anke (15/16), who was an outsider to the ongoing exchange up to this stage, now makes a clearly mocking but fairly unspecific remark about a potential referential problem that might have been caused by Curt's preceding utterance:

```
15   Anke   jetzt müsste man nur wIssen
               Now, one would only have to know
16          wo das vogtland <<singend; f> IhIs hehe
               where the Vogtland <<singingly; f> ih-is>.
```

Certainly, this utterance is not treated by the other participants as making manifest or ascribing to them a referential problem of understanding the proper name *Vogtland*. It can be observed, rather, that two participants respond to Anke's utterance and treat it in two different ways. Curt's (17, 18) reaction, which follows immediately upon Anke's remark, justifies the subsumption of the exchange in the category of repair sequences at issue here: that is, sequences in which one of the participants charges another of not having considered the obvious and what, at the current stage of the interaction, should be an item of the background shared by him as the producer of the trouble-source. Curt (18), in an annoyed tone of voice, objects that "they," i.e., Theo and Dora, 'grad' (*just recently*) drove through the Vogtland the very day of the dinner. Again, it is mainly the use of particles, the initial 'ei' and 'ja,' that displays Curt's view that what he states should be obvious to Anke, his wife, and that having driven through the Vogtland recently should be evidence enough for their guests to know where this region is.

A few remarks should be inserted at this point to account for my decision to include this sequence into the class of repairs. Here, unlike in other cases above, it is not quite clear that Curt's utterance (17/18) is a contribution that is *not* sequentially projected by Anke's (15/16) mocking remark. I nevertheless propose as a plausible interpretation that Curt does not directly reject Anke's suggestion according to which Theo and Dora are ignorant with regard to the Vogtland. He, rather, seems to point out a fact as obvious that is in con ict with one of the *prerequisites* of Anke's remark, namely, that Theo and Dora might not know where the Vogtland is. Insofar as Curt

takes issue with a precondition that he treats as underlying the trouble-source, his contribution is like other examples of repair discussed previously.

Theo's response to Anke's mockery and its uptake by Dora are interesting in another regard. Following Dora's (20) indication of her intention to take the turn (cf. her raised finger and producing a high pitched token of ''EM'), Theo ascribes to all the recipients of Curt's (04, 12) initial remark about the Vogtland, and, by inclusion, to himself, the pursuit of what I referred to previously as the strategy of nodding-and-smiling (cf. 3.1.5 above). Theo also provides a nice characterization of that type of interactive behavior by enacting it. Smiling awkwardly, he states:

```
21   Theo   alle ↓'EM=m>
                Everybody is like "EM=m">.
22          alle nicken intelligEnt jo JO.
                Everyone nods intelligently "Sure".
```

By the same token, Theo ratifies Anke's ascription of ignorance to himself and his wife. His posture, facial expression, and the way he impersonates somebody who tries to hide his non-understanding display a feeling of being caught in the act of doing something inappropriate or even embarrassing, namely his indicating understanding in response to what he, obviously, has not understood (cf. his '`'m=´HM'; 13). Dora's response to that supports this interpretation of Theo's utterance from the perspective of one of the discourse participants. Having been a recipient to Curt's localizing the Vogtland much like Theo, she rejects his (and Anke's) imputation of ignorance to her insofar she is a member of Curt's general audience. With 'DOCH,' she initiates her rejection of Theo's suggestion (cf. a similar use of the particle in sequence 25: *Der Klassenkamerad*). She then concedes that she does not know where the Vogtland is, emphasizing, however, that she knows something relevant about that region that justifies her behavior.

The analyses in this section so far have provided evidence for interactants' orientation towards expectations that concern the responsibilities of trouble-source *speakers*. Curt's response to Anke's remark in *Vogtland* is an example in point of such an orientation. On the other hand, Theo's and Dora's behavior in the same sequence seems to provide a first indication—which is certainly in need of much broader empirical investigation—that interactants ascribe a certain responsibility also to the recipients of talk in interaction: if you perceive of a problem understanding a trouble-source, indicate it to the speaker. Otherwise, the blame is on you if this creates a problem of understanding later. Against the background of this kind of expectation, Theo's display of embarrassment and Dora's "self-defense" both can be interpreted as relevant and appropriate contributions to the above exchange.

(v) The treatment of fundamental trouble concerning the premises of interaction

As treatments of *fundamental* problems I characterized sequences in which the participants deal with general premises for successful interaction. This includes issues like who is talking to whom, what is the language used in the interaction, etc. Examples to illustrate that such treatments do indeed justify the introduction of a fifth sub-class into the typology of conversational problems were discussed in section 4.2 (v). In the data, no instances were found, however, in which the participants treated overexplicitness or a neglect of the obvious on the fundamental level. I would like to suggest her, however, that this lack is contingent on the data-base rather than indicative of a systematic gap in the typology.

Conclusions on overexplicitness and a neglect of the obvious

In chapter 4 thus far, I have presented and analyzed thus far sequences in which the participants display an orientation to two complementary general expectations. Accordingly they assume unmarked discourse contributions to be as explicit as necessary with regard to underlying background items and, at the same time, not more explicit than necessary.

While the relevance of these default expectations becomes observable when interactants deal with problems of *understanding* (cf. 4.2), the participants in the conversational sequences presented in section 4.3 treat problems of *production* ascribed to speakers by their recipients in the form of other-initiated repair that, mostly, also is completed by *other*. There are two possible reasons for speakers to be held responsible by their recipients for not having considered the obvious: they may state as new information what they should know to be already known to the audience or they may act in a way that is in con ict with facts they themselves should know according to their recipients.

In the sequences cited in section 4.3, not only the recipients hold the speakers responsible for having not taken into account the obvious; the speakers also accept these attributions of responsibility rather than trying to defend themselves and justify their behavior. And it is only this acceptance on the part of the speakers that qualifies these sequences as evidence in regard to the relevance of (a particular item of the) shared background as a participant category. It may be pointed out that most of the cases discussed involve jocular talk. This is not meant to suggest that what has been found here necessarily is limited only to jokes. The con ict, however, between the potential threat to the face of the producer of the trouble-source that goes along with other-repair and the generally friendly and cooperative character of dinner table conversation seems dissolvable in jocular contexts in which a speaker's charging another of overexplicitness is ratified by laughter on the part of everyone involved.

Another property of the data-base should be mentioned at this point. The participants in the Dresden dinner were two couples. This is likely to bring with it consequences with regard to the manner in which the interactants criticize and scold each other as well as the knowledge constellations, which then should be re ected by the interactants' shared background activities. In several of the sequences discussed in 4.3, this seems to be a factor indeed when one spouse charges the other of not having taken into account what should be obvious for him/her (cf. sequences 24: *Die Zauberin*, 25: *Der Klassenkamerad*, and 29: *Vogtland*).

For a reader familiar with the literature on the sequential organization of repair, some of the sequences presented in this section as well as at other places of this study might not appear to be prototypical candidates of repair. At various points in the preceding sections, I have dealt with this problem directly by providing an account of why I subsume a given sequence in the class of repairs. The radial character of this category and the problems that go along with an attempt at defining it were extensively discussed in previous chapters (cf. also Weber 2003). At this point, I should just mention that the interpretational rather than structural perspective adopted in the present study is that of the participants who *treat* certain contributions *as* troublesome to them. Repair initiations, then, are utterances that, while not being sequentially implied by the preceding utterances (like, e.g., an acceptance or decline is sequentially implied by an invitation), take issue with an aspect of the trouble-source as preventing it from yielding its intended interactive effect and make the first contribution to side-sequences that meta-interactively treat the problematic aspect.

A final and only potentially interesting observation with regard to the six sequences discussed above—whose significance and consistency would have to be checked on a broader base of conversational data—is that the repairs are initiated in all cases but one (*In Schwaben*) by an outsider to the ongoing exchange, i.e., neither by the producer of the trouble-source nor his/her recipient.

Although the total number of examples is too small to allow for generalizations just on their basis the ability of each one of them to fit naturally into one of the five classes of conversational trouble defined previously can be taken as an additional piece of evidence in support of the typology's adequacy.

4.4 The anticipation of trouble

One of the major claims supported by the analyses in the two preceding sections is that it is a non-trivial accomplishment for speakers to keep a balance between making explicit what is necessary for the recipients for successful interpretation but unknown to them and not saying or acting in a way incompatible with what is obvious to them. The sequences analyzed thus far represent instances in which

interactants not only failed in their attempt at staying in the middle between the two poles. Furthermore these speakers or their interlocutors "cared enough" to treat the conversational problems arising from that failure interactively. It was also argued that being charged with not having complied with either one of the two complementary expectations may go along with a threat to or even loss of face. Most importantly, all these judgments about interactants' caring enough, attempts at complying with certain expectations, experience of trouble, etc. were not only based on the outside analysts intuitions that are indispensable for all interpretative work be it conversation analytic or other; those judgments were motivated from the point of view of the participants whose observable mutually related activities were shown to display those of the interactants' attitudes, assumptions, perceptions, etc. that are the focus of the present study.

Given all this, one may expect that speakers, in cases in which they are insecure with regard to whether or not a particular assumption, which they consider necessary to understand their point, is held by their recipients, take interactive measures to prevent their contribution from violating either of the two expectations concerning the treatment of background information. But how can this be accomplished considering that the more efforts one makes to keep within the limits defined by *one* of the complementary expectations the greater is the risk of transgressing the limits defined by the *other*? The following sequence from the Dresden dinner exemplifies a strategy speakers may adopt in their attempts at anticipating and avoiding problems of understanding while minimizing the risk of being sanctioned for having mentioned the obvious.

Sequence 30: *Inge* is part of an extended episode in which the friends jocularly ponder alternative suggestions as how to "recycle" the buildings of a nuclear power plant that was built near their home town but never went into operation. In the following exchange between Theo and Curt, the former (01-10) establishes the elaborate basis of facts and details before he (14, 16) eventually issues his proposal concerning the creative use of the abandoned plant.

Sequence 30: *Inge (12_38t)*

- trouble-source: '... ↑INge ... ' (01)
- item that becomes problematic to Theo as an item of the shared background at the time of the repair initiation (02): '↑INge' refers to the owner of some bar where they used to serve DAB beer.

```
01   Theo   (--) FRÜher hatte doch e:h
                    In the past, there had eh
02          bei der ((|-> C)) <<h f> ↑INge>, ((nods briefly)
                 at the ((|-> C))bar of <<h f> Inge's>,
```

```
03          (-)
             |
        C nods twice
04          <<d> kennste doch> <<h f> ↑INge.
                  you know> <<h f; as if calling on a waitress>
                                                "INge!">, don't you.
05  Curt    ((nickt kurz)) 'EM=m
              ((nods briefly)) 'EM=m.
06  Theo    die hatten doch dOrtmunder AKtienbräu [gehabt.
              They had—you remember that— Dortmunder Aktienbräu beer.
07  Curt                                ((nickt kurz)) ['EM=m
                                          ((nods briefly)) 'EM=m.
08          geNAU.
              Exactly.
09  Theo    und DA gibts diese glÄser.=
              And there are these glasses.
10          =die sahen [eXAKT so] aus.=
              They looked exactly like that.
11  Dora               [ehehe]
                        ((laughs))
12  Theo    =die waren so- (--)
              They were like-
                              | |?
                               |
   T draws the contour of a cooling tower into the air.
13  Curt    <<nickend> geNAU=geNAU.>
              <<noddingly> Exactly, exactly!>
14          [ja] geNAU.>
              Yes, exactly.
15  Dora    [hehehe]
              ((laughs))
16  Theo    un da hab ich immer ge[DACHT,
             And I always thought:
17  Dora                           [DAB]
                                     DAB <i.e., the acronym for
                                     "Dortmunder AktienBräu">.
18  Theo    da müsste man !DAB! draufschreiben.
              They should print "DAB" on there.
19          dat wär natürlich der HAMmer.
             That would, of course, be the hammer
             <i.e., an amazing thing to do>!
20  Curt    ((lacht; kaut und schluckt; nickt heftig))
                                                      geNAU.
          ((laughs; chews and swallows; nods vigorously)) Exactly.
```

As an aside it may be pointed out that the entire sequence provides a particularly instructive example of a speaker's systematic, gradual, and interactive construction of common ground in *preparation* of a point to be made later. It is, however, only the repair sequence (cf. 01-05) that presently is of concern insofar as it represents

a very particular retrospective treatment of background in the sense of the term favored in the present study.

After a noticeable pause that marks the end of the preceding conversational sequence, Theo (01) introduces a new topic in a way typical for the beginning of narratives. At some unspecific point in the past, he starts out, Inge had—and here, after having called out the name with a high and creaky voice, impersonating a guest calling on the waitress, he self-interrupts his ongoing narrative. At the moment he articulates '°INge', he turns his gaze towards Curt. Now (02) he addresses a brief single nod to his recipient which is answered by two equally brief and articulate nods on Curt's part (03). Following this moment of silence, that is not really a pause because it is filled by the interactive nods, and before Curt responds to Theo's utterance other than gesturally, Theo (04) initiates repair upon his own use of the proper name 'Inge'.

The latter fact is remarkable because it distinguishes the present case from the treatments of referential problems of understanding discussed in section 4.2 (ii) where the recipients' follow up on the trouble-source had indicated to the speakers that their interlocutors had run into interpretational problems regardless of whether the recipients were or were not aware of this. What we see, rather, is a speaker who, in same turn and without any indication of trouble on his recipient's part, initiates repair upon his own use of a proper name. He does this in a way that displays his insecurity with regard to whether Curt will understand who that name refers to, i.e., whether the bare use of the name would cause a referential problem of understanding.

In order to make sure to provide all the background which he assumes to be necessary for Curt to understand the narrative and, at the same time, unknown to Curt, Theo could have completed the repair by explicitly contextualizing Inge as the owner of a bar where they used to play cards etc. But given that he took the referent of 'Inge' for granted as an item of the shared background when he first started his narrative, introducing her elaborately would mean to run the risk of stating the obvious. Theo's "solution" to what thus may be described as the problem of finding a middle ground between the extremes of maximal explicitness and avoiding redundancy is to involve Curt in the repair sequence by summoning him for confirmation of Theo's assumption that his recipient knows to whom the problematic name refers.

Here we see, once again, in what ways higher-level assumptions come into the play. Theo designs his summons such that a potentially brief confirmation is the preferred sequentially implied response (cf. his use of the shared background marker 'doch' described previously). Since he yields this response indeed in the form of the recipient signal ''EM=m,' he has very effectively succeeded in reestablishing his confidence in the state of the shared background—which is a way of saying that he succeeded in reestablishing the shared background—without having lost

his narrative thread. On the other hand, should Curt have rather unexpectedly expressed his ignorance of Inge, it would have been possible and appropriate for Theo to introduce her elaborately, thus initiating a more extensive side-sequence that would have led away from his topic but without running the risk of mentioning of the obvious.

4.5 Shared background, repair, and quantity expectations

In chapter 2 it was argued that the ascription of rationality to their co-interactants is one of the necessary prerequisites for rational individuals to engage in interaction. Rationality, then, was defined in most general terms as the ability and willingness to account for one's activities in terms of goals, intentions, etc. however unspecific they may be. It was also argued that it is a necessary prerequisite for the empirical work of the conversation analyst to impute rationality to the participants s/he observes and from whose activities s/he hopes to derive insights into the ways meaningful and coherent interaction comes about.

Prior to the analyses presented above, shared background was also to be shown another necessary but indeterminable prerequisite for interaction. From here, it was concluded that it lies in the nature of shared background that contributors to interaction always run the risk of being mistaken about the state of the shared background, resulting in two complementary and irreducible risks: they may underestimate the richness of their interlocutors' backgrounds and say what already is obvious to them or they may overestimate what the others know and assume and thus leave items of the background implicit that are crucial for the recipients' understanding but unavailable to them.

A final phenomenon that—in the realm of the present study—is worth mentioning is found in several cases of shared background treatment that are special in a particular respect: the participants' orientation to a conversational norm concerning the treatment of shared background becomes very explicit. They apologize for not having been interpretable (e.g., sequence 20: *Sieht gut aus*), or they sanction others by charging them with not having considered the obvious (e.g., sequence 24: *Die Zauberin*).

As a well-known basis for interactants' expectations concerning the behavior of their interlocutors that almost suggested itself in the light of these premises, Grice's double-maxim of quantity was adopted as a starting point for detecting regularities in the domain of shared background treatments. What seemed particularly attractive in Grice's approach to quantity was its delimitation of a middle ground between two opposite borders that define behavior as acceptable from the point of view of the interactants. This turned out to be useful in capturing my findings on treatments of shared background, i.e., a phenomenon of which I have shown before (cf. chapter

2) that its indeterminacy faces all contributors to interaction with the problem of finding a balance between sufficient and excessive explicitness.

On the basis of these prolegomena, it turned out that the activities in the overwhelming number of shared background repair sequences included in my data (51 out of 52) could be interpreted as displaying the participants' orientation to quantity expectations in a way that both corroborated the fertility of the theoretical and methodological considerations presented in chapters 2 and 3 and allowed for systematic empirical insights into conversational treatments of repair. A significant conclusion from the empirical analyses of shared background repair sequences can be stated as follows:

The indeterminacy of the shared background produces observable consequences when interactants treat conversational trouble related to particular items of the shared background as violating their default expectations concerning necessary and sufficient explicitness. Sequences showing the latter kind of trouble involve the attribution of production problems to speakers and are mostly performed by other-repair. In contrast, problems caused by a lack of explicitness are, in most cases, resolved by means of other-initiated self-repair. Given Schegloff, Jefferson, and Sacks' findings on the "preference for self-correction" over other-correction (1977) and the observable threat to the speaker's face that is re ected by the recipients' laughter, display of annoyance, etc., it is not surprising that summonses for additional background are much more frequent in the data than charges of overexplicitness.

On the other hand, speakers who necessarily and always are at risk of either acting in a way that is uninterpretable for their recipients or being redundant may, in cases of doubt, lean towards the former in order to minimize the threat to their own face. Furthermore, it seems possible, in most cases, for cooperative recipients to let pass by untreated and without major interactive consequences a speaker's being redundant or neglecting the obvious, while they have to initiate treatments of their own problems of understanding in order to maintain their status as attentive and responsive recipients. A way of dealing with the dilemma of having to comply with two contradicting goals was exemplified by sequence 30: *Inge* in which a speaker seemed observably concerned with finding a middle ground between non-interpretability and overexplicitness.

With regard to participants' orientation towards quantity it was demonstrated that conversational trouble is treated in my data on five different levels ranging from *form-based* to *fundamental* problems of understanding or producing an utterance. The more or less accidental choice of dinner table conversations as the material basis of this study turned out to be fortunate not only because it included examples of all five types of problem treatments but also because it complements the studies on sources of conversational trouble by Schegloff and Selting that were conducted independently of each other and were mostly based on conversational data form

very different discourse genres. The synthesis of the results yielded by the three projects, the integration of my own findings with Selting's three-way distinction and Schegloff's observations on trouble-sources, justifies much more confidence in the adequacy of the proposed typology of conversational problems and problem treatments than each of the studies would have if considered in isolation.

Finally and on a more detailed level of analysis, I looked at the particular interactional means, verbal, prosodic, gestural, etc., that interactants employ in treating conversational trouble of various kinds. Although the small overall number of shared background repair sequences and the even smaller number of instances per category included in my data does not allow for an exhaustive subsumption of the sequences in what conversation analysts call "formats" of problem treating, I was able to identify several such typical ways of dealing with certain types of interactive trouble (cf., especially, sections 4.2 (ii) to (iv) and my discussion of the particle 'doch' in 4.3). These findings partly support but mostly go beyond Selting's proposals that are based on a considerably different data-base which justifies two conclusions: the search for typical conversational, verbal, para-verbal, and non-verbal, means and for considerably complex formats that discourse participants employ in dealing with interactional trouble is a worthwhile enterprise. The exhaustive or close to exhaustive compilation of an inventory that accounts for those formats, however, can only be achieved on a much broader basis of interactional data than is available as yet.

5 Conclusions on shared background and repair in German conversation

Shared or *common knowledge, common ground*, and *shared background* are closely related concepts that long have been cornerstones of theorizing in the philosophy of mind and cognitive science. If—what generally is accepted as a common place—shared background is a necessary prerequisite to social interaction it should be possible to observe, describe and analyze the activities, the linguistic and non-linguistic means by which participants re ect this fundamental role in actual discourse. The present study, thus, was intended to approach shared background empirically by way of analyzing linguistic data and from the point of view of those interactants whose shared knowledge, assumptions, attitudes, etc. are referred to by the aforementioned terms.

The investigation proceeds in three consecutive chapters, from the theory of shared background (2) and methodological issues (3) to empirical analyses of shared background treatments in German conversation (4). Along this way, answers to three questions are proposed and supported:

- What is shared background?
- How can shared background be investigated empirically?
- What linguistic and other means do participants in everyday German conversation employ to deal with shared background?

The initial motivation for this study was an interest in empirical manifestations of shared background. To select a data base and search it for manifestations of something, however, is possible only if one knows what this „something“ is and what its instantiations might look like. In the scientific community, however, the consensus on *shared background* (and its relatives) does not go far beyond a general acknowledgment of its central role in a theory of social interaction.

In the present case, this meant that conceptual clarification had to precede empirical analysis. In chapter 2, I pursued this goal by reconstructing three different theoretical approaches: David Lewis's (1967) account of common knowledge, Dan Sperber's and Deirdre Wilson's (1986, 1987a,b) notion of mutually manifest environments, and Donald Davidson's (1984) argument on the indeterminacy of.

In conclusion of this discussion, the three independent threads of reasoning were demonstrated to converge on a picture of shared background that shows the following characteristics:

Shared background is a *pre*requisite to social interaction. It involves assumptions, attitudes, expectations, etc. that are necessarily *shared* and that are necessarily *in the back*ground, i.e. not in the focus, of the interaction.

For two individuals to share a background means for them *to take for granted* that they do so, means that both of them hold certain *default* expectations about the background they share with their interlocutors. It is the default nature of these expectations that prevents interactants from running into an infinite regression of replications.

Interactants throughout their socialization and across many instances of interaction experience that, in normal circumstances, their expectation concerning the sharedness of the background proves right. This provides the basis for them to trust in the sharedness of the background by default also in novel exchanges as long as they consider the circumstances to be normal.

Default expectations *usually* turn out to be right but not *necessarily* and *always*. „Communication is always a risky task" (Parret 1993) because, even though it usually works and expecting it to work is a reasonable attitude, there is no procedure available for interactants to reduce the risk of shared background trouble to nil. All attempts at making sure that a certain piece of knowledge is actually shared by all discourse participants and thus anticipating and avoiding shared background trouble (cf. sequence 30: *Inge*, in section 4.4) necessarily relies on tacit assumptions that remain implicit and, thus, may not shared by others.

The nature of shared background as laid out so far brings with it consequences from a methodological point of view. „Negative evidence" is the keyword that best represents the argument put forward in chapter 3. The main claim defended here: much like for discourse participants and for the same reasons, there is no way whatsoever for an analyst to establish as a positive fact that a certain item of the background, a certain assumption or piece of knowledge, is available to any, much less all, of the interactants under observation. The relevance of a particular item as a necessary presupposition to an ongoing exchange becomes manifest mostly—with the rare exception of anticipatory background treatments (cf. 4.4)—in retrospect and *ex negativo* when participants treat shared background trouble in the foreground of their interaction.

An empirical study of shared background in conversation, thus, has to focus on sequences in which the default nature of the background becomes problematic to the interactants, i.e., in which the shared background has broken down and the participants take explicit measures to reestablish it to a degree they consider necessary for the practical purposes of the ongoing exchange.

At this point of the argument, the notion of *conversational repair* was introduced. Under this rubric, conversation analysts (Schegloff et al. 1977; Drew 1991; Selting 1987a,b,c; Weber 2002) have analyzed a family of linguistic and non-linguistic means that participants employ to treat „troubles of understanding". In addition to this functional definition, a structural definition had to be provided which

was—surprisingly—found to be missing in the CA literature yet indispensable as a criterion according to which a data base could be searched for repair tokens. Accordingly, sequences were subsumed in the class of repairs that are marked by three properties: *retrospectivity, sequential autonomy* and *sequential discontinuity* (cf. 3.1.2). In the context of the present study, repair and, in particular, a type of repair described as *other-initiated self-repair* (Schegloff et al. 1977), appeared to be a promising research object to provide answers to the question of how shared background can be investigated empirically.

Based on the theoretical and methodological foundation thus laid out, the analysis of repair in natural discourse was conducted. First, a corpus of German everyday conversations was introduced and the conventions underlying the coding of the data specified (cf. Selting et al. 1998). Second, the data base was searched for repair sequences in which the interactants treat problems of understanding representing shared background trouble. Finally, the shared background repair sequences identified were analyzed according to the types of trouble treated and the interactive means used by the participants.

The analyses demonstrated: shared background is more than a concept that figures centrally in theoreticians' accounts of interaction; shared background could be shown to be presupposed and oriented to by participants in interaction. They employ specific means to display their expectations concerning the background and to treat problems arising in case these expectations turn out to be mistaken. More specifically, I distinguished five levels on which shared background trouble does occur synthesizing findings by Selting (1987a,b,c) and Schegloff (1987a) and complementing them by my own results:

(i) form-based trouble

(ii) referential trouble

(iii) expectational/inferential trouble

(iv) problematic sequential implicativeness

(v) fundamental trouble concerning the premises of interaction.

Corroborating conclusions by Selting (1987a,b), my data suggest that the types of trouble correlate with specific means employed by participants to make problems of understanding manifest and to overcome them interactively. Even though this result, given the limited size of the data base, has to be taken with certain reservations it may be interpreted as providing counterevidence against statements by several authors according to which „the organisation of repair—*including forms of repair initiation* [...]—has a certain independence or autonomy with respect to the source of the trouble which repair is implemented to resolve" (Drew 1991: 74; emphasis mine, T.W.).

I, further, found that shared background treatments do occur when interactants' expectations fail to be met in either of two directions: lack of explicitness (4.2) and overexplicitness (4.3). When speakers mistakenly presuppose knowledge on the part of their interlocutors that is nevertheless necessary for an understanding of what they mean to say (self-)repair may be (other-)initiated. On the other hand, interactants seem to display a sense of overexplicitness when they „sanction" speakers who mention what is already known or obvious to them. It was pointed out that the two bounds that delimit unmarked and expected behavior with regard to shared background are reminiscent of Paul Grice's (1989) double maxim of quantity. Shared background repair sequences, thus, seem to display discourse participants' orientation towards a (non-normative) maxim of the kind suggested by Grice also in discourse contexts that do not involve conversational implicatures.

For a linguist, a theoretical explication of *shared background* remains abstract and detached as long as it is not tied to questions concerning the ways in which shared background in uences the use of language and the choice of means that speakers employ in discourse. For outsiders to the CA paradigm, conversational repair may seem to be a marginal and rather irrelevant object of study unless it is related to more general questions of social interaction. The present study has jointly applied deductive reasoning and conversation analytic concepts and methods to the study of shared background. It has, I hope, demonstrated thus that the two approaches can be brought together to complement rather than exclude each other when this is motivated by the research interest pursued.

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