PREFACE:

A PRELIMINARY CASE STUDY

A New Approach:

This dissertation presents a project within the field of cognitive semantics. However, it is not a project that employs "canonical" cognitive semantics methods and holds "canonical" cognitive semantics research interests. It aims at establishing an approach which focuses on the interactional construction of meaning, along the lines suggested by sociologist Emmanuel A. Schegloff (2003: 39), though not as radical. Schegloff proposes A cognitive science which

> *...places cognitive issues, processes, etc. within the framework of a world which is social at the outset, within which cognition is to be understood not necessarily by reference to the individual cut off from a world around, but by reference to an individual engendered and constituted by the world around in the first instance. A 'cognitivism' or 'cognitive science' along such lines, and responsible to details of naturally-occurring interaction in ordinary-for-the-participants settings, would be of considerable potential interest*.

In the introduction and in the following chapters, I elaborate the description of this approach – an approach that I call the "interactional approach."

The specific method that is employed in this dissertation is 'conversation analysis' (which Schegloff is a primary spokesman of), a micro-sociological method for studying naturally occurring *talk-in-interaction*. The theoretical apparatus that provides a basis for my descriptions of interactional, cognitive semantics phenomena is Gilles Fauconnier and Mark Turner's (1998, 2002a) 'conceptual integration' theory, along with various other central notions that have been forged in cognitive semantics for the last two-three decades, and which are compatible with conceptual integration theory in various ways (e.g. scripts, schemas and frames).

The goal of bringing together the method of conversation analysis and the theoretical apparatus of cognitive semantics is *to describe the construction of meaning which participants in naturally occurring talk-in-interaction anticipate and experience as interactionally relevant*. In particular, I focus on online meaning construction issues that relate to the set of hypotheses engendered by Fauconnier and

Turner's conceptual integration theory. My approach will yield a critical and constructive discussion of assumptions, methods, descriptions and hypotheses in conceptual integration theory and related cognitive semantics theories.

Bringing together the sociological method of conversation analysis and prominent theories from present-day cognitive semantics requires a good deal of theoretical and methodological introduction and discussion in order to clarify and define the basis, goals and scope of this specific approach. A long introductory part consisting of the introduction and chapters 1 and 2 is dedicated to that. Therefore I wish to take advantage of the option of a preface to give a concrete impression right away – with only very sparse preparation and without too much critical discussion of the approach – of what exactly this dissertation sets out to study.

A Preliminary Example:

Consider the segment of conversation in example I, which is the opening of a telephone conversation, conducted between Watergate conspirators Charles Colson (Col) and Howard Hunt (Hun) on the 13th of November 1972. This segment and the subsequent discussion of it illustrate the kind of approach that is the design of this dissertation.

I.[1]

1st turn Col:	Hello, hm
2nd turn Hun:	Hi
3rd turn Col:	How'r we doing?
4th turn Hun:	Well, uh, about as well as can be expected. How are you?
5th turn Col:	You know, just about the same

What I am interested in studying in relation to such pieces of data, are the following three questions:

1) What is the interactional organization of the talk?

2) What are the interlocutors' methods for showing each other what meaning is being constructed?

3) What cognitive structures and online processing are involved in the construction of what the interlocutors anticipate and experience as interactionally relevant meaning? This question will be pursued by basing assumptions about particular cognitive processing carefully on the observations in regard to the first two questions.

Question 1 and 2 merge in the interactional description of the segment of interaction, which is carried out first to provide interactional evidence for basing the cognitive description on. In this way the cognitive description is based on what the interlocutors themselves "demonstrate" to be going on in the conversation (for further discussion of this, see chapter 2).

An Interactional Account of Example I:

As a first interactional action (apart perhaps from Hunt's calling him in the first place) Colson produces a "hello" (l.1), and Hunt in turn responds with a "hi" (l.2). This is a first sequence, a first greeting responded to by a second greeting. Throughout conversation many jobs are compacted into any turn, but in openings of telephone calls they are compacted with special density (Schegloff 1979: 62). In this first sequence too several interactional jobs get done by the first turns: e.g. a summons answer, mutual greetings, claim by caller of recognition of answerer, and claim by caller that he is someone who the answerer is supposed to be quite familiar with or close to in some sense. These are all general features of the first sequence of openings of private American telephone conversations (cf. Schegloff 1979); but in addition to these comes a special feature of the production of Colson's "hello."

Before we discuss this first sequence and the rest of the fragment of talk in example I, a possible misconception of this type of analysis should be confronted: Interactional actions in sequences are – as will, hopefully, become very clear – <u>not</u> mere behaviorism. Colson and Hunt are not just stimuli driven organisms. They are sense-making people who are engaged in interaction. However, people who interact cannot see each other's experience of meaning. Colson and Hunt cannot look into each other's heads and see what is going on. Hunt has to show Colson what meaning he experiences and vice versa. This mutual, and, it turns out, highly systematic, expression of experience of meaning produces a shared interactional meaning. In line 2, Hunt contributes with a "hi" to the shared meaning of the greeting sequence initiated by Colson's "hello" (l.1). Let me flesh out what happens.

Colson's "hello" is not just an "ordinary" summons answer – it does more than answer the phone. This feature is not captured in the rude transcript above (see note 1), however, listening to the actual recording of the conversation it can be heard that Colson's "hello" is produced in a monotonous voice, which indicates that Colson expects a specific person to be at the other end of the line. (Maybe because Hunt was supposed, according to prior agreement between the two, to have called Colson at that point in time.). Thus the design of Colson's "hello" is that it is a summons answer which tells the caller that he is expected to be specific person.

Hunt's response is designed accordingly. The "hi" indicates that Hunt has heard Colson making a greeting and a summons answer which indicates that a certain caller is anticipated. Hunt does not make e.g. a self-introduction as a supplement to his greeting. He only says "hi," thus confirming that he is the

person who Colson expects to be calling. As Schegloff (1979: 34) observes, this type of first turn by caller carries "the promise that the caller is, for this answerer, one who can be recognized from this resource [alone]." (Notice that had Hunt said something like "This is Howard Hunt" or perhaps just "This is Howard," then, as a response to a summons answer that indicates that the summoned (Colson) expects a specific caller, it would sound as if Hunt was indicating that he is *not* the person that he expects Colson to expect.) Thus a greeting sequence has been accomplished, and a claim has been made that the caller is the expected caller.

But other crucial work is built into the first sequences which Hunt's first turn initiates. As demonstrated by Schegloff (Ibid) with respect to private American phone calls, the achievement of recognition/identification is a crucial part of the work that is done in openings of telephone calls (see chapter 3), and typically it is built into actions that do not explicitly address this issue, such as greeting sequences. The specific focus of this identification/recognition work, Schegloff shows, is the second turn of the opening (caller's first turn); and "It is because nearly every turn-type in the second turn which appears to evade the identification/recognition issue is vulnerable to its immediate appearance [for instance by a "who's this?" as answerer's next turn (turn #3)] that it seems that the identification/recognition issue is generically relevant at second turn, what ever the overt composition of the utterance placed here" (Ibid: 41) (see chapter 3). In the opening presently under scrutiny, we have seen, the issue of recognition is in fact dealt with already in Colson's first turn and Hunt's response to it. However, mutual recognition has not yet been achieved (Colson has not yet confirmed that Hunt is indeed the expected caller), but this is achieved in the combined work of the second and third turn (see below). Thus besides greeting and confirming that he is the expected caller, Hunt's "hi" also does the job of claiming recognition of Colson from his first turn. Furthermore, with its claim – discussed in the previous paragraph – that he, for Colson, is one who can be recognized from a "hi" alone, Hunt's first turn, as Schegloff (Ibid: 34) observes for this type of second turn, "initiates an effort to have the [recognition] accomplished *en passant*, while dong an otherwise relevant part of the opening, and without building a special sequence to accomplish that work."

In the present example, achievement of recognition is built into the second part of a greeting exchange plus the first part of a how-are-you sequence. Colson does not, as in the typical private American phone calls studied by Schegloff (op. cit.), respond with a greeting to Hunt's "hi." (Perhaps because Colson considers his "hello" to be the first greeting). Instead he establishes reciprocal recognition in attending to new business (a how-are-you question, l. 3), which indicates that Colson has recognized the caller and that the caller is the expected caller. If Colson had not recognized Hunt (as the expected caller), the third turn would be the place to have such a problem resolved (e.g. by a "who's this?", see Schegloff, Ibid: 39). Thus the recognition issue here spans two sequences, each of which does other work too: a greeting sequence and a how are you sequence (the last part of the former and the first part of the latter).

The next sequence (ll. 3-4) is an excellent example the artistry often performed by people engaging in interaction, and in the cognitive analysis we will see how it can also be seen as an indication of

comprehensive cognitive resources that are available to the interlocutors. Colson's "How'r we doing?" makes an inquiry about the other part's situation at a place where it is relevant to do so as a part of an opening procedure (as we shall see in example II below and again in chapter 2). However, Colson's question is not merely a routine part of an opening procedure. It establishes certain shared "insider" knowledge between Colson and Hunt as relevant to the conversation and thus it already embarks, in the course of an opening routine, on a substantial topic. Yet, before I elaborate on this description, lets me present an example of a by-the-book opening format, which can be used as background for analyzing the impact of Colson's question.

Example II is from a telephone conversation conducted on the 19th of April 1973, also in relation to the Watergate affair. The participants are John Ehrlichman (Ehrl) and Herbert Kalmbach (Kal).

II.

1st turn Ehrl:	Hello
2nd turn Kal:	Hi
3rd turn Ehrl:	How are you?
4th turn Kal:	I'm ehm pretty good
5th turn Ehrl:	Good
6th turn Kal	Ehm, I'm uh scheduled for two tomorrow afternoon

Notice how Ehrlichman's "How are you?" (l.3) is treated first by Kalmbach (l.4) and then by Ehrlichman himself (l.5) as "just" a part of the opening routine, and not as a first substantial topic. Kalmbach gives the question minimal treatment with a short and unelaborated "I'm ehm pretty good" (l.4), and Ehrlichman confirms this as an appropriate treatment of his question with his "Good" (l.5), which at the same time concludes that sequence. The "How are you?" is not inquiring about a specific situation, which would require more treatment. It is merely a "general" inquiry which is designed to be given a "general" answer. The first substantial topic in the telephone conversation in example II is only introduced in the 6th turn. Notice also that Ehrlichman's "How are you?" (l.3) is a *recipient-restricted* question which treats the other part, Kalmbach, as exclusive source of information about the "general" situation he is in. Ehrlichman's question does not claim possession a of any kind of knowledge about what kind of "general" situation Kalmbach is in or how he might be doing in his "general" situation.

Colson's "How are we doing" matches the standard "How are you doing" in example II by also being placed immediately after a greeting sequence. However, instead of using the standard term for speaker-exclusiveness, the second person singular pronoun *you*, Colson uses the standard term for speaker-inclusiveness, the first person plural pronoun *we*. In this way, Colson indicates speaker-inclusiveness in terms of specific "insider" knowledge about the "general" situation that is being inquired about, in a position where an inquiry that treats the recipient as exclusive source of information would be the routine action. However,

the *we* does not also place Colson himself in the situation that is being inquired about. The speaker inclusiveness only goes for the "insider" knowledge. A 'next-term proof procedure' (see chapter 2) establishes this analysis. In 4th turn, Hunt establishes Colson's speaker inclusive-inquiry as an inquiry about a situation which only Hunt is in, but which Colson has certain "insider" knowledge about. The phrase "as well as can be expected" assumes that the inquirer has certain "insider" knowledge so that he may expect certain things in regard to the situation that is being inquired about. Furthermore, Hunt's returning "How are you?" (4th turn) shows that the meaning that is being established by and through the interaction is that the speaker-inclusiveness of Colson's question only goes for the "insider" knowledge about the situation that is being inquired about. It does not also place Colson himself in the situation that is initially being inquired about. Notice that if Hunt's "Well, uh, about as well as can be expected" (4th turn) had treated Colson's inquiry as concerning a situation which Colson himself is in, then it would be completely irrelevant for Hunt to ask in return – upon having answered Colson's question – how Colson himself is doing. Hunt himself would then just have told Colson how he was doing. Thus in this opening sequence, Colson and Hunt not only orient to a routine how-are-you sequence as a general inquiry. By alluding to a specific part of Hunt's "general" situation, the interlocutors already tune in on a specific and hence substantial topic, which, it turns out later in the conversation, is the Watergate affair. Colson's question thus allows them to talk about the Watergate affair without actually mentioning it (which is an advantage for Colson since he was aware that the conversation was being taped (see chapter 2) and later brought forth the tape to prove his inculpability – it didn't work!). I can now attempt to formulate some answers to the first two of the questions that were listed in the beginning of this preface:

1) *Interactional organization*: The opening segment is organized in terms of two sequences: a) a greeting sequence ("hello" → "hi"), by which greetings are exchanged and which establishes the call as an anticipated call and does the first part of the recognition work, and b) an elaborated version of a routine how-are-you sequence ("How'r we doing?" → "Well, uh, about as well as can be expected. How are you?" → "You know just about the same"), which establishes reciprocal recognition and tunes in on specific shared knowledge as relevant to the conversation.

2) *What are the interlocutors' methods for showing each other what meaning is being constructed?* The point about sketching the sequential structure first is that the sequential organization *is* the method by and through which interactional meaning is constructed and by and through which the interlocutors show each other what meaning is being constructed. With the sketching above, we can study how each action is designed in this particular local context to accomplish certain interactional feats.

In the greeting sequence, Colson produces his "hello" in a monotonous voice, shoeing that he has anticipated the call and that he expects a specific caller. Hunt in return produces a minimal greeting

response in the shape of a "hi," claiming that he is indeed the caller who Colson expects and claiming that a voice sample alone is sufficient for him to be recognized by, by Colson. Then Colson uses the standard term for speaker inclusiveness, *we*, in the initiation of an elaborated how-are-you sequence. By this he indicates that he is not making a "general" inquiry but inquires specifically about a certain situation which only Hunt is in but which Colson has "insider" knowledge about. Hunt's responding "Well, uh, as well as can be expected" (4th turn) complements Colson's claim that it is a situation that Colson has "insider" knowledge about, and thereby it also consents to the path stuck out by Colson which makes this certain knowledge relevant to the conversation at this early point. The second part of Hunt's reply, the counter-inquiring "How are you doing," establishes the understanding that they are talking about a situation which only Hunt is in.

In sum, what we have seen here is how Colson's and Hunt's accomplishment of interactional meaning is organized in terms of sequences and relevant next actions after the completion of a sequence, and we have seen how sequence organization and knowledge of routine structures are resources that can be exploited to achieve certain local meaning, e.g. how Colson can make specific shared knowledge relevant to the conversation by elaborating a routine how-are-you question.

Online Meaning Construction:

As a central aspect of the interactional analysis, we have already dealt with what the two interlocutors experience as *interactionally relevant meaning*. We are now in a position to focus on question 3 from the beginning of this preface, to study what cognitive structures and processes go into achieving the interactionally relevant meanings. As stated above, the attempt to answer question 3 will be based entirely on the interactional evidence. I will focus here on the meaning that is accomplished by Colson's "How'r we doing?" (3rd turn).

First we will look at how orientation to a certain conceptualization of the very interaction itself and the elaborated action ("How'r we doing") by Colson make two conceptual structures relevant for the meaning construction in relation to Colson's "How'r we doing." Then we will look at how certain cognitive processing on these two conceptual structures brings about the interactionally relevant meaning of "How'r we doing." Finally, I will sum up and elaborate the cognitive analysis in a step-by-step model that is designed to capture in one coherent representation the essential aspects of the online cognitive processing.

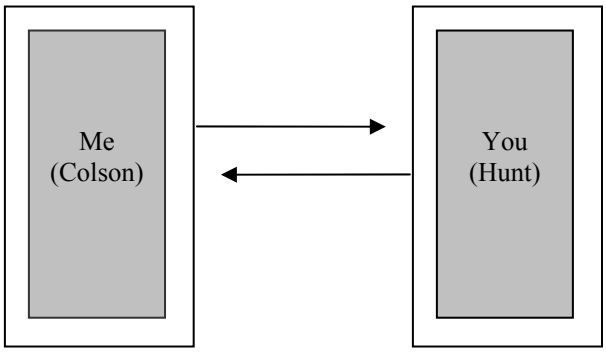
Above we saw that Colson exploits the relevance (following an initial greeting sequence) of a how-are-you-question to bring certain shared knowledge to the fore. In other words, to achieve the construal that Colson and Hunt achieve, they must not only process "How'r you doing?" in isolation. An integral, in fact the very central part of online processing the question and achieving the documented meaning is to have

a conception of its very placement in the telephone call opening and of what interactional actions are relevant at that place.

Such knowledge of the structure of the interaction itself – i.e. of the internal structure of sequences like a greeting sequence and of the structure between sequences, e.g. that a how-are-you sequence may follow a greeting sequence in the opening of a phone call – can be described in terms of a narrow, dynamic, interactional script organization (based on Schank and Abelson 1977), which Hunt and Colson orient to as the normative structure of the opening of a telephone conversation (see chapter 2 & 3) and which they bring to bear on the meaning of actions in this particular opening. An interactional script does, however, deviate from the notion of a script as Schank and Abelson presented it in 1977. (This is a main topic of chapter 3.) An interactional script does not "run" the interaction and the meaning construction by imposing a predefined path. The interactional script that is brought to bear on the meaning construction by the interlocutor's actions is not a *causal rule*. It constitutes shared expectations, which are oriented to because they are expected to be shared expectations. Furthermore, interactional scripts are adjusted to the local actions of a conversation, as I shall discuss in more detail here. The primary motor of the interaction is the interlocutors' mutual, social expectations, which in turn are organized by script structure, which they can orient to in indefinite ways (see chapter 2).

A basis for Hunt's and Colson's meaning construction in relation to "How'r we doing" is then the conception that at the point where it is uttered, a how-are-you question is conceptualized as a relevant action. Attention to this conception of the local context of the interaction "provides"/makes relevant to the construal of what happens at that particular place a conceptual structure which will be involved in the specific meaning construction in relation to Colson's version of a how-are-you question: a conceptual how-are-you representation. In figure I, I attempt to draw a plausible diagram of Hunt's and Colson's representation of a how-are-you situation, or as I shall call it, a Me-and-You schema. In this specific context Colson takes on the role as 'Me' and Hunt takes on the role as 'You.' The diagram is based on standard openings of the kind we saw in example II

Figure I: Me-and-You schema

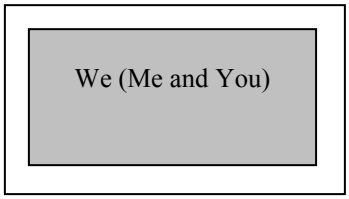


The gray boxes indicate 'respective mutually excluded situations.' The lines around the gray boxes indicate Me's and You's exclusive knowledge about their 'respective and mutually excluded situations.' The arrows between the white boxes indicate that Me and You interact and inquire about each other's situations and that they treat each other as exclusive sources of information about each other's respective situations. Exclusive knowledge of one's situation comes from being the one who is in the situation. The interactional analysis provides specific evidence of the interactional significance of this conceptual structure. As we have seen above, Hunt orients to parts of such a structure in his reply to Colson. Hunt's returning "How are you" (l.4) indicates that the interlocutors are orienting to a conceptual structure where each is in his own situation, and where knowledge about that situation must come from being in it (and subsequently from inquiring about it). (The property that having exclusive knowledge about one's own situation comes from being the one who is in it lies inherently in being treated as exclusive source of information about one's situation.) Remember that if the understanding of Colson's question had been that it was inquiring about a situation that they were both in, it would be completely irrelevant for Hunt to ask Colson how *he* is doing, since Hunt himself would already have provided the answer for that.

Thus far we have seen how orientation to a certain conceptualization of the very interaction itself (following the current interactional script) makes a certain conceptual structure relevant (here a Me-and-You schema) for the meaning of whatever specific interactional action is carried out at that particular place. However, in the interactional analysis we also saw that by elaborating the standard structure of interaction, new locally specific meaning can be created on the spot. Colson used *we* instead of *you* in his ritualized inquiry, in and through which the meaning is established that Colson has certain "insider" knowledge about the situation which Hunt is in and is otherwise an exclusive source of information of. Hunt's replying "Well, uh, as well as can be expected" (4th turn), which assumes shared knowledge that can give rise to expectations,

is the next-term proof of that meaning. Hence in the construction of meaning is also involved a conceptual structure for We-ness in relation to knowledge about situations. I call this conceptual structure a We-schema. In figure II, I attempt to draw a plausible diagram of the We-schema which Colson and Hunt bring into to the local meaning construction:

Figure II: We-schema

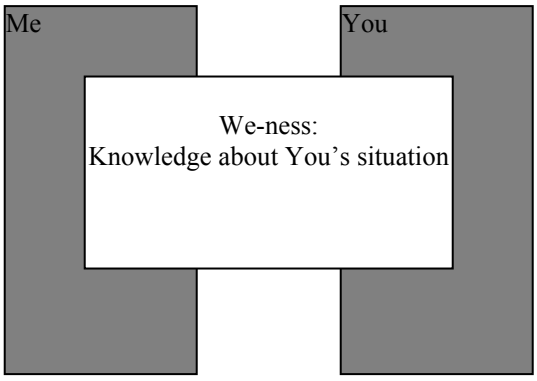


The gray box indicates that 'Me' and 'You' are in the same situation, and the line around it indicates 'Me's' and 'You's' shared knowledge about their situation, which they have together because they are both in the same situation.

Both the interactionally relevant Me-and-You-schema and the "brought-in" We-schema are involved in the meaning construction that Hunt and Colson accomplish. However, the meaning they achieve is not just a Me-and-You schema and a We-schema separately or a Me-and-You-schema plus a We-schema in some straight forward composition. The achieved meaning contains some elements of both schemas and excludes other elements of both schemas. This indicates that a cognitive process is operating on the involved structures to bring about the accomplished "hybrid" meaning, and I would argue that the example provides solid evidence of what Fauconnier and Turner (2002a) call 'conceptual blending' (see chapter 1).

What Hunt's full reply in 4th turn, "Well, uh, about as well as can be expected. How are you?," implies is, as we saw in the interactional description, that there is shared "insider" knowledge about Hunt's situation, but that Hunt and Colson are still in separate situations, and that Hunt is still a primary – though not exclusive – source of information about his situation. (The standard, You-and-Me-structure exclusiveness is compromised by Colson's "insider" knowledge). In other words, Hunt expresses an understanding of the question as a 'blended' Me-and-You-schema which has the separate situations of 'Me' and 'You' from the Me-and-You-schema, but the shared knowledge from the We-schema. In the blend this shared knowledge becomes "insider" knowledge because it is knowledge about a situation which only the other part is in (i.e. knowledge which in the Me-and-You-schema can only be accessed via inquiry, but which in the blended schema is possessed from the outset). I attempt to diagram the accomplished blended meaning in Figure III.

Figure III: Blended You-and-Me-schema:



As in Figure II, and stemming from the structure in Figure II, the white box indicates shared knowledge. However, in the blend, the We-ness only concerns knowledge of You's situation. Thus 'shared knowledge' from the We-structure appears asymmetrically in the blended schema, without the implication of Me and You being in the same situation, and hence without the implication of the shared knowledge being about a shared situation. Instead, as in Figure I, and stemming from Figure I, the separate gray boxes indicate that Me and You are in separate situations. Of course, the blend also has separate knowledge which only Me and You have about their own situations, but this is not indicated in the diagram.

In connection to the interactional analysis above, I argued that Colson's and Hunt's interactional accomplishment was indicative of comprehensive cognitive capacities. The online meaning construction *product* diagrammed in Figure III is an illustration of that. We can now attempt to set up a coherent model of the cognitive work that we have obtained evidence of from the interactional analysis above. What the model in meant to capture is neither Colson's nor Hunt's particular meaning construction; what it is meant to capture is what emerges as the jointly composed interactionally relevant meaning. It is the shared meaning construction. We do not know what happens in anybody's particular head; we only know what is expressed as experienced as interactionally relevant meaning. This type of modeling is representative of the type of modeling that will be employed in the rest of this dissertation, a step-by-step modeling which attempts to represent the actual unfolding of the interactional meaning construction process as it can be observed to unfold on the basis of interactional evidence. In order to capture the discrete status of involved conceptual structures, I label them, following Fauconnier and Turner (2002a), "mental spaces" (see chapter 1 for an elaborate discussion). A mental space I conceive of as the involvement in current online meaning construction of a particular, discrete conceptual structure. (What a mental space *is* is discussed in chapter 1.) In my modeling II distinguish between two types of mental spaces: 'base spaces' (cf. Brandt and Brandt 2002) and 'construction spaces':

Base spaces: Above we saw that a prerequisite for the meaning construction is a conception of the very interactional structure itself. As an interactional adaptation from Brandt & Brandt (2002), I call this conception of the interaction itself the *base space*. The term *base* implies that all meaning construction is done with this space as a constantly developing center of organization. The base space is organized by a local adaptation of the current interactional script and the meaning construction in relation to prior actions.

Construction spaces: Construction spaces are the discrete conceptual structures besides base spaces the operations on which make up the particular, "linguistic" meaning of an interactional action. (In essence, of course, the base space is also a construction space, but giving it a name of its on reflects its special status in the mental space construction.) The utterance meaning as such is the whole network of spaces.

Below the diagram in Figure IV, I give a prose account of its contents.

*Figure IV: Coherent diagram of the interactional online meaning construction in example I

Base spaces	BS1: The greeting sequence has been completed by Hunt; a how-are-you-doing-question is no a relevant action →	>>>>>>>>>>>>	>>>>>>>>>>>>	>>>>>>>>>>>>	→ BS 2: A reply action is now relevant which assumes certain shared knowledge between Hunt and Colson
Recognized actions		→ How-are-you question ⇓	Standard term for speaker-inclusiveness (*we*) ⇓	Formal integration ⇓	
Construction spaces		→ CS1: Me-and-You-structure (see Figure 1)		ICS1: Me-and-You-structure (see Figure 1)	
			CS2: We-structure (see Figure 2)	ICS2: We-structure (see Figure 2)	
				BCS: Me-and-You structure with integrated We-structure →	

*For the sake of simplicity and to establish a better overview, I use a table representation which differs from the representations in the rest of this dissertation, where the canonical mode of circles with conceptual structure in them which are connected by lines is used (cf. Fauconnier 1985 and Fauconnier and Turner 2002a). The latter type of representation makes place for representing in detail how structures in spaces are mapped and connected while the representation here mainly focuses on how the space configuration develops. Typically in space theory, the latter type is focused on at the expense of the former type, but in this dissertation, the former is brought to the foreground, which is signaled by the table representation.

Base space 1: In the case of "how'r we doing?," the base space has the following structure: At the point where the greeting sequence has been completed, a how-are-you-question is construed as a relevant next action, and this conception of the interactional structure makes relevant to the upcoming meaning construction a conceptual structure for a Me-and-You-situation. This conceptual structure is "pointed to" or

"encapsulated" by the base space. The function of making certain interactional actions relevant and of pointing to relevant conceptual structures is indicated by the → symbol, the meaning of which is that the base space 'projects,' in a cognitive sense (see chapter 3), relevant actions and relevant conceptual structures.

Recognized action 1: Colson's question is recognized as a kind of how-are-you question.

Construction space 1: Colson is the one who initiates the how-are-you sequence. In and through his initiation of what is recognizably a how-are-you sequence, the Me-and-You schema is involved in the meaning construction as part of the interpretation of "How're we doing". (Notice that Colson could of course have "cancelled" the relevance of the Me-and-You-structure by performing an action which was not a how-are-you-action). The ⇓ symbol indicates that the Me-and-you-schema is an interpretation of Colson's recognizable how-are-you question.

Recognized action 2: Colson's *we* is recognized as a standard term for speaker inclusiveness.

Construction space 2: In and through the recognizably speaker-inclusive form *we* in Colson's inquiry, a We-schema is involved in the meaning construction. The ⇓ symbol indicates that the We-schema is an interpretation of the recognizable *we*-form in Colson's question.

Recognized action 3: "How'r we doing?" is recognized as a formal integration of a how-are-you question and the standard term for speaker inclusiveness, *we*.

Blended construction space: The formal integration of the recognized format of a routine how-are-you question and the recognized format of a standard term for speaker-inclusiveness, *we*, prompts a conceptual integration of the conceptual structures associated with the format of a how-are-you question and *we* respectively. Construction space 1 and construction space 2 are involved in this conceptual integration as conceptual 'inputs' (see chapter 1), now as input construction space 1 (Me-and-You) and input construction space 2 (We). (Remember that the particular blend that arises – with Me and You in separate situations, but with Me having "insider" knowledge about You's situation – comes about because participants in the openings of phone calls treat each other as sources of information of each other's respective situations. The relevance of this particular blend of the two schemas comes from the interactional relevance of the interlocutors' treating each other as primary sources of each other's respective situations. To "cancel" this interactional relevance and signal the construal that Colson and Hunt are in the same and not separate situations, Colson would have had to do extra work; e.g. he would have had to use a formulation like "How are we doing on the exit polls?" or by using some prosodic device, etc.)

Base space 2: The emergent blended meaning of Colson's inquiry sets up a new base space together with the interactional script which "runs" through the various base space manifestations (symbolized by the running > signs) and is modified by the local adaptation of it. It is projected from the blended space (symbolized by the → sign) to the base space that an inquiry has been made about a specific situation which Hunt is in and which Colson and Hunt share knowledge about, and the interactional script adds to the structure that a reply to a how-are-you is now relevant (see chapter 2). Thus the renewed base space also contains the structure that a reply to a how-are-you which concerns a situation which the inquirer has "insider" knowledge about – a reply which assumes shared knowledge – is now relevant.

The model is meant to capture the following central features of online meaning construction, from the point of view of an interactionally empirically responsible cognitive semantics approach:

- The base space, the conception of the current interactional context, is the constantly developing, organizing center of meaning construction.
- Online meaning construction involves conceptual structures that are made relevant by the interactional organization (e.g. Me-and-You) and by the concrete actions by the interlocutors (e.g. We).
- Online meaning construction involves comprehensive cognitive operations on the conceptual structures that are made relevant by the interactional organization and by concrete actions, e.g. conceptual integration.
- Online meaning construction is 'context-shaped' and 'context renewing' (see chapter 2).
- Online meaning construction in social settings is social at the outset, but involves thinking individuals.

Concluding this preface we can sum up some major points about the interactionally empirically based cognitive semantics approach that we have seen so far:

- The goal is to practice a cognitive semantics which takes into consideration "*a world which is social at the outset, within which cognition is to be understood not necessarily by reference to the individual cut off from a world around, but by reference to an individual engendered and constituted by the world around in the first instance"* (op. cit.).
- The empirical method is conversation analysis (see chapter 2).
- The cognitive analysis concerns the online construction of meaning that is experienced as interactionally relevant.

- The cognitive analysis is based solely on interactional evidence.
- The cognitive analysis is process-focused. The cognitive operations are modeled in terms of how they develop in accordance with the interactional actions.

Or, as it dawned on me during a "deep" discussion with a good friend, what is the experience of loneliness based on if not the basic condition that human beings are social beings at their very core?

INTRODUCTION:

THE INTERACTIONAL APPROACH

> *(1) "The field of artificial intelligence is full of intellectual optimists who love powerful abstractions and who strive to develop all-embracing formalisms."*
> (Schank and Abelson 1977: 3)

> (2) "In general, a cognitivist stance begins with the broad cultural presumptions of the so-called Judeo-Christian stream of European culture. That cultural tradition (and cognitivist and other 'psychologically-oriented' disciplines emerging from it) takes the single, 'minded,' embodied individual person as the basic, enduring, integrally-organized reality to be studied […] …an approach to work that starts from the individual as the real – whether the individual person, or action, or utterance, or sentence – which treats that individual entity as designed for integrity as a free-standing object with its context as an extrinsic environment, can hardly avoid being characterized by atomism, atemporality, ahistorism, and asociality."
> (Schegloff 2003: 37-39)

> *(3) "A major problem with interdisciplinary studies of language understanding is that many researchers fail to distinguish between how language is processed and the meanings that are produced once language has been understood."*
> (Gibbs, Jr. 2000: 351)

> *(4) "Much of blending research will concern not so much the principles of the operation of blending but instead how blending sits inside the "Great Scheme of Things," how it interacts with everything else."*
> (Fauconnier & Turner, 2002b)

0.1 Three Scientific Divides

This dissertation presents a new approach to 'online meaning construction' – understood here as processes of constructing meaning on the spot in local, situations, here communicative situations. This has been studied intensively for a couple of decades in mental space theory (Fauconnier 1985) and conceptual blending theory (Fauconnier & Turner 2002a) by a steadily growing number of researchers around the world. As illustrated in the preface, the particular area of interest here is meaning as constructed socially, in talk-in-interaction, i.e. meaning as experienced as interactionally relevant. Four studies will be presented (chapter 3-6) which demonstrate different aspects and processes of online meaning construction in interaction. With its specific focus and analytic method – conversation analysis – and its attempt at elaborating in certain ways mental space and conceptual integration theory, this dissertation is meant as a contribution to these second generation cognitive semantics theories (see below) and to a socially grounded, strictly empirical cognitive semantics in general.

Using the quotes above by prominent precursors as a supporting basis, I shall attempt in this introduction to define in general terms the particular approach undertaken in this dissertation along three scientific divides in the field of human meaning construction. The names I give the oppositions constituting these divides are elaborated below: 1) 'generalism' vs. 'localism,' 2) 'social' vs. 'individual,' and 3) 'process' vs. 'product.' What my positioning in relation to these six scientific "orientations" amounts to is the general position of the present dissertation, what I call the 'interactional approach' (hereafter the IA). I introduce the six different "orientations" fully recognizing that some or all of them are rather stereotypical and may cover no specific approach in full or exact details. However, the goal here is not to take issue with or promote any one particular approach (e.g. Lakovian, Langackerian, or Searlian) but to have a discussion with "orientations" or "tendencies" which can be observed in studies of human meaning construction and of which more may be present to varying degrees in the same particular approach.

0.2 Generalism vs. Localism

To some of those who are generally skeptical of the cognitive science enterprise because of its particular zest for generalizations, it may come as a surprise that the harsh criticism in the quote (1) that opens this introduction has in fact been formulated by the fathers of script theory Roger C. Schank and Robert Abelson. As major scholars of cognitive science of the 1970s, they represent a decade which is notorious for its all-embracing, mathematically inspired formalisms. However, still today the goal of achieving "strong" or "powerful" generalizations (Fauconnier 1999: 97) suffuses most work in the cognitive science trend, *second generation cognitive science*[2], of which cognitive semantics is an important branch. As a descriptive ideal, it seems, powerful generalizations is a very deliberate reaction, on the part of e.g. cognitive linguistics and

semantics[3] (e.g. Fauconnier 1985, Lakoff 1987, Langacker 1990, Talmy 2001, Croft 2001), against the classical cognitive science tradition of what Johnson (1987) and Lakoff (1987) call "objectivist semantics" or simply "objectivism." By these labels are meant approaches to meaning which among their characteristic views hold that linguistic semantics is a separate kind of meaning, which is different in nature from meaning in other domains of experience. Among the most prominent proponents or founders of the tradition of objectivism which Johnson and Lakoff nominate are René Descartes (as an icon and important philosophical precursor for the whole tradition of objectivism and its separation of body and mind) and Gottlob Frege (for his quest for a semantics of purely objective 'sense' and 'reference'). Johnson, who with his ideas about 'image schemas' and 'embodiment'[4] is a major founding figure in cognitive semantics, argues that all meaning, whether it be "the meaning of someone's life, the meaning of a historical happening, or the meaning of a word or a sentence" is a matter of human understanding and that a theory of meaning is a theory of how we understand things regardless of what those things are (1987: 176). In contrast, he continues, objectivist semantics holds that concepts such as "the meaning of life " and other uses of *meaning* such as "Smoke means fire," "Life means nothing," "She means to leave," "The Revolutionary War means a lot to Americans," has "little or nothing" to do with linguistic meaning (ibid). To the objectivists, linguistic meaning is strictly a matter of the meaning of words. In opposition to objectivist semantics, Johnson's approach encompasses all kinds of meaning and it sees linguistic meaning as only "an instance or specification of meaning(fulness) in general" (ibid).

Thus cognitive semantics and linguistics seek to describe cognitive operations and principles which not only apply to language understanding, but to understanding and cognition in general. They seek a very broad kind of generalizations, and to Fauconnier (1999: 97-98), another central figure of cognitive semantics, "the most powerful ones are those which transcend specific cognitive domains." As an example Fauconnier points out conceptual blending. Here, the strong generalization is the "the discovery that the same principles apply to framing, metaphor, action, and design, and grammatical constructions [and a wealth of other phenomena, AH]." Again, this is not seen as a generalization that goes for language only; it is seen as relating linguistic phenomena to non-linguistic phenomena. In fact, it is emphasized, these generalizations appear to be primordial to the understanding of how language relates to general cognition. However, such insights, Fauconnier (ibid: 98) holds, are "precluded in principle" by what he refers to as "the autonomous approach" to language (an approach which is related to the objectivist approach and where is language seen as an innate system of language specific universals).

According to the father of mental space theory and co-father of blending theory, it is not surprising that the autonomous approach finds no connection between language and the rest of cognition, for the notion of language autonomy (ibid) "is built into the very method that serves to build up the field of inquiry and the theories that are its by-products."

The shift to an emphasis on the general mechanisms of human understanding, as timely and well-supported as it may be, has however not come without costs. As a result of their being powerful generalizations, cognitive semantics generalizations such as 'conceptual metaphor' (Lakoff and Johnson 1980, 1999) and 'blending' (Fauconnier and Turner 1998, 2002a) are also vulnerable to that criticism which Schank and Abelson themselves raise against artificial intelligence researchers: that local contents drown in generalized form, as a result of which the very phenomena that are being described are lost. This is not to say that these cognitive semantics notions are not true. On the contrary, their general applicability has been and is being widely demonstrated. The point is, to put it this way, that the criticism which Fauconnier raises against "the autonomous approach" can be turned against the cognitive semantics approach too, that the notion of powerful generalizations "is built into the very method that serves to build up the field of inquiry and the theories that are its by-products." For instance, in their massive work from 2002, which sums up nearly a decade of research in conceptual blending, *The Way We Think*: *Conceptual Blending and the Mind's Hidden Complexities*, Fauconnier and Turner point out that to earlier scholars of e.g. paintings, poems, dreams, and scientific thought (from Aristotle to Freud) "The spectacular trees masked the forest" (v). They focused on specific instances of creativeness as exceptional and marginal and failed to notice the general principles of meaning construction underlying them. Blending theory, Fauconnier and Turner emphasize, also started with the study of exceptional and marginal examples of meaning construction (e.g. analogical counterfactuals, metaphors and talking donkeys) and there were no intentions of discovering a ubiquitous principle of meaning construction. However, a collaboration between Fauconnier and Turner on their respective data and new data lead to the general theory of blending as the shared principle behind a wide variety of phenomena, ranging from mathematics and computer interfaces to religion and tool making. The result was a comprehensive research program into the nature, principles and constraints of conceptual blending as a basic operation of meaning construction (and perception). Thus though Fauconnier and Turner may from the outset have been focusing on specific phenomena in their distinct nature, blending research has become launched and practiced, for more than a decade now, as a research program which tends to focus on and emphasize the very general characteristics of the cognitive processes of blending instead of or at the expense of the distinct characteristics of each specific phenomenon. Blending theory has developed what I shall refer to as a *unified hierarchical process view*. Blending across as wide variety of domains and contexts is depicted as a single hierarchical process comprising a number of constitutive and governing principles (see chapter 1). The general process is always the same. And much research begins by asking how blending plays a role and how

it unfolds with respect to a given phenomenon, often presupposing that the very process of blending conceptual structure essentially captures what goes on.

From the point of view of the IA, this tendency is very unfortunate, and from an empirical, interactional standpoint it is even wrong. Indeed, much evidence seems to support the hypothesis that some sort of conceptual blending takes place in relation to a great variety of phenomena. However, this intriguing insight is at risk of becoming trivially true and thus in the end un-enlightening. In the forest of scientific phenomena – whether it be within social science, cognitive science, natural science, or some other field – one most never loose sight of the individual trees in the desire to map the whole forest. Of course research which further explores the general processes of blending should continue, but it must be balanced by research which reverses the focus of the generalist approach and puts the specific before the abstractly general. This must be done out of a concern for preserving the phenomena under investigation and for avoiding to loose their very characteristics – that which makes them specific phenomena – in powerful generalizations. Furthermore, it must be done to secure the theory against a thinning which in the end makes it trivial and inapt when it comes to capturing human behavior and contributing to the fundamental scheme of attempting to figure out what kind of being the human being is.

As an alternative to the cognitive semantics emphasis on powerful generalizations, this dissertation aims at another descriptive ideal, not one where domains like e.g. languages are again treated as autonomous systems with separate meanings, but one which insists on developing current work in cognitive semantics by first and foremost placing the emphasis on describing in their own right actual, 'naturally occurring,' locally unfolding processes of cognition in specific contexts. It is in specific contexts that we can observe human conduct and hence our studies of human behavior must always start with and never be separated from these specific contexts. Take for instance the activity of 'hypothesizing' in conversation, a study of which will be presented in chapter 5. Hypothesizing in conversation can be given a standard description in terms of the generalized principles of conceptual blending, but such a description typically renders only a decontextual process which aligns hypothesizing with quite different phenomena and cleanses it of the local specifics which makes it an actual, particular act of human conduct unfolding, as human behavior does, in and on particular contexts. As we shall see in chapter 5, hypothesizing in conversation occurs at a specific place during conversation and requires certain actions; and if we disregard these specific contextual aspects, we loose practically all of that which makes hypothesizing a specific, social, cognitive process.

Placing the emphasis on the particular phenomena in their specific contexts does, however, not at all rule out strong generalizations as a goal of the study of cognition. Generalizations and even very powerful ones are still an attractive goal to aim at (see chapter 2). Yet, studies should always start with careful scrutiny and description of the particular phenomenon in its particular type of context. To secure the attractiveness of the cognitive approach to the study of human conduct, its descriptions must be tied and

responsible to actual situations of human behavior and not just to abstract processing models. Consequently, methods should be employed which are developed to capture in detail behavior as it unfolds.

More specifically, the IA focuses on human conduct in conversation and it studies different online cognitive processes as they unfold in different conversational contexts – the contexts which generate, shape, and are shaped by the cognitive process in question, and which are thus a central part of it. The particular method that is employed to capture the details of these contexts and the unfolding of the cognitive processes is *conversation analysis*, which is introduced in chapter 2. In terms of the IA's focus on types of situations of meaning construction instead of on the very process of blending itself, then, Turner's prediction, quoted above (4), that "Much of blending research will [in the future] concern not so much the principles of the operation of blending but instead how blending sits inside the "Great Scheme of Things," how it interacts with everything else" holds for this dissertation.

0.3 Social vs. Individual:

Blending theory (Fauconnier & Turner 2002), conceptual metaphor theory (Johnson and Lakoff 1980 and 1999), mental spaces (Fauconnier 1985), frame semantics (Fillmore 1982), image schemas (Johnson 1987), idealized cognitive models (Lakoff 1987), cognitive grammar notions such as 'figure/ground' and 'profiling' (Langacker 1990), and 'embodiment' (Johnson 1987 and Lakoff 1987) are all central cognitive semantics notions which attempt to distinguish themselves from the focus on the disembodied, decontextualized individual in earlier cognitive science. However, despite their programmatic intentions these theories are in fact themselves typically based on and typically focus on meaning as experienced, constructed or developed in or by individuals. Cognitive semantics is still an approach which, to use Schegloff's (quote number (2) above) words, predominantly "takes the single, 'minded,' embodied individual person as the basic, enduring, integrally-organized reality to be studied,"

Thus, for instance, the notion of embodiment in the Johnsonian and Lakovian sense[5] concerns the way in which individual bodily interaction with the world (e.g. picking up things, moving from one point to another point, and being in enclosed areas) gives rise to fundamental structures – image schemata – in terms of which meaning is experienced, constructed and constrained. This also applies to more abstract experiences such as 'love,' 'ideas,' 'time,' 'anger,' and 'happiness' (Johnson and Lakoff 1980) which lack the degree of concreteness that is found in basic embodied events such as the 'exertion of force of one object upon another,' 'the consumption of food,' or 'an object's movement along a trajectory.' In the case of abstract domains of experience, Lakoff and Johnson (1980 & 1999; Lakoff 1987; Johnson 1987) propose, these are conceptualized via metaphorical projections of image schematic structure. Thus, for instance, image schematic structure from the domain of 'physical force' may be projected onto the domain of 'love' to give rise to a conceptualization of love in terms of physical force, as expressed in utterances such as "She blew me away" where the event of falling (sic!) in love is conceptualized as the 'exertion of force of one object upon

another.' Thus in Johnson and Lakoff's theory complex (embodiment, image schemas, conceptual metaphor, metonymy, basic level categories, and idealized cognitive models) the individual body is the primary source of all meaning. What we think and what we can think can be traced back to the structures of individual, bodily experience. This theory complex has been highly influential, and in my mind there can be no doubt that it holds fundamental truths about human cognition (though we can take issue with the specific claims it makes). On its own, however, Johnson and Lakoff's theory complex stands as a very pure form of cognitive semantics of the "single, 'minded,' embodied individual person."

Blending theory, mental space theory, frame semantics, cognitive grammar, and Talmy's cognitive semantics seem to make no explicit statements that commit them as single-'minded' approaches. However, their technical notions all seem to have been developed on the basis of individuals' experience of meaning in relation to artifacts (poems, paintings, tools, advertisements, computer interfaces, etc.) or linguistic constructions, and typically the method is the analyst's introspection or intuitions. Furthermore, these approaches are also typically practiced as single-'minded' approaches.

In blending theory, the social, historical and contextual grounding is most often dealt with or touched on only in haphazard ways. Even though some studies indeed focus on the collective and/or historical effort of developing blended artifacts (e.g. Veale 2002), blending theory lacks a steadfast treatment of the contextual dimension of cognition. It is studied how the individual mind interprets an isolated caused motion construction like "He sneezed the napkin of the table," (Fauconnier & Turner 2002: 371), how it labors to make the right connections and projections to find its way around on the desk top computer interface, how it compresses comprehensive conceptual structure to capture a complex political situation in terms of a simple cartoon or to understand a mathematical theorem, how it orients to absent or unreal things like "missing chairs" and counterfactuals, etc. All of these phenomena have a crucial contextual dimension (which is sometimes recognized), but it is still the working of the individual mind that is of central interest. Blending theory seeks to describe the mechanics of the thinking mind, mechanics which are independent of any context (social or otherwise) and which may be applied in any context (as it fits the concrete situation). In blending theory too there is thus a dominant tendency to take "the single, 'minded,' embodied individual person as the basic, enduring, integrally-organized reality to be studied" (quote 2 above). This is not true of all studies (cf. Brandt & Brandt 2002) but it remains a dominant tendency in blending theory.

A further point should be made in this connection, which has also been formulated by Schegloff (2003: 38-39), namely that the focus in cognitive science on the individual mind is carried further to a focus on isolated sentences, or single, isolated actions "as the target of study and the fundamental locus of reality." This can be observed in many places in cognitive semantics. Metaphor theory focuses on isolated metaphorical expressions; cognitive grammar, frames semantics and cognitive semantics a la Talmy (2001) typically focuses on isolated constructions or phrases; and blending theory focuses on all sorts of blended artifacts in isolation. Indeed possible contexts are typically considered for which the meaning of actions and

constructions vary. However, the establishment of a contextually relevant meaning is rather a preparation for the analysis of the isolated action or construction than an actual description of the way in which the context determines the meaning of the action or construction, whereby it becomes an integral part of the meaning construction. In all cases, Schegloff (op cit) would have it, "The very conception of action having its origins in the acting individual's 'intention' treats the single action as the unit to be analyzed, and the single individual as the proper locus of its analysis."

Blending theory and cognitive semantics in general typically define themselves by emphasizing their reaction against traditional atomistic tendencies in the study of the human mind: mind vs. body, culture vs. biology, innate vs. acquired, etc. (cf. Turner 1992). However, with the isolation of the individual mind and the individual action from the social and interactional/discursive contexts in which they unfold and are fitted, and which are a central factor in the development and constitution of the individual mind, there is yet an atomistic tendency to overcome. From the point of view of the IA, the single-'minded' focus neglects one of the most basic conditions of human life. When a child is born, it is not born as a ready cognitive machine whose behavior is determined through biological pre-programming or who develops through individual interaction with the world (cf. Sinha in press). Its crucial cognitive development only takes place after birth. All or most cognitive semanticists acknowledge this, and it is an integral condition of the embodiment idea. However, the full consequence of it has not been taken. The child is born into a social world surrounded by animate, attentional, intentional, believing, and feeling beings. Immediately after birth the child begins to interact with other people, and for the rest of its life most of what the child does is somehow oriented to or done in interaction with other people. Human beings are socially interacting beings at their very core and this is bound to have profound influence on them as a cognitive beings too. After birth a long process is initiated of cognitive maturation and development in interaction with other thinking beings. It is a world of *interactional* cognitive development and activity. Furthermore, the single-'minded' focus on isolated actions and artifacts is, from an interactional, empirical stance, unnatural. "Thought about in the abstract," as Schegloff (2003: 39) remarks, it may not sound exceptional to researchers who are trained in traditional single-'minded' approaches to human meaning, or what Schegloff calls "a scientific culture grounded in the dominant strand of western culture." However, if one studies actual, naturally occurring actions and not just imagined actions, the single-'minded' approach becomes "not only unviable, but almost peculiar" (ibid). As Schegloff (ibid) continues: "If one is committed to understanding actual actions (by which I mean ones which actually occurred in real time), it is virtually impossible to detach them from their context for isolated analysis with a straight face. And once called to attention, it is difficult to understand their source as being an 'intention' rather than in the immediately preceding course of action to which the act being examined is a response and to which it is built to address itself."

The basic social condition of human life and the scientific attempt to reveal the complex structures of situations of social interaction – in for instance conversation analysis (see chapter 2) – gives rise

to another radical viewpoint which is the exact opposite of the single-'minded' approach. The alternative view, which is formulated by Schegloff (2003: 38-39) holds that it is the social situations that are the eternal reality to be studied whereas individual minds are just transients who move through social situations and who happen to compose a situation on a particular occasion.[6] As refreshing and thought-provoking as this view is, it does, in its radical form, seem just as biased, though in different ways, as the single-'minded' cognitive approach. What Schegloff's radical situation-viewpoint neglects is that just as much as situations constitute individuals, situations themselves are constituted by thinking individuals in collaboration. Interactional situations do not exist without individuals, and any description of a situation takes for granted that there are thinking individuals who can enact it. Thus the IA suggests a middle way in which *situations as composed by thinking individuals orienting to the situational structure* are the eternal reality to be described. Accordingly, the "objects" that will be studied in the present dissertation are cognitive processes in relation to recurrent events of interactional meaning construction (interactional actions which produce a certain meaning) as enacted by thinking individuals. This is a cognitive semantics which is grounded both in the single, embodied, thinking individual and in the social situations which construct and are constructed by such individuals.

With this orientation, the IA joins an increasing number of cognitive linguists, semanticists, psychologists, and anthropologists who stress the importance of the discursive, social, or external, physical environments of thinking while preserving the thinking individual. These include Hutchins (2002) who has contributed substantially to blending theory with his work on 'material anchors,' which studies the ways in which thinking is structured and stabilized through physical artifacts such as clocks, compasses, or just available surroundings. Peter Harder (1999) and Chris Sinha (1999) also argue for the need to add to the individual, embodied grounding of linguistic cognition in cognitive linguistics a social-functional or discursive grounding, what Sinha (ibid: 249) refers to as a "'dual grounding' view of language and cognition." Furthermore, in the area of blending theory, Brandt and Brandt (2002) have pressed a case for the inclusion in blending modeling of a 'base space' which represents the enunciation of the utterance that is being processed, connecting the cognitive processing to the situation of enunciation. (An interactional version of the base space – as was already demonstrated in the preface – plays a central role in the meaning construction modeling in this dissertation. See chapter 3.) Finally, Arthur Markman (1999) argues that cognitive models must attend to social context. Nearly all cognitive models in cognitive science have focused on the individual and the way in which individuals represent the world. However, as Markman (ibid: 294) observes, "Humans operate in a dynamic social environment, which influences cognitive processing in a variety of ways." One of the ways in which cognitive processing is influenced is through communication or interaction, an activity where participants in joint action establish the meaning of utterances or actions. In social interaction, Markman (ibid: 296) acknowledges, there is a public meaning which both/all participants contribute to, and a "shared reality" is achieved which "serves to influence how they represent the interaction

between them." This viewpoint is very much in line with the interactional approach to cognitive processes of online meaning construction. In chapter 2 I elaborate the on IA's standpoint in relation to interactional online meaning construction. Conversation analysis, I will show, has a philosophical basis in social phenomenology, and the IA defines and "justifies" its research "object" in adherence thereto.

It may be argued that the approach I am proposing in this dissertation is really a pragmatics approach and not a semantics approach since I am focusing on *context dependent utterance meaning*, and not on *context independent sentence meaning*. However, cognitive semantics has already incorporated so much of what many scholars of pragmatics may consider *their* area, that there really is no clear distinction between semantics aspects and pragmatics aspects in cognitive semantics representations. In particular, mental space theory leaps across many divides in this respect, as Fauconnier (1997) acknowledges. As we shall see in chapter 1, mental space theory proposes that words, phrases and sentences bring with them "an array of background knowledge, including frames (see chapter 1), cognitive models, default assumptions, [and] encyclopedic information" (ibid: 70). Furthermore, a number of *pragmatic* principles determine the specific mappings and projections taking place across, from, and between these various knowledge structures. Specific mental space configurations are not determined by sentences themselves. For instance, the exact mappings involved in the interpretation of a Noun-Noun construction like "Baby Sale" is dependent on pragmatics factors, such as textual context, extra-textual context, speaker/writer, etc. Thus it is recognized in mental space theory that sentences are underspecifying with respect to meaning and that the impact of pragmatic factors is essential to meaning construction. However, though semantics and pragmatics come together in mental space theory, that does not mean that the distinction between them disappears, Fauconnier maintains. Here is how he describes the relationship (ibid: 71):

> We are free to call some of these processes involved in the construction semantic and others pragmatic; but there will not be any separate representations involved. The isolated sentences have a semantics in the sense that they provide instructions for space construction. Their actual contribution to a particular discourse will depend on the configuration that is built up for that discourse; because much of the contribution from a particular sentence will usually depend on its conjoined action with other features of the construction, there will not be, in the present approach, anything like the specific "content" of an expression separable from the rest of the construction.

All the more, I would however point out, it seems strange that there is still so little in mental space theory in the form of studies of actual utterances in particular contexts, which focus on how the utterance meaning comes about in such particular contexts. Why is mental space theory still so focused on the meaning of sentences in isolation? The IA also incorporates both "semantic" and "pragmatic" features in its description of meaning construction; both contribute to the total interactional meaning. As opposed to canonical mental space research, however, it aims at including the actual context of actual utterances centrally in the description as that which systematically determines "pragmatic" as well as "semantic" aspects of the meaning construction. The IA focuses more on the "external" conditions for the space building then on "internal" specifics of types of mappings.

0.4 Process vs. Product:

A major problem with blending theory and other cognitive semantics notions such as conceptual metaphor is that as psychological accounts of meaning construction they are *post hoc* theoretical models based on the analysis of linguistic structures or artifacts and creations such as art, tools, science, literature, computer interfaces, etc. The theories make assumptions about processing that goes into acts of interpretation or creation, but they do so on the basis of finished products.

Blending is a theory of ubiquitous processes of *the way we think*, and thus blending should also be evaluated in terms of general criteria for psychological descriptions. One important distinction in relation hereto is the distinction discussed by Gibbs (2000) between the *product* of meaning construction and the *process* that caused that product. Too often, Gibbs argues, interdisciplinary theories of language understanding fail to distinguish between the actual *process* of interpreting language and pondering the *products* of meaning construction. "[The] processes of linguistic understanding," he emphasizes (2000: 351), "are different from the products that we consciously think about when we read or hear verbal expressions." Blending, it seems, is both a theory about the actual processes of meaning construction and about the products of meaning construction, but like most cognitive semantics theories it mostly proceeds by way of *post hoc* analysis. The process of blending is typically not studied *as a process*. However, Gibbs asks (2000: 351), is that "necessarily accurate as a psychological portrayal of linguistic comprehension"?

In reaction to the problem raised by Gibbs, Coulson and Oakley (2000) argue that *post hoc* accounts is a natural starting place for any theory of meaning, and while it should certainly be the ambition of blending theory to get beyond *post hoc* analysis, this method "will necessarily play a basic role in building and refining models of online meaning construction" (2000: 192). The discussion between Gibbs and Coulson and Oakley illustrates the dilemma that blending theory faces as a theory which makes claims about online meaning construction. The *post hoc* approach is dangerous because it is prone to fallacies, and furthermore it does not capture the phenomenon as that which it is said to be: a *process*. At the same time, however, the *post hoc* approach is often the only possible approach. Getting access to actual processes of

meaning construction can be a very difficult if not impossible task. Individual processing of sentences, for instance, takes place in fractions of seconds (though, as Gibbs (ibid: 351) points out, it is also a process that occurs "along a variety of temporal dimensions, starting in the first milliseconds of unconscious processing and extending up to long-term, reflective analysis.")

These problems, I would argue, are mainly due to the focus on the individual in blending theory, and the ambition of capturing what goes on "behind the stage" during fast, individual meaning construction. There are, however, as also pointed out by Colson and Oakley (2000: 192), cognitive processes of meaning construction which are not too swift for "manual" observation and which are not hidden behind the stage or deeply below the surface of conscious observation. These include the historical and collective development of concepts (e.g. mathematics, technology, institutional concepts), the ontogenetic development of understanding, the development of artifacts for e.g. showing time – the research objects of ethnographers, anthropologists, historians, psychologists, etc. And then there is the joint construction of meaning in social interaction as studied in detail in the sociological method of conversation analysis. This method is employed by the IA for providing interactional evidence (interactional analyses) on the basis of which abstract cognitive descriptions and modeling of these can be done.

As pointed out by Markman (1999 – see above), the joint construction of meaning in interaction is a very real cognitive process unfolding visibly/"on stage" between people (see chapter 1). Thus besides the social organization of conversation, the study of turns at talk can also form the basis of a study of cognitive processes of meaning construction *in action*. Naturally, the processes of joint meaning construction are not the only processes which unfold during interaction. As Markman observes, participants in interaction must also represent the interaction in various discrete ways, modeling for instance their own intentions which "allows them to reflect on the match between the intended meaning and the construal of an utterance" (ibid: 296). Thus it would be a fallacy to assume that there is a one-to-one relationship between the shared construction of meaning and everything that goes on in the minds of each individual. Nonetheless the shared meaning construction remains a central activity which is not just influenced by discrete representations but which in turn influences private thinking and the development of human beings as cognitive beings. Thus this dissertation presents an alternative to *post hoc* analyses: *process-focused* studies of cognitive processes of online meaning construction in relation to talk-in-interaction. The cognitive analyses are based on conversation analytic studies of collections of fragments of talk which display *interactional processes* which are held to have a special significance in relation to online meaning construction. (This issue is elaborated further in chapter 2, where I discuss the (social) phenomenological basis of conversation analysis, and the way it motivates the IA.)

0.5 The Interactional Approach in Introductory Terms:

Before I go on to introduce the contents of the dissertation, I sum up the IA and its goals in this section.

(1) The IA emphasizes – above generalizations – the detailed, empirical study of local, specific phenomena in their own right. Generalizations are indeed a goal of the IA too, but it must never be at the cost of local insights. Thus at the outset, the IA does not view blending as a single process, and the studies in this dissertation support this view. Instead the IA considers blending a very general approach to meaning construction which studies quite distinct processes. What these processes have in common is that they all somehow involve some sort of concept integration, as a general feature of human meaning construction. Yet, they are different phenomena and should first and foremost be studied as such. In some cases too, however (e.g. 'hypothesizing'), we will see that the IA groups under one heading phenomena which have been given different treatment in blending theory and cognitive semantics in general. Hence while the IA views blending as a general approach to meaning construction rather than a single phenomenon, there are cases where empirical, naturally occurring data suggests generalizations across distinct (and yet essentially, in terms of the blending process, identical) categories of blending. The basic point is that the IA is driven by naturally occurring data, and focuses on describing specific meaning construction phenomena in specific contexts.

Another point worth mentioning in this regard, which has not been mentioned earlier, is that by emphasizing the study of specific phenomena, the IA addresses another issue raised by Gibbs (2000: 350): the need "to find ways in which different parts of [blending theory] can be articulated so that these hypotheses can in principle be subject to tests of falsification. All phenomena which are presented in chapter 3-6 constitute specific hypotheses which are falsifiable. What is needed to falsify them is simply substantial empirical evidence which undermines my descriptions. The IA approach as such, however, will remain, not least because of the very fact that it produces falsifiable hypotheses, and that, I believe, is more important than are the individual phenomena that I have found. The general notion of blending though, as a basic condition of meaning construction across distinct phenomena, is also not disproved by the falsification of specific hypotheses such as those presented in the present dissertation. Instead, as already made a case for, the notion of blending becomes a sort of basic condition of the specific hypotheses, which may, however, be weakened by falsification of specific hypotheses. If more and more evidence is found which not only disproves specific hypotheses but also disproves or makes unlikely/unnecessary the claim that some sort of concept integration is involved, then the theory may eventually be either constrained in scope or weakened. The former may of course strengthen it whereas the latter may challenge it.

(2) The IA is meant both as a contribution to the development of blending theory and in general as a contribution to the development of an empirical, social, cognitive semantics. The IA – sharing the general thrust of cognitive linguists, anthropologists, psychologists, semioticians and semanticists like Harder, Hutchins, Sinha, Markman, and Brandt and Brandt – argues for a dual approach to human cognition which is grounded both in the "single, 'minded'", individually embodied human being and in social situations of interaction. The focus of the IA is on social processes of online meaning construction which constitute and are constituted by thinking individual*s*. The "objects" under scrutiny are eternal situations of meaning construction as enacted by individual*s*.

(3) The IA studies processes of online meaning construction *as processes*. These processes unfold in interactional time, spanning typically some 'turns' (i.e. a speaker's contribution to the interaction, e.g. an utterance. See chapter 2). As interactional processes, online meaning construction in conversation takes place "on stage" (see chapter 1). Interactional meaning construction can be placed on a continuum of types of meaning construction between individual short-time meaning construction (e.g. the processing of a singe utterance), which unfolds in seconds or milliseconds, and historical and collective meaning construction (e.g. the development of mathematical concepts) which evolve between individuals over years and sometimes centuries, or even millennia. The former type of meaning construction may be referred to as 'micro development blending/meaning construction,' and the latter type may be referred to as 'macro development blending/meaning construction.'

With its focus on meaning construction as it takes place between individuals over turns at talk, the IA does *not* – like most blending research hitherto – aim at revealing the minutest details of mappings and projections in meaning construction. As a purely naturalistic, empirical approach, the IA focuses only on the visible meaning construction which participants can be observed to orient to, not on details which can only be supported by the analysts' introspection or intuition. The latter is not ruled by the IA as unfit – not at all; it is just not in focus here and it cannot be described through the interactional method. Of course the analyst's intuition will always play a role no matter how strictly data-driven and focused on visible phenomena an approach is, but every proposition concerning meaning construction must be documentable in terms of participants' actions (see chapter 2). The benefit of this criteria is that the findings that *are* made in relation to cognitive processing are very well supported by the actions of the cognitive agents themselves. Now, with this summary, I will turn to the structure and contents of the rest of the dissertation and to the specific studies which are supposed to put some flesh on the theoretical bones.

0.6 The Structure of the Dissertation:

In chapter 1, the dissertation's theoretical, cognitive basis is introduced. An introduction to mental spaces and blending theory and other relevant cognitive semantics concepts is given. The chapter focuses on the canonical version of the cognitive theories, but it also introduces non-canonical concepts and discussions which are central to the IA and which will be elaborated, technically and empirically, in chapter 3 and further in the following chapters in relation to specific studies. Other cognitive semantics and cognitive science theories and notions which are discussed in this dissertation are introduced in the relevant chapters. Thus, for instance, script theory is only introduced in chapter 3 where the notion of interactional scripts is discussed extensively.

In chapter 2, the sociological research paradigm of conversation analysis is introduced along with the data that is investigated in the present dissertation. The technicalities of the IA (which was illustrated in the preface) are discussed too. Finally, I also make a crucial remark on the philosophical basis for using CA as a method for doing cognitive semantics, in the sense that a cognitive description is based on the detailed interactional findings achieved through the use of this method. I briefly sketch the historical emergence of CA, and I introduce some basic ideas and concepts of the sociological method along with some central fundamentals of conversation, which have been described by CA researchers and which of course play a role in the analyses in this dissertation. In the section that presents the data, I also introduce the transcript conventions which are used for capturing in written form the recorded conversations, and I give references to the places where the transcribed data and the sound files from which the transcriptions have been made can be found.

Chapters 3-6 present studies of phenomena of online meaning construction in interaction. All chapters start with a theoretical introduction and discussion of the chapter's cognitive issues; then follows an empirical, interactional study of a collection of fragments of talk-in-interaction which pertain to a specific interactional issue. Hereafter a cognitive analysis is done which is based on the findings of the interactional study. Furthermore, the consequences of the findings of the empirical, interactional study and its cognitive analysis for the relevant cognitive issues are discussed. Chapter 3, however, is more comprehensive than the others and differs in focus since it introduces and illustrates in specific detail the new theoretical concepts that play a central role in the IA modeling of meaning construction: the *base space* and *interactional scripts*. The base space is an interactional instantiation of Brandt and Brandt's (2002) notion of a base space, and the notion of an interactional script is a modified, empirical, social version of Schank and Abelson's (1977) theory of scripts. These theoretical concepts turn the mental space representations into social and interactional representations of meaning construction. A specific case of an interactional script is studied, namely openings of calls to a call-in on the San Francisco Bay Area Radio in 1991. On the basis of this study and a dialectical discussion of Schank and Abelson's script theory, the notion of interactional scripts is elaborated, and a cognitive analysis of the openings of calls to the call-in show is offered in terms of social mental space and

blending theory and interactional scripts. Chapter 3 thus establishes the particular modeling mode of the IA, which will be employed in the following studies.

Chapter 4 discusses and reflects on the notion of 'compression' in blending theory and studies compression as it is constructed in interaction in 'story packing utterances.' The purpose of the chapter is to study actual cases where participants in interaction can be observed to orient to some sort of compression and to see where compression occurs, how it is achieved, what it does, and what types of actions and constructions may serve to achieve compression. The general claim is that any action or construction may serve to achieve compression; what is crucial to the achievement of compression is not construction types but positioning in interaction structure and local interactional features.

Chapter 5 studies the activity of 'hypothesizing' as it unfolds in interaction. Counterfactuals and counterfactual hypothesizing have received a great deal of attention in mental space and blending theory. But the activity of hypothesizing as such, as a way of providing 'investigative resolutions' for inquiries ('questionables') into the sphere of non-factual events has not been studied in mental space and blending theory. Typically a special case is made out of counterfactual hypotheses because, it seems, of their very apparent creative nature, but chapter 5 demonstrates how in interaction, counterfactual hypothesizing and 'factual' hypothesizing are the same phenomenon. Both are provided as resolutions to 'questionables.'

In chapter 6, I introduce two new phenomena of online meaning construction: 'tight conceptual structure' and 'conceptual disintegration.' Blending theory focuses on the way in which conceptual structure is fused, integrated, and compressed during meaning construction, and it is assumed that meaning construction is swift and efficient. Sometimes, however, meaning construction is quite problematic and requires extra effort or causes irresolvable disagreement because the structures of involved conceptual structures lead to collisions or unwanted inferences and causal relations. In interaction there is a technique for pinpointing and resolving such problems, and in cognitive terms the resolution involves the disintegration of conceptual structure. The chapter presents an interactional analysis of a collection of fragments of talk involving the pinpointing and attempt at resolving problems in relation to an utterance in interaction (a proposal, comparison, statement of opinion, etc.), and a cognitive analysis of the phenomenon in terms of tight conceptual structure and conceptual disintegration is offered.

In chapter 7, which is the final and concluding chapter, I sum up the major points of the dissertation and the studies in chapters 3-6. Compression, hypothesizing, and disintegration, it will be argued, all by themselves constitute single processes of online meaning construction which can be described in terms of mental spaces and integration. They are rightly to be thought of as distinct phenomena which share the property that they somehow involve conceptual integration and some of the characteristics of the process of blending as these have been laid down by Fauconnier and Turner. Thus the studies serve to support the proposal that blending should be thought of as a general approach to meaning construction and not as a single

phenomenon. In this chapter, I also sum up the current status of the IA and briefly discuss further prospects of an interactional approach to cognitive processing.

CHAPTER 1

THE COGNITIVE THEORY

1.0 Contents

In this chapter, the cognitive-theoretical basis of the studies in the present dissertation is introduced. Below I introduce mental space and blending theory and other relevant concepts from the second generation cognitive semantics paradigm. The chapter focuses on a canonical version of the cognitive theories, but it also introduces non-canonical concepts and non-canonical views which are central to the IA and which will be elaborated in the study in chapter 3 and further in the studies in the following chapters (chapters 4-6). These non-canonical concepts include, as already said, the notion of 'base spaces' (cf. Brandt & Brandt 2002). Other cognitive semantics theories and notions which are discussed in this dissertation are introduced in the relevant chapters. Thus, for instance, script theory (Schank and Abelson 1977) is not introduced until chapter 3 where the notion of interactional scripts, another central IA concept, is discussed. At the end of this chapter, it will be discussed how the IA considers central, canonical notions in mental space and blending theory, and questions will be raised which look ahead to the studies in chapters 3-6.

1.1 Mental Space and Conceptual Integration Theory

To maintain the notion of a standard or canonical version of mental space and blending theory, I only refer to literature by the originator of mental space theory, Gilles Fauconnier, and the originators of blending theory, Fauconnier and Mark Turner. In other words standard/canonical mental space and blending theory is here considered mental space and blending theory as presented in the works of Fauconnier and Turner, disregarding that many others have contributed substantially to the foundation of mental space and blending theory: e.g. Coulson (1997 and 2001); Coulson and Fauconnier (1999); Coulson, Grady and Oakley (1999); Coulson and Oakley (eds., 2000); Cutrer (1994); Fauconnier and Sweetser (eds., 1996); Hutchins (2002); Mandelblit (2000); and Sweetser (1999 and 2000).

As preparation for the technical description of blending, consider the following four cases, all of which have been discussed in several books and articles by Fauconnier and Turner. Here I stick to the treatment of them in Fauconnier and Turner (2002a):

1) *"Digging your own grave" – a double-scope blend*

A conservative parent who keeps his money in his mattress expresses disapproval of his son who makes investments in the stock market by saying "You are digging your own grave." Clearly, this is a metaphorical expression since the parent does not literally mean that the son is digging a grave for himself. The expression serves as a warning that 1) the son is doing bad things (investments) that will cause him to have a very bad experience (bankruptcy), and 2) the son is unaware of this causal relation (investments → bankruptcy). If we analyze the expression in terms of Johnson and Lakoff's (1980 and 1999) theory of conceptual metaphor, a 'source domain,' 'grave digging,' is projected onto a 'target domain,' 'making foolish investments' ('unwitting failure'), and the target or 'real-life' scenario is understood in terms of the grave digging scenario. This means that the properties of entities and structural and causal relations from the grave-digging scenario are projected onto the scenario of foolish investments. However, notice the following peculiarity: According to the metaphorical expression, grave digging (foolish investments) causes death (bankruptcy). This is certainly not a causal relation of grave digging. Grave digging does not cause death. Typically, it is someone's dying that prompts others to dig a grave. Even in the unusual case where a grave is prepared in advance (because a person is

expected to die or because the gravediggers only dig graves during a limited period of time), there is no causal relation between the digging of a grave and somebody's death. Instead, the causal relation between performing a certain action and the unfortunate outcome seems to come from the domain of foolish investments where the action of continued foolish investments leads to the unfortunate outcome of bankruptcy. In the expression there is thus an emergent structure of meaning; it is found neither in the target domain nor in the source domain alone. The meaning of the expression cannot be accounted for adequately in terms of one-way projections from a source to a target, as conceptual metaphor theory would have it. Instead, the scenario of 'grave digging' with the causal relation of 'foolish investments' can be captured in terms of the notion of a conceptual blend where two separate conceptual structures – 'grave digging' and 'foolish investments' – both contribute to an emergent metaphorical meaning.

According to Fauconnier and Turner (2002a: 131-134) "Digging you own grave" constitutes a 'double-scope blend,' that is a highly creative blend where the inputs have different, clashing 'organizing frames' both/all of which contribute to the blend. By the term organizing frame, Fauconnier and Turner refer to a specific knowledge structure such as 'grave digging,' 'financial investments,' 'boxing,' or 'a journey on foot along a mountain side,' all of which we will see examples of in the present chapter. These structures specify the nature of the relevant activity, events, and participants and they are structured in terms of generic cognitive structures such as image schemas (Johnson 1987)[7], force dynamics (Talmy 1988)[8], and vital relations (we shall return to the last notion below – more one frames follows in section 1.2.1 below). Thus the 'foolish investments' input has an agent who makes foolish investments which in the end lead to a financial catastrophe (the 'leading to' can be analyzed as a force dynamic structure, see note 1); and the 'grave digging' input has the event of a person dying which causes grave diggers to dig a grave (which can also be construed as a force dynamic structure). The event structures of these organizing frames are almost exact opposites and yet the blended meaning laid out above is achieved on the basis of the two inputs. The case of "Digging your own grave" is often used in presentations of blending because it so clearly illustrates the point that a simple

binary domain-projection approach to meaning construction (from domain 1 to domain 2) cannot capture the intricacies of e.g. metaphorical expressions. A third 'space' of meaning is required, besides the input domains, which holds the particular emergent meaning – what Fauconnier and Turner in their first joint report on blending (1994) called a "middle space."

2) *"Murdoch vs. Iacocca" – a single-scope blend*

Other cases of creative meaning construction look more like simple cases of binary domain projection, and yet careful analysis leads Fauconnier and Turner to suggest that blending is at work here too. A case at hand is the metaphorical portrayal of two business competitors as boxing opponents. This may give rise to the following expression: "Murdoch knocked out Iacocca" (Fauconnier and Turner, 2002: 126-128, and 1998). Here the organizing frame of the source input, 'boxing,' gives structure to the meaning of the metaphorical expression: "Murdoch *knocked out* Iacocca," and we can expand the expression and say that "Iacocca *fell flat on the floor*," and that "Murdoch, despite his victory, got some *bruises*." However, the target input also contributes elements to the metaphorical meaning. These elements, however, are at a lower level of organization than the organizing frame. For instance, the specific business competitors Murdoch and Iacocca are projected to the 'blended space' of meaning. Thus, the emergent, blended metaphorical meaning is that the specific business competitors, Murdoch and Iacocca, none of which may ever have been in a boxing ring, are boxing/competing against each other. Fauconnier and Turner call this type of blend a 'single-scope blend.' Like the double-scope blend, the two inputs have different organizing frames, but only the organizing frame of one input (in this case the source input) is projected to organize the blend. Thus, the organizing frame of the blend is an extension of the organizing frame of one input. Single-scope blends, Fauconnier and Turner (2002a: 127) argue, constitute a prototype of Johnson and Lakoff's (1980, 1999) conventional source-target metaphors in that there is the same type of asymmetry between the inputs as there is between source and target in Johnson and Lakoff's binary one-way projection metaphors. Still, a third blended space is crucially at work which is different from both the source (boxing) and the target input (real-life, business): the space in which the business competitors are boxers.

3) *"The Buddhist Monk" – a mirror blend*

The next example does not possess the same level of apparent creativeness as the two previous examples, and yet it is used in the blending literature as a case which very clearly illustrates the principles of blending. The example is taken from Arthur Koestler's *The Act of Creation* (1964):

> A Buddhist Monk begins at dawn one day walking up a mountain, reaches the top at sunset, meditates at the top for several days until one dawn when he begins to walk back to the foot of the mountain, which he reaches at sunset. Make no assumptions about his starting or stopping or about his pace during the trips. Riddle: Is there a point on the path that the monk occupies at the same hour of the day on the two separate journeys?

A very elegant and simple solution to this riddle, which most people find convincing but which nonetheless may be difficult to get to, is to imagine that the monk is doing the two journeys on the same day from dawn to sunset. The monk that walks to the top of the mountain will then at some point meet the monk that walks to the foot of the mountain (which is the same monk). Thus, what is found is that the monk does indeed occupy a point on the path on the same hour of the day on the two separate journeys. This solution, quite clearly, is a blend of the two journeys which creates a commonplace event: an encounter. Thus even though the blended scenario is a fantastic one which allows the monk to meet himself, it does for most people provide a satisfactory solution. As opposed to "Digging your own grave" and "Murdoch vs. Iacocca," the inputs to this blend are almost identical. Both inputs have the same organizing frame of a person walking along a mountainside. Of course, the inputs differ with respect to more specific structure: In one input, the monk walks to the top of the mountain, and in the other input the monk walks to the foot of the mountain. However, there are no clashing structures that have to be overcome as in the two

previous cases. Blends where the inputs share an organizing frame, Fauconnier and Turner (2002a: 122) call 'mirror blends.'

4) *"Paul is the father of Sally" – a simplex blend*

This presentation of examples of blended meaning structures has been structured in terms of degree of apparent creativity, starting with the most clearly, highly creative case. In the last example, nothing in the manner of complex cognitive processing seems to be going on at all: The relationship between two persons, Paul and Sally, is specified as "Paul is the father of Sally." As opposed to the previous three examples, this is merely a statement of facts, a "true" proposition for a world in which Paul is the father of Sally. However, the purpose of the study of online meaning construction, as Fauconnier and Turner have devised it, is to dig into the detailed workings of even the most simple, commonplace, and unproblematic aspects of cognitive agents' experience of meaning. Thus Fauconnier and Turner find that despite its apparent simplicity, "Paul is the father of Sally" shares with the examples above the advanced process of blending: An organizing frame of kinship relations is integrated with the specific values 'Paul' and 'Sally,' and emergent structure is created in shape of the roles 'the father of Sally' and 'the daughter of Paul,' which can be found in neither input. The construction constitutes the simplest kind of blend, what Fauconnier and Turner refer to as a 'simplex blend.' Only one of the inputs has an organizing frame and the unframed elements of the other input are simply fitted into this organizing frame.

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As is evident from this collection of classical examples from the blending literature, the blending generalization spans a very broad range of phenomena, from the most simple and (seemingly) straightforward cases of linguistic meaning to the most complex cases of poetic creativity. Yet, blending theory goes even further in both directions than the examples above. At an even more basic and quite different level than the truth-conditional statement of factual states of affairs, Fauconnier and Turner (2002a: 78-80) also suggest that blending – that is the same process as the meaning construction process – plays a central role in perception. Their argument in relation to this has puzzled many, including

the author of this dissertation. However, I shall try to convey my understanding of their argument as best as possible: At the level of perception, biologically inescapable blends take place which allow us to perceive the world in the ways that appear to us as the most solid, humanly independent reality. We perceive the familiar things around us – tables, chairs, books, cars, other people, food, etc. – and it appears to us that we just "take them in" the way they are, but that is not the truth about perception. Neuroscience has shown that the many aspects of e.g. a cup – its color, its shapes, its weight, etc. – are processed in different anatomical locations in the brain. There is no single site in the brain for the perception of 'a cup.' How it is possible to experience all these different impressions as one thing is an important problem in cognitive neuroscience, referred to as the "binding problem." Yet, as for the 'perceptual categorization' of unified objects as the brain presents them to us, Fauconnier and Turner's proposal is that the perception of a cup is a type of *cause-effect* blend where the effects of perception – color, shape, unity, weight, etc. – are blended with the cause of their impression – the cup – to create the perceptual category of a 'cup.' Hence, the unified perception of some unrecognized object with certain properties becomes, through blending, a 'cup,' and it is the product of that process which emerges in consciousness.

At the other extreme end of the scope of blending theory are even more elaborate conceptual blends than "Digging your own grave," which are even more visibly highly creative and intentional products. One example is "Death the Grim Reaper" (see figure 1.0 below). No less than four inputs – according to Fauconnier and Turner (2002) – contribute to this extremely composite creation: A 'causal tautology' is blended with a 'space' for the death of an individual person, by which the event of a human dying is caused by death (when Death comes, a person dies); in turn this blend is blended with the concept of a 'killer,' by which Death becomes a killer and the dying person his victim; and finally the blended scenario of the death of a person as caused by Death/a killer is blended with a 'reaping' scenario, which turns Death/the killer into a 'grim reaper' and the person dying into a person-victim-plant. For a comprehensive analysis of all the details of this complex blend, see Fauconnier and Turner (2002a: 292-295) or Turner (1996: 76-82). What this

example illustrates – apart from the staggering complexity of constructions that people make sense of immediately – is that inputs to blends may themselves be blends. In fact, many meaning construction products, Fauconnier and Turner show, are produced from chains of blends. Other blends have as many as 7 or 8 inputs. Fauconnier and Turner (2002a: 279) call such blends "multiple blends."

Figure 1.0

"Harvest." A modern version of The Grim Reaper used as logo by the Heavy Metal rock group Iron Maiden. What is being reaped? – Notice the substance on the scythe, which is red in the original image.

On the basis of this catalogue of examples, I will now discuss the science of blending, its technical description.

1.2 The Technical Description of Blending: Network Analyses of the Four Example Cases:

1.2.1 Mental spaces:

Blended meaning is composed as a network of mental spaces. The inputs are partial conceptual structures which are represented in mental spaces. The blend is a mental space, and in addition to the inputs and the blend, Fauconnier and Turner hold, there is also a generic space at work in blending processes. I shall get back to the notion of a generic space below.

The notion of mental spaces has been developed by Fauconnier (1985). Mental spaces, Fauconnier and Turner (2002a: 40) propose, are "small conceptual packets constructed as we think and talk, for purposes of local understanding." During e.g. discourse, mental spaces proliferate allowing a fine-grained partitioning of the discourse and involved knowledge or representational structures which are connected in various ways (Fauconnier 1997: 11). For instance, when interpreting the sentence "In Len's painting, the girl with blue eyes has green eyes" (Fauconnier 1985: 12), the cognitive agent may set up two mental spaces: one which represents the interpreter's conception of the model in the real world and one which represents the interpreter's conception of the painting with the image of the model. The image in the painting space is connected to the model in the real life space by an 'image connector,' a cognitive mapping which indicates that the model in the painting is understood to represent the real life model, even though the color of their eyes are different. The mental space construction is diagramed in figure 1.1, appendix 2. In Fauconnier's terminology, the model in the real life space (in this case) serves as a trigger which identifies the image, the target.

Another example is the utterance "Maybe Romeo is in love with Juliet" (Fauconnier 1997: 42-43) (see figure 1.2, appendix 2) which may be uttered in a discourse about Shakespeare's famous lovers. In that case, a space of possibility is set up relative to a space with Romeo and Juliet which contains established knowledge about them (maybe

established earlier in the discourse). The possibility space has the elements 'Romeo' and 'Juliet' and is structured in terms of relevant aspects of a 'love' frame. Romeo in the discourse space and Romeo in the possibility space are connected by an 'identity connector' and so are Juliet in the discourse space and Juliet in the possibility space. Mental space representations are dynamic and they may change as thought and discourse unfold. For instance, the speaker who introduces the possibility space diagramed in figure 1.2/appendix 2 may continue by modifying his suggestion and say "And maybe Juliet is in love with Romeo too" (figure 1.3, appendix 2) The first possibility space only has feelings of love going one way, but with the second suggestion, the structure is changed so that feelings of love go both ways.

The conceptual structures in a mental space are very partial structures. Cognitive agents do not set up everything from a given concept in a mental space representation. For instance, in the case of the possibility space in figure 1.2/appendix 2, the interpreter does not set up everything she knows of love to construct the possible 'in love' scenario, only relevant aspects. Likewise, in the case of "Murdoch vs. Iacocca," the interpreter does not set up all she knows about boxing in the 'boxing' input. The structure that boxer A knocks out boxer B is of course set up, but it is not set up, for example, that each boxer has a coach or that there is a referee. Additional structure may of course be set up if the blend is modified – as is the case with mental spaces in general – but it will always be a partial conceptual structure.

The mental space approach has been applied to many different phenomena which traditionally have puzzled semanticists, e.g. apparent contradictions (see figure 1.1, appendix 2), counterfactuals, quantification, tense, and referential opacity (reference where logical replacement rules do not hold[9]). I will not go into further details on the comprehensive work that has been done on mental spaces and various semantic, pragmatic, and discourse phenomena since these studies by themselves are not of interest in this dissertation. What is of interest here is the theoretical notion of mental spaces *per se* – what they are.

One of the great strengths of the notion of mental spaces is (as we have seen above and as I shall elaborate below) that it allows multiple, often contrastive, simultaneous representations of the same entity, as was the case in figure 1.1. Furthermore, mental spaces lift the study of meaning construction beyond mere representations of the real world or of possible worlds, which is somehow coded into linguistic structure. Mental space construction takes place at a "cognitive level" (Fauconnier 1997: 36). The cognitive level is distinct from language structure and it is distinct from real and possible worlds. Language does not (just) represent cognitive structures and it does not do cognitive construction; it prompts meaning construction by giving minimal clues for mental space building. Language itself is only the noticeable "tip of the iceberg" (Fauconnier 1985: xviii), but below there is comprehensive "backstage cognition" (ibid: xvii) in the shape of mental space building which goes way beyond "what is there in the words" – blending, as we shall see below, is an excellent example of that.[10] The cognitive level of space building is not a "mirror" representation of the real world or of possible worlds; the cognitive level constitutes thinking (which may be about the real world or about possible worlds). The cognitive level, however, is not cut off from the world around. Cognitive semantics views cognition is experientially based (cf. e.g. Johnson and Lakoff 1980), and it relates language to the real world because it provides "real-world inference and action patterns" (Fauconnier 1997: 36). Furthermore, because they represent categories of thinking and not categories of the real world, mental spaces allow a uniform treatment of different ontological categories, e.g. beliefs, possibilities, hopes, past real life events, current real life events, metaphors, hypotheses, counterfactuals, and fiction. In the mental space approach, these are all dealt with as cognitive phenomena which are constructed and structured according to the same general principles.

Mental spaces get their structure from general cognitive semantics notions. Fauconnier and Turner (2002a: 40) suggest, as we have seen, that mental spaces are connected to "long-term schematic knowledge called 'frames,' [...] and to long term specific knowledge, such as a memory of the time you climbed Mount Rainier in 2001." Fauconnier and Turner's notion of frames builds on the work by Fillmore (1982 & 1985).

The latter, who developed the concept to deal with lexical semantics, defines a frame in the following way:

> By the term 'frame' I have in mind any system of concepts related in such a way that to understand any one of them you have to understand the whole structure in which it fits; when one of the things in such a structure is introduced into a text, or into a conversation, all of the others are automatically made available. I intend the word 'frame' as used here to be a general cover term for the set of concepts variously known, in the literature on natural language understanding as 'schema,' 'script,' 'scenario,' 'ideational scaffolding,' 'cognitive model', or 'folk theory.' (1982: 111)

As we also saw above, mental space and blending theory adds to the list of conceptual structures comprised by the notion of a frame such technical concepts as 'image schemas,' 'force dynamics,' and 'vital relations' (see below). Let us look at some examples of these different types of conceptual structures:

Force dynamic structure: In the case of the "Murdoch vs. Iacocca" blend, a central structure which is set up in the boxing input from the 'boxing' frame is the force dynamic structure of boxer A knocking out boxer B: A exerts force on B whereby B is brought to rest on the canvas. In the "Buddhist Monk," a central structure provided by the 'journey' frame is an image schema of movement along a path: monk m1 moves from foot to top and monk m2 moves from top to foot.

Folk theoretic model: Many metaphorical blends get their structure from folk theoretic models. For instance an expression like "What did you find in the text" draws on the folk theoretic model that texts/sentences/words are containers which contain and transfer meaning. This folk theoretic model is structured in terms of a container schema

('A/meaning is in B/the text') which is embedded in a transfer schema: 'A transfers meaning to B in containers/words.'

Scenario: Fauconnier and Turner often use the term *scenario* about particular types of events or situations, as, for instance, the digging of a grave, an event of business competition, or an encounter.

Script: Finally, as we shall see in chapter 3, script-organized conceptions of the here-and-now, I propose, is crucial to e.g. mental space construction during interaction.

The term *frame*, as applied in blending theory, is thus a very broad term which includes practically all types of conceptual structure.

The notion of a mental "space" is of course a metaphorical concept like most scientific concepts. It is not assumed that people actually have spaces in their heads which contain conceptual structure, nor is it assumed that a particular conceptual structure is stored in one specific place in the brain. Mental spaces are a representation of what goes on during cognitive processing, and cognitive processing in cognitive semantics is thought of in terms of neural activation. Cognitive structures in cognitive semantics are not internal models of an external world; they are recurrent patterns of activity in neural networks. Thus in the neural interpretation of mental spaces, Fauconnier and Turner (2002a: 40) suggest, "mental spaces are sets of activated neuronal assemblies, and the lines between elements correspond to co-activation bindings of a certain kind."

The dynamic nature of mental spaces, their constitution as cognitive processes, their relation to generic conceptual structures, and their independence of linguistic structure make mental space theory a very robust theory which is apt for strong generalizations along the lines discussed in the introduction. Indeed with the notion of blending, in particular, mental space theory has moved far beyond its foundation as a theory of meaning construction in discourse. Today the theory of blending and mental spaces is also applied to cognitive studies of mathematics, art, cartoons, grammar, religious ritual, sexual fantasies,

and navigation, to mention a few areas. The theory of mental spaces has become a general theory of the way we think.

1.2.2 The Integration Network:

Meaning construction is manifested as networks of interconnected mental spaces. Blending constitutes a particular kind of mental spaces network: a 'conceptual integration network.' In binary blends, which is the prototypical kind of integration network and which all four examples discussed here are a manifestation of, two inputs, a generic space, which maps onto to both inputs and contains the structure that they have in common, and a blended space are set up. In the following I go through the elements of the blending process as discussed by Fauconnier and Turner (2002a) using the "Buddhist Monk" as my example, and then I provide network analyses of the other three examples.

1.2.2.1 Network Analysis of the "Buddhist Monk," a Mirror Network:

Inputs: Two input spaces are set up with partial structure from the two journeys (see figure 1.4, appendix 1). Input 1 has the monk, m1, going to the top of the mountain on day 1, d1. Input 2 has the monk, m2, going down the mountain on day 2, d2.

Cross-space mapping: Elements in the two inputs are mapped in terms of cross-space mappings (figure 1.5, appendix 1). The monk, the day, the mountain (top and foot: t/f), the path, and motion in input 1 is connected to the monk, the day, the mountain (top and foot: t/f), the path, and motion in input 2. Connections or "conceptual relations" between elements in different spaces and between elements within a space, Fauconnier and Turner (2002a: 92) call "vital relations" (see below).

Generic space: A generic mental space maps onto both inputs (figure 1.6, appendix 1). The generic space contains what the two inputs have in common: a monk moving along a path linking the top and the foot of the mountain (t/f), a day, and movement in an unspecified direction (represented in figure 1.6 by a double-headed arrow).

Blend: The mountain slope (path), the day, the top of the mountain, and the foot of the mountain of each input are projected and fused in the blend (figure 1.7, appendix 1). The monk of each input however, and his positions according to the time of the day are projected separately. Thus, the blended space contains a counterpart of each input monk (m1' and m2') separately and of each input position according to the time of the day separately.

Selective projection: Not all elements and relations from an input are projected to the blend. In the "Buddhist Monk," the calendar time of each journey is not projected to the blend. Selective projection is crucial to blending. Different calendar dates in the blend would cause disintegration, and the solution to the riddle offered by the blend would probably not be as compelling.

Emergent structure: The emergent structure of the blended space is constructed in three steps:

1) Composition: By composition, input elements are projected to the blend, either individually or to be fused with elements from the other input. Composition gives rise to relations that do not exist in the inputs. In the "Buddhist Monk" blend there are two monks (m1' and m2') in the blend which have the same identity, instead of one in each input, and since the two monks in the blended space travel on the same day (d'), their positions can be compared at any time of the trip.

2) Completion: The blend is "completed" by additional structure. In the "Buddhist Monk," the scenario of two monks walking along a path towards each other brings to life the familiar frame of two people journeying to meet each other. Parts of the frame of 'Journeying towards each other' is recognized in the blend and through 'pattern completion,' the blend with two monks moving along a path becomes the much richer 'Two monks journeying to meet each other.'

3) Elaboration: The completion of the blended scenario makes it possible to run the scenario dynamically, to 'run the blend.' Running the blend provides a solution to the riddle. The cognitive agent can imagine how the two monks journey towards each other and how eventually they meet each other at a particular point in time, and the place where they meet and the particular point in time at which they meet project back to the inputs as "the same place at the same time of the day." Elaboration then is an imaginative development of the initial blend on the basis of its initial structure. The elaboration may go on indefinitely.

Further technical aspects of the blending process are:
Modification: During meaning construction, the inputs may be modified. In the "Buddhist Monk," the blended existence of a place of encounter is projected back to each input. In chapter 6, we shall see another important way in which inputs may be modified to resolve certain online meaning construction problems.

Vital relations: The conceptual relations between elements in different spaces and between elements in the same space (what was called *connectors* in the original version of mental space theory, Fauconnier 1985), Fauconnier and Turner (2002a: 92) call *vital relations*. Fauconnier and Turner (2002: chap. 6) discuss a number of different vital relations some of which will be discussed here:

Change

Identity

Time

Space

Cause-Effect

Part-Whole

Representation

Role

Analogy

Disanalogy

Property

Similarity

Category

Intentionality

Uniqueness

In the "Buddhist Monk" integration network, the monks in the inputs are connected by the vital relation of identity – it is the same monk on different occasions. The two journeys are connected by time – they take place with a span of time between them. The two mountain tops and the two mountain feet are also connected by identity. Vital relations *between* mental spaces are called *outer space* vital relations, and vital relations *within* the same mental space are called *inner space* vital relations (see following analyses of "Digging you own grave" and "Murdoch vs. Iacocca") (ibid: 94).

Compression: During blending, both outer-space and inner-space vital relations may be 'compressed.' In the "Buddhist Monk," the vital relations of identity between the two mountain tops and the two mountain feet are compressed into uniqueness – in the blend the temporally separate representations are one and the same mountain top and foot of mountain at the very same time. The outer space vital relation of identity between the two monks is compressed to an inner space vital relation of identity, whereby this relation is tightened. Finally, the distance of time between the two inputs is compressed as the two journeys take place simultaneously. According to the canonical approach, compression is a

central part of almost any blending process. Blending, Fauconnier and Turner (ibid: 114) hold, is a "compression tool *par excellence*."

1.2.2.2 Network Analysis of "Digging you own grave," a Double-Scope Network (figure 1.8, appendix 2):

Inputs: Input 1, 'unwitting failure,' has an agent who makes bad investments. The investments will eventually lead to bankruptcy – the bad investments *cause* bankruptcy. The agent is unaware that he is making bad investments and that he will eventually go bankrupt. Input 2, 'grave digging,' has a gravedigger who digs a grave because another person has died. The death of the other person *causes* the gravedigger to dig a grave. In input 1, bad investments are connected to bankruptcy by a cause-effect connector; and in input 2, death is connected to grave digging also by a cause-effect connector. Hence, there are exact opposite cause-effect relations in the two inputs.

Cross-space mappings/vital relations: The two inputs are connected by vital relations of analogy, disanalogy, and role. The investor in input 1 is connected to the gravedigger in input 2 by the vital relation of analogy – both are agents who perform some action which is related to a terminal event. Bankruptcy in input 1 and death on input 2 are also connected by analogy – both are terminal events. Moreover, the investor is connected to the dead person in the grave digging input because both experience a terminal event. However, there is also disanalogy between the investor and the gravedigger and between death and bankruptcy. The gravedigger is connected by disanalogy to the investor because the gravedigger does not experience a terminal event, which the investor does; and death is connected to bankruptcy by disanalogy, because death is the cause of an activity – grave digging – whereas bankruptcy is caused by an activity – bad investments. Finally, there is a connection of role between the investor and the gravedigger and the dead person. This integration network then not only illustrates how there may be different cross-space vital relation between the same elements, but also how an element in one input space (e.g. the investor) may be connected to more elements (the gravedigger and the dead person) in another input space by the same connectors, analogy and role.

A more refined analysis would probably reveal many more vital relations, but I settle with those mentioned here for the sake of brevity. Furthermore, Fauconnier and Turner themselves rarely study a particular blend in further detail; they settle with the claim that all blends could be studied in much greater details than they have done. (This statement is often made in talks by either Fauconnier or Turner when asked if they have not missed or left out details in their analyses). Thus despite the ambition of revealing in a scientific manner the minute and intricate details of creations which traditionally have been considered monsters beyond the reach of rational scrutiny, there does seem to be a limit as to how much Fauconnier and Turner want to postulate for a given integration network.

Generic space: As is typical of double-scope networks, there is not much generic structure in this network. The generic space has an agent who performs some actions which have an unspecified relation to a terminal event, which, as in the case the "Monk riddle" network analysis, is indicated by double-headed arrow.

Selective projection and blend: Most structure is projected to the blend from the "unwitting failure" input. The causal structure of 'bad investments/grave digging causes bankruptcy/death' comes from the "unwitting failure" input. The intentional structure also comes from the "unwitting failure" input – bad investments can be made unknowingly, but gravediggers do not dig graves unintentionally. The structure of agents, patients, and the sequence of events too come form the "unwitting failure" input. The investor is both agent and patient – gravedigger and the person dying – and the agent/patient digs the grave before he dies. Finally, there is in the blend the relation that the deeper the grave is, the more likely the patient is to die. This relation also comes from the "unwitting failure" input where the more bad investments have been made, the more likely the investor is to go bankrupt, and the less likely he is to get back of foot. The concrete structures of dying, grave digging, and graves comes from the "grave digging" input. These elements and relations are projected selectively from each input. Here I will just mention two examples: It is clear that the causal relation from the "grave digging" input is not projected since that

would cause disintegration in the blend. On the other hand, the fact that an investor may get a second chance after a bankruptcy is not projected from the "unwitting failure" input; in the blend, the investor is finished if he goes bankrupt/dies. In the blend, then, there is an investor/gravedigger/patient who makes bad investments/digs his own grave and eventually goes bankrupt/dies from it.

Emergent structure: Once composed (by composition), this blend seems to allow completions which give rise to indefinite elaborations. For instance, the 'grave digging' scenario may be completed by a 'burial' and 'post death' scenario whereby the possibilities of various elaborations arise. It might be imagined how the worried parent, the rest of the family and friends mourn at the death/bankruptcy of the son, how the son is sent straight into hell/poverty and unemployment as punishment for his careless behavior, etc.

Compressions: The outer-space analogy connections between the 'investor' and the 'gravedigger' and between 'bankruptcy 'and 'death' are compressed into uniqueness in the blend. In the blend they are the same. The outer-space role connections between the 'investor' on the one hand and the 'gravedigger' and 'dead person' on the other hand are also compressed into uniqueness. However, most notably perhaps the inner space vital relation of cause-effect between 'bad investments' and 'bankruptcy' is compressed into a simple 'human-scale' scenario (see below). The cause-effect relation between bad 'investments' and 'bankruptcy' in the "unwitting failure" input is quite complex, it involves many transactions and many agents. In the blend, however, this cause-effect relation is reduced to a simple scenario in which the 'agent'/'patient' 'digs'/'makes investments' and thus eventually brings himself to 'death'/'bankruptcy.'

1.2.2.3 Network Analysis of "Murdoch vs. Iacocca," a Single Scope Network (figure 1.9, appendix 2):

Inputs: In input 1, 'business,' there are the elements 'Murdoch' and 'Iacocca' and the relation 'Murdoch defeats Iacocca.' In input 2, 'boxing,' there are the elements 'boxer 1'

and ‘boxer 2’ and the relation ‘boxer 1 knocks out boxer 2.’ The relation ‘Murdoch defeats Iacocca’ is a comprehensive relation which involves many transactions (as the ‘unwitting failure’ input in “Digging your own grave”) and many agents, and it spans a long sequence of time. The relation ‘boxer 1 knocks out boxer 2’ on the other hand is a simple scenario involving only two agents and simple actions, and spanning only a few seconds in time.

Cross-space mappings/vital relations: ‘Boxer 1’ and ‘Murdoch,’ ‘boxer 2’ and ‘Iacocca,’ and the relations ‘Murdoch defeats Iacocca’ and ‘boxer 1 knocks out boxer 2’ are all connected by analogy.

Generic space: The generic space has two persons competing in an unspecified way.

Selective projections and the blend: As is characteristic of single-scope networks, the organizing frame of the blend is an extension of the organizing frame of one of the inputs – here ‘boxing.’ The “boxing” input projects to the blend two boxers in close proximity who are engaged in direct physical combat, and the possibility of them knocking each other out. Still, not all elements are projected from the “boxing” input. It is not projected that the boxers (most likely...) are trained sportsmen, and that they most likely have a certain age. Input 1, “business,” projects the specific identity of the boxers selectively. One of the important things which is not projected from the “business” input is that violent behavior is socially unacceptable in business.

Emergent structure: Composition brings the two boxers together with the identities of ‘Murdoch’ and ‘Iacocca.’ It is possible to imagine, I suppose[11], that the blend could be completed by a larger frame for a ‘sports event’ which allows a wealth of elaborations: e.g. that reports are made (satirically) from the event, or that the event is nominated (satirically) as the best sports event of the year.

Compressions: The connections of analogy between 'boxer 1' and 'Murdoch,' 'boxer 2' and 'Iacocca,' and the relations 'Murdoch defeats Iacocca' and 'boxer 1 knocks out boxer 2' are all compressed in the blend into uniqueness. More notably, however, the complex relation of Murdoch defeating Iacocca in the business input, which involves many agents, many transactions and spans a long sequence of time, is compressed via the boxing structure to a simple human scale scenario (see below) in which Murdoch and Iacocca face each other in person and settle their competition with in one simple action.

1.2.2.4 Network Analysis of "Paul is the father of Sally," a Simplex Network (figure 1.10, appendix 1):

Inputs: Input 1, "Paul and Sally," has the values 'Paul' and 'Sally,' but is has no organizing frame structure. Input 2, "family," has an organizing frame for kinship relations which connects the roles father and daughter as 'male parent of female offspring.'

Cross-space mappings: The value 'Paul' is connected by a role connection to the role 'father,' and the value 'Sally' is connected by a role connection to the role 'daughter.'

Generic space: The generic space has the very abstract elements 'male' and 'younger female.'

Selective projection and blend: In contrast to the three integration networks above, selective projection is of little or no importance here. There are no elements or structures in either input that would cause disintegration in the blend. The values 'Paul' and 'Sally' are simply projected to the blend and fitted into the kinship frame which is projected from the "family" input.

Emergent structure: The emergent structure comes about through composition. The fitting into the kinship frame of the values 'Paul' and 'Sally' creates novels roles: 'the father of sally' and 'the daughter of Paul.'

Vital relations and compressions: The outer-space vital relations of role are compressed to inner-space vital relations of role in the blend, whereby these vital relations are tightened.

1.3 Taxonomy

The four types of integration networks analyzed above constitute a taxonomy of integration networks presented in Fauconnier and Turner (2002a: 120-135). The categories of blends are defined with respect to the complexity of the integration networks. The simplex is the simplest and then follow, mirror, single-scope, and finally double-scope as the most complex type of blend.[12] The capacity for double-scope blending, Fauconnier and Turner hypothesize, is unique to human beings and has made us what we are as a highly developed cognitive species. I will not get in to that here, however, since the phylogenetic development of the cognitively modern human being is beyond the scope of this dissertation. I am only interested in blending as a theory of online meaning construction.

1.4 The Functions of Blends

Integration networks in general serve a wealth of different functions: sexual arousal (sexual fantasies, ibid: pp. 27-30), inferences (the "Buddhist Monk"), counterfactual reasoning (see chapter 5), conceptual change and creativity in science (e.g. mathematics), integrated action (e.g. using a desktop interface), framing ("Paul is the Father of Sally"), warning ("Digging your own grave"), metaphorical comprehension ("Murdoch vs. Iacocca"), etc.

1.5 Entrenchment

Blends are often novel structures created on the spot, but in time such structures may become entrenched. For instance, mathematical concepts, clocks, and money are socially shared, entrenched blended concepts.

1.6 Compression:

Above we have seen how compression plays a role in all example cases. We have seen the compression of outer-space relations into tighter versions of these relations or different vital relations, and we have seen compression of inner-space vital relations. The notion of compression is very central to blending theory.

1.7 Constraints, Goals, Constitutive and Governing Principles

Blending is a non-determinative process, Fauconnier and Turner claim; the products of blending cannot be predicted. However, the process is run by strong constraints, they hold. A first level of constraints, it is

proposed, are the very "constitutive principles" (ibid: 310) themselves: cross-space mappings, selective projections, and the development of emergent structure. Exactly how the constitutive principles constrain the blending process is however not altogether clear, I think. It is merely stated (through a number of analogies to socially constituted activities – football and language) that any set of constitutive principles constrains the activity they constitute. This seems quite reasonable, but exactly how to translate this point into blending theory is not explicated. My guess is, however, that what Fauconnier and Turner are arguing is something like the following: People do not just blend unless input structures have somehow been made available; blending can only take place if input conceptual structures have been identified which can be mapped and from which selective projections can take place. Thus, if I thought the utterance "Murdoch knocked out Iacocca" was uttered about real boxers, I would not blend, but since it is uttered in the context of an article about business competition, I will blend. As commonsensical as this may seem, it does entail the important point that even though the human mind is set to blend and blending is ubiquitous, people do not just blend on any occasion.

As for the second level of constraints, the "governing principles," these are given very elaborate treatment by Fauconnier and Turner (ibid: chapter 16). I will not discuss every single governing principle in detail here though they are quite central to blending theory. Governing principles as such is not a topic of this dissertation. I will only focus on governing principles which involve the notion of compression (which in fact is a large part of them), since compression is very central to blending theory and since compression is the topic of chapter 4.[13]

There is one "overarching goal" of blending, Fauconnier and Turner (ibid: 312) argue, which drives all governing principles: the achievement 'human scale.' Fauconnier and Turner (op cit) define human scale in the following way:

> The most obvious human-scale situations have direct perception and action in familiar frames that are easily apprehended by human beings: An object falls, someone lifts an object, two people converse, and one person goes somewhere. They typically have very few participants, direct intentionality, and immediate bodily effect and are immediately apprehended as coherent.

Above we have seen human scale achieved in "Digging your own grave" and "Murdoch vs. Iacocca." The comprehensive structures of stock investments and business competition are brought down to human scale via the source structures 'grave digging' and 'boxing.' Apart from the overarching goal of achieving human scale, Fauconnier and Turner (op cit) suggest, there are a number of subgoals of blending. I will not discuss those here; I will simply mention that compression plays a central role in all of them.

Compression and its governing principles are central to the goal of achieving human scale. Compression, as we have seen, works on inner-space and outer-space vital relations as connected elements are projected to the blend. There are many types of such compressions. Here I mention a couple of them:

– A single relation such as time may be compressed by 'scaling' it down. If two events in two inputs are separated in time, as in the "Monk Riddle," this time connection may be compressed to simultaneity. Time as an inner-space vital relation may be compressed such that years in an input become minutes in a blend (e.g. "It's five minutes to twelve" about, for instance, global pollution). Cause-effect connections can also be scaled down. In the "Digging your own grave" blend, we saw how the complex cause-effect relation of going bankrupt as a result of bad investments is scaled down to a simple, direct cause-effect relation of someone digging a grave which causes death.

– Another way of reducing e.g. time and change is through 'syncopation' (ibid: 324) where particular, selected moments represent a long development/event-structure/etc. For instance, evolution diagrams of human beings typically only show clearly distinguishable stages which have thousands of years and many substages between them.

– One or more vital relations may also be compressed into other, tighter vital relations. Above in the case of "Digging your own grave" and "Murdoch vs. Iacocca" we saw how the vital relations of analogy were compressed into uniqueness in the blend. In the case of "The Grim Reaper," we see a very complex instance of compression of outer-space vital relations into other relations by which a highlights compression is achieved (ibid: 320). The story of death encompasses many stages: being about to die, expiring, burial, decay of the corpse, and later the result of decay – the skeleton. These stages, time relations and cause-effect relations, are compressed into part-whole relations in the personification of death. There is the arrival of the Grim Reaper for dying, the scythe for expiring, the cowl for burial, and the skeleton for the final result. Thus, the personification of death is a highly compressed highlights cavalcade of the event of dying.

– Compression of complex inputs such as the "investment" input in "Digging you own grave" and the "business" input in "Murdoch vs. Iacocca" is achieved by "borrowing" the structure from the other input. In "Digging you own grave," the complex "unwitting failure" input borrows the simpler structure of the "grave digging" input, and in "Murdoch vs., Iacocca" the complex "business" input borrows the simpler scenario from the "boxing" input of one boxer knocking out another.

There are thus a number of ways in which compression governs the blending process. For instance, it can give tight human scale structure to a complex input through borrowing human scale structure from another input, it can scale down vital relations, it can compress e.g. a long development by dropping all but a few key/notable elements or stages, it can compress a vital relation into another, tighter vital relation, and it can compress elements of an overarching story, developing over time, to a simultaneous arrangement.

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Many issues which are treated in the voluminous literature on blending theory have not been discussed here since I do not find it relevant for the focus of this dissertation. The purpose of this introduction is to make the reader familiar with the theory, to provide a theoretical apparatus for the following studies (chapters 3-6), and to provide a basis for the cognitive discussions in this dissertation. In the rest of this chapter, I will discuss some issues in relation to canonical blending theory which are pressing to the IA. First, I will consider some recent, critical discussions in relation to the notion of mental spaces. Then I will discuss the type of data that we have seen Fauconnier and Turner use and the issue of the degree of detail in the analyses proposed by them. Finally, I make a remark on the notion of a generic space. These discussions are a further, specific elaboration of the discussion of the IA in the introduction.

1.8 What is a Mental Space Really? *And When Do We Need Mental Spaces*?

Above I have presented mental spaces as cognitive processes, which is the way Fauconnier and Turner (2002a) present them. However, surprisingly little attention is dedicated to discussing what mental spaces in fact are. Fauconnier and Turner (2002a) only dedicate 1 out of 400 pages to this issue. In fact, most of the time when mental spaces are introduced in some context, this is done by discussing what they are not (as in Fauconnier 1994) or by giving examples of mental space constructions, not by offering actual technical and/or philosophical definitions. Blending theory has made the issue of what mental spaces are very urgent. Many different things are put into mental spaces: conceptual structure, perceptual structure, linguistic form, single objects, structured scenarios, unstructured scenarios, very rich and complex scenarios, very simple scenarios, sound, physical form, color, emotion, etc. However, what do all these things have in common? The answer may of course be that they are all mental, but this then potentially entails that practically all mental processes are also mental spaces. This is a gross generalization, and what insight does it give if it places everything in the same category?

Following Brandt's (MS) proposal, I want to stress the need to situate mental spaces in a "mental architecture" which distinguishes levels of mental processes ranging from "perceptions" (which involves the perceptual integration of shapes, colors, etc. into

objects) to "reflections" and "affects" which are at the top level of mental processes. In this architecture, Brandt proposes, mental spaces are at work at a level at which objects are integrated into situations (events, states) or "'theatrical' wholes," as Brandt calls them (ibid). Thus, according to this view, objects by themselves, colors, sounds, feelings, and shapes are not mental spaces *per se*, but they may evoke mental space organization. For instance, my perception of the coffee cup that sits on my desk next to my computer (its contour, its color, its contents, etc.) is not a mental space, but my conception of my coffee cup as an object that I can interact with is a mental space.

Another aspect of defining mental spaces is the issue of when partitioning of information into separate mental spaces is required. Harder (2003) proposes that in order to partition information into mental spaces which can be blended there should be a potential contradiction between the pieces of information. Thus in the case of an adjective-noun construction like *fake gun* (cf. Fauconnier and Coulson 1999), in which there is both a representation of a gun and a representation of a fake which are blended to create the emergent structure 'fake gun' where the gun becomes a non-gun gun, separate mental spaces are required. There is no way, Harder points out, to compress the concept of a fake gun into a single-perspective view of the world; the gun cannot both be 'fake' and 'gun.' However, with other adjective-noun constructions, Harder argues, partitioning into separate mental spaces is not required. In the case of *black gun*, for instance, there is no contradiction: A gun may both be a gun and black, and the blackness does not interfere with the gunness of the gun, as fakeness does. Harder's proposal seems like a reasonable and indeed necessary attempt to try to delimit the notion of mental spaces. I do not think, however, that contradiction is the only condition that warrants a partitioning of information into separate mental spaces. I would expand Harder's proposal and add that all blocks of information containing *discontinuous scenarios* warrant a partitioning into separate mental spaces. Scenarios that contradict each other are of course non-continuous ('gun' is not continuous with 'fake'), but there are many other types of discontinuous scenarios. Contrast the utterance "He walked from his house to the station" with "He sat at home and thought about going to the station." In the first utterance, the opening scenario, 'at the house,' is

continuous with the closing scenario, 'at the station.' They are tied together by the relation "walked to." In the second utterance, however, there is no continuity between on the one hand sitting at home and thinking about going to the station and on the other hand going to the station. One is the actual situation and the other is an imagined scenario. Another case is metaphor. Obvious discontinuities, in terms of domain specification, are found in metaphorical expressions. In "You are digging you own grave" (p. 24 ff and figure 1.8, appendix 2) there is no continuity between 'grave digging' and 'investments,' and in "Murdoch knocked out Iacocca" (p. 26 ff and figure 1.9, appendix 2) there is no continuity between 'business' and 'boxing.' Discontinuities may also be created by time: e.g. "The woman over there moved to this neighborhood eight years ago," where there is a representation of the woman at the moment of speaking, sitting across the room, and a representation of the woman moving to the neighborhood. Even space may create discontinuity. An example is "In New York they have better bars than here," where there is a representation of the bars in New York and of the bars "here."

I do not think that there are clear-cut boundaries between discontinuous and continuous scenarios, but local circumstances play an important role in determining when scenarios are continuous and when they are not. Take the "Monk Riddle." If taken just as a story, there need not be discontinuity between the journey to the top of the mountain and the journey back to the foot of the mountain – they are part of the same trip away from home which also includes some days of meditation at the top of the mountain. However, the riddle explicitly instructs the reader to treat the journey to the top of the mountain and the journey back to the foot of the mountain as discontinuous scenarios.

As a last point, I should probably emphasize that discontinuity does not rule out connectedness. While they are discontinuous, scenarios may still be connected by all the types of connections discussed by Fauconnier and Turner (2002a) – and perhaps more.

In this dissertation, then, the notion of mental spaces is applied with the following definition:

Networks of mental spaces are understood as discontinuous but connected, conceptual "theatrical wholes." Moreover in accordance with the IA, mental spaces as they are applied here do not represent individual or private meanings, they represent what is experienced as interactionally relevant and interactionally shared meaning.

1.9 Isolated data:

In the introduction, I argued that blending theory along with other cognitive semantics theories – despite their claims that they take the context very seriously and aim at studying data in their full and rich contexts – were still focused on individual, isolated utterances or prompts, that these approaches did not in fact study their data as situated actions, or actions-in-contexts. Above we have seen evidence of that. In blending theory, the context tends only to be discussed in so far as the discussion settles a particular meaning as a preparation for the analysis proper. In the IA, the context is a crucial aspect of the analysis proper.

Brandt (MS) presents a "non-standard" view on why mental space theory has problems with integrating the context of the here-and-now in descriptions of meaning construction. As Brandt points out, the notion of mental spaces was originally forged as a blend of French discourse analysis and analytic philosophy (Fauconnier 1984), in the context of formal logic and early cognitive approaches to natural language. Brandt's claim is that mental space theory has never fully relieved itself of the tradition of formal logic but is still only a semi-cognitive ("cognitivistic" not "cognitive") approach. A genuine cognitive approach, according to Brandt, is an approach which intends to obtain a "full-scale" study of the phenomena in question, "including discussions of the real structural and functional grounding of cognitive and affective productions in the architecture of the socially committed human mind and of its pragmatic and semiotic dispositions." This is very much in line with the IA. The cognitivistic, mental space approach, Brandt argues, still adheres to a Spinozian distinction between meaning as truths and meaning as purely mental events – the latter *only* being the true focus of mental space theory, according to Brandt.

Thus mental space theory is stuck with dealing with those "monsters" of meaning which formal logicians conveniently swept aside as mental phenomena which have nothing to do with real meaning, saving the notion of a true meaning reflecting actual or possible worlds (a positivistic or objectivist view). However, by embarking on studies of the "mental" type of meaning, and by actually acknowledging (though the contrary has programmatically been stated) the segregation of "mental" meaning, mental space theory also excludes itself from the possibility of a genuine cognitive approach. The notion of a base space, as introduced in the preface and in much greater detail in chapter 3, is not possible in this vain of mental space theory. The base space we saw represents the actual situation of interaction, the here-and-now context of the utterance, but the actual situation of interaction is not mental according to the traditional view. It is real truth-conditional meaning, and thus it lies beyond the reach of the mentally committed mental space approach. In fact, Brandt argues, mental space theory in this vein collapses with the inclusion of a base space. Hence, it is forced to "extract and isolate the expressions it wishes to analyze from all real contexts, or simply invent these expressions as examples of what the analysis is about" (ibid).

Brandt's argument will probably cause much debate, but there does indeed seem to be some hesitance to integrating the *hic et nunc* of meaning construction in mental space and blending theory. Instead, focus is on the logic of hidden intricate structures during meaning construction. Hence, in accordance with Brandt (ibid), it is important to specify, in addition to the IA definition of mental spaces in the section above, that the IA also considers the representation of the present reality of interaction "mental," on a par (in this respect!) with counterfactual scenarios, imagined scenarios, future scenarios, etc. They are all structured according to the same general, cognitive principles. Present reality is not, to use Turner's (1994) own term an "express train" which runs directly through the human mind. To humans, present reality is cognition too, structured in terms of e.g. image schematic structure which arises from bodily interaction with the world. Hence, the view that present reality itself is a cognized phenomenon does not entail that the mental realm is working independently of the world. Depending on which sense of the term *embodiment* a

cognitive linguist is applying, it denotes, with different emphases (cf. Rohrer 2001), ways in which the body (in interaction with the world), the brain (with its complex neural systems), and socio-cultural factors (cf. Jensen de Lopez and Sinha 1998) cause, give structure to, constrain, represent (etc.) our semantic development, thoughts, and conception of the world.

1.10 Backstage Cognition and On-stage Cognition:

Mental spaces and blending are theories about "the mind's hidden complexities" (subtitle of Fauconnier and Turner's 2002 book). Throughout academic history, many scholars of the mind, poets and philosophers have considered the human mind either as a) an inaccessible, enigmatic wonder or terror, or 2) as a phenomenon which does indeed lend itself to rational description but which requires digging into deep, comprehensive, swift and mostly concealed spheres of human nature. The first view finds a powerful expression in works such as, to take an artistic expression, the short stories and poems by the American writer Edgar Allan Poe. In his famous short story "The Fall of the House of Usher" (1839/1995), for example, he describes what should most likely be understood as an allegorical journey into the depths of a distorted mind. In the beginning of the story, an anonymous traveler arrives at the melancholy House of Usher. He has traveled through a "dull, dark, and soundless day in the autumn, when the clouds hung oppressively low in the heavens" (1995: 664) The sight of the house – described with a sublime sense for the horrific – leaves the traveler unnerved and mystified and he concludes that "while, beyond doubt, there *are* combinations of very simple natural objects which have the power of thus affecting us, still the reason, and the analysis, of this power, lie among considerations beyond out depth" (ibid).

In contrast and matching the second type of view on the human mind, the English, romantic poet William Wordsworth presents a more optimistic view on the mind as accessible and analyzable, but still something of a deep journey into hidden layers of human nature for he who attempts to behold it:

…Not Chaos, not
The darkest pit of lowest Erebus,*
Nor aught of blinder vacancy, scooped out
By help of dreams – can breed such fear and awe
As fall upon us often when we look
Into our Minds, into the Mind of Man –
(1814/1993, ll. 35-40)

*Erebus: Classical myth, a dark region of the underworld, used by Christian writers as a name for hell.

Wordsworth represents a type of view on the human mind which can be extended to include also present-day cognitive semanticists such as Fauconnier and Turner. The fathers of blending theory, like other cognitive semanticists and cognitive scientists in general, set out to make a serious, rational science of the study of the human mind. It is their optimistic conviction that this is an age that will be remembered for the discovery of the human mind (Turner 1991: vii), and their goal is to describe in fine technical detail (as we have seen above) its most intricate, refined, and fast processes. To Fauconnier and Turner, the human mind is not a dark abyss, but merely scientific virgin land. However, despite their modern, progressive view on the study of the human mind, Fauconnier and Turner still maintain that the study of the human mind requires diving deep below the surface of consciousness to "invisible" facets of behavior (2002a: chap. 2 & Turner 1996: 6). In that respect, their view on the human mind is not different from Wordsworth's or Poe's. All, though in very different ways, consider the human mind a backstage phenomenon, which can only be studied as a backstage phenomenon.

The IA fully acknowledges the backstage aspects of human cognition, that there are processes which evolve at staggering speed and which we may only sense glimpses of, or not be able to observe at all. However, instead of attempting to dive into

these deep processes and set up hypotheses about intricate details of processing which may make sense intuitionally but which are very hard to establish solid documentation for, the IA (informed by its method, CA, and the philosophical basis of that method, (social) phenomenology, see chapter 2) focuses on those cognitive processes which must underlie that construction of meaning which interlocutors demonstrate to be orienting to as interactionally relevant. Thus, the IA focuses on online meaning construction which evolves at the "surface"; it is about "on-stage" cognition. By this, however, I do *not* mean that mental spaces are viewed as being there in the interactional actions. What is meant by "on-stage" is just that only those parts of an utterance's mental space potential which the interlocutors explicitly show each other to be orienting to, are included in the studies. Yet, the IA mental space modeling still goes beyond what is there in the actions, including (but only including) mappings and projections which must necessarily follow from what is being done/oriented to jointly.

Naturally, diagramming of cognitive processes always in the end comes down to the analyst's membership knowledge (that is familiarity with the knowledge applied by the conversationalists) and naturally, the cognitive processes are not assumed to be there in the air, visibly, between the interlocutors. However, the IA demands empirical, interactional evidence for the theoretical assumptions about what is going on and it does not allow speculation about details of which there is no interactional evidence or indication. Thus, the IA cannot and does not intend to offer the same kind of fine-grained accounts of meaning construction that Fauconnier and Turner typically offer, but instead it offers accounts of those crucial contextual aspects which Fauconnier and Turner do not include. It offers an account of "real" cognition in "real" situations, and as for the details it *does* offer, these are all supported by interactional analysis prior to any cognitive theorizing.

1.11 What About the Generic Space?

The notion of a generic space has become a somewhat controversial notion among many practitioners of blending theory. Fauconnier and Turner maintain that a level of abstract structure which maps onto all spaces is a central part of the meaning construction in all blending. Other researchers (e.g. Per Aage Brandt, personal communication) question the role of the generic space, arguing that it does not add anything which is not already present in the network of inputs and the blend. In this dissertation, I will not as such take a stand with respect to the generic space. Yet, as it is the practice in much other work on blending theory, I choose to simply leave out the generic space. My motivation for doing so is that typically a generic space does not contribute anything to analyses which focus on interactional meaning construction. In studies which focus on for instance isolated metaphorical and proverbial expressions and which study the general applicability of abstract proverbial and metaphorical structures (cf. Lakoff and Turner 1989), the generic space may be seen to have an obvious, central role to play. However, it could be pointed out in that regard too, that the application of such a theoretical concept is due to the fact that it is only decontextualized examples that are studied. In other words, in order to account for the general applicability of proverbs and metaphors, in the absence of local contexts to go by, Lakoff and Turner are forced to suggest some predefined, generic structure which licenses this general applicability. Thus, if the focus is on how meaning construction evolves in relation to local, interactional contexts, and if descriptions focus on on-stage cognition, a theoretical concept which makes assumptions about decontextualized, individually represented generic structures which guide meaning construction behind the curtain has no role to play, unless it is empirically, contextually documented to be in operation. The only way in which a generic space might play a role in such studies is if the interlocutors explicitly orient to shared abstract structures between discontinuous, connected conceptual structures.

CHAPTER 2

METHODOLOGY, PHILOSOPHICAL BACKGROUND, THE DATA, AND THE APPROACH

2.0

In this chapter I introduce the sociological method of conversation analysis (hereafter CA), the data, and the technicalities of the IA – how the cognitive analyses are carried out according to the purely interactional CA analyses. In the section on CA, I first briefly sketch the history of CA, and then I go on to discuss its background/ philosophical assumptions, its principles of analysis, and finally some central generic phenomena of conversation which CA studies have documented and which will be seen many times in the data discussed in this dissertation.

2.1 Conversation Analysis:

2.1.1 A Short History:

In a shorthand definition, CA is the detailed, empirical study of the methodic organization of *talk-in-interaction*. By "empirical" is meant a science whose claims are grounded in the study of "repeatably inspectable occurrences" (Schegloff 1992b: 119) of phenomena in naturally occurring talk-in-interaction. The phrase "talk-in-interaction" indicates that CA is interested in all kinds of everyday interactional talk ranging from phone calls (e.g. Schegloff 1979), to face-to-face conversations, classroom talk, conversations between natives and non-natives, and all sorts of institutional talk (cf. Drew and Heritage (eds.) 1992).

CA emerged in California in the early 1960s as a new, radical branch of sociology. In an age which saw the birth of generative grammar (Chomsky 1957) and speech act theory (John Austin 1962, John Searle 1965), and where the field of sociology

was dominated by "macro-approaches" to social organization, which were primarily concerned with the superordinate structures and organization of society, CA deviated drastically from such paradigms in terms of its focus on local social organization, its view on language in conversation (see e.g. Schegloff 1992b), social order, context, the meaning of utterances/actions, and methodology.

The main originator was sociologist Harvey Sacks who in 1963-4 served as fellow at the Center for the Scientific Study of Suicide in Los Angeles. Here he came across some transcripts and tapings of calls to the Suicide Prevention Center, which he studied. He started to take an interest in the details of what was going on in these telephone calls, work which constituted the beginning of what became known as *conversation analysis*. Schegloff (2000: xvi-xvii) reports a "talking walk" in the late winter of 1964, where Sacks presented to him some thoughts which indicated the direction that Sacks' work was taking:

> *...Sacks mentioned to me a 'wild' possibility that had occurred to him. He had previously told me about a recurrent and much discussed practical problem faced by those who answered phone calls to the Suicide Prevention Center by suicidal persons or about them – the problem of getting the callers to give their names. Now he told me about one call he had seen/heard which began something like this:*
>
> *A: This is Mr Smith, may I help you.*
> *B: I can't hear you.*
> *A: This is Mr Smith.*
> *B: Smith.*
>
> *After which Mr Smith goes on, with out getting the caller's name. And later, when Mr Smith asks for the caller's name, the caller resists giving it. On the one hand, Sacks noted, it appears that if the name is not forthcoming at the start it may prove problematic to get. On the other hand, overt requests for it may be resisted. Then he remarked: Is it possible that the caller's declared problem in hearing is a methodical way of avoiding giving one's name in response to the other's having done so? Could talk be organized at that level of detail? And in so designed a manner?*

The conversation analytic responses to these three questions are, as we shall se below and in the rest of dissertation, yes, yes, and yes. Talk, it turns out, is organized at an incredibly detailed level of organization.

Beginning in the fall of 1964, Sacks (who died in a car crash in 1975) started to lecture, mostly at UCLA, on his findings in analyses of recorded conversations. His lectures were taped and most of these recordings have been transcribed and made available in a massive collection (*Lectures on Conversation*, 1995, ed. Gail Jefferson) which stands out as a founding work in conversation analysis. Sacks, however, was not alone in developing these new sociological research interests. A group of people was formed around Sacks at UCLA – including Gail Jefferson and Emanuel Schegloff – which shared his interests. Furthermore, other pioneering work in the field of sociology was done which developed alongside, in interaction with and as an inspiration for CA, most notably Harold Garfinkel's 'Ethnomethodology' (e.g. Garfinkel 1963, 1967, 2002) (hereafter EM). Both Sacks and Garfinkel wanted to break with the mainstream views of sociology at the time. Among the most prominent sociological theorists at the time was Talcott Parsons (e.g. 1937 and 1951). For Parsons the question of social order and stability was a question of internalizations and unconscious abidance of societal norms, whereby societies manifest order over time. With EM, however, Garfinkel was developing a form of sociology which emphasized a *procedural* sense of shared knowledge and norms (Schegloff 1991). Members of a society, according to EM, do not just get to share knowledge and norms which they then have and act by unconsciously, on a par with different computers which have the same software installed. Stability, order, and shared knowledge and norms are, according to EM, constantly reconfirmed, recreated, modified, and expanded through social actions, or to borrow a phrase from Schegloff (1967: 9), the reoccurrence of a type of action is viewed as its production "for another first time." Social order was seen as a question of mutual coordinated *action*, not as something there *is* but as something you *do*, to put it in a catchy way. Furthermore, members of a society were not seen as conducting social order unconsciously; they were seen as conscious agents who are knowledgeable of and can account for their actions in social interaction.[14] Through their actions they show an

orientation to certain norms and at the same time they manifest those norms. Members' social actions, then, were seen as *methodic* an hence *analyzable*, and EM attempts to capture those *ethno-methods* by which members of a society establish, confirm, or recreate shared knowledge and norms.

Sacks' focus was on conversation in particular, but the notion of social order at all levels of human behavior finds a very strong expression in CA as we shall see below. Furthermore, Sacks developed a very stringent procedure with respect to data and the way in which sociologists ought to go about their studies. The data should be recorded for the analyst to be able to check it again and again and to make it possible for the analyst to present the data to his readers for them to be able to redo the analyses on the same basis – a procedure which is known from the natural sciences. Conversations which were reconstructed according to analysts' recollection or information from interviews with subjects was (contrary to e.g. Garfinkel's 'breaching experiments,' see note 1) not good enough for the concrete and very detailed studies which the conversation analytic endeavor was aiming at.

Since the 1960s, the CA "paradigm" has continued to expand at rapid pace. Today CA is practiced all around the world: Courses are taught at linguistics and sociology departments in Asia and Europe as well as the USA. CA has it own major international conferences, international networks, websites, and a staggering number of books and articles have been produced which explore the most unlikely and amazing facets of social interaction.

2.1.2 Founding ideas and basic assumptions:

Often, everyday talk is believed to be random and disorderly. The common view is that people just talk and make pauses, do overlaps, retakes, shift turns and so on in no particular order and according to no particular or observable rule or norm set (cf. Searle 1986). However, CA strongly opposes this common view, backed by overwhelming empirical evidence. Consider the following two excerpts discussed by Goodwin and Goodwin (1987):

2.1a-b:

a)
Dianne: Jeff made en asparagus pie
it was s::so[: goo:d.
Clacia: [I love it

b)
Hyla: an it's j's r:ril[ly s:::sa::d,
Nancy: [Guy that sounds so goo::d

(Borrowed from Goodwin and Goodwin 1987: 24)

What is seen in both examples is that current speaker (Dianne and Hyla) makes an assessment, "it was so good" and "it's just really sad." In both cases, Goodwin and Goodwin (ibid: 22) observe, the utterance containing the assessment consists of the following components: it + copula + adverbial intensifier + assessment term. The orderly thing to observe here is how performing an assessment becomes a structured interactive activity (ibid: 22). Right at the point where the production of the assessment intensifier comes to a completion, the recipient provides her own assessment thereby aligning herself to the action that is being done. Thus current speaker's assessment term and recipient's responding assessment are produced simultaneously. This shows how, through careful timing, the production of an assessment is turned into a social activity. Consequently it also indicates the possibility that recipient tracks in very fine detail the emerging structure of speaker's utterance and is able to project its future course. Interlocutors, then, do not only deal with a speaker's utterance as a "monolithic whole, or simply as a static string of symbolic components tied together through syntax, but rather as a process that emerges through time and carries with it an expanding horizon of projective possibilities that are relevant to the actions that recipient might engage in while acting as a hearer to the utterance" (ibid: 24-25).

Analyses at this level of organization led Sacks (1984: 22) to propose that there is "order at all points" of human interaction, even in as small-scaled interaction as the alignment of the production of assessments (and even at much more detailed levels or

organization too). Thus talk itself is made an object of sociological inquiry instead of just being a means to get insight into other more important issues. Talk is viewed as its own, ordered, social process. This runs counter to contemporary sociology which focused on what Sacks (1984: 22) called "big issues" and which had "large-scale, massive, institutions as the apparatus by which order is generated and by a study of which order will be found." There are however, different levels of organization on which interactional descriptions may focus. Some studies, as in the case of Goodwin and Goodwin (1987) and other studies which are even more fine-grained, focus on tiny details of the production of one utterance and interactional actions in the course of the production of one utterance, while others (including Goodwin and Goodwin 1987 too) focus on the systematic organization of sequences of two or more turns. The studies in the present dissertation all focus on *the level of sequences of turns* while, of course, the microscopic building blocks/units always plays a role in determining what function a specific action and thus a specific sequence has.

As is evident from the discussion above, utterances from the point of view of CA are objects by which social tasks are accomplished such as avoiding to mention one's own name in the opening of a telephone call or accomplishing a shared mind on an assessable object or situation. Indeed language is acknowledged to be a structured system which is amenable to study by itself, but CA sees language as a vehicle of communication and as shaped in and by interaction – and communication in turn is a *social process*. The focus of study is thus social not linguistic order, though linguistic order is of course of interest in so far as it is part and parcel of the former.[15]

It follows from these views that sense- and meaning-making are focused on as interactionally defined. Not subjective, private, or personal meaning – or whatever one wants to call it – is of interest, only what is commonly referred to as the interaction's "meaning for all practical purposes." Both speaker and recipients contribute in collaboration to the interactional meaning of an utterance/action and all utterances/actions are 'recipient designed,' that is they are addressing a particular recipient at a particular place. When interlocutors talk together, it is pointed out, they assume a shared world, which can be broken into a number of social phenomenological "assumptions," as

Garfinkel (ibid: 209), following phenomenological sociologist Alfred Schutz (1962 and 1964), calls them. Among these "assumptions of daily life" are for instance "congruency of relevances." This assumption is defined by Garfinkel (ibid: 220) in the following way:

The person [who] expects, expects that the other person does the same, and expects that as he expects it of the other the other expects the like of him that the differences in their perspectives that originate in their particular individual biographies are irrelevant for the purposes at hand of each and that both have selected and interpreted the actually and potentially common objects in an 'empirically identical' manner that is sufficient for the purposes at hand.[16]

In a word, expected *meaning for all practical purposes*.

Viewing utterances as interactional actions and focusing on meaning as interactionally defined also invokes a radically different view on 'context' than is found in most linguistic approaches. In CA the context is an integral part of the description of actions and meaning. According to Schegloff (1992b), CA is a consistent effort to develop an empirical analysis of the nature of context. One result of these efforts is the finding that interaction is organized in sequences of talk. Consider the following excerpt of talk which is the opening sequence of a phone call to a call-in show on The San Francisco Bay Area Radio (see chapter 3):

2.2

1LL: <<level> frAnk on the li:ne from wAlnut CREEK,>>
2LL: your on the GIant sixty EIght,
3LL: KnbR.
4F: HI leo,
5F: hOw ya FEElin.
6LL: HI frAnk,
7LL: i'm GOOD.
(Op#4, 4Gulfwar.ca, ll. 11-17)

The host introduces the caller (ll. 1-3) and in response the caller greets the host and produces a how-are-you question (ll. 4-5). The host in turn responds by a second greeting to the first greeting and answers the how-are-you question (ll. 6-7). The host's second turn (ll. 6-7) is designed specifically to fit the context of the caller having greeted and produced a how-are-you. Furthermore the host's greeting has the same format as the caller's greeting (HI + first name) and the host's second turn is designed in parallel to the caller's first turn: first the greeting is dealt with and then the how-are-you is dealt with. The occurrence of a first greeting 'projects' a second greeting and the occurrence of a how-are-you 'projects' a reply. The second greeting cannot be separated from its first greeting (its context) if one wants to capture what is going interactionally, and in the same way the host's reply cannot be separated from the caller's how-are-you. The two sets of actions are tied closely together as what in CA literature is referred to as '*adjacency pairs*.' Such paired action sequences make up an interactional glue which ties together actions by different participants – they are interactional sequencing *par excellence*. The components of an adjacency pair are denoted respectively a *first pair part* (short hand: *a first*) and a *second pair part* (shorthand: *a second*), and the general rule for adjacency pairs is that a first pair part must be followed immediately by a second pair part. Schegloff (1968) calls this "*conditional relevance*": given the occurrence or *initial condition* of a first, the second of the initiated pair is relevant, and if it does not follow it is *noticeably absent* and socially sanctionable. The strength of adjacency pairs is illustrated by the following example:

2.3

1A: Can I have a bottle of Mitch?
2B: Are you over twenty-one?
3A: No.
4B: No.
(Borrowed from Hutchby and Wooffitt 1998: 40)

In l.1, A produces a first pair part. However, B does not produce a second pair part. Instead another first pair part is produced, and only when the new first pair part has been completed by a second, a second is produced to the first in l.1. The first pair part in l. 2 sets up a

condition which determines the type of completion that the first pair part in l.1 will have, and when that condition is not met, a negative second (l.4) is produced for the first in l.1. What can be observed here is that the 'projections' (see below) from first pair parts are so strong that even though other matter interferes upon the production of a first pair part (ll. 2-3), a second is still highly relevant. (Sequences such as the one in ll. 2-3 – which are themselves adjacency pairs – are thus termed ' insertion sequences,' a term that highlights the strength of adjacency pairs.)

As can be seen, a particular second is expected upon a particular first. A second is, in other words, projected by a first. This understanding, on the part of the interlocutors themselves, of actions as being inextricably bound with other actions, and**,** on the part of the analyst**,** of actions as being characterizable only as such, is deepened by considering the way in which phenomenologically defined premises for humans perception informed Garfinkel's work.

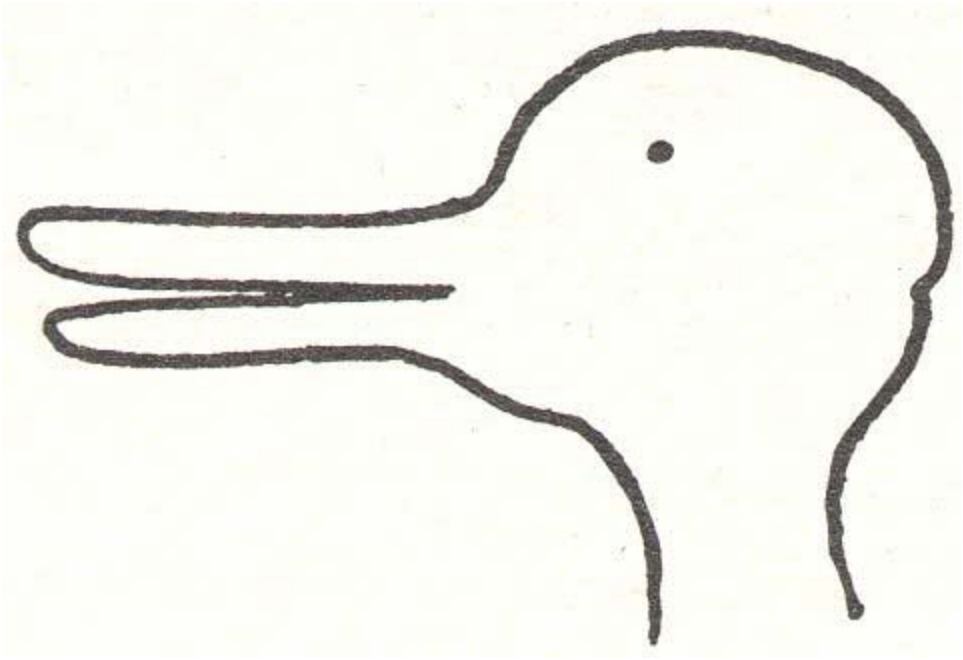
Most of the time we assume that the things we perceive are really there and that what our sensory system does is simply to mirror them. Gurwitsch (1964: 163) calls this the "constancy hypothesis." Hence, if our perception of some entity changes, we tend to think that the "new" features were always there but that we just did not see them. We consider the features of an object to have an integrity apart from our changing recognitions of the object in its totality.

Take, for instance, the following type of situation, which is probably familiar to most people. You are on a bus or some other public transport facility. Absentmindedly you look at other people who are getting on or getting off, talking, reading, looking out the window, or whatever they do in such a situation. You pay no special attention to any one person. Suddenly, however, you are seized by an impulse to look more carefully at person who you then recognize as somebody you took a course with during your freshman year at the university. Thus while initially the features of the person's face did not have any specific significance to you, they are now a special set of features of a recognized person. In accordance with to the constancy hypothesis, you may think that those features were the same to your perception the whole time and that you just did not pay careful attention to

them. But really, according to phenomenological insights, those features were treated as irrelevant until your recognition of the person gave them a new significance.

Another famous academic example of the way in which the perception of a whole gives particular significance to constituent parts is Wittgenstein's (1953: 194) very often quoted and analyzed duck-rabbit image. Once the image is viewed as either a duck or a rabbit the details of it are treated accordingly:

Figure 2.0



When we se the image as a duck, Heritage (1984: 86-87) suggests

> the protuberances on the left of the figure are interpreted as a beak and the small indentation on the right of the figure is treated as irrelevant.... Once the figure is viewed as a “rabbit,” not only does the feature

> previously identified as a "beak" become the "ears" but also the small indentation, previously ignored as irrelevant to the interpretation of the figure, becomes relevant as the "rabbit's" mouth.

In other situations, our actions rely on one-sided representations. Hence, without hesitating, I would drive onto a bridge even though its pillars were outside my view. The active, perceptual element by which we perceive objects as more than one-sided by assembling an *extended* or *completed* object – of which the one-sided representation is just a part – phenomenologists call *intentionality*. These views are clearly echoed in cognitive semantics and cognitive science as such. Take, for instance, Fauconnier and Turner's notion of pattern completion in blending. Two monks walking on a path in opposite directions are not just seen as such; instead they become 'two monk journeying towards each other.'

However, in the field of EM and consequently in the EM–based method of conversation analysis, these psychological or cognitive issues of perception translate into issues of social, collaborative activity. With the insight from phenomenology that single features are defined in relation to perceived wholes by active perception (as opposed to passive mirroring), the lesson from this philosophical branch, as Maynard (2003: 10-11) phrases it, "is to transform everyday categories and objects into activities that constitute them." In Garfinkel's work, the phenomenological concern for consciousness is transformed into a concern for "*embodied* activity and the *practical* production of worldly accounts in the detail of concrete talk and behavior that participants co-produce," or the "in situ *procedures* that participants use in their talk and social interaction" (ibid: 11). Stated more flatly, Garfinkel's interest is in the social, collaborative activity that constitutes interactional actions, not in the mental activity by which they are constituted. For instance, the utterance "how ya feeling" is not just treated interactionally as an utterance by itself, but instead as an interactionally implicational question in succession of which an answer by addressed participant or just any next speaker is an only relevant, socially sanctionable, next action. And the activity by which a question sequence is accomplished is what defines the initial utterance as a question.

When an action is conditioned by a prior action as an action which must follow the prior action, and which is socially sanctionable, the action is said to be "projected" in a non-mental sense. However, the fact that that notion of 'projection' ultimately, that is in phenomenological terms, has a mental or cognitive constitution, (despite the fact that in relation to interactional analyses the term only implies *interactional relations*) makes it philosophically possible for the cognitive semanticist to evaluate interactional data in light of cognitive processes. This is of crucial importance to the entire endeavor of this dissertation (see section 2.4 below). Thus in this dissertation, I use the term *projection* in various cognitive senses too. These are summed up in chapter 3 (section 3.4) where I discuss the cognitive underpinnings of interactional structures such as adjacency pairs.

In sum, the meaning of the two components of the host's second turn in 2.2 can only be understood against the sequential context which they are fitted into.[17] Actions, however, are not just shaped by context; while being fitted to some context, they simultaneously set up a context for following actions. Hence, for instance, when the host in the excerpt above has produced the second greeting, he at the same time fits an action to a first greeting ("hi Frank", l. 6) *and* produces a context where one first pair part has been dealt with while another is yet to be dealt with. Hence due to this context (the greeting sequence having been completed, but a projected response to how-are-you not yet given), an appropriate next action is for the host is to respond to the how-are-you. As in the case of the insertion sequence in example 2.3 above, a second to the how-are-you is still highly relevant even though the completion of another adjacency pair has been dealt with first.

The basic observation that actions are both fitted into a context while they create a new context for following actions has given rise to a notion of context which, at the time of CA's emergence, differed drastically form the notion of context in other approaches to utterance meaning. Where context is traditionally viewed as a sort of container which determines actions carried out within it, CA adheres to a reflexivity principle where actions create contexts locally just as they are determined by local contexts (cf. Garfinkel 1967 and

Heritage 1984 & 1987). It is said that actions are *context shaped* and *context renewing* (a principle that we shall see incorporated into mental space theory in chapter 3).

A final fundamental issue that I wish to discuss in the present section is the ever-present and ever-relevant question of what to call the "ideas" to which behavior is somehow accommodated: Rules? Norms? Conventions? Practices? When browsing through some of the bulging literature which as a main topic or in relation to its main topic discusses this issue, and when considering the many discussions that constantly reappear in various forums, it seems unlikely that there will ever be any consensus on the definitions and applicability of these terms. Discussions of this issue in relation to CA appear to be no different, although it would appear that most conversation analysts take on a quite pragmatic view when it comes to using either of the terms *rules, norms, conventions*, *practices*, or some other term to denote interactional structures such as adjacency pairs. It is not so much the term but rather what scholars put in it that matters. This at east is the attitude of prominent CA spokesman Schegloff (1992c) in his response to speech act theorist John Searle's criticism of the CA use of the term *rules*. Searle (1986) charges Sacks, Jefferson and Schegloff (1974) with having used the term *rules* where he finds no indications of rule-governed behavior at all, namely in regard to the basic and ubiquitous system of turn-taking in conversation (see below). Rule-governed behavior, according to Searle, is behavior that is *caused by* the fact that there is a rule which says such and such. For instance, people drive in the right side of the road (in Denmark!) because there is a rule which says they must. Yet, Searle finds no grounds for postulating such rule-governedness for the turn-taking system. Schegloff, however, seems to question the relevance of such a notion of rules in relation to anything but machine behavior. At least he makes the matter much more delicate when suggesting that there may be other reasons why people would drive in the right side of the road, for instance that a driver is orienting to the fact that other drivers may be orienting to the rule. In this case the driver does not drive in the right side of the road *because of* the rule, but because he expects other people to behave in a particular way. With that suggestion we are back to the social phenomenology. People's social behavior is not *caused by* a rule set, it indicates a number of basic "assumptions" of

"everyday life." Schegloff, however, grants that such considerations may make the use of the term *rule* too delicate and he suggests that the behavior that is described in CA may instead be termed *practice* or *usage*. In particular "practice" is widespread among conversation analysts when denoting empirically observed, recurrent structures of actions in interaction. The point for Schegloff (ibid: 120) in regard to turn-taking is that whatever one calls them "There is still an interrelated set of these, whatever we call them; they are follow able, followed, practiced, employed – oriented to by the participants, and not merely, as [Searle] suggests[s], 'extensionally equivalent descriptions of behavior'."

Additionally, as Schegloff (ibid) points out, CA "rules" also present alternatives. There is not just one way of e.g. taking a turn at talk, opening a telephone call (see chapter 3), or producing a hypothesis (see chapter 5). We shall see much of that in the studies which follow in this dissertation. This though does not imply that there are no interactional structures which are oriented to by the participants and which constrain interaction to a greater or lesser extent.

Another point to make in regard to the discussion of what to call those interactional structures which participants somehow orient to is that anticipated interactional behavior is most "visible" when it is not fulfilled. Therefore conversation analysts use deviant cases (Heritage 1984) or cases of noticeable absence (Sacks 1992) (naturally occurring "breaches") to document anticipated interactional behavior. When interactional behavior is deviant or when anticipated actions are absent, there will be an orientation to the fact that something is deviant or absent either by the "breaching" participant or by some other participant or by both. This orientation to that which is deviant or missing documents the "rule."

For instance, I may deliberately not answer a question to annoy the questioner. The questioner will then *not* assume that I do not know the "rule" for question adjacency pairs (that a question must be given an answer) but rather that I did not hear the question, do not understand it, cannot answer (for whatever reason), or do not want to. The questioner will then probably respond to my lack of appropriate behavior by pursuing an answer in different ways according to his understanding of the lack of answer. And if I still

do not answer, the questioner may assume that I am deliberately trying to piss him off. Pursuing a response and the understanding of non-delivery of an answer as an insult both indicate the speaker's orientation to the "rule." As regards rules in the Searlian causal sense, I believe, these hardly cover such cases. It would be off the point to argue that my not answering a question documents a causal adjacency pair rule which just happens to be broken. Rather, there is an interactional structure the parts of which give rise to social expectations and which are socially sanctionable.

Whichever aspect is discussed in regard to calling interactional structures "rules" or not, it seems to me that the discussion will always end up with a recapitulation of the Schutzian, phenomenological basis of ethnomethodology and CA: Interlocutors' behavior is not "driven by" rules, norms, practices, conventions, or anything of the sort. Interlocutors have knowledge of such things, and what really determines their behavior is then their expectation that others have knowledge of it too and that others expect them to have knowledge of it too, and that they expect others to expect them to behave accordingly, and that they expect others to expect them to expect others to expect them to behave accordingly, etc. The truth probably is – and this also seems to be Schegloff's (1992c) point – that interactional structures which are behaved in accordance or discordance with vary a great deal, extending from very Searlian-rule-like structures to very fuzzy norms.

This discussion is of particular importance to the cognitive phenomenon of 'interactional scripts,' which is introduced in the next chapter. Alongside discussions in relation to CA, the notion of 'rules' is also one of the issues that has attracted attention in the manifestation of cognitive semantics in contrast to "classical" semantics (e.g. formal logic) (cf. Sinha in press). As will be discussed in chapter 3, I take on a position which of course is influenced by the pragmatic and Schutz-phenomenologically informed EMCA position, and which I believe is quite compatible with the general stance of usage-based cognitive linguistics/semantics (cf. Kemmer and Barlow 2000) as opposed to rule-based, "classical" semantics. The IA posits cognitive structures and processing on the basis of actual, specific empirical events of talk-in-interaction, and only structures and processing

which are directly reflected in these activities (and not "deep," general (transformational rules or anything of the sort) are proposed.

2.1.3 Some basic principles of doing CA

As already mentioned several times, CA only deals with data in the shape of naturally occurring, recorded conversations. All conversation, as already mentioned too, is found to be methodic and hence analyzable. In many respects CA proceeds in a fashion quite similar to the natural sciences, though there are some crucial differences.

Firstly, CA proceeds by *induction*. A bunch of data is collected – taped or filmed – and then transcribed and studied. The taping/filming and transcription of data (in particular with the very advanced software that is available today) allows the analyst to study the interaction as it (really) happened, in the smallest detail, over and over again. This is necessary in order to accomplish a faithful analysis. Furthermore, all material can thus be made fully available to readers/receivers for inspection and reanalysis (as is the case with the present dissertation where the data is available via the web). The study of data may lead to the finding of a potential phenomenon – a 'candidate phenomenon' – which guides further studies: Are there other cases like the prototype? Are there cases of absence or deviation which demonstrate that interlocutors do indeed orient to such a structure as described by the analyst?

Focus is constantly kept on the single case, and generalizations are consistently grounded in particular accounts. CA is a qualitative method and most often the analysts will have tested many hypotheses before anything like a documentable structure begins to emerge, if the idea of a particular structure has not been given up. Documenting and describing in sufficient detail an interactional phenomenon is a very long, laborious, and comprehensive process with many setbacks. Ideally, I have been told by several conversation analysts, one should not even use data that has not been taped and transcribed by oneself in the first place. In order to achieve optimal familiarity with the data and thus

be able almost to anticipate interactional actions in the same way as the interlocutors themselves, one must go through the whole data-gathering process. Needless to say, this is not always a practicable approach, given the financial and time consuming costs – and less should do in most cases.

Secondly, CA is a method, not a theory. This has led some conversation analysts (at least conversation analysts that I have talked to) to claim that CA is entirely theory-free and that studies are only appropriately conducted if they are completely free of preconceptions. This, of course, is not true. To begin with, CA, as I discussed above, is based on philosophical ground in the form of Schutzian, sociological phenomenology. In addition to that, CA is an accumulative science which gradually establishes an ever-growing bulk of knowledge which analysts relate to and start their own studies from. This means that new studies do not start all over. Conversation analysts' claims of theorylessness are rather/often/rightfully, I believe, to be taken as an expression (deliberate or not) of a methodological ideal which should be strived for in order to remain as unbiased as possible when studying data, not as an actually fulfillable requirement.

A major difference between the natural sciences and CA is of course that the analyst himself must be a member of or share sufficient knowledge with the social group whose interaction is being studied in order to be able to make sense of the interaction. Membership knowledge is required for analyzing the interaction. In other words, the analyst studies his material as a kind of "insider" as opposed to the natural scientist who is not and cannot be an insider. This of course brings into question the objectivity of the analyst. However, the fact that the analyst must have some membership knowledge does not mean that the analyst's own introspection or intuitions about what is going on count as evidence. Introspection, assumptions about what interlocutors' intentions are, and other such things which require the jumping in and out of the involved parties' minds (the analyst's as well as participants') has no place in the CA documentation of phenomena. A phenomenon is only documentable in so far as the analyst can show that the interlocutors themselves show that they are orienting to a particular interactional accomplishment.

Hence, though the analyst's intuitions and membership knowledge may be necessary for him to get on the track of a phenomenon, they do not count as documentation.

Such considerations as just entertained here are not based on any standard CA literature. As Steensig (2001: 26) observes, not much hermeneutic consideration is found in CA literature. It tends to focus only on the practical aspects of analysis, while such philosophical matters must typically be sought in the ethnomethodological/ phenomenological literature (e.g. Garfinkel 1986). At times one may thus get the impression that CA emphasizes craftsmanship at the expense of "deeper" insights, though of course the technical descriptions by themselves constitute fundamental insights; and this point is indeed a part of the ongoing debate in CA and between EM and CA (cf. Rawls 2002).

I conclude this section with some remarks about the craftsmanship of CA. In accordance with the basic assumptions discussed above, concerning action and context, analysis of data starts from considerations of actions-in-sequences, as opposed to approaches to utterance meaning (e.g. speech act theory) which focuses on utterances in isolation. As discussed above, the description of a phenomenon takes into consideration such things as where an action is produced – following what actions? – and how it is responded to. For each action the analyst susceptively asks "why that now" (Schegloff and Sacks 1973) – the motto of CA. Preceding and following actions are crucial in determining the work done by an action. A common procedure – in accordance with the notion of meaning for all practical purposes – for documenting the work/meaning of an utterance is "next turn proof procedure." This procedure works as in the following very simple example: To document the interactional meaning of the utterance "John on the line from LA," I look at how this action is responded to. I may find that it is responded to with a "Yeah, I just want to say that I hope they go all the way and take Saddam." From this I conclude that the interactional meaning of the first utterance/action is to introduce a caller on a call-in show and to invite that caller to state his opinion on some subject. Next turn proof procedure thus illustrates how the data themselves are a resource of their interpretation, or as Sacks, Schegloff and Jefferson (1974: 729) write:

> ...while understandings of other turns' talk are displayed to coparticipants, they are available as well to professional analysts who are thereby afforded proof criterion (and a search procedure) for the analysis of what a turn's talk is occupied with. Since it is the parties' understandings of prior turns' talk that is relevant to their construction of next turns, it is *their* understandings that are wanted for analysis. The display of those understandings in the talk of subsequent turns affords ... a proof procedure for professional analysis of prior turns – resources intrinsic to the data themselves.

2.1.4 Some basic concepts

Before I move on to the introduction of the data and a short description of my particular approach, I want to introduce a couple of basic interactional concepts dealt with in CA:

Adjacency pairs: I have already introduced the notion of an adjacency pair above. Besides greeting sequences and question-and-answer sequences, other types of adjacency pairs include invitation ? accept/rejection and formulation ? decision (see chapter 4).

A turn: In accordance with CA's bottom-up approach there exists no definite definition of a 'turn.' We could say that a turn is a continuous stretch of talk by one participant from it begins until it ends. However, there are no rules for such things as how long a turn can be and when it should stop. These things are being negotiated as the conversation unfolds as illustrated by Goodwin (1981):

1John: Well, I, I took this course.
2 (0.5)
3Ann: In h[ow to quit?
4John: [which I really recommend.
(Borrowed from Goodwin 1981: 18)

For Ann (l. 3) the turn is completed in line 2, but not for John, who carries on in line 4.

Furthermore, there are a host of other less substantial contributions to a conversation than turns, labelled e.g. 'back-channeling,' 'feedback,' or 'minimal response.'

One such minimal contribution is a 'continuer' as studied for instance by Schegloff (1982). The following example is borrowed from Hutchby and Wooffitt (1998: 106):

1Host: ...you talk about erm, (.) the rights of
2Host: people to: make a choice as to whether they
3Host: shop or not, [o:n] a Sunday,=what about .hh the=
4Caller: [yes,]
5Host: =people who may not have a choice a:s to whether
6Host: they would work on a Sunday.

The caller's "yes," which overlaps with the host's "on" (indicated by the square brackets) can be interpreted as a continuer. Continuers such as "yes," "mhm," "right," and "uhuh" display the hearers' understanding that a turn is not complete even though it has reached a possible turn transitional-relevant place (see below). Thus by a continuer, the hearer does indeed contribute to the interaction, but s/he also shows that s/he does not intend to take a turn, but instead that she anticipates the turn to continue. (See also Lerner (1996) on the semi-permeability of grammatical units)

There are many different kinds of minimal contributions to a conversation which serve many different purposes. However, conversation analysts find no clear-cut boundaries between them. As in the case of turns and as everything else in interaction, they are negotiable and hence changeable.

Turn constructional unit (TCU): A turn, it is proposed in CA, is constructed from various unit types. These building blocks are referred to as "turn constructional units" (Sacks, Schegloff, Jefferson 1974). A TCU is often a grammatical unit of some sort, e.g. a word, a phrase, a clause, or a sentence, but many other things may play a role in the segmentation of a turn into TCUs, intonation for instance (Ford and Thompson 1996). TCUs are important because they project unit-types under way and what it will take to complete a unit. Studies like Goodwin & Goodwin (1987), Lerner (1991a), and Sacks, Schegloff and Jefferson (1974) document this richly. Consider the following example from Lerner (1991: 445):

2.4

Louise: when he gets his eyes like this an' he starts thinking, you know
Ken: then you got to worry

Lerner (ibid) comments:

> Because a second speaker can produce an instance of the final component and initiate it at a place it could be due, it suggests the sequential availability of these features from an inspection of the utterance-in-progress: That is, the turn-so-far projects an upcoming slot for a specifiable final components. This makes it sequentially possible to produce a next utterance that can be affiliated to the turn-constructional-unit-in-progress as a fitted completion of it.

(In Hougaard (forthcoming), the projectability of turn constructional units is discussed in relation to mental space analyses of utterances-in-progress. See also chapter 4, where an example from Goodwin and Goodwin (1987) is given.)

Turn-taking: TCUs are essential to the taking of turns in interaction. Speakers will not just start talking at any arbitrary point. This is documented in the classic article on the systematics of turn-taking by Sacks, Schegloff and Jefferson (1974). Initially, they argue, a speaker, is entitled to one TCU, and the first possible completion of that unit constitutes a 'turn transition-relevance place.' At such a place they propose, the following set of turn-transition rules hold:

> (1) For any turn, at the initial transition-relevance place of an initial turn constructional unit:
> (a) If the turn-so-far is so constructed as to involve the use of a "current speaker selects next" technique, then the party so selected has the right and is obliged to take next turn to speak; no others have such rights or obligations, and transfer occurs at that place.
> (b) If the turn-so-far is so constructed as not to involve the use of a "current speaker selects next" technique, then self-selection for next

> speakership may, but need not, be instituted; first starter acquires rights to a turn, and transfer occurs at that place.
> (c) If the turn-so-far is so constructed as not to involve the use of a "current speaker selects next" technique, then current speaker may, but need not continue, unless another self-selects.
> (2) If, at the initial transition-relevance place of an initial turn constructional unit, neither 1a or 1b has operated, then the rule set a-c re-applies at the next transition-relevance place, and recursively at each next transition-relevance place, until transfer is effected.

Remember from the discussion above that Sacks *et al*'s "rules" are not the same as Searle's *causal* rules, which explain human behavior as being conducted just so *because of* the rule. When, for instance, a next speaker takes a turn at talk (1b: self-selection) at the possible completion of a TCU, he does so because he expects the current speaker to expect him to take a turn at that point, because he expects the current speaker to consider that place a turn transition-relevant place, and so on.

2.2 The Data

Data set #1, *"Watergate,"* consists of three taped telephone calls conducted in the White House by different participants in the Watergate affair, which took place between 1972 and 1974. The calls are a part of the approximately 3,700 hours of recorded conversations between President Nixon and his staff, and visitors at locations in the Oval Office, the President's Executive Office Building hideaway office, the Cabinet Room, various White House telephones at the Oval Office, and the Lincoln Sitting Room, and at various Camp David locations. These recordings, known as the "Watergate tapes," were produced secretly, without most of the participants' knowledge. The existence of the White House taping system was not made public until the testimony of former presidential aide Alexander Butterfield before the Senate Watergate committee in July 1973. Recording stopped soon afterwards, but the recording equipment was not removed until after President Nixon left office in August 1974.

The transcripts which are used in the present dissertation have all been done by Gail Jefferson (2001) according to her own transcription system. This system has

become a standard transcription system in CA. A glossary of transcript symbols is given in appendix 1 ("The Jefferson System"). At a number of places, in the transcripts, Jefferson makes comments about deviations in her transcript from the transcripts done by the Watergate special prosecution force. The latter were done in a traditional stenographic fashion which does not capture the various features of talk captured in Jefferson's very detailed transcription. The full transcriptions are available at a corpora web page maintained by the interaction research group at the University of Southern Denmark (http://www.humaniora.sdu.dk/interaction/ Datakorpus/Datacorpora.htm). The corpora are a part of the MOVIN corpora (http://www.conversation-analysis.net/) and the TALK BANK corpora (http://www.talkbank.org/). Reading the transcripts requires CLAN-CA (Computerized Language ANalysis) which can be downloaded free of charge at http://www.humaniora.sdu.dk/interaction/Datakorpus/frontpagedata.html. The sound files are available at http://talkbank.talkbank.org/media/MOVIN/, and they can be played in Windows Media Player, Quick Time and other sound editors.

Data set #2, *"Gulfwar,"* consists of eighteen phone call conversations between callers and host Leo Laporte on a call-in show on The San Francisco Bay Area Radio in 1991. The call-in show took place in the early days of the allied campaign – headed by the USA – against Iraq, who had invaded Kuwait some months before and who ignored UN demands that they left the country. The host and the callers discuss the bombings of Baghdad (which had just begun), demonstrations in the USA against war, future prospects of war, alternatives to war, fear of terror, and other related matters. Between the calls, a reporter reports live from scenes of demonstration in the USA against the war. The data and their transcriptions have been donated to TALK BANK by conversation analyst Elizabeth Couper-Kuhlen. Couper-Kuhlen's interest in the data concerns how prosody contributes to the achievement of the interactional tasks which the participants must accomplish, and she has published a paper on this issue (Couper-Kuhlen 1998 – can be downloaded free of charge, see bibliography). The phone calls have been transcribed according to Jefferson-style conventions – "the GAT system" (Gesprächsanalytisches Transkriptionssystem) –

developed by a German interaction group connected to the University of Potsdam. The conventions are presented in Selting *et al* (1998), and they are reproduced in appendix 1 ("The GAT System"). The sound files are available at http://talkbank.talkbank.org/media/MOVIN/, and they can be played in Windows Media Player, Quick Time, and other sound editors.

The goal of this dissertation is to capture social processes of naturally occurring, *ordinary conversations* by *ordinary people* on the basis of which cognitive theorizing is carried out which is proposed to concern *everyday cognitive processing*. Hence it may be argued against my data that conversations in a particular political setting and calls to a call-in show do not represent the most ordinary of conversations. That is true. However, these settings are not exactly exotic either, and the conversations are still conducted by ordinary people. The politicians and officials in the Watergate conversations may be extraordinary people in a historical sense, but they are still quite ordinary human beings, and it is also quite ordinary human beings who talk on the call-in show. Thus there is no reason to assume that the participants in these conversations do not bring to bear on them ordinary procedures and techniques of conversation, which however, as is always the case, are adjusted to the particular local context. What I have found in the studies which are presented in the following chapters is thus that conversationalists do such and such in those particular settings. It will though be something that people *can be found* to do, and hence it will be of interactional and cognitive interest, and qualify as potential general phenomena.

It must also be emphasized that in the present dissertation only one interactional phenomenon as such is presented, namely 'story packing utterances,' which are discussed in chapter 4. The cases discussed in that chapter constitute a subtype of 'formulations,' which have been studied extensively by Heritage and Watson (1979). The rest of the interactional phenomena that I present in this dissertation only qualify as *candidate phenomena*. However, fully documented, generic interactional phenomena are not required in order to be able to draw inferences of cognitive significance. Many – meaning "sufficient" – cognitive inferences can be made from the observation alone that in

several cases (the cases collected and described in the following studies) interlocutors can be observed to somehow orient to a particular interactional structure which appears to be a general interactional structure, although this has not been certified and although it has not been studied in every conceivable, significant detail, and in a sufficiently wide array of contexts to qualify as an absolute interactional phenomenon.

2.3 The Interactional Approach in Technical Terms

In the introduction, I have already demonstrated how I conduct the studies in the present dissertation. The cognitive analyses have come about through the following steps: The data was studied with an eye for spotting activities of a possible, particular cognitive significance. At this early point, no analyses as such were carried out, neither interactional nor cognitive. This first phase simply provided a starting point based on hunches. Promising cases were pursued further in purely interactional terms. At this point all cognitive theory was cast aside, and the cases were studied solely as possible interactional phenomena. The initial cases were then described in detail, and more data was studied with the purpose of finding more instances. In accordance with the approach as discussed above, I looked for both deviant and "regular" cases, as well as for cases displaying noticeable absence of actions/components. If the search for more cases was successful, an interactional phenomenon-study was attempted. That is, as described above, I stuck to the level of 'candidate phenomena.' The collected cases were described and classified, and general candidate structures were deducted. The deduction and general description concluded the CA part of the study. Then based solely on the interactional evidence, a cognitive description was carried out, which followed the interactional step-by-step, actions-in-contexts description with a corresponding step-by-step cognitive description. What I present in the chapters that follow are thus candidate phenomena descriptions and deductions of general interactional structures on the basis of which particular cognitive processes are described.

The cognitive description does not interfere in any way with the interactional study apart from the fact that cases have been collected to begin with for their possible

cognitive significance. However, the interactional study remains purely interactional, and the cognitive analysis is only based on a final interactional analysis. This procedure – where the interactional data is first analyzed purely on its own terms – is crucial (and must be strict) since interactional behavior is my evidence.

2.4 Where CA and Cognitive Semantics Meet: A Phenomenological Crossing

Here at the end of the mainly introductory first part of the dissertation, I am finally in a position to attempt to account for a crucial question in relation to the project and the particular approach presented here: Where exactly does an empirical, social science like CA meet with another type of empirical science like second generation cognitive semantics – the latter having mainly been based on the study of *individuals'* subjective experience of meaning, or their *Lebenswelt* ("life-world"). A subjective phenomenological focus such as exercised in second generation cognitive semantics seems to be irreconcilable with a *social* focus on meaning for all practical purposes, and vice versa. However, I propose that CA and cognitive semantics do indeed meet on phenomenological ground, namely the social phenomenological ground defined by Schutz and his follower Garfinkel.

In chapter 1, I presented the argument by Brandt (MS) that a genuine cognitive approach is one that takes into account "real cognitive [...] productions in the architecture of the socially committed human mind." As I understand Brandt, or perhaps rather as I read him from the point of view of the IA, he is in fact, though in different terms, proposing that a genuine cognitive approach requires a social phenomenological basis. A cognitive approach which focuses on real processes in real contexts cannot help paying attention to the social anticipations that the cognitive agents have in the here-and-now of interactional online meaning construction. Hence, a cognitive approach along such lines naturally meets the work of Schutz and Garfinkel, whereby it meets the philosophical basis of CA. In turn, with CA follows strict methodological demands and procedures. In other words, what this dissertation is aiming at is a "genuine cognitive approach" in the shape of a cognitive semantics of and grounded in interaction and particular empirical methods of studying interaction. In the following chapter, I discuss the technical concept which adds to

cognitive semantics a social phenomenological basis: the notion of a 'base space.'

CHAPTER 3

BASE SPACES AND INTERACTIONAL SCRIPTS

STUDY#1: OPENINGS OF CALLS TO A CALL-IN SHOW

3.0 Intro

This chapter studies interlocutors' conceptualization of the very structure of the interaction they engage in, as by itself an online meaning construction phenomenon, and as generating and determining both particular actions in particular places and the cognitive processing which takes place in relation to these actions. Thus in contrast to the following three chapters, this chapter does not focus on a particular meaning construction operation *per se* (as compression, hypothesizing, or disintegration). The cognitive notions that are discussed in the present chapter are a dynamic, narrow, interactional version of Schank and Abelson's (1977) scripts and an interactional instantiation of the base spaces notion (cf. Brandt & Brandt 2002). These issues are non-canonical issues in conceptual integration theory, the notion of base spaces having been for some time now a rather controversial issue. However, they are characteristic of and central to the interactional approach.

The roles of base spaces and dynamic interactional scripts in online meaning construction have already been sketched in the preliminary case study in the preface. We saw that the base spaces represented the interlocutors' orientation to the interactional structure, which is structured in terms of a narrow, dynamic interactional script. In this chapter I elaborate the discussion of these notions to achieve a theoretical definition of them as essential integral components of cognitive processes of online meaning construction in interaction. However, any addition of theoretical concepts should always be justified. Are they empirically supported, and are they necessary? In short, we must address the following questions:

3.1 Why Base Spaces and Why Interactional Scripts?

The discussion of these questions will rephrase central points from the Introduction and chapters 1 and 2. Consider again the segment of talk between Charles Colson and Howard Hunt, which was discussed in the preface (as example I). I repeat it as 3.1, now transcribed in proper CA fashion.

3.1

1Col: H'leoo,hm[hh
2Hun: Hi:[:.
3Col: [.hhh How'r we do↓in'.=ehheh
4Hun: Well: uh: 'bout iz well ez c'n be expected How er you:,
5Col: You know jist about the sa:me.
(Colson&Hunt.ca, ll. 11-15)

As we saw in the preface, the base space provides a local, relevant context for Colson's "How'r we doing" (l.3). Without this context, there is no way to determine the meaning of the alluding question to be "how are you (Hunt) doing with respect to the specific situation that I (Colson) have insider knowledge about?"; there is no way that the question would be recognized as necessarily a formal integration of a how-are-you question and a standard term for speaker-inclusiveness, *we*, prompting a conceptual integration; also there is no way to determine how the involved conceptual structures should be integrated, yielding a particular blended We-structure (as diagrammed in the preface, figure III). We cannot even begin to describe the conceptual integration in question without starting from the relevant, local context: the interactional relevance of a "general" how-are-you question. By this I not only mean settling on a contextually relevant meaning as preparation for the analysis proper. The choice we have as analysts is whether we choose to incorporate the contextual aspects in the technical analysis as an integral part of the cognitive process to be described (as discussed in chapter 1; see Brandt's "cognitive approach" vs. a "cognitivistic approach"), or whether we just take the context for granted – consider it something that we just have to get in place to be able to do the actual analysis. We may claim that we are only concerned with the very integration of conceptual structure, the sheer cognitive machinery cleansed of any local peculiarities. Yet, what we are left with then, according to IA, is hardly an attractive cognitive machinery at all: It does not recognize when to blend, what to blend, or how to blend; and consequently it cannot be predicted when it blends, what it blends, or how it blends – it just blends.

The theory of conceptual integration is a powerful cross-domain generalization. One danger of such a generalization is that the focus on its context-free form makes us think of human beings as agents equipped with cognitive "software" (i.e. capacities such as conceptual integration), who can then be inserted into some predefined contexts which the cognitive "software" will act on. Moreover we could come to think of different contextually and domain-bound examples as serving simply to illustrate different activations of the "software." What gets lost in this picture is that all everyday cognitive activity unfolds in and on some

specific, local context which determines the activity. It is the activity in its specific, local context that is human behavior. Consequently, it must be the cognitive activities-in-contexts that are to be generalized if we want to capture what human beings do when they construct meaning. A context-free mechanism captures context-free behavior, but according to the IA, the notion of context-free behavior is a meaningless notion. Focusing on context-free cognitive abstractions separates the cognitive description from that which it seeks to describe. With the base space, the cognitive analysis is focused on activities-in-contexts as the cognitive phenomena to be captured.

Integrating the contextual aspect in terms of a mental base spaces raises the question of how the base space is organized and what goes into to it? In order to depict activities-in-contexts, the relevant context must have a certain organization. This must be specified in the representations, otherwise the notion of a base space ends up as just a muddy concept which does not add much after all. Whether one is studying how people who enter a museum interpret the art on the walls, how people who read a poem make sense of it, or how people who engage in interaction achieve a socially shared meaning, there must be some clear assumptions about what contextual aspects have an impact on the meaning construction. In the attempt to capture, in cognitive terms, interlocutors' orientation to the very structure of the interaction they engage in (the relevant context), and hence the way in which they – in mental space terms – organize the base space, I introduce the concept of an 'interactional script.' Evidence of such scripts is found in the way interlocutors display orientation to interactional norms when they talk. In accordance with Garfinkel's social phenomenology, the base space with its interactional script organization represents the *interlocutors' mutual expectations as to how the other part conceives of the interaction here-and-now*. For instance, if a question has been posed by speaker A, then speaker A expects speaker B to conceive of the interactional situation as one in which speaker A has just posed a question, which requires and answer from speaker B, and speaker B expects speaker A to conceive of the interactional situation as one in which speaker A has just asked a question which requires an answer from speaker B. It is this kind of expectations that the interlocutors display in their actions.

In this chapter, I first study the interactional organization of openings of calls to the Leo Laporte call-in show and briefly evaluate the interactional analyses from a cognitive semantics viewpoint to provide an empirical basis for a theoretical discussion of interactional scripts. Then I describe the notion of an interactional script by setting off in a dialectical account of Schank and Abelson's theory from 1977 and basing my arguments on my own interactional analyses and general insights from CA. The theoretical discussion is concluded with a cognitive semantics description of openings of calls to Laporte with the crucial inclusion in the mental space representation of base spaces and interactional scripts.

3.2 Interactional Analysis of Openings of Calls to the Laporte Call-in Show

3.2.1 An Initial Example

The current study is based on 18 calls to Leo Laporte's call-in show. To give the best impression of a recurrent organization throughout the openings, I will walk through each significant action and consider examples from the whole collection which illustrate variations of each sequence or action of which the openings are composed. Then on the basis of this stepwise account of the openings, I shall set up a general account of standard variations of whole openings. However, I start out by considering in unelaborated fashion the structure of one whole opening:

3.2

Op#1:
1LL: mArk on the line from marTINez;
2LL: yOU're NEXT <<l> on the giant sixty eight.>
3M: hi how are you DOing leo,
4LL: GOOD;
5LL: THANKS for hanging On.
6M: yeah uhm -
7M: you knOw its fUnny when you LISTen to ya;
8M: you y-you come on with uh ONE thought;
9M: and then you listen to all the people cAlling;=
10M: and it CHANges what you're gonna <<laughing>> ↑SAY but;> .hh
(2Gulfwar.ca, ll. 10-19)

Very briefly, this opening consists of the following significant components:

1st turn, ll. 1-2: *Presentation and on air-summons reply:*

First (l.1) the caller is presented by first name and locale. This action is directed at the audience as a "staging" of the expected caller. Then (l.2) follows an answer to the summons (the caller calling) with organizational self-identification ("the giant sixty eight KNBR"). This action is directed at the caller. The summons answer categorizes the caller as next-caller-on-air and as the specific "Mark from Martinez."

2nd turn, l. 3: *Greeting, recognition, and initiation of how-are-you sequence*:

The caller greets the host and produces the first pair part of a how-are-you sequence with an address term ("Leo"). The greeting and the address term do the job of claiming recognition of the host, and implicitly the turn confirms the host's presentation of the caller. The turn projects[18] a second greeting and a second pair part to the how-are-you.

3rd turn, ll. 4-5:

The host gives the second pair part to the how-are-you and a thanks. This action closes the opening part of the call and makes reason for the call the only next relevant action.

4th turn, ll. 6-10:

The caller responds to the host's thanks with the minimal "yeah" and introduces the first topic for the conversation.

These components make up three sequences, which together comprise the opening:

a) An identification and recognition sequence, ll. 1-3 (turn 1-2)

b) A how-are-you sequence, ll. 3-4 (turn 2-3)

c) A thanks sequence, ll. 5-6 (turn 3-4)

With these components, Op#1 is quite representative of openings of telephone conversations with Leo Laporte on the call-in show, although components (b) and (c) are not found in all openings. Now let me flesh out each action and sequence, and then return to an account of the openings in their full length.

3.2.2 Presentation, Summons Answer, On-air Categorization, Recognition and Confirmation

The typical opening of a call to Laporte is built as a locally modified and expanded version of a standard opening of a telephone call as these have been described in the CA literature (see below), the latter consisting of a summons answer and an exchange of greetings which establish identification and recognition (and a how-are-you sequence). The special design of the initial structure in calls to Laporte concerns the local circumstance of the calls: that they are calls to a call-in show which has an audience. To appreciate this, I start by considering the general issue of openings of telephone calls and identification and recognition.

Identification and/or recognition of one's co-participant(s) is probably the most fundamental basis of all social interaction. How do we talk to a person that we have not recognized or identified (maybe not even the person's sex has been identified), and should we talk to him or her at all? In most social interaction, identification and/or recognition is accomplished (though not always exclusively) via the visual sensory system. However, in telephone conversations visual identification and/or recognition is not possible and cannot be accomplished before (or as a condition for) the beginning of the interaction. In telephone conversations, "The work of recognition has a sequential locus in the talk, occupying or informing a sequence of conversational turns," Emanuel Schegloff observes in his famous article "Identification and Recognition in Telephone Conversation Openings" (1979: 27). Based on the study of 450 openings of telephone conversations (the participants in which vary with respect to such parameters as age, sex, region, and social class) Schegloff makes the solidly supported observation that the specific "sequential locus" of identification

and/or recognition in telephone calls is the second turn, "T2," which is the caller's first turn. In the following I offer a quick tour of various examples of identification and recognition organized around T2. The data is presented and discussed in Schegloff (ibid).

a) Claim of recognition by caller with greeting term at T2:

3.3
A: H'llo:?
B: hHi:, ←
(Borrowed from Schegloff (1979: 28), TG, op#1)

This example is parallel to the Watergate example from the preface: "A caller's use, in his first turn, of a greeting term alone […] constitutes a claim by caller that he has recognized the answerer from the answerer's first turn," Schegloff argues (ibid: 34).

b) Reciprocal recognition achieved with exchange of greeting terms at T2 and T3:

3.4
A: Hello::,
B: Hi:::, ←
A: Oh: hi:: 'ow are you Agne::s, ←
(Borrowed from Schegloff (1979: 35), NB, op#114)

"… as the first greeting displays recognition, so will a second greeting [at T3]; it will thus do more than complete the greeting exchange, it will stand as a claim that the answerer has reciprocally recognized the caller," Schegloff argues (ibid: 35)

c) Problems with answerer's recognition where the caller indicates that the answerer should recognize him from a voice sample alone (in producing a greeting and an address term):

3.5
C: *Hello?*
Y: *Hello Charles.* ←
(0.2) ←
Y: This is Yolk. ←
C: Oh hello Yolk.
Y: How are you heh heh
C: Alr(hh)ight hah hah It's hh very
funny to hear(hh) from you.
(Borrowed from Schegloff (1979: 37), ID, op#212a)

Since, a second greeting (in T3) will claim the answerer's recognition of the caller, "Answerers who do not recognize the caller may withhold the return greeting in order not to claim a recognition they have not achieved," Schegloff (ibid: 36) argues. Hence the caller's first turn is followed by a gap of silence, which is understood by the caller as "no recognition"; and in response, the caller supplies additional resources for the recognition, thus "backing down from the claim that the recipient recognize him from a voice sample alone" Schegloff (ibid: 37).

d) Who's this?:

3.6

C:	Hello?	
G:	Hello.	
	(1.5)	←
C:	Who's this?	←
G:	Who <u>is</u> this. = This is your (0.2) friendly goddess,	←
G:	Ohhh, hhh, can I ask for a wish	

(Borrowed from Schegloff (1979: 39), ID, op#212a)

Here, as in (c), there is also a gap of silence, but the caller does not upgrade the resources for recognition. Instead, Schegloff (ibid: 38) argues, "'Who's this' makes explicit, and embodies in a sequentially consequential turn, C's failure to recognize." "Who's this?" is a 'next turn repair initiator' (NTRI); it addresses a problem in a prior turn and asks for a resolution or as Schegloff puts it, it is "directed to trouble of some sort in a prior turn" (ibid: 38), and it "provides another opportunity, in the turn that follows, for G [the speaker of the trouble source] to repair the trouble, for example, by giving her name" (ibid: 39).

e) Self-identification:

3.7

R:	Hello.	
L:	Hi Rob. This is Laurie. How's	←
	everything.	
R:	((sniff)) Pretty good. How 'bout you.	
L:	Jus' fine The reason I called was	
	ta ask…	

(Borrowed from Schegloff (1979: 47), LM, op#199)

"On the whole," Schegloff argues, "self-identification is not much done in the caller's first turn." And when self-identification occurs at T2 it often does not initiate its own sequence, but is combined with another turn component (e.g. "Hey Rick, this is Mark. Is Bill in?", #198 borrowed from Schegloff 1979: 31) which is then "sequentially implicative" (ibid: 46). Thus, here the self-identification projects "an abbreviated opening and a

quick move to first topic or reason for the call" (ibid: 47). As opposed to cases where first topic is initiated in callers' first turn, "the risks of non-recognition entailed by that procedure are avoided by self-identification in the caller's first turn, at the cost of one turn (the first topic being initiated in the caller's second turn) but avoiding a fully expanded opening section" (ibid: 47).

In sum, Schegloff (ibid: 41) observes for T2:

> It is because nearly every turn-type in the second turn which appears to evade the identification/recognition issue is vulnerable to its immediate appearance - by a "who's this" or by a gap which is understood as displaying the need for self-identification – that it seems that the identification/recognition issue is generically relevant at second turn, whatever the overt composition of the utterance placed here.

Another important concept to be brought to the fore in relation to the recognition issue (but which is general to all interaction, see chapter 2) is 'recipient design':

> A caller's use, in his first turn, of a greeting term alone, or a greeting term plus and address term "terminally intoned" or other of the earlier-listed components in this class [that is address term alone, (greeting +) question or "noticing concerning answerer's state" (ibid: 30), request to speak to another, (greeting +) 'reason for the call' or 'first topic', or some type of joke], constitutes a claim by caller that he has recognized the answerer from the answerer's first turn. And it invites reciprocal recognition from the single, typically small turn it constitutes. In being selected from the set of possible turn-components at just the point that recognition of the answerer is claimed, it shows itself as well to be recipient-designed, i.e., selected by virtue of who the recipient is. It carries then the promise that the caller is, for this answerer, one who can be recognized from this resource. (ibid: 34)

In 3.5, we saw how the caller had to back down from the claim that he is one who can be recognized by the answerer by a voice sample alone. Recipient design, however, is not only an issue in relation to what turn-component the caller chooses for his first turn. Recipient design is an issue already in answerer's first turn. Schegloff (ibid: 33) writes:

> At a phone whose callers are not expectably recognizables and are not expectably oriented to answerers as recognizables, answerer's first turns routinely are designed to afford categorial confirmation that the caller reached what he intended, typically by self-identification (e.g.,

> "American Airlines"), a self-identification which projects a type of identification for caller (e.g., "customer") and aspects of the type of conversation getting under way (e.g., "business"). For a phone whose callers may be oriented to a set of potential answerers who are recognizables, answerer's first turns regularly supply a voice sample – "hello" is its conventional vehicle – as materials from which confirmation of reaching the intended locus may be achieved, but no overt self-identification. The confirmation may be achieved by recognition, and the caller's first turn is the place in which such recognition, or trouble with it, can be displayed.

With these concepts and this brief overview of Schegloff's study of identification and recognition in private American phone calls, we have a background for understanding better the work that is being done in the first sequence of the calls being examined here.

In the calls to Laporte, as mentioned above, we find an expanded version of the standard openings of private American phone calls as studied by Schegloff (ibid), which are composed of answerer's summons answer (e.g. "Hello"), followed by caller's recognition of answerer (e.g. greeting), followed by answerer's recognition of caller. The expanded, standard initial three-turn structure in openings of calls to the call-in show is exemplified in 3.8a-c.

3.8a-c

a) Op#6:
1LL: dEbbie on the LINE from SAN josE -
2LL: yOU're on the giant sixty eight knbR i'm leo laporte.>
3LL: HI lEo;
4LL: <<l> HI Debbie.>
(6Gulfwar.ca, ll. 14-17)

b) Op#10:
1LL: RON on the LINE from HAYward;
2LL: YOU'RE on the giant sixty eight knbr with lEo lapOrte.
3RO: yeah HI;
4LL: HI RON; (.)
(10Gulfwar.ca, ll.14 -17)

c) Op#14:
1LL: mArshall on the line from CONcord;=
2LL: YOU'RE on the giant sixty eight knbr.
3MAR: HI:.
4LL: hi marshall.
(12Gulfwar.ca, ll. 50-53)

In the standard call-in show opening, Laporte's first turn consists of two components which can be generalized as

1. "X on the line from *Somewhere*."
2. "You're (next) on the giant sixty eight KNBR (+ self-identification by name)"

Each of these components does specific work, the second component having multiple functions.

1. "X on the line from *Somewhere*.":
The first component identifies the caller by first name and locale. Normally, one would expect all actions in a telephone call to be directed at a co-participant (one who can speak, listen, and respond). This identification, however, is not directed at the caller, it is specifically directed at the audience as a *presentation* of the caller, uttered in the third person. "X on the line from Somewhere" is not uttered in an inquisitive or exclamatory tone, seeking confirmation from an addressed part of recognition or claiming recognition just now. The first component is uttered as a statement of fact of who, as at this point a third part, is at the other end of the line, giving information to those who at this point are the second part (the audience). Presumably, then, Laporte is using resources (caller's name and locale) given to him beforehand by an assistant to identify the caller as a presentation to the audience.

Another indication that the first component is directed at the audience as a presentation is the possibility of adding information to the presentation which can only be relevant new information to the part(s) who is/are not talked about.

3.9

Op#8:
1LL: bIll on the line from san jo'⌈SE,
2LL: on a ↑CAR phone; ←
(8Gulfwar.ca, ll. 11-12)

The elaboration "on a car phone" shares information which is already given to the caller. Hence only parts who are not the caller can be appropriate targets of the information.

2. "You're (next) on the giant sixty eight KNBR.":
The second component of Laporte's initial turn is a locally adapted, recipient designed summons answer which categorizes the caller as next-caller-on-air.

Most callers treat Laporte's initial turn as a type of summons answer by claiming recognition of answerer as their first action:

3.10

Op#14:
1LL: mArshall on the line from CONcrod;=
2LL: YOU'RE on the giant sixty eight knbr.
3MAR: HI:. ←
(12Gulfwar.ca, ll. 50-52)

3.10 is parallel to a standard type of first turn by callers (T2), discussed by Schegloff (ibid). One of Schegloff's examples was given in 3.3. Schegloff (ibid: 34) was quoted to say that "A caller's use, in his first turn, of a greeting term alone […] constitutes a claim by caller that he has recognized the answerer from the answerer's first turn,"

In other cases the caller also uses Laporte's first name as address term (in response to Laporte's use of their first name), demonstrating recognition through personal address:

3.11

Op#11:
1LL: DON on the line from san francIsco.
2LL: YOU'RE on the giant sixty eight knb↑R;
3DO: HI LEo, [uh: ←
(10Gulfwar.ca, ll. 74-76)

As a summons answer, the second component of Laporte's initial turn contains a type of self-identification which identifies the organization that the caller has reached: "giant sixty eight KNBR." But it may also contain a personal self-identification, a self-identification of the representative of the organization, Leo Laporte:

3.12a-b

a) Op#6:
1LL: dEbbie on the LINE from SAN josE -
2LL: yOU're on the giant sixty eight knbR i'm leo laporte.> ←
3D: HI lEo;

(6Gulfwar.ca, ll. 14-16)

b) Op#10:
1LL: RON on the LINE from HAYward;
2LL: YOU'RE on the giant sixty eight knbr with lEo lapOrte. ←
3RO: yeah HI;
(10Gulfwar.ca, ll.14 -16)

Though most callers on the cal-in show claim recognition of answerer as their first action, the fact that a few callers respond to the last component of Laporte's initial turn by going directly to first topic documents the impact of Laporte's turn on whatever comes next as 'action conducted on-air':

3.13a-b

a) Op#13:
1LL: lOwell on the line from san CARlos;
2LL: YOU'RE on the giant sixty eight knbr i'n leo lapOrte.
3LO: <<all> yeah i have a QUEStion for you.> ←
(12Gulfwar.ca, ll. 16-18)

b) Op#15:
1LL: hEAther on the line from STOCKton;
2LL: YOU'RE on the giant sixty eight knbr.
3LL: (0.3)
4HE: yeah: uh:m I jUst had a COUPle of things; ←
(13Gulfwar.ca, ll. 15-17)

In both Op#13 and Op#15, the caller only produces the small token "yeah" before going on to first topic. "Yeah" is a minimal response to Laporte's initial turn (see below). In other words, these callers strongly orient to having been categorized as callers-on-air-who-have-business-to-state, and take a quick path to doing so. Thus though only a few callers go directly to state their topic in their first turn (apart from the minimal "yeah"), whatever other business is attended to first is still conducted as-on-air. Furthermore, Op#13 and Op#15 show that presentation of first topic (which, as we shall see below, is also 'reason for the call') is relevant at all TCU- or adjacency pair-completions from the point at which Laporte's initial turn is completed.

A third aspect of the last component of Laporte's first turn concerns the pro-term "you." With its position as immediately following a component which gives the caller's name and locale to the audience, "you" can be understood to direct this information at the caller. Hence "you" is "you X from Somewhere (are on the giant sixty eight KNBR)." Thus the second component not only categorizes the caller as next-caller-on-air; it categorizes the caller specifically as "X from *Somewhere*." One call shows a caller jokingly orienting specifically to this categorization:

3.14:

Op#18:
1LL: <<l> DUStin on the line from Antioch; =
2LL: YOU'RE on the giant sixty eight knbr.>
3DU: you GOT me. ←
(15Gulfwar.ca, ll.64 -66)

Another call has the caller repairing the name of the locale in "X from *Somewhere*":

3.15:

Op#5:
1LL: MIKE on the line from sacramento;
2LL: you're on the Giant sixty <<l> eight knbr.>
3MI: helLO: and i am calling from El cEntro caliornia. ←
(5Gulfwar.ca, ll.11 -13)

In both Op#18 and Op#5 the caller orients to being categorized as a specific person from a specific place.

However, whether or not the caller orients to being categorized as a specific caller, whatever business he attends to in his first turn will be understood as actions conducted by the specific "X from *Somewhere*" introduced in the first component of Laporte's initial turn, since he takes up the action made relevant for that specific person. Hence in the typical opening where the caller claims recognition of answerer with a greeting term or a greeting term plus an address term, he thereby also confirms the identification of him.

Conversely, the caller may also orient to the confirmation of the identification of him, leaving recognition of answerer as implied (as in Op#13 & Op#15, 3.13a-b). This takes me back to the minimal "yeah" as caller's first action, which I commented on briefly above. This will be the last point I bring into the discussion of the initial structure before summing it up. Though more substantial empirical evidence for a detailed analysis of "yeah" as the specifically categorized caller's first action does not exist, an initial analysis still suggests that "yeah" in this position responds to the initial turn. Although the "yeah" may not be an overt confirmation of the information in the initial turn, it signals more generally, in the absence of any repair initiation, that who takes the next turn and initiates it thus complies with the conditions set up for it by prior speaker.

The possibility of "yeah" as caller's first action being just another type of greeting and claim of recognition is ruled out by the following example:

3.16

Op#10:
1LL: RON on the LINE from HAYward,

2LL: YOU'RE on the giant sixty eight knbr with lEo lapOrte.
3RO: yeah HI; ←
(10Gulfwar.ca, ll.14 -16)

Here "hi" does the job of greeting and claiming recognition. Thus, according to the characterization of "yeah" above, a caller may in his first turn respond explicitly to Laporte's first turn both as a summons answer (by claiming recognition) and as an identification of caller by confirming this identification. Another variant of such a first turn by caller is found in the following example:

3.17

Op#12:
1LL: <<h> arlEne on the line from alameda <<l> yOU're on the
2LL: giant sixty eight knbr.>
3AR: YES hellO; ←
(11Gulfwar.ca, ll. 11-13)

The "yes" in Op#12 seems even more distinctly (than "yeah") to confirm the information given in Laporte's initial turn.

Openings of phone calls to Laporte thus organize identification and recognition in a different manner than the private American phone calls studied by Schegloff. Both Schegloff's private American calls and calls to Laporte have callers' claim of recognition of answerer at T2. However, whereas Schegloff's private calls have answerer's claim of reciprocal recognition at T3, Laporte's callers are identified by answerer already in T1. Hence where T2 in Schegloff's private American calls is vulnerable to problems regarding identification/recognition of caller, it is T1 in calls to Laporte that is vulnerable to problems regarding the identification/recognition issue:

3.18:

Op#3:
1LL: we go LIZ on the line uh on the giant sixty eight knbr.
2LL: HI lIz;
3LL: (0.9); ←
4T: [<<hello,> ←
5LL: [<<h+f> HI lIz>;
6LL: (0.6) ←
7T: oh this isn't lIz this is TRAcy in <<laughing> san ←
8T: francisco;> ←
(3Gulfwar.ca, ll. 114-119)

The caller has been identified as "Liz." However, the gap (0.9, l. 3) following T1 (which is followed by an inquisitive "hello" (l. 4) and another gap (0.6, l. 6) after Laporte's repetition of his greeting, l. 5) indicate

problems with the identification of caller, which turns out to be caused by Laporte's having identified the caller by the wrong name (ll. 7-8).

The analysis so far gives rise to the following general description of Laporte's and caller's first turns:

Laporte's 1st turn:

1) Presentation to the audience of next caller by name and locale + a summons answer with organizational self-identification ("the giant sixty eight KNBR"). This is sometimes followed by self-identification of the organization's representative ("Leo Laporte").

The first turn allocates the next turn to the caller and categorizes him/her as next-caller-on-air and as the specific "X from *Somewhere*" given in the first component of the first turn. Any next standard opening action may follow, but caller's presentation of first topic is relevant at all TCU- or adjacency pair-completions from the point at which Laporte has completed his first turn.

Caller's 1st turn:

2) Greeting, claiming recognition (by a greeting term alone or a greeting term + an address term), thereby also implicitly confirming the identification of caller.

OR

3) Explicit confirmation ("yes" or "yeah") of presentation of caller and greeting, claiming recognition of answerer,

OR

4) Minimal component + first topic: Confirmation of presentation of caller + first topic (implicitly claiming recognition of answerer). The opening part is thus completed.

This general description does not exhaust the type of actions which may be done by callers in first turn. As I move on, in the following sections, through the analyses of other actions being accomplished in the openings, more will also be added to caller's first turn.

3.2.3 Greetings and how-are-you sequence:

Next standard structure in the openings of the call-in calls is a greeting sequence which may be combined with a how-are-you sequence:

3.19a-b:

a) Op#13:
1LL: YOU'RE on the giant sixty eight knbr.
2MAR: HI:.

3LL: hi marshall. ←
(12 Gulfwar.ca, ll. 51-53)

b) Op#4:
1LL: your on the Giant sixty Eight,
2LL: KnbR.
3F: HI leo
4F: hOw ya FEElin.
5LL: HI frAnk, ←
6LL: i'm GOOD ←
(4Gulfwar.ca, ll. 12-17)

In example Op#13, caller's greeting is responded to with a second greeting plus an address term. Structurally the example is parallel to Schegloff's data in 3.4 in relation to which he was quoted to say that "… as the first greeting displays recognition, so will a second greeting; it will thus do more than complete the greeting exchange, it will stand as a claim that the answerer has reciprocally recognized the caller," (ibid: 35). What makes Laporte's second greeting different, however, is that he always uses caller's first name as address term in combination with a second greeting. Furthermore, the function of his second greeting is not to reciprocally claim recognition of caller since, as we have seen, Laporte has already identified the caller in his presentation (first turn). In the case of openings of calls to Laporte, then, a greeting at T3 is 'just' a greeting of the caller, which however is projected by the caller's first greeting.

In Op#4, a greeting as first part of T2 (l.3) and a how-are-you as second part of T2 (l.4) is responded to by a second greeting as first part of T3 and a second to a how-are-you as second part of T3 (ll. 5-6). Two adjacency pairs are woven into each other with the greeting sequence initiated and completed first and the how-are-you sequence initiated and completed second.

In one case greeting and how-are-you actions are organized in two separate sequences:

3.20

Op#10:
1LL: YOU'RE on the giant sixty eight knbr with lEo lapOrte.
2RO: yeah HI;
3LL: HI RON; (.) ←
4RO: how you DOin';
5LL: a:h ↑WELL you knOw, (.) ←
(10 Gulfwar.ca, ll. 15-19)

This, however, is an exception. Whether a greeting sequence and a how-are-you sequence are woven into each other or not, the norm is that a how-are-you comes after a greeting or a greeting sequence. In the following example Laporte shows orientation to this norm:

3.21

Op#8:
1LL: you're NEXT in the giant sixty eight knbR.
2BI: HOW're you Doing.
3LL: HI bill. ←
4BI: yea::: ↑mY QUEstion is; (.)
(8Gulfwar.ca, ll. 13-16)

BI initiates a how-are-you sequence but Laporte responds with a greeting, thus responding as if to that component – first greeting – which is normally placed before a how-are-you sequence. Thus the interactional consequentiality of the first pair part is "overruled" and replaced for the interactional consequentiality of that action which was among the anticipated actions for that place.

Finally, we saw earlier that caller may introduce first topic after the minimal response to Laporte's first turn, "yeah." In one case, a greeting by caller appears as a minimal component at T2 (l.2) before the introduction of first topic:

3.22

Op#7:
1LL: YOU'RE on the giant sixty eight knbr.
2B: HI uhm, (0.3)
3B: i just want to say that i don't (.) really agree with the
(7Gulfwar.ca, ll. 12-14)

It is important to notice in Op#7 that B does not just produce a first greeting which is not responded to. The "uhm" (l. 2) can be heard as indicating that B has more to say. The pause (0.3, l. 2), then, is B's and not Laporte's, and thus it cannot be argued that a second greeting is absent. B does not mark the completion of the greeting as a turn transition-relevant place, on the contrary.

With this discussion of greetings and how-are-you's, I can now add the following to the general description of openings of calls to the call-in show: 1) more possible actions in caller's first turn and 2) actions in Laporte's second turn: The following standard paths may be taken, after Laporte's first turn which has been described above (see p.101):

Caller's 1st turn:

2) Greeting, claiming recognition (by a greeting term alone or a greeting term + an address term), thereby also implicitly confirming the identification of caller. The action projects a second greeting by recipient.

OR

3) Explicit confirmation ("yes" or "yeah") of presentation of caller and greeting, claiming recognition of answerer. The action projects a second greeting by recipient.

OR

4) Minimal component + first topic: a) Confirmation of presentation of caller ("yeah") + reason for the call (implicitly claiming recognition of answerer), b) greeting, claiming recognition + reason for the call. The opening sequence is thus completed.

OR

5) Greeting (+ address term), claiming recognition of answerer and first part of how-are-you (+ address term). The turn projects a second greeting by recipient and a second pair part to the how-are-you

Laporte's 2nd turn:

6) If (2) or (3), second pair part to greeting by caller. Upon which the introduction of first topic is a relevant next action (anticipated).

OR

7) If (5), (second pair part to greeting +) second to how-are-you.

3.2.4 Thanks

A final component which may occur before first topic is introduced is a thanks to the caller by Laporte. The standard locus of thanks is after a possible greeting and/or how-are-you sequence:

3.23a-b

a) Op#1:

1LL:	yOU're NEXT <<l> on the giant sixty eight .>	
2M:	hi how are you Doing leo,	
3LL:	GOOD;	
4LL:	THANKS for hanging On.	←
5M:	yeah uhm -	
6M:	you knOw its fUnny when you LISTen to ya;	

(1Gulfwar.ca, ll. 11-16)

b) Op#4:

1LL:	your on the Giant sixty Eight,	
2LL:	KnbR.	
3F:	HI leo	
4F:	hOw ya FEElin.	
5LL:	HI frAnk,	
6LL:	i'm GOOD	
7LL:	THANKS for cAlling.	←
8F:	i'll be really QUICK uh;	

(4Gulfwar.ca, ll. 12-19)

In Op#1 a thanks appears after a how-are-you sequence, and in Op#4 thanks appears after a greeting and a how-are-you sequence. In both cases thanks is the last standard component before the first topic is introduced.

Because of its standard locus as last-component-before-first-topic, thanks may, if placed earlier than its standard locus (before the completion of any of the adjacency pairs of the opening discussed above), initiate an immediate move to first topic:

3.24a-b

a) Op#9:
1LL: you're NEXT on the giant sixty eight knbr.
2GE: oh HI lEo;
3LL: thanks for hanging ON gEne. ←
4GE: hey thAt gUy that said that he's sick of Terrorists. (.)
(9Gulfwar.ca, ll. 12-15)

b) Op#11:
1LL: YOU'RE on the giant sixty eight knb↑R;
2DO: HI Leo, [uh:
3LL: [thAnks for CALLing don. ←
4DO: i am a retIred AIR force Officer,
(10Gulfwar.ca, ll. 75-78)

In both Op#9 and Op#11, thanks plus address term is a response to a first greeting. As discussed above, first topic is relevant at every TCU- or adjacency pair-completion after the completion of Laporte's first turn. Still, in most cases further adjacency pairs are being initiated and are heard as relevant next actions. With this placement of thanks the option of additional adjacency pairs is however bypassed by Laporte. The result is an abbreviated opening. Apparently, though, there are limits as to how much an early placement of thanks can cut off:

3.25a-b:

a) Op#2:
1LL: YOU'RE on the giant sixty eight knbr;
2LL: thAnks for <<l> CALLing marie.>> ←
3MA: <<l> HI lEo.>
4LL: <<l+p+aspirated>HI.>
5MA: uh I ↑just had a comment about the: uhm PROtesters and i
(3Gulfwar.ca, ll. 12-16)

b) Op#17:
1LL: <<all> MICHael on the line from lIvermore you're on the

2LL: giant sixty eight knbr;=
3LL: THANKS for cAlling.> ←
4MIC: hi hey thanks for putt'n me in.
5LL: <<all> SURE michael.>
6MIC: uhm: yeah i was sittin down at LUNCH the other day;=
(15Gulfwar.ca, ll.18 -23)

While Laporte's first turn finishes with a thanks, which is added to the standard first turn structure (whereby jobs normally done in two different turns by Laporte are collapsed into one turn: presentation/summons answer + thanks), the callers in both cases attend to other opening business before introducing first topic. Thus, despite its standard locus as last-component-before-first-topic, a thanks does not bypass any opening components no matter where it is placed. If placed in first turn, callers will still attend to other opening business before introducing first topic; while if placed after caller's first turn, it may bypass other possible opening actions. These examples suggest that a standard opening has a minimum structure. Callers will attend to some sort of opening procedure – sometimes only via a minimal response to answerer's first turn, as in the yeah-examples discussed above – before introducing the first topic. Thus the *shortest* standard opening consists of: the host's first turn + caller's first turn, consisting of "yeah"/greeting and first topic. And the *longest* standard opening that is found in the collection has the following composition: host: presentation and summons answer → caller: greeting + initiation of how-are-you sequence → host: second pair part greeting + second pair part to how-are-you + thanks → caller: first topic:

3.26: Op#4:
1LL: <<level> frAnk on the li:ne from wAlnut CREEK,>>
2LL: your one the GIant sixty EIght,
3LL: KnbR.
4F: HI leo,
5F: hOw ya FEElin.
6LL: HI frAnk,
7LL: i'm GOOD.
8LL: THANKS for cAlling
9F: i'll be really QUICK uh;
10F: number ONE is;
(4Gulfwar.ca, ll. 11-20)

In my description of the steps comprising openings of phone calls to Laporte, I have now come around to the first topic, but before I complete the general description of standard openings of calls to Laporte, I will discuss the special status of the first topic in calls to Laporte.

3.2.5 First Topic

In standard phone calls to the call-in show, first topic not only has status as the first of a series of possible topics, among which is the reason for the call. In calls to Laporte first topic also has status as reason for the

call, and thus when first topic in the calls is concluded by Laporte (a standard practice in these calls) the call may be closed. Orientation to this local (for the call-in show) norm is displayed in Op#1:

3.27:

Op#1:
1LL: mArk on the line from marTINez;
2LL: yOU're NEXT <<l> on the giant sixty eight.>
3M: hi how are you Doing leo,
4LL: GOOD;
5LL: THANKS for hanging On.
6M: yeah uhm -
7M: you knOw its fUnny when you LISTen to ya;
8M: you y-you come on with uh ONE thought;
9M: and then you lIsten to all the people cAlling;=
10M: and it CHANGes what you're gonna <<laughing> ↑SAY but;> .hh

After this follows a long account by M of the many different suggestions for a solution of the Gulf crisis which comes from sources that he has never heard of. At some point then Laporte sums up this first topic and offers a resolution of it (ll. 11-16), upon which M presents the reason for the call (l. 17):

11LL: there are a Lot of different FORces out there,
12LL: they All have their oPINions,
13LL: and their point of VIEW,
14LL: i guess the best Anybody can do is read as much as POSSible,
15LL: read the LITTle papers and the big ones TOO:;
16LL: and try to make up one's OWN mind.
17M: yeah wha you uh but the rEAson i CALLED is that i ↑thInk - ←
(2Gulfwar.ca, ll. 10-19, 46-56)

The point at which M presents his reason for the call (l. 17) would be a natural place to close the conversation, after Laporte's conclusion of first topic, since most of the phone calls to Laporte only deal with one topic. However, while accepting the conclusion of first topic, the phrase "yeah…but the reason I called," defines the first topic as merely a sidetrack with respect to the actual reason for the call. In other words, it displays an orientation to the possibility that the first topic may be understood as *the* reason for the call, a possibility which the phrase cancels.

I am now in an position to offer a complete general description of standard openings of calls to Laporte:

Laporte's 1st turn:

1) Presentation to the audience of next caller by name and locale + a summons answer with organizational self-identification ("the giant sixty eight KNBR") sometimes followed by self-identification of the organization's representative ("Leo Laporte").
The first turn allocates the next turn to the caller and categorizes him/her as next-caller-on-air and as the specific "X from *Somewhere*" given in the first component of the first turn. Any next standard opening action may follow, but caller's presentation of first topic is relevant at all TCU- or adjacency pair-completions from the point at which Laporte has completed his first turn.

Caller's 1st turn:
2) Greeting, claiming recognition (by a greeting term alone or a greeting term + an address term), thereby also implicitly confirming the identification of caller. The action projects a second greeting by recipient.
OR
3) Explicit confirmation ("yes" or "yeah") of presentation of caller and greeting, claiming recognition of answerer. The action projects a second greeting by recipient.
OR
4) Minimal component + first topic: a) Confirmation of presentation of caller ("yeah") + reason for the call (implicitly claiming recognition of answerer), b) greeting, claiming recognition of answerer + reason for the call. The opening sequence is thus completed.
OR
5) Greeting (+ address term), claiming recognition of answerer and first part of how-are-you (+ address term). The turn projects a second greeting by recipient and a second pair part to how-are-you.

Laporte's 2nd turn:
6) If (2) or (3), second pair part to greeting by caller. Upon which the introduction of first topic is (again) relevant.
OR
7) If (5), (second pair part to greeting +) second pair part to how-are-you + thanks. The turn makes reason for the call the only next standard action.

Caller's 2nd turn:
Reason for the call, whereby the opening is completed

3.2.6 Concluding comments:

It is important to emphasize that the general description above is meant to capture only standard structures. Of course, the description does not imply that *all* openings fall within this general description. What the description is meant to capture is what actions are normally initiated and therefore can be anticipated at each point during the opening of a phone call to Laporte on the call-in show. This does not mean that actions which do not fall within the general description will be treated as unacceptable. However, whatever work is done by an action which does not fall within the general description may in part come about because of the way in which it falls outside what is normally anticipated. The claim here is that actions which change the anticipated trajectory of interaction will be understood against the backdrop of the anticipated trajectory.

The second concluding point that I wish to make, which is really a continuation of the first point, looks ahead to the cognitive description of what goes on in openings of phone calls to Laporte. It might indeed be possible to imagine openings which are not captured in the general description above but which do not violate it either. We could *imagine* the following alternative development for one of the calls that I have been discussing:

3.29:

Based on Op#10:

1LL:	RON on the LINE from HAYward;
2LL:	YOU'RE on the giant sixty eight knbr with lEo lapOrte.
3RO:	yeah HI;
4LL:	HI RON; (.)
5RO:	how you DOin';
6LL:	GOOD
7LL:	Thanks for calling
8RO:	yeah
9RO:	↑FIRST i d like to say;

(10Gulfwar.ca, ll.14 -22)

The structure of this imagined example is:

host: presentation of caller + summons answer → caller: greeting → host: second pair part greeting + address term → caller: first pair part of how-are-you → host: second pair part of how-are-you + thanks → caller: first topic.

Nothing here violates the general description of standard openings. However, the imagined example in 3.29 is not accommodated by the general description for the simple but important reason that no such example is found in the data. This may seem like a superfluous point to make, especially perhaps for a conversation analyst. Nonetheless, in a dissertation that builds its cognitive description on interactional analyses, and where it is the interactional analysis that determines what we can say about cognitive processing, it is important to emphasize what the basis for the cognitive description is: those interactional structures and only

those interactional structures which have actually been found in this study make up the knowledge we have of what people may do in an opening of a call to Laporte. And though other possibilities (like 3.29 above) would seem plausible intuitionally or from a theoretical viewpoint (and hence tempting to study), they have not been supported empirically.

3.3 Cognitive Evaluation of the Study of Openings of Phone Calls to Laporte

In accordance with the discussions in chapters 1 and 2, the purpose of the interactional analysis is only to capture observable structures in the interaction. However, for every interactional accomplishment is also involved some kind of brainwork by which interlocutors make sense, processes that we call cognitive processes. It is to the description of these processes as they unfold when interlocutors accomplish e.g. an opening in phone calls to Laporte that I now turn my attention. In accordance with the IA as described in previous chapters, I should emphasize that *every* cognitive abstraction in the following sections concerns processes that the interlocutors share, *not* private, individual or subjective processing.

Consider the general description of standard openings of calls to Laporte offered above (see pp. 110-111). For each turn, the interlocutors have to decide which action is appropriate in the interactional context, and what action they choose is again interactionally consequential, affecting next speaker's choice of action. At the outset, a particular path through the opening cannot be predicted, but for each step is a set of choices which the interlocutors can work with. They may choose simply to follow a standard path (one of the above) or some sort of variation of that path. Some interactional loci may be more central and consequential than others, affecting what paths can be taken subsequently. In the case of openings of calls to Laporte, caller's first turn is highly consequential with respect to how the rest of the opening is conducted; it presents the most choices, each of which almost completely determines subsequent standard actions. After Laporte's opening turn, several standard actions may follow, but following caller's first turn only a limited range of actions may.

What the study above tells us is that to be able to engage in various sorts of interaction, interlocutors must have extensive knowledge of interactional structures. They must know what actions *can* follow from what actions and what actions *should* follow from what actions. This is also a precondition for understanding non-standard actions. That is, interlocutors must have knowledge of 'sequence organization' (Schegloff 1968), e.g. adjacency pairs. They must also know how to conduct a conversation, that is the system of 'turn-taking' (cf. Sacks, Schegloff, and Jefferson 1974), i.e. when a next turn can be taken and by whom (as discussed in chapter 2). And finally they must know how to organize 'repair' (Schegloff 1997 & Sacks, Jefferson, and Schegloff 1977) in order to change actions that have been conducted. Sequence organization, turn-taking, and repair organization are all general principles of interaction, which are manifested in specific instances of interaction, as e.g. openings of calls to Laporte. The general description above (pp. 110-111) is meant to capture the sequence organization of openings of calls to Laporte. It captures

what actions may or should follow what actions in standard openings. With respect to turn-taking, the model above indicates what kind of work should go into each turn and hence also when a new turn may be taken, namely at the completion of the work described for each turn. It also indicates who should take what turns. Repair organization is of course not a part of the standard openings in calls to Laporte, nor of any other description of interactional structures in this dissertation. However, that is just a coincidence; I might have collected data which dealt with repair organization just as well as the data that I happen to have chosen for this dissertation.

All the time, then, interlocutors must keep track of the interaction by conceptualizing the immediate current context, typically an ongoing turn; and on the basis of their conceptualization they determine and formulate their own (subsequent/responding) action(s). A primary motor for interlocutors' conceptualization of interactional context is the re-*cognition* of actions or aspects of actions as actions or aspects of actions which may be executed at particular places. Re-*cognition* in interaction is a basis for conceptualization (interpretation) of context. For instance, callers on the Laporte call-in show re-*cognize* and interpret specific instantiations of Laporte's opening turn, and it is their re-*cognition* and interpretation that provides a context for their subsequent action. His opening turn thus, cognitively, provides a set of standard first turn options for the caller. In turn, the caller's first turn must be re-*cognized* and interpreted by Laporte as an action which may appropriately be responded to by a limited set of actions. And so on.

How particular interpretations of particular actions come about in interaction is the topic of the subsequent chapters. Here I will be concerned with the cognitive capacity which makes it possible for interlocutors to re-*cognize* actions in interaction and to shape subsequent actions in accordance with re-*cognized* actions. In the rest of this chapter, I address the question of how, from a cognitive viewpoint, interactional structures such as the ones studied above are maintained and stabilized. Attempting to answer this question with the introduction of the cognitive concept of interactional scripts, I take the work of two prominent precursors in cognitive science, Schank and Abelson, into an area which (to my knowledge) is hitherto unexplored in that respect.

3.3.1 Remarks on Precursors

A couple of other prominent precursors must also be mentioned at this point, before I set out to discuss the concept of interactional scripts in detail.

3.3.1a Relevance Theory

Two of the precursors which must be mentioned are relevance theoreticians and pragmaticians Sperber and Wilson who in a series of publications (Sperber & Wilson 1986a; 1987a, b, and updated in Sperber & Wilson 1995, 1998a, 2002) have developed what they consider a cognitive theory of relevance for communication. The general condition, they propose, is that "Human cognition tends to be geared to the maximization of relevance" (Sperber and Wilson 2004). An "input" (ibid) – that is in IA terms an utterance, a turn, or a TCU –

is relevant when its processing "in a context of available assumptions" yields a "positive cognitive effect," that is a "worthwhile difference to the individual's representation of the world" (ibid). Thus as I understand Sperber and Wilson, their notion of "positive cognitive effect" can be understood in the following way when applied to the IA: If speaker A asks speaker B a question, then an input which is processed as an answer from speaker B to the question is a relevant input from speaker B to speaker A. This is so because it provides the positive cognitive effect of an answer to a question which A had on his mind. According to relevance theory, then, a second to a first in an adjacency pair provides a positive cognitive effect. Of course B may give an answer the processing of which does not yield a positive cognitive effect, in which case the answer is not relevant. Cognitive effect, Sperber and Wilson (ibid) points out is not an absolute value, but a matter of degree. Consequently, alternative inputs may compete as to which provides the most positive processing. Furthermore, among a range of possible inputs, the communicating cognitive agent may, according to Sperber and Wilson, not only choose the one which has the most positive cognitive effect; another parameter when choosing among alternative inputs is the degree of effort which must be put into the cognitive processing. Thus, for instance, if there are three speakers, A, B, and C, and A asks a question which is not directed specifically at either B or C and both B and C answer, then the most relevant answer will be the answer which demands the least processing effort. Both B's and C's answer may give the same positive cognitive effect, but if B's answer is more easily processed, then B's answer is most relevant. Thus, Sperber and Wilson conclude, "relevance may be assessed in terms of cognitive effects and processing effort" (ibid).

The next question to answer is then: What gives rise to positive and negative cognitive effects in actual situations of interactional online meaning construction? The notions of *interactional scripts* (and *base spaces*) may be seen as one theory of that: positive and negative cognitive effects occur because interaction gives access to specific *social knowledge structures* of interaction according to which certain actions may be projected and anticipated at every stage of a particular piece of interaction. Interactional scripts may, in other words, be seen as a specific instance of Sperber and Wilson's general idea that "an input (a sight, a sound, an utterance, a memory) is relevant to an individual when it connects with background information he has available, to yield conclusions that matter to him" (ibid). In that sense, interactional scripts can be seen as an attempt to shed light on a vaguely defined or even absent aspect of cognitive relevance in actual events of interaction.

I would also like to point out that even though Sperber and Wilson have also been criticized for their use of metaphors for human thinking (cf. Hinkelman 1987), their economy-metaphorical assertion that "the search for relevance is a basic feature of human cognition, which communicators may exploit" (ibid) does, I believe, find ample support in CA studies. I described a case in the preface. At the place where Colson asks a how-are-you question, such a question is relevant. Colson, though, uses *we* instead of *you*, but since Hunt anticipates relevance, he understands this question as a conventional question which adds extra nuances. Thus Hunt blends as a way of processing a positive cognitive effect. The same may go for a question-answer

sequence. In response to a question by speaker A, speaker B may give an answer which is not formed conventionally as an answer; but seeking relevance, A will interpret B's utterance as a type of answer, which may yield the effect of being rude, arrogant, indifferent, impolite, funny, etc.

In relation to the discussion of online meaning construction and relevance, I must also discuss Brandt & Brandt's (2002) notion of a 'relevance space' which, given the particular contextual conditions of an utterance is claimed to be set up to guide e.g. the blending of input spaces. According to Brandt (Per Aage, personal communication), there is in the blending model a "magical leap" or "black box" phenomenon with respect to how a particular blend with its particular projections, fusions, etc. arises from the inputs. Take the case of the Monk riddle: In principle, there is no end to the combinations that a blending of the two journeys allow (two monks on one path, one monk on two paths, a monk racing himself to get to the bottom before his other self gets the top, etc.). Consequently, it is argued, there must be some sort of (controlling) mechanism which gives the blend relevant meaning. From a CA, IA, pragmatic, and so on, point of view, Brandt and Brandt's concerns are highly relevant. However, the source of the problems, still – and I assume that Brandt & Brandt would agree with that – goes back to the missing context in canonical blending theory. So the crucial step is first and foremost an inclusion of context, and then it can discussed what further consequences that must have for modeling online meaning construction.

Presently, I have not found grounds in my studies for explicating the contextually relevant meaning construction by assigning to it an obligatory mental space of its own. In my modeling, such aspects of online meaning construction as Brandt and Brandt assign to a separate space are accommodated for by the base space and inter-space processes – for instance the conception of context (the base space) makes relevant/accessible for meaning construction, particular cognitive structures (e.g. with particular activations of certain parts of these accessed conceptual structures).

It might be argued against my modeling in this dissertation that some of the things that I ascribe to the base space (in particular, of course, cognitive projections of relevance, see below) and processes between base space and other spaces in the meaning construction may more logically be ascribed to a separate relevance space. However, I do have certain questions/reservations in relation to Brandt and Brandt's modeling that I believe are avoided by my modeling. These question/reservations include the

following:

– Does the notion of a relevance space not presuppose that conceptual structures involved in meaning construction are always activated in the same complete way, yielding a "clumsy" kind of unity-cognition where conceptual structures are activated as entire blocks. Such activation then requires a controlling mechanism for thought to work, but does that not run counter to cognitive neuroscience and the notion of neural networks where concepts are made up of units which, given the input, have different activations (cf. McLeod, Plunkett & Rolls 1998)? Conversely, does the notion of a base space *only*, inter-space processes, and construction spaces, not match a neural networks representation better in so far as a base space representation may be considered as part of an input to a neural network and the inter-space relations (e.g. projection of relevant conceptual structures for the meaning construction) and construction space (e.g. inputs) processes as neural processing mechanisms such as inhibition, excitation, etc?

– Does the relevance space not simply become a third (fourth, fifth, etc) input, the relation of which to other spaces in the end is determined by the base space?

There may be no absolute or clear-cut answers to these questions, but they do indeed require attention. I maintain, however, that a first and essential criteria is the incorporation of the context in descriptions of online meaning construction processes. Furthermore, the solution I offer here of the relevance issues is, as mentioned above, to be found in the application of Brandt and Brandt's (ibid) notion of a base space, the empirically based concept of interactional scripts, and inter-space processes. Finally, with the shared focus on the importance of incorporating the immediate context in descriptions of online meaning construction, I do indeed believe that my modeling and its primary theoretical precursor, Brandt and Brandt's Aarhus model, are closely related elaborations of canonical blending modeling.

3.3.1b Clark's "Common Ground"

Pragmaticians as well as communication researchers in general, may consider the notion of a base space and interactional scripts as really just an attempt at describing a phenomenon of interactional meaning construction which has already been described elaborately in Herbert Clark's (1996) notion of "common ground." It is indeed interesting to observe that Clark too has been inspired by CA and hence also "carries" in his work a social phenomenological background. At least, the way that I understand Clark's notion of common ground, it can really be seen as a possible communication theory-manifestation of Garfinkel's ethnomethodology. Clark's theory concerns the assumptions of a shared base of knowledge which interlocutors rely on when communicating. This base of knowledge involves several levels: an initial common knowledge of relevant conventions, relevant factors of the immediate physical environment of

communication, and events-so-far in an event of communication. Such things are without any doubt essential aspects of the interlocutor's interactional pheno-world, as I understand Clark *and* Garfinkel. Hence at this abstract level of consideration, there does indeed seem to be great overlap between the concerns of Clark's celebrated notion of "common ground" and the concerns of the notions of base spaces and interactional scripts.

That having been said, however, I will for the present not make any theoretical commitments in relation to Clark's notion of common ground. My work does not start with a concern for what spheres of common ground play a role, but instead for how interlocutors make sense out of all of that which they assume/bring to the fore – whatever aspect of common ground it represents – in a given situation of interaction, a concern for how and what cognitive processes unfold in the moments of interaction. In the end, this may develop into some theory of common ground, which it has already done to some extent with the notion of interactional scripts and base spaces. Hence while fully acknowledging that my work can be seen as following that of Clark's, it is important to emphasize that my concerns are shaped out of an interest in pushing further the concerns and work of cognitive semantics, in particular blending and mental spaces theory, by which my particular approach has come to share the interests of pragmaticians. It is, however, still with an eye to learning more about actual, on-the-spot cognitive processing. In accordance with my method, I emphasize the need to scrutinize first and foremost what is there in actual, naturally occurring situations of interactional meaning construction, no matter what sphere of common ground it may pertain to, and then develop the concepts of common ground as they appear in order of apparent immediate importance. For me this starts with interactional scripts. (For an attempt to model mental space construction in relation to a multi-layered common ground, see Brandt & Brandt 2002)

3.3.2 A Dialectical Discussion of Schank and Abelson's Script Theory

"How do people know what behavior is appropriate for a particular situation? […] What is the nature and form of that knowledge? How is it organized? When is it brought to bear? How is it accessed?" These are some of the questions that Schank and Abelson (1977: 36) attempt to answer. Schank and Abelson (ibid: 4) focus broadly on "the world of psychological and physical events occupying the mental life of ordinary individuals, which can be understood and expressed in ordinary language." Examples discussed by Schank and Abelson include knowledge about going to a restaurant, going on a bus ride, romancing a woman, lighting a cigarette, and going to jail, a diverse collection of more or less everyday activities. Knowledge of such activities is organized, Schank and Abelson suggest, in terms of cognitive structures that they call 'scripts.'[19]

However, none of the social activities that Schank and Abelson study the cognitive constitution of are as ordinary and basic as the social activity of conversation, which may accompany or even constitute the activities described by Schank and Abelson. Conversation may seem like an odd subject for

script theory. Most conversations do not appear to us to have a structure that can be compared to going to a restaurant or riding on a bus. They seem random and "messy." Yet, as we have seen above and in chapter 2, and as four decades of CA studies have shown, there are indeed rich generalizable structures and order in even the most mundane, everyday conversations.

Researchers of dynamic cognitive processes may, on the other hand, object against applying the notion of scripts in the present context, arguing that scripts are too "archaic" or "stiff" to represent the processes in question, and in particular the cognitive "fluidity" of mental space and blending theory. However, the basic idea that interactional actions and sense-making in relation hereto, however "fluid" and creative, rely on shared, more or less fixed, script-like, structures makes a lot of sense from the point of view of interaction. For instance, in the We-case analyzed in the Preface, it was observed just exactly how relatively fixed structures can be operated on to create a local, on-the-spot, highly creative meaning. Thus, I do not think that the notion of (more or less) fixed knowledge structures and fluid concepts such as blending exclude each other – on the contrary. Blending would be an altogether blurred phenomenon if it wasn't for the fact that it operated on fixed structures such as image schemas, frames, cognitive models, etc. The reason, however, why I have not chosen to employ one of the notions of fixed structures already incorporated into blending theory is that I think none of them apply as well to a description of interactional structures as does the notion of scripts (in an elaborated version). Image schemas operate at a level of organization which is too narrow to capture connected sequences of interactional structures, and the notion of frames is a too general notion, which encompasses many types of knowledge structures (cf. Fillmore 1982: 111). Hence scripts may be seen to be one specific instantiation of a frame.

What distinguishes original script theory from the IA is that the structures of naturally occurring conversations are not as easily accessible and ripe for rigid rule writing as the non-empirical stereotype structures of e.g. going to a restaurant or riding on a bus which Schank and Abelson build their theory on. Still, had Schank and Abelson based their script theory on detailed studies of actual cases of for instance restaurant-going or bus-riding, they would probably also have realized that the structures of these social activities are in fact much more subtle and flexible than their straight forward, manuscript-like representation suggests. In other words, the questions that Schank and Abelson pursue in relation to other social activities are just as acute with respect to the cognitive underpinnings of conversation. For instance, with respect to the study of openings of phone calls to the Laporte call-in show it is highly relevant to ask: How does Laporte and the caller know what behavior is relevant at particular places during the opening of the calls, e.g. how does the caller know what response is relevant to Laporte's presentation and summons answer. What is the nature and form of their knowledge? How is it organized? When is it brought to bear? How is it accessed?

In accordance with the general reservations just mentioned, and as already stated, interactional scripts are not just a further application of script theory in the sense that I consent to all claims

by Schank and Abelson and apply the theory without further considerations. The concept of interactional scripts is shaped in accordance with the IA, and concrete examples are based only on empirical CA studies. Thus, my definition of interactional scripts will be an empirically elaborated version of Schank and Abelson's scripts. In the following, I give an account and conduct a dialectical discussion of Schank and Abelson's notion of scripts, basing my interactional comments for the most part on the study of openings of phone calls to the Laporte call-in show; and in the final section of this chapter I then offer a general theory of interactional scripts and a script account of openings of calls to the Laporte call-in show.

Schank and Abelson (ibid: 41) define a script as

> a structure that describes appropriate sequences of events in a particular context. A script is made up of slots and requirements about what can fill those slots. The structure is an interconnected whole, and what is in one slot affects what can be in another. Scripts handle stylized everyday situations. They are not subject to much change, nor do they provide the apparatus for handling totally novel situations. Thus a script is a predetermined, stereotyped sequence of actions that defines a well-known situation. Scripts allow for new references to objects within them just as if these objects had been previously mentioned; objects within a script may take 'the' without explicit introduction because the script itself has already implicitly introduced them.

A case discussed in detail by Schank and Abelson is the restaurant script, $RESTAURANT.[20] According to Schank and Abelson (ibid: 40), a script such as $RESTAURANT contains several parallel 'tracks' which handle variations of the script, e.g. "fancy" restaurant, fast food restaurant, or cafeteria. In figure 3.1 (appendix 1, Figure for chapter 3) I reproduce, in a slightly modified version, Schank and Abelson's (ibid: 43-44) graphics of the 'coffee shop' track of $RESTAURANT. The script is divided into 4 scenes and each action in each scene in the script is labeled in terms of the primitive acts of Conceptual Dependency Theory (Schank 1975). These labels are generalizations that dispel the nuances of specific verbs which are alike at a more abstract level. Below the graphics I have added a glossary (ibid: 12-14) of the primitive acts labels that are used. The division of some scenes into alternative columns in the table indicates different paths through it. Where the paths differ, the columns have gray shading, and where the paths share information the columns are fused.

As regards the issue of how many details and which details are represented in the knowledge structure, Schank and Abelson present no empirical evidence to support a given granularity or tendency towards representing certain details while leaving out others. Instead of actual instantiations of $RESTAURANT, the diagram represents a stereotype, and the granularity issue is simply treated as a question of inserting possible details (ibid: 44).

~

First IA comment: *What is Represented?*[21]

From the point of view of the IA, the lack of empirical evidence to support a given degree of granularity in the representations is an obvious weakness of the theory of scripts. A more attractive version of script theory would base psychological assumptions concerning granularity of representation on careful studies of e.g. actual restaurant-going in an attempt to capture in naturalistic detail common (to a social group) script representations. Such an empirical approach is attempted here with the study of openings of telephone calls to the call-in show on the San Fransisco Bay Area Radio.

~

According to Schank and Abelson, scripts underlie the understanding of behavior and discourse:

3.30:

> *John went to a restaurant. He asked the waitress for a coq au vin. He paid the check and left*. (ibid: 45)

In this discourse example, definite reference to the 'waitress' and the 'check' is possible because they are parts of the script evoked by *restaurant*. Also, when going to a restaurant, events there will make sense to the participants because they are parts of their $RESTAURANT, and each participant will know how to behave in a restaurant and what behavior to expect from other parties.

Scripts are not claimed to be obligatory to all understanding. Events and discourse can be understood even though they do not evoke particular scripts, Schank and Abelson acknowledge (ibid: 39). However, at the same time, they (ibid: 67) do make the strong claim that "understanding is knowledge-based" and that "the actions of others make sense only insofar as they are part of a stored pattern of actions that have been previously experienced. Deviations from the standard pattern are handled with some difficulty." Hence though it is not always clear whether some kind of script is always at work in processes of understanding, though Schank and Abelson seem to vacillate between "moderate" script claims and "strong" script claims, there is in such statements as quoted above a tendency towards the "strong" claim that understanding is script-based and that such understanding is run in terms of fixed structures.

~

Second IA comment: *Flexibility*

Describing interlocutors' understanding of interactional actions requires a much more subtle approach than the rigid conception of understanding which the "strong" script claim endorses. In the study above we have indeed seen that interaction may proceed according to strict formats, but we also saw above, and in the preface, that interlocutors handle all sorts of variations and deviations effortlessly. Interaction, then, requires a scaling of scripts along at least two parameters, which jointly are a measure of the flexibility of an

interactional script: 1) in terms of the *degree of obligatoriness* of parts of the script (from highly obligatory to optional) and 2) in terms of *degrees of allowed flexibility* for the execution of a script part.

Some script parts are highly obligatory and others are optional, furthermore both obligatory and optional script parts may allow varying degrees of flexibility in their execution. For instance, openings of telephone calls, both Schegloff's private American ones and the ones we have looked at above, have both obligatory and optional script parts. The achievement of recognition is a highly obligatory script part, but a how-are-you sequence and a thanks (in calls to Laporte) are optional script parts, they need not be executed. As for flexibility in the execution of a script part (optional or obligatory alike), we saw in the We-case that the execution of a how-are-you sequence allows for much creative elaboration ("How're we doing"). Conversely, not much flexibility is allowed in the execution of the various parts of e.g. a wedding ceremony interactional script, and all parts are highly obligatory. The fixity of interactional scripts is thus a relative phenomenon, but all interactional scripts are still fixed (however weakly or strongly) in the sense that not all actions are considered equally appropriate or relevant when an interactional script is processed.

~

If scripts are held to be a central organizing principle of much understanding, a series of issues need to be addressed regarding their application and workings. Schank and Abelson discuss a number of such issues, which I catalogue below.

Script Application:

To define when scripts are "called into play" (ibid: 46), Schank and Abelson introduce the notion of a 'script header.' Often, they argue, reference is made to "fleeting" scripts (ibid: 46):

3.31:

> *John took a bus to New York.*
> *In New York he went to a museum.*
> *Then he took a train home*.

Here, Schank and Abelson argue (ibid: 47), there is explicit reference to three scripts: $BUS, $MUSEUM, and $TRAIN. However, these scripts are not in fact 'instantiated.' "What is more likely," Schank and Abelson (ibid: 47) hold, "is that [the interpreter] simply remember[s] that the script occurred by establishing a pointer to the entire script. In this manner, the information about the script is available if needed, but memory is not cluttered with gratuitous detail." For a script to be 'instantiated' in discourse, Schank and Abelson (ibid: 47) suggest, two references must be made to it: a 'header' and a second reference. In the subsequent example, bus (header) and driver (second reference) are put in boldface :

3.32:

*John took **a bus** to New York.*
***The driver** turned out to be drunk.*

When a script is instantiated in discourse, it is assumed that it "fills in" details not explicitly referred to, "as if we had actually heard them," Schank and Abelson (ibid: 48) suggest:.

3.33:

John went to a restaurant.
He ordered chicken.
He left a large tip.

Thus for the understanding of 3.33, the script "fills in" the details between the explicitly mentioned points 'entering,' 'ordering,' and 'tipping,' which, according to Schank and Abelson (ibid: 48), brings about the interpretation given in figure 3.2.

Figure 3.2:

John went to a restaurant.
He sat down.
He read a menu.
He ordered chicken.
He ate the chicken.
He left a large tip.
He paid the check.
He left the restaurant.

Again, the issue of how many details and which details are evoked in a given case of script instantiation remains unresolved, and again Schank and Abelson remain on a purely theoretical level, citing no empirical investigations that might enlighten this issue. The authors merely propose that "[w]e do not want to assume too many steps when we are told of events that are far apart in the script. Thus, the story 'John went to a restaurant. He left a large tip.', is considered odd. Do we want to assume that he ate? It is highly likely that John did eat in this story. Nonetheless, we might not want to simply assume it." (ibid: 48)

~

Third IA comment: *Missing Actions*

Here, as before, Schank and Abelson's ideas about the workings of scripts seem quite rigid and inflexible; and as a reader who aims at applying script theory to real life examples,

one misses an elaborating discussion with empirical examples to show how and what people fill in or do not fill in different situations (and what they fill in different situations): Do we always fill in details? Or when do we fill in details? What and/or how many details do we fill in in what situations? Such questions are not investigated by Schank and Abelson, though they are essential to a realistic psychological description. As in the case of all theorizing based on home-made or stereotype examples, the problem is that a lack of empirical evidence makes possible all sorts of speculation.

A brief *ad hoc* survey suggests great variation on this issue depending crucially on the purpose of the discourse evoking a script. Sometimes, for instance, a reader is prompted to fill in a considerable number of detail even though quite many "missing" steps have to be assumed. The late American writer Ernest Hemingway (1899-1961) is famous for a style which leaves it to the reader to "fill in" essential details, typically details about traumatic events or psychological states and transformations, as in the following vignette:

3.34:

> W*hile the bombardment was knocking the trench to pieces at Fossalta, he lay very flat and sweated and prayed oh jesus christ get me out of here. Dear jesus please get me out. Christ please please please christ. If you'll only keep me from getting killed I'll do anything you say. I believe in you and I'll tell every one in the world that you are the only one that matters. Please please dear jesus. The shelling moved further up the line. We went to work on the trench and in the morning the sun came up and the day was hot and muggy and cheerful and quiet. The next night back at Mestre he did not tell the girl he went upstairs with at the Villa Rossa about Jesus. And he never told anybody.* (1925/1996: 67)

What is not described explicitly in the vignette is the psychological transformation that the unnamed character experiences after the bombardment has stopped: from frantic fear releasing a sudden, deep religious faith and back to routine and oblivion the day after when danger is over. This transformation, quite clearly, is the essence of the vignette – visible for its absence(!). It is the religious hypocrisy that characterizes human beings. Most people probably recognize the experience of being in danger or in a state of extreme anxiety which, in a sudden outburst of deep faith, makes one appeal to higher powers for help and promise moral improvement in return. But then when danger or anxiety is gone and we have gradually distanced ourselves from it, we never fulfill the promises we made. It could then be suggested that most people have a script for the type of situation that Hemingway portrays in his particular style, a $RELIGIOUS HYPOCRISY. This script "fills in" the "gaps" in Hemingway's vignette, from "please please dear jesus" to going upstairs the next night at Mestre with a girl which the hypocritical protagonist did not tell about Jesus. We assume that when the shelling moved away, the protagonist calmed down, and eventually stopped calling upon Jesus; we

assume that as he calmed down and some time passed, the protagonist distanced himself from his panicking self, perhaps feeling shame for loosing control of himself; we assume that as the situation changed the higher powers that he had called upon no longer seemed relevant to him. The impact of Hemingway's style is created by the way he does *not* describe this transformation in detail but only suggests it.

However, it does not follow from such (literary) examples that people consequently "fill in" details whenever events that are some time apart in a (possible) script are reported. (Indeed the example above only suggests that readers may fill in details, not that they actually do it.) Why should people not be able to make sense of discourse or events they experience by simply following a "compressed" structure of events which does not include additional, possible details to spell out the sequential relationship between the events of the "compressed" structure?

In the case of social interaction, it seems, people may or may not orient to unexecuted actions, but not in the straightforward, simplistic manner suggested by Schank and Abelson's stereotypes. In most cases, it seems quite baroque, in fact, to assume that un-executed actions are "filled in" by scripts. Interlocutors do what they do, and what they are doing are the steps in the interaction. In the study of openings above, we saw that the interlocutors may follow a longer or a shorter path through the opening. There may be a long opening consisting of presentation + summons answer, greeting + how-are-you sequence, and thanks before first topic, or there may be a short opening with just presentation + summons answer and greeting by caller (only) before first topic. In the latter case, it would not make sense from an interactional point of view to assume, for instance, that a second pair part greeting by the host or other actions are processed by the participants in addition to what is in fact perceived as happening, even though such actions are standard actions in the openings and though a greeting normally strongly projects a second greeting. In the absence of other actions, what standard actions are done are understood as being the opening, nothing more and nothing less.

Of course there may be cases where interlocutors achieve more by elaborating a standard sequence than is routinely achieved. In relation to the We-case discussed in the preface, it was shown how the use of *we* brought to the fore certain shared knowledge, which is more than is routinely achieved in a how-are-you sequence. It might then be tempting to conclude that the interlocutors "fill in" unexecuted actions addressing explicitly that shared knowledge (like an explicit inquiry into Hunt's specific situation), but that completely misses the elegant work that is done by using *we* instead of *you*. The We-case shows how minimal actions may have great impact on the interaction, not how unexecuted actions may play a role in interaction. The slipping in of the small *we* extends the inquiry way beyond a routine general inquiry, but there is no evidence that anything is "filled in" which has not been indicated explicitly by the interlocutors (in however reduced or indirect fashion).

There are, though, a couple of cases that I have come across where it makes sense to argue that both or one of the interlocutors in some way display an understanding that a particular action which was

relevant or indeed projected has been "bypassed." Thus by their actions they in fact display an orientation to an unexecuted action. One such example was discussed above:

3.35

Op#8:
1LL: you're NEXT in the giant sixty eight knbR.
2BI: HOW're you Doing.
3LL: HI bill. ←
4BI: yea::: ↑mY QUEstion is; (.)
(8Gulfwar.ca, ll. 13-16)

As argued in the interactional study, Laporte here displays an orientation to the norm that a how-are-you sequence should follow a greeting sequence. This is done by Laporte by responding to a first pair part of a how-are-you sequence with a greeting. Thus, of course, the interaction does not "miss" actions, but an executed action is treated as if it were another, and in that sense there still is more to the interaction than the actual actions by themselves. A different case where a projected action remains unspoken but still oriented to is discussed in chapter 5 (Hyp#5, ex. 5.10).

It should be pointed out that such cases in fact provide some of the most solid empirical evidence for interactional scripts. That interlocutors may e.g. respond to an action as if it could/should have been a different sort of action, and thus in effect make it such an action, makes it quite evident that there must be some sort of interactional knowledge structure which interlocutors process during interaction.

This having been said however, I still have not seen a single case of interaction where the actually executed actions are understood to be just an abbreviated version of a more detailed interaction, and I cannot imagine how it would happen. In accordance with the current interactional script and the local contextual specifics, actions may be understood as missing, "wrong," out of line, unorthodox, etc. (and probably correspondingly responded to), but not as implied due to the "filling in" of them.

~

Interferences and Distractions:

Sometimes a script is not run as expected, Schank and Abelson (ibid: 52) propose. In their discussion of such cases, however, they further enhance the impression of a very inflexible, inapt theory which must be elaborated to fit actual, interactional data. Schank and Abelson distinguish between two broad classes of events which cause deviations from scripts: 1) 'interferences,' which again are split into 'obstacles' and 'errors,' and 2) 'distractions.'

Obstacles:

Sometimes an "enabling condition for an impending action is missing," Schank and Abelson (ibid: 52) argue, as in 3.36:

3.36

John went to a restaurant.
He sat down.
He discovered he had forgotten his reading glasses.

Such obstacles are resolved by actions referred to as 'prescriptions' (ibid: 52). The prescription for the obstacle in 3.36 might be:

3.37

He asked the waitress to read him the menu.
She agreed.

Alternatively, if prescriptions do not work, the actor may give up having tried one or more prescriptions.

Errors:

Sometimes an action may have "an unexpected and inappropriate result" (ibid: 52). For instance, if going to a restaurant and ordering a hamburger, the waitress might instead bring a hot dog; you did not get what you ordered. The usual corrective action for an error, Schank and Abelson (ibid: 52) suggest, is a loop, a "repetition of the action to try to get it to come out right." Often, however, a prescription accompanies the loop. Instead of just ordering again as a solution to the error, it would be more appropriate, Schank and Abelson (ibid: 52) suggest, to take to the prescriptive action of explaining the error to the waitress. Alternatively, an error may simply be accepted and the script carried on. In yet other cases, errors may involve such severe obstacles that it cannot be corrected. For instance, the waitress may bring an empty casserole (ibid: 52).

Distractions:

Schank and Abelson (ibid: 52) define distractions as "unexpected states or actions which initiate new goals for the actor, carrying him temporarily or permanently out of the script." An event may be both an interference (error) and a distraction. For example if you order soup and the waitress drops it is a failure of W ATRANS F to S (see figure 3.1). This may initiate a new goal of getting the customer's clothes dry (ibid: 53).

Recognizing interferences and distractions of course depends upon running certain scripts as points of reference in relation to which actions may be interferences or distractions.

Some obstacle-prescription and error-loop sequences come in "fixed pairs." They are so common that they may be recognized as a path of the script itself, Schank and Abelson (ibid: 55) hold. If a customer enters a restaurant and the menu is not on the table and the waitress does not bring it, then there is an obstacle; the ordering is not enabled. An obvious prescription in this case, Schank and Abelson (ibid: 55) argue, is to call or signal the waitress and ask for a menu. "Anyone who has eaten with any frequency in a restaurant knows that this ordinarily works. Therefore it is unnecessary and somewhat odd to use alternative prescriptions – say, searching by yourself for where the menus are kept – unless the primary prescription fails," they write (ibid: 55). Later in the same scene there may be a common error-loop pair. If the customer orders something which is not available, the loop of ordering something else is "virtually unavoidable" (ibid: 55). A major way in which scripts grow, Schank and Abelson (ibid: 55) propose, is through repeated exposure to prescriptions and loops, which are learned with the rest of the script. Additionally detours themselves may develop sub-branches if the prescriptions also meet interferences.

Another factor involved in encountering interferences and errors is the emotional response an interference or error and failure to resolve them may evoke. Failure to resolve an error or an obstacle may even release such emotional response that the actor is distracted from the script. For instance, not being able to get a table by the window at a restaurant even though you had booked one in advance, and after having explained the situation to the waitress, you may get so infuriated that you decide to complain to the manager, which evokes a new script:

Figure 3.3

$RESTAURANT (track: booked table) – Obstacle (no table by the window) – Prescription (explaining the situation to the waitress) – Failure (still no table by the window) – Emotional Reaction (anger) – Distraction ($COMPLAINT)

~

Fourth IA comment: Degree of Fixity and Obstacles, Errors, and Distractions

The notions of 'obstacles,' 'errors,' and 'distractions' are useful descriptive tools in relation to interaction (or behavior in general) that involves the achievement of necessary accomplishments which must perhaps be obtained in specific ways. In interactional script theory, such talk would be organized by scripts consisting only of obligatory and perhaps inflexible script parts or scripts which are partly organized by obligatory and perhaps inflexible part (e.g. achieving recognition in openings of telephone calls). However, as discussed above, everyday conversation consists of much more than obligatory and inflexible actions. Interactional projections of actions vary in strength and the lack of execution of an anticipated action does not necessarily lead to a breakdown of the interaction.

Not even in such cases as the generic structures of adjacency pairs do the notions of 'obstacles,' 'errors,' and 'distractions' apply as viable generalizations. Indeed a question strongly projects an

answer, and a greeting projects a second greeting, and the lack of second pair part may be considered "wrong" (or noticeably absent), but it does not necessarily prevent the interaction from moving on. Above we saw how e.g. a first greeting (Op#9 & Op# 11) may not be responded to by a second greeting and how a how-are-you (Op#8) may not be responded to by an answer to a how-are-you. However, there were no problems in these cases, and the opening was still completed. This contradicts Schank and Abelson's (ibid: 45) discussion of their $RESTAURANT representation (figure 3.1). Each action in the $RESTAURANT, they argue, "results in conditions that enable the next to occur. To perform the next act in the sequence, the previous acts must be completed satisfactorily. If they cannot be completed the hitches must be dealt with."

In order to capture the cognitive processing of interaction, as I also argued above (see second IA comment), a more subtle approach than Schank and Abelson's is required. One is needed, I argued, which allows a scaling of scripts in terms of the parameters 'obligatory vs. optional actions' and 'fixity of each particular action' (the degree of variation that is allowed in its execution). For instance, the achievement of recognition/identification in the opening of a telephone call is an obligatory accomplishment, and the failure to achieve recognition is an obstacle for the further interaction – except for special types of phone call interaction such as switchboard requests. (And empirical evidence shows (cf. Schegloff 1979) that if recognition is not accomplished at T2 in private American phone calls, it will be an issue later on in the interaction). Contrastively, the accomplishment of a how-are-you sequence in the opening of a phone call to Laporte is not an obligatory script part and the failure to accomplish it or its lack of presence in the interaction is not an obstacle for the further interaction and does not make it an issue later on.

~

Script interaction:

Schank and Abelson also discuss different ways in which more than one script can be active at once.

1) The first type of script interaction would probably be recognized by most blending theorists as an integration of conceptual structure. However, Schank and Abelson do not operate with such a mechanism. Instead they propose that in the following case a second script "actually interferes, preventing the occurrence of normal actions" (ibid: 57):

3.38:

> *John was eating in a dinning car.*
> *The train stopped.*
> *John's soup spilled.*

In this story, two scripts, Schank and Abelson (ibid: 57) claim, are active at the same time: $RESTAURANT and $TRAIN. (Naturally, if the cognitive agent in case has a dining car script, only one script would be active.) "When two scripts are active at once," they write,

"they compete for incoming items of information. Sometimes the events that fit one affect the events of the other. […] Here this means handling the spilling of the soup as an inference from the train script and sending information to the instantiated restaurant script that the food is now no good (and perhaps that the customer is now wet). Such new inputs trigger detour paths in the restaurant script that are capable of handling them even though the impetus for them came from outside the script itself" (ibid: 58).

~

Fifth IA comment: *A Mechanism for Script Integration*

Schank and Abelson's discussion of this type of script interaction is yet another case which makes apparent the limitations of script theory with respect to the processing of activities of everyday life, I hold. Any deviation from a strict script trajectory, it seems, is handled only by cumbersome processing. There is no mechanism for e.g. script integration, or script "fluidity," which can handle deviations in a manner that is more "smooth" and hence more true to the ease with which people actually handle many deviations. Hence the cognitive agent must go back and forth between different scripts to understand the sequence in 3.38. Furthermore, Schank and Abelson (ibid: 58) argue, the "third sentence (John's soup spilled) must be handled by means other than a script. This is done easily (in principle) by inferring the physical effects of a sudden train stop, and knowing that soup spills when moved abruptly. The problem here is the serious effect this sentence has on the restaurant script. It is as if the waiter has done something wrong, such as bringing the wrong order" (ibid: 58). It seems unlikely, I believe, that people would actually process the spilling of the soup in a dining car "as if the waiter has done something wrong." It seems more likely, as blending theory proposes that people would adapt swiftly and effortlessly to the 'emergent' properties of a "hybrid" dinning car script through some kind of integration process. The We-case illustrates this eloquently:

3.39:

1Col: H'leoo,hm[hh
2Hun: Hi:[:.
3Col: [.hhh How'r we do↓in'.=ehheh
4Hun: Well: uh: 'bout iz well ez c'n be expected How er you:,
5Col: You know jist about the sa:me.
(Colson&Hunt.ca, ll. 11-15)

As we saw in the preface, two conceptual structures (a me-and-you structure and a we structure) – or two scripts – are brought together to create an integrated space of meaning, and subsequently a new base space structure. Hunt adapts to this promptly and effortlessly, giving a reply which indicates a new integrated script for the interaction. There are no signs of any cumbersome processing or any going back and forth between different scripts. On the contrary, the elaborated how-are-you sequence is established smoothly and elegantly, and Hunt orients to elements of both conceptual structures simultaneously.

~

2) A second type of script interaction discussed by Schank and Abelson (ibid: 59) is called 'scriptal ambiguity':

3.40:

> *John was wooing his girl friend in the restaurant.*
> *He asked her for the salt.*
> *Then he asked her for her hand.*

Here, again, two scripts are active at the same time, $ROMANCER and $RESTAURANT. The inputs do not affect each other as in the case above, but there is a problem, Schank and Abelson (ibid: 58) argue, with deciding "which new input belongs to which script." However, as long as there is enough information in the 'script applier' about the requirements of the scripts, Schank and Abelson (ibid: 58) suggest, the problem can be resolved. More serious problems arise, they hold (ibid: 59) if an event comes up which could occur in both scripts.

~

Sixth IA comment: *Overestimated Ambiguity*

From the point of view of the IA, the notion of ambiguity is an overrated notion. People do not ordinarily perform ambiguous actions in interaction, simply because all actions have a specific placement in the trajectory of interaction which will determine their meaning. I will not completely rule out the possibility that genuine ambiguity may arise, but looking at concrete interactions, it is clear that such cases are rare. Most of the time, problems are due to other "flaws," e.g. lack of attention or problems with perception. Serious problems with ambiguity is typically restricted to isolated (longer or shorter, and more or less superficial) pieces of discourse. And the focus on such data in much traditional linguistics exaggerates the problem. Considering John's reported "request" from the point of view of the interlocutors themselves, the matter is quite different than when considering the three sentences in 3.40 from he point of view of a reader. In a real situation of interaction where the two lovers are sitting in front of each other and John says "Can I have the salt, please" and then "Can I have your hand, please," his girl friend would not be in doubt as to whether John asked her to marry him or whether he needed her hand for eating his meal. Either she would "get it" and understand that he was playing with the structure of their previously ongoing activity (eating dinner) and placing his proposal at a very surprising place, or she would fail to understand what he was up to. She would not consider him needing her hand for eating his dinner to be another equally possible option.

By the way, this critique of the notion of ambiguity is also in agreement with Sperber and Wilson's relevance theory, which practically rules out this notion (cf. Sperber and Wilson 1986). In its proper cognitive environment, nothing is strictly ambiguous. People are ready for something which makes sense and will go for that which in the particular cognitive environment creates the most positive cognitive effect and requires the least effort.

~

3) A third instance of script interaction discussed by Schank and Abelson (ibid: 59) is called 'overlap':

3.41:

John was robbed on the train.
At the restaurant he couldn't pay the check.

The robbery on the train does not affect the completion of the train script, but it takes away an 'entry condition ' for $RESTAURANT. Hence the latter script cannot be carried through because of violations in the previous script.

~

Seventh IA comment: *Script Overlap*

The notion that scripts may overlap in the way suggested by Schank and Abelson does not seem applicable to social interaction. The actual *actions* conducted by interlocutors may indeed and do indeed inform subsequent *actions*. In the We-case, we saw the actual execution of a how-are-you question informs the answer that is given and the particular assumptions it makes of shared knowledge. However, the interactional *scripts* remain the same. The fact that Hunt and Colson have elaborate the standard script for a telephone opening does not change, impede or prevent the completion of subsequent scripts. In my studies, I have not come across any cases where the violation of a script has consequences for the way in which a subsequent script is run, and I find it hard to imagine how that would happen.

~

4) A final type of script interaction concerns the "indeterminacy in script endings" (ibid: 60).

3.42:

Yesterday John was in New York.
He went to restaurant.
He ate a large lobster.
Then he bought a watch.

The problem in 3.42 is to recognize when the active $RESTAURANT ends, and whether it ends at all. Does John leave the restaurant to buy a watch after having consumed and paid for his lobster, or does he buy a watch in the restaurant, which is also an option? In the case where line 4 initiates a new script, Schank and Abelson (ibid: 61) call the subsequent script a 'script-ending script.'

~

Eighth IA comment: *Indeterminacy*

Again, Schank and Abelson seem very biased by the type of data they are looking at. They claim that indeterminacy in script endings is a frequent problem (ibid: 61), and of course it

may be very relevant to look at such problems in relation to studies of various text types (as a reader's problem). In social interaction, however, interlocutors normally orient to script endings and initiations of new scripts with great precision. None of them mistakes e.g. a how-are-you for a first topic or a first topic for another opening component. Even in cases where a previous script has not reached a "natural" completion, interlocutors immediately recognize new scripts. Furthermore, speakers will be focused on avoiding problems with script endings when producing an utterance and hence indicate that a new script is in play. Of course, indeterminacy in script endings cannot be ruled out as an interactional problem (though at present I have no data which illustrate such problems). The point, again, is that Schank and Abelson's use of non-empirical, textual examples, and their computer-compatible approach to human understanding highlights certain problem areas which may not be very urgent in naturally occurring, social interaction.

~

Types of scripts:

Schank and Abelson discuss three different types of scripts: situational scripts, personal scripts, and instrumental scripts.

1) Situational scripts are socially shared scripts, such as $RESTAURANT, $TRAIN RIDE, and $JAILHOUSE. Here the players share an understanding of what is supposed to happen.

2) Personal scripts exist "solely in the mind of its main actor," Schank and Abelson (ibid: 62) state, although they may be revealed or discovered by other people and shared by a group of people. Personal scripts are thus often at odds with what goes on in the social sphere. A man and a woman may share the script of going to a restaurant, but the man may also have the concealed script of seducing the woman. However, the woman may never discover that or she may not be interested.

Personal scripts may be very "deep," Schank and Abelson (ibid: 63) hold, e.g. behavior governed by unconscious patterns forged in childhood or by traumatic experiences. Yet, when describing people's behavior, Schank and Abelson prefer to avoid getting into idiosyncratic, unparsimonious, unconscious scripts. Hence, the most appropriate answer to the question "Why did Mary shoot up heroin?," Schank and Abelson (ibid: 63) argue, is "that she wanted to (or that it was her habit), and the next simplest is that her friends persuaded her. Without very specialized additional context, we would not likely assume (say), that she did it because as a child she hated her overbearing older sisters, and now she lets her peers talk her into bad behavior in the hopes that they will all be caught and punished, thus getting even with the sisters and also expressing her own guilt for hating them."

~

Ninth IA comment: *Situational Relevance vs. Personal Scripts*

The interactional approach shares the sentiment of disregarding possible "deep" motivations of behavior, although for different reasons than Schank and Abelson. When describing a situation of social interaction, only things which can be demonstrated to be immediately relevant to the involved actors should be taken into the description.

For Schank and Abelson, the preference for immediate personal scripts is a question about avoiding gratuitous details. Instead, they write (ibid: 63), "Our policy in developing a theory of knowledge structures is to get as far as we can with fairly simple and general constructs." For the interactional approach, generality is not an absolute virtue and must not be strived for at the expense of important detail. The interactional approach focuses on those details of situations by and through which meaning is constructed. Thus from the point of view of the interactional approach, "deep" personal, psychological structures simply are not relevant as long as they have not been brought to the fore by the interlocutors themselves; however, the minute that has happened, the "deep" personal, psychological structures become a part of the immediate relevant context and thus describable.

~

Personal scripts, Schank and Abelson point out, give rise to various script interactions. One actor may have a concealed personal script within a situational script, for instance "the rapid friendly conversation" of a salesman (ibid: 64). Two or more actors may have competing concealed personal scripts within a situational script, for instance a situation with a spy and a counterspy (ibid: 64). And finally, one or more actors may have personal scripts which are known by other actors, for instance in polite social invitations which are not genuinely friendly, but are known by both parties to have a hidden agenda.

~

Tenth IA comment: *Personal Scripts in Interaction*

The notion of personal scripts and the way they may interact can be a very interesting issue from the point of view of the IA, that is when they are made relevant to the interaction. How do people construct meaning with both situational and personal scripts at work? How do they make a personal script relevant (without turning it into an overt/situational script)? Take the We-case again.

3.43:

1Col: H'leoo,hm[hh
2Hun: Hi:[:.
3Col: [.hhh How'r we do↓in'.=ehheh
4Hun: Well: uh: 'bout iz well ez c'n be expected How er you:,

5Col: You know jist about the sa:me.
(Colson&Hunt.ca, ll. 11-15)

We saw in the preface that through the standard term for speaker inclusiveness, *we*, reference is made to specific, shared, personal knowledge, which is not mentioned explicitly, but which is made relevant. Through a slight modification of a standard opening, a personal script (talking about the Watergate affair) is thus integrated in the situational script, an "ordinary" conversation between officials at the White House.

~

3) Instrumental scripts are very rigid scripts with only one participant. They include examples such as $LIGHTING A CIGARETTE, $STARTING A CAR, $WORKING A KEYPUNCH, and $FRYING AN EGG (ibid: 65). I will not discuss this type of script any further here, since it is not of interest to the IA.

A Later Version of Script Theory:

In a later version of script theory, Schank (1982) developed a more narrow conception of scripts. In the 1977 version, scripts referred to entire events (e.g. going to a restaurant). In the 1982 version, scripts organize very specific events in particular locations. These sub-event scripts are then incorporated into general event representations (e.g. going to a restaurant). In the 1982 version, specific scripts (e.g. entering Bill's Bar in New York) "fill in" the (abstract) scenes of a general event structure (e.g. entering a bar (going to a bar would be one track of $RESTAURANT in the 1977 version)); and the sequence of scenes thus makes up a general 'memory organization packet' (MOP) (e.g. going to a restaurant). MOPs correspond to the 1977 conception of scripts as general event representations. MOPs which contain the same type of scenes can be abstracted into meta-MOPs; the MOP 'going to restaurant' might for instance be related to the MOP 'going to a discotheque' through the meta-MOP 'going out.'

As Markman (1999: 200-201) points out, the advantage of this representation are the multiple levels of abstraction: specific scripts > scenes > MOPs > meta MOPs. It allows orientation to specific events while maintaining orientation to similarities between different scripts (as instantiations of the same type of scene), and different MOPs (as instantiations of the same meta-MOP). Moreover, parallel tracks can be handled by substituting specific scripts for a scene, instead of substituting whole general event representations. Finally, because it keeps track of multiple levels of information simultaneously, the 1982 version provides insight about different ways in which event information can be accessed: (1) in a top-down manner: if planning to go out with a friend, the general event of going out gives you access to different options (MOPs), going to a restaurant, going to a discotheque, going to the movies, etc.; (2) in a bottom-up manner: exiting for the first time a *taverna* during a holiday on a Greek island may prompt a specific script

for exiting your favorite restaurant in Venice, Italy, where your holidays usually go to. In that way an old script can be adapted to a new situation.

~

Eleventh IA comment: *the Newer Version of Script Theory and the IA*

The 1982 conception of scripts as narrow, specific event representations which may be related to other specific event representations as types of scenes, is more attractive from the point of view of the IA. From a cognitive viewpoint, everyday conversation typically consists of a series of narrow event representations, which may be specific types of more general abstract structures. (For instance, openings of calls to the Laporte call-in show may be considered a specific instance of telephone openings in general.) Everyday conversations, though, are not typically encompassed as wholes by large general event structure representations which contain information of each specific step, as e.g. Schank and Abelson's notion of a $RESTAURANT. At the outset of a conversation the interlocutors do not typically look ahead at a long series of goals which make up the whole conversation which is about to happen in fixed sequential order, as in the case of $RESTAURANT. Conversations are made up of a greatly varying number of more or less narrow series of actions organized in sequences; and these actions may have a fixed order between them and some of them may be obligatory and others optional components of the interaction. Above in the study of openings of phone calls to Laporte, we saw one such narrow series of actions: A specific instance of an opening of a telephone call. For each step of the interaction new paths may be opened which were completely unpredictable from the outset of the conversation. Conversations are predictable only so long as a fixed, narrow script is in action. When the script is completed, anything – in terms of what scripts follow – may typically happen. Of course, it can be argued that in the case of calls to a call-in show, there is in fact an orientation to a more or less fixed overall structure of such a type of call, and we did see evidence of that above with the treatment of first topic as only topic/reason for the call: e.g. opening → reason for the call → closing. First of all, however, this is not representative of everyday phone calls, and secondly it remains a very abstract structure with only a very vague kind of predictability, and hence a very low level of descriptive force.

Furthermore, because of the way in which it focuses on specific event structures rather than the most general stereotype structures and thus incorporates into the larger theory complex a specific-to-general angle, the 1982 notion of scripts is more compatible with the IA sentiment of basing all discussions on specific cases of interactional event structures.

3.3.3 Interactional Scripts

In this section I offer – in catalogue form – a definition of interactional scripts which emerges out of a) the study of openings of phone calls to Laporte, b) general, established facts of talk-in-interaction and c) the dialectical discussion of Schank and Abelson's script theory in the previous section. There is a greater or lesser degree of overlap between some of the points.

Shorthand Definition:

> *An interactional script is the interlocutors' shared conceptualization of recurrent, more or less fixed, co-occurring actions of talk organized in sequences*.

Elaborating points:

(1) In terms of level of processing, interactional scripts are conceptual event structures which are above the perceptual and motor level of bodily based image schemas (Johnson 1987), and below the general event level of 1977 script structures (Schank and Abelson 1977) and frames (Fillmore 1982 and 1985). Like other conceptual structures, however, interactional scripts are, I suggest, organized by image schematic structures (e.g. 'interactional exchange sequence schemas,' see below). In turn, general event structures (such as 1977 scripts or frames) may contain more or less specific interactional scripts (e.g. interacting with the waitress in a restaurant).

As for image schematic structures, it is worth considering what role they play in regard to interactional scripts, but also, more intriguingly perhaps, what role interaction plays in the development of certain image schemas. In the latter case I think concretely in terms of interactionally based image schemas. The embodied experience of sequencing and the image schematic structure it gives rise to, it is suggested in conceptual metaphor theory (Lakoff and Johnson 1981 and 1999, Lakoff 1993), is the bodily basis of our understanding of abstract concepts such as 'time.' Yet, whether the conceptualization of sequencing in interaction is individually, bodily based – structured through metaphorical projection of experiential gestalts – in the Johnsonian (1987) way or whether interactional sequencing itself is a socially embodied, basic, experiential structure is an open question.

Event sequencing in e.g. 'time,' understood as a series of events, ordered such that each event is preceded and followed by other events, except for the first and last events, does seem rather different from interactional exchange sequencing, where events are also ordered as *responding* to other, previous events. I at least cannot think of any other domain than social interaction of some kind in which such exchange of actions is the fundamental structure.[22] The next question would then be if an interactional exchange sequence schema

is not really a composite schema, and thus not a "primitive" in the sense of being irreducible into further components? I do not think so. The "composition view" may have it, for example, that an interactional exchange sequencing "schema" would actually consist of at least two path schemas (e.g. A utters something to B and B responds) and a transition "schema," which again can be broken into a sending schema, a reception schema, etc. However, the basic experience of interactional exchange sequencing should not be confused for a full-blown model of communication. What I have in mind here is the basic experience that an action, e.g. a sound is experienced as being deliberately "returned," like an echo (only it is not just an echo) whereby a basic sense of social interaction or socialness emerges. What is social about it is just exactly this: the "outgoing" sound is continuous with the "incoming," responsive sound, and vice versa, like two inseparable aspects of exchange (see figure 3.4, appendix 2). This is comparable to the "interior" and "exterior" of a container schema which are also inseparable "structural elements" – one does not exist without the other (cf. Lakoff 1987: 272-273).

In accordance with conceptual metaphor theory, it could thus further be suggested that the interactional exchange sequencing schema is projected to give structure to non-social experiences and experiences which are not social in a here-and-now fashion: e.g. human-computer interaction, author-reader interaction, letter/email interaction, etc.

My guess then is that an *interactional exchange sequencing schema*, which in turn organizes composite interactional scripts, emerges and is acquired as a *basic*, *social and bodily experience*. In order to perceive what another part is saying, one must stop making sounds. Hence the dynamics between the wish to "express" oneself to others and attention towards what others "express" may give rise to interactional exchange sequencing, a development which may be enhanced by caretakers' explicit directing. The development of an interactional exchange sequencing schema may then be connected to the development of a 'theory of mind' (see e.g. Tomasello 1999) – a conception of others as thinking, feeling and expressing beings – as one sort of basic condition for that development. (In turn, a sequential exchange of sounds at an earlier level of behavior does not require a full scale theory of mind.) Once acquired, my guess would go, the generic structures of interactional exchange sequencing (e.g. adjacency pairs) become deeply entrenched within the conceptual system, which is an underlying cognitive reason why e.g. questions so strongly project answers interactionally – the "outgoing" sound is bound up with the "ingoing" sound.

The notion of interactional exchange sequence schemas which serve as abstract general structures in interactional scripts and which are structures on the same level of experience as Johnson's individually, bodily based image schemas would then be another contribution to a science of the physically *and* socially or sociophysically embodied thinking human being. However, as far as I can take it in this dissertation, this is all mostly ideas and suggestions, and I will not attempt here to fully resolve this issue. Presently, I know of no studies of children's acquisition of interactional exchange sequencing. However, an interesting and comprehensive piece of research, which would supplement existing research in development –

and perhaps image schema theory as such as well – lies ahead for those who would take an interest in this issue.[23]

(2) With respect to their instantiation, interactional scripts are fluid and to a greater or lesser extent, flexible, dynamic structures. Interactional scripts are not just a "fossil" phenomenon of long term memory. Interactional scripts are not applied as ready structures in the same way that a piece of software is applied to some input to pre-determine a stringent processing. The application of an interactional script is a dynamic process. Like Johnson's (1987: 30) bodily based 'image schemas,' interactional scripts are more rightly thought of as *being created on every occasion of their instantiation* ("for another first time," to import into cognition a phrase by Schegloff 2003), typically *re*-cognized bit by bit as they evolve (see fifth IA comment). Thus contrary to Schank and Abelson's definition of scripts (see quote above, section 3.3.2) as providing fixed slots for concrete actions, it is misleading to say that interactional scripts are simply "filled in" by interactional actions. As much as the interactional scripts are being "filled in" by concrete actions, *the concrete actions establish the slots in specific ways in each situation as they are being produced*. Interactional scripts accommodate all sorts of local adjustments, as we saw in the preface (the We-case). Hence Schank and Abelson's (ibid: 67) "strong" script claim that "Deviations from the standard pattern are handled with some difficulty" does not hold for interactional scripts.

With these characteristics, interactional scripts follow a trend in cognitive science spearheaded by people like Johnson (1987) and Rummelhart and McClelland (1986) which emphasizes the dynamic and reconstructive nature of memory and understanding; it agrees with Johnson's (ibid: 20) statement that "We need to correct the popular, but misguided, view that understanding involves only the imposition of static concepts, propositions, schemata, templates, plans, or networks upon some perceptual input. […] understanding is an evolving process or activity."

(3) In terms of their composition, interactional scripts are normative or "canonical" (Freeman, Lloyd and Sinha 1981 and Sinha 1983)[24] structures whose parts can be scaled with respect to their obligatoriness and with respect to the fixity of their parts. In the openings of telephone calls, we saw above, recognition is a highly obligatory component, whereas a how-are-you is optional. In calls to Laporte, the first turn by Laporte is also highly obligatory. Still, the components of openings of calls to Laporte differ with respect to fixity. The first turn of calls to Laporte has a high degree of fixity with respect to the exact wording; it is Laporte's special trademark. Greetings and how-are-yous do not show much variation, but that does not necessarily mean that they have a high degree of fixity. Rather the lack of variation seems to be a question of lack of alternatives more than constraints. There are not that many standard ways of greeting or of asking how a co-participant is doing. Thus one must distinguish between fixity and sparseness with respect to alternatives. (Of course sparseness can always be overcome by creative constructions, such as the We-case.)

(4) Interactional scripts represent the immediate relevant context on the basis of which actions are interpreted and executed. In accordance with the limits of conversation analytic research interests (cf. Schegloff 2000: 207), interactional scripts do thus *not* include *all* issues addressed to understanding, e.g. "deep" personal scripts or general situational, cultural or historical contexts. Only insofar as such factors are made relevant by the interlocutors to what is done here-and-now are they made a part of the script representation (see the discussion in ninth IA comment above). Of course, that does not mean that many conversations do not evolve around personal scripts. What matters is that these personal scripts are attestable in the interlocutors' actions.

Personal scripts such as $ROMANCER or Colson and Hunt's talking about the Watergate affair may also be situated in and trough the actions here and how and in fact the interaction between such personal scripts and immediate situational scripts is, as we saw in the preface, a very interesting research topic (see tenth IA comment above).

(5) Interactional scripts assume no unnecessary processing. In relation to interaction, it makes little sense to assume that un-executed actions are routinely "filled in" by scripts. Interlocutors do what they do, and what they do are the steps that constitute the interaction. In the study of openings above, we saw that the interlocutors may follow a longer or a shorter path through the opening. There may be a long opening consisting of presentation + summons answer, greeting + how-are-you sequence, and thanks before first topic. There may on the other hand also be a short opening with just presentation + summons answer + greeting by caller (only) before first topic. In the latter case, it would not make sense from an interactional point of view to assume, for instance, that a second greeting by the host or other actions are understood from what in fact happens. In the absence of other actions, what *standard* actions are done are understood as being the opening, nothing more and nothing less. This having been said, there are indeed cases where it makes sense to argue that both or one of the interlocutors in some way display an understanding that a particular action which was relevant or indeed projected has been "bypassed." Thus by their actions they in fact display an orientation to an unexecuted action, whereby it becomes interactionally consequential. Yet, that does not entail, that the interlocutors consider the interaction an abbreviated version of an "ideal" interactional trajectory. Rather what they do is to ascribe "more" significance to the actions that *are* executed. (see discussion in third IA comment above).

(6) Interactional scripts are narrow event structures with generic cognitive structures of interaction as central components (see discussion in eleventh IA comment above). The cognitive constitution of sequential organization (turn-taking, repair organization, the overall organization of a conversation, that is opening → closing (all of which are in turn constituted by image schematic structure) in a local composition are combined with non-generic sequences (e.g. thanks → first topic in opening of calls to Laporte) and paired

with the specific contents of actual events of interaction. An interactional script is usually composed of several actions organized in sequences, but it may also consist of only one pair of actions (e.g. exchange of greetings between two people passing each other on the street, or question and answer). Each action in an interactional script either cognitively projects (in the case of 'conditional relevance' (see chapter 2) where a specific second action must follow a first action, as in the case of a question which must be followed by an answer) or makes relevant a specific next action or a set of next actions. The force with which next actions are anticipated thus varies in strength. Within generic sequences (e.g. adjacency pairs) there is strong anticipation (cognitive projection) of a specific next action, but between sequences of a script the anticipation of a next relevant action may not be very strong. For instance, Laporte's initial turn on the call-in show makes relevant a number of actions but none of these actions are so strongly anticipated that they may be considered cognitively *projected*[25]or, in interactional terms, noticeably absent if they do not occur; they are merely a set of relevant actions.

Cognitive projection pre-defines "right" and "wrong" (socially sanctionable) actions in a given place during social interaction (its is "wrong" when a question does not get by an answer), whereas it cannot be said to be "wrong" if an action that is made cognitively relevant but *not* cognitively projected is not executed (as for instance if first topic is not introduced in caller's first turn in calls to the Laporte call-in show).

The fact that a script sets up anticipations about next relevant action(s) has consequences for the interpretation of the given action actually produced in that next/following position. If the executed action does not correspond to the anticipated action, it will still be understood in terms of how it does not correspond to the anticipated action. For instance, in the We-case in the Preface, we saw that Colson's how-are-you question is understood as doing *more* than is expected at that particular position. This, as discussed earlier, is compatible with Sperber and Wilson's relevance theory; interlocutors will seek a relevance which fits the cognitive environment.

(7) Interactional scripts are <u>interactional,</u> not textual. Problems such as script ambiguity (Schank and Abelson 1977: 58-59) and script-ending indeterminacy (ibid: 60) may be highly relevant to certain <u>text</u> types. These issues can however not be transferred *a priori* to interactional scripts, nor can they be rejected *a priori*. Much cognitive semantic and linguistic research focuses on isolated actions, sentences, texts or discourse in more or less decontextualized chunks. As a result thereof certain problems get to be highlighted which may be less important or even irrelevant to other central domains of cognition. (see discussion in sixth and eighth IA comment above)

(8) Descriptions of concrete interactional scripts are based solely on empirical evidence in the shape of naturally occurring conversations, as e.g. the openings of phone calls to Laporte (see discussion in first IA comment above).

This last point provides a suitable transition to the last section of this chapter, a description of a concrete instance of an interactional script: openings of phone calls to the Laporte call-in show.

3.4 A Cognitive Analysis of Openings of Calls to Laporte:

In figure 3.5, I model the interactional script for standard openings of calls to Laporte. The model is based on the interactional study above. The modeling conventions resemble those of Schank and Abelson, but differ on central points which (as discussed in the previous two sections) distinguish interactional scripts from Schank and Abelson's general event structure scripts. Below the model is a glossary of the various conventions used. It should be emphasized that *all terms are to be understood in a cognitive sense, and not in a CA interactional sense*.

Notice that in my description of interactional scripts I distinguish between 1) cognitive 'projections' in the sense of activation of a structural element which is strongly connected to another structural element, and only to that element, of the same narrow structure and 2) 'encapsulation' in the sense of one structural element being connected less strongly to a limited selection of certain other structural elements, each of which defines which conceptual structure the pairing ends up being (e.g. element 1 + element 2 = structure 1/2 or element 1 + element 3 = structure 1/3). Thus in cases where actions are projected they stem from the first action by being the only completion of it; and in cases where actions are merely made relevant by the first action, they are one of a set of possible completions of it (e.g. a greeting by the caller is, among other actions, suggested by Laporte's first turn). Projection would then correspond to a neural network where the activation of neurons representing a first pair part activates very strongly only the neurons representing a specific second pair part. Encapsulation, on the other hand, would correspond to a neural network where the activation of neurons representing an action activates neurons representing several other actions and where the choice of one of these actions inhibits the others. Also the activations in the case of encapsulation are less, or much less, strong than in the case of projection. (For an introduction to connectionist neural networks, see McLeod, Plunkett, and Rolls (1998)).

Figure 3.5: $OPENINGS OF CALLS TO LAPORTE:

Participants: L – Laporte, C – Caller, A - Audience

Entry conditions: C calls the show to discuss a topic in relation to the ongoing allied campaign in Iraq

Results: L and C have accomplished an opening and first topic is being presented by C

Laporte's 1st turn:

Components:	*Details*:
1) **Presentation of C to A** + **summons answer to C** (+ personal self-identification)	Presentation: "C on the line from *somewhere*" Summons answer: "You're (next) on the giant sixty eight KNBR" Personal self-identification: e.g. "with/I'm Leo Laporte"
ENCAPSULATION: Summons answer: C is categorized as next-caller-on-air and as the specific "X from *Somewhere***"** Any next standard action may follow, but reason for the call is relevant at all points from hereon.	

Caller's 1st turn:

Components:	*Details*:
2) Greeting (**obligatory, not as greeting, but as minimal component before first topic**), **claiming recognition of Laporte**, implicitly **confirming presentation of caller**	Greeting: typically "hi" (+ address term)
PROJECTION: Second greeting by Laporte	
OR	
3) Explicit **confirmation of presentation of caller** + greeting, **claiming recognition of answerer**	Confirmation: typically "yeah" or "yes" Greeting: typically "hi" or "hello"
PROJECTION: Second greeting by Laporte	
OR	
4) **Minimal component**, implicitly or explicitly **confirming presentation of caller**, implicitly or explicitly **claming recognition of answerer** + **reason for the call**	a) Explicit confirmation of presentation of caller and implicitly claiming recognition of answerer: typically "yeah" b) Explicitly claiming recognition of answerer (greeting) and implicitly confirming presentation of caller: typically "hi"
The opening is thereby completed	
OR	
5) Greeting (+ address term), **claiming recognition of answerer**, implicitly **confirming presentation of caller** + first part of how-are-you (+ address term):	Greeting: typically "hi" How-are-you (+address term): typically "how are you doing"
PROJECTION: A second greeting by Laporte (not strongly projected, perhaps not projected at all since it is embedded in a turn consisting of two actions[26]) + a second pair part to how-are-you by Laporte	

Laporte's 2nd turn:

Components:	*Details*:
6) If (2) or (3), second to greeting + address term	Greeting: typically "Hi C"
ENCAPSULATION: *Reason for the call*	

OR	
7) If (5), (second to greeting +) second to how-are-you + thanks	Greeting: typically "Hi C" Second to how-are-you: typically "Good" Thanks: typically "Thanks for calling" or "Thanks for hanging on"
ENCAPSULATION: Reason for the call	

Caller's 2nd turn:

Components:	*Details*:
Reason for the call	Reason for the call: an opinion or question about some topic in relation to the allied campaign in Iraq
The opening is thereby complete	

Glossary:

Bold faced components , e.g. **Presentation**:	components with high degree of obligatoriness or absolute obligatoriness in the script. (Notice that even though seconds to firsts are also obligatory in that they are projected, I have not indicated seconds in bold face since the sequence as such is not obligatory)
Components with no bold face, e.g. personal self-identification:	non-obligatory components
Underlining, e.g. "X from somewhere":	components with a high degree of fixity
Parenthesized components e.g. (address term):	components which may or may not be a part of a turn

The interactional script contains all possible standard actions and components. As opposed to Schank and Abelson's $RESTAURANT, all details have been found empirically. Interlocutors have been shown to orient to the steps given in the model. From the general script we can deduct a minimal script of obligatory components:

Figure 3.6: Obligatory components of $OPENINGS OF CALLS TO LAPORTE

1. Laporte:	Presentation of caller + summons answer
2. Caller:	Minimal component, Confirmation of presentation + claim of recognition of answerer
3. Caller:	Reason for the call

Some calls (e.g. Op#13 & Op#15, see 3.13a-b) have this minimal structure consisting only of obligatory elements.

The interactional script models, however, still tend to leave an impression of interactional scripts as static conceptual structures (as in the case of Schank and Abelson's representations), which is a misrepresentation of the findings made in the interactional study above. In order to get a more real impression of script processing, we will depict the process in and through which the script comes about in terms of mental spaces. This mental space representation of an instantiation of one of the scripts above will serve as an introduction to the way in which interactional online meaning construction processes are modeled in the rest of this dissertation. The particular case that I have chosen to model is the following:

3.44

LL: mArshall on the line from CONcord;=
LL: YOU'RE on the giant sixty eight knbr.
MAR: HI:.
LL: hi marshall.
MAR: i'd lIke to uh take a stEp to the (.) inVASion here.
(Op#14, Gulfwar.ca, ll. 50-54)

The mental space representation is given as figure 3.7 in appendix 2. Here follows an explanation of the symbols used. In the graphics, the same types of arrows and lines represent quite different things. For simplicity's sake, I have chosen not to use more types:

a. Arrow from base space to construction spaces: projecting or making relevant certain conceptual structures and the mappings and projections between these.

b. Arrow from base space to recognized action square: projecting or making relevant a particular action or a set of actions.

c. Arrow from recognized action square to construction spaces: interpretation of action.

c. Lines between constructions spaces: vital relations.

d. Dotted lines: In accordance with canonical blending theory, these represent projections of conceptual structure from one construction space to another.

e. Arrow from construction spaces to next base space: projection to the base space of the context renewing meaning construction in relation to the current action.

The mental space representation shows how each action is interpreted in its specific circumstances against the environment of an organizing interactional script. The base space is the mental locus which keeps track of the interactional development. It makes actions recognizable and it makes certain conceptual structures relevant for the interpretation of these actions. In turn the concrete interpretation of recognized actions projects a new base space structure in some relation to (typically in accordance with) the interactional script, which "shoots" projections and encapsulations through the base space manifestations at different times. For instance, when Laporte's presentation and summons answer have been recognized and interpreted, it is being projected to the new base space that "L has made a presentation and summons answer" and that "M is next speaker on air." The interactional script then adds to this a choice of next relevant actions, which in turn makes recognizable new actions and makes relevant conceptual structure for the interpretation of these actions, and so on. The mental spaces thus depict the online processing through which the interactional script runs as it is being re-created in some specific local form.

An important final remark that I wish to make in this chapter concerns my use of the term *projection*. We have already seen it used in the CA sense in relation to conditionally relevant actions in adjacency pairs. In connection to the cognitive description of online interactional meaning construction, however, there are another four senses in which I use the term: To denote

(1) the transfer of conceptual structure from one construction space to another, e.g. from an input to a blend; this is the conventional use of the term *projection* in blending theory,

(2) projections from a construction space to a new base space, which is in another specific type of transfer of conceptual structure. Structure from the interpretation of the previous action is transferred with respect to its interactional significance. Thus, for instance, construction space 2 has a situation in which Marshall greets Laporte and it projects to base space 3, not the situation of Marshall greeting Laporte, but the information that Marshall has greeted Laporte,

(3) projection from a base space of a relevant next action, constituting expectations, which takes place in regard to conditional relevance (adjacency pairs), and

(4) projection from a base space of a relevant conceptual structure in relation to the interpretation of a projected action; this is connected to (3).

The ways in which the term *projection* is used in the present dissertation are then informed both by its use in blending and mental space theory and by its use in CA literature. Though this may seem quite confusing, I

have however, found that it would be more confusing and risky to invent new, distinctive terms for already known and named phenomena. In most cases in the following chapters, it should be clear from the context whether the term *projection* is applied in a cognitive sense or in an interactional sense. However, in those cases where I have found that it may not be clear, I have modified the term in some way, e.g. "cognitive projection," "projection in a cognitive sense," etc.

With this mental space representation of interactional script processing, we now move on to consider some phenomena of interactional online meaning construction as they unfold in interplay with interactional script processing. In the following three chapters my focus shifts to the actual, particular types of online meaning construction processes, and there will be much less emphasis on the interactional scripts as such, though of course all theoretical points made in this chapter concerning scripts apply throughout the rest of the dissertation. The first phenomenon that I will analyze is 'compression' of information during interaction.

CHAPTER 4

COMPRESSION OF INFORMATION
STUDY#2: STORY PACKING UTTERANCES

4.1 Introduction

In chapter 1 we saw how the notion of 'compression' plays a central role in blending theory. According to Fauconnier and Turner (2002a) most blends involve some sort of compression of conceptual structure (within or across mental spaces). Furthermore, as we have seen, compression is both an important goal of much blending and one of the governing principles of the blending process. However, what is missing from Fauconnier and Turner's otherwise extensive treatment of the notion of compression are empirical studies which actually show the relevance of compression to the people who construct

meaning. There have been no studies of when compression occurs in specific contexts, what actions or constructions may serve to achieve compression, and what is achieved through it. From the point of view of the IA these are essential issues to explore, and they are issues which will be studied in the present chapter. More specifically, this chapter investigates the way in which compression is achieved in talk-in-interaction, in the special context of what I call 'story packing utterances.' Based on this study I will evaluate the notion of compression in blending theory and offer an empirically based cognitive description of interactional compression. The general proposal of this chapter is that any construction/utterance/artefact may be used to achieve compression, but no type of construction/utterance/artefact always prompts compression. Compression is occasioned in situ and its achievement is crucially a question of context and position. This claim is based on the observation, as will be shown below, that the achievement of compression is not restricted to particular construction types[27]. Furthermore, those constructions which appear in positions where compression is achieved also appear in positions where compression is not oriented to interactionally.

By 'compression', however, I do not have in mind all the types of examples discussed by Fauconnier and Turner (2002a). Only the notion of compression as *handling a lot of information in a single expression*, I will argue, appears to be psychologically real (as opposed to representationally logical), and only this type is documented in the interactional study.

The structure of the rest of this chapter is as follows: First, as a preface to the interactional study of 'story packing utterances,' I raise some theoretical questions in relation to the notion compression, as it has been introduced by Fauconnier and Turner (2002a) and as it relates to cognitive semantics/linguistics notions as such. Then I present the interactional study of 'story packing utterances.' Finally, I analyze and evaluate the interactional findings in terms of mental spaces, conceptual integration, and interactional script theory. And I discuss my findings against the blending theoretic notion of compression and other relevant blending and cognitive semantics/linguistics notions and ideas. More specifically, I will, in the second "cognitive" part of the chapter, discuss the

following issues: 1) How many spaces can/do people keep active at the same time when doing compression? 2) In technical terms, what are the elements of the process? 3) Compression as a specific cognitive phenomenon by itself. 4) Compression and construction types. 5) What is achieved by compression?

4.2 Compression – questions:

The notion of compression is an intriguing notion. It makes good sense to propose that cognitive agents make use of human scale structures (see chapter 1) to be able to handle complex or very detailed information. Compression, it can be said, optimizes the conceptual system and enables humans to create order in the world. However, from the point of view of the interactional approach the following questions require treatment: 1) How is the notion of compression in fact to be understood and when does it in fact take place? 2) What construction types can be used to achieve compression?

1) In blending theory, compression is defined in terms of a spatial representation where the distances of inner space relations and outer space relations are shortened by the process of compression. However, one may ask, does that representation have a "real" psychological counterpart? Can such processes be documented by methods which dig into the very process of blending?

Look at it this way: The notion of compression seems to suggest that some blends may be more heavy than others because the conceptual relations that are compressed are farther apart. Take the example of 'time,' which, according to Fauconnier and Turner (2002a) is a vital relation that is often involved in compression. Is it the case that the compression of a Time vital relation between two mental spaces which represent scenarios that are, say, 500 years apart is more heavy than the compression of a Time vital relation between two mental space which represent scenarios that are only, say, 5 years apart? According to the representational logic of the notion of compression it would be a natural inference to assume that, but does it have a psychological reality in the case of blending? Does it – due to heavy compression of Time – take more labor to process an expression

like “Mars is the frontier of the 21st century” (blending American history and modern space exploration, which are hundreds of years apart) than an expression like “Bush Junior is a replicate of Bush Senior” (blending a presidency ten years ago with the present presidency)? It does not seem likely, I think. In fact, it would be odd to assume that there is a correlation between distance in historical time between two events and “distance” between those events as concepts. But what then does the notion of compression contribute to our description of the way human beings actually go about constructing meaning if such inferences cannot be made? The question is essential, it concerns the very definition of compression.

The notion of compression viewed in the sense just discussed – where compression is a matter of “pulling together” things which are “far apart” or just “apart” in some sense – does not seem, on the face of it, like a psychologically realistic notion. It seems somewhat superficial, and it does not appear to have a significance beyond the inherent logic representation itself. However, in another sense the notion of compression seems intuitively to have huge and “real” psychological significance. For instance, recently the British female singer Dido released an album called *Life for Rent*. It is one of those titles about which people will typically say that “it says so much,” or that it is “poetic” or “loaded.” The poetic character of the title seems to come from the fact that it is a short, seemingly simple title which however has a lot of complex meaning. On one hand we have knowledge of ‘life’ and on the other hand we have the concept of ‘things for rent’ – in this case, the way that I interpret the title, the thing for rent is probably an apartment or a house. ‘Life’ then is understood metaphorically in terms of a vacant apartment or house, or simply as a place to live, which is for rent. This may seem simple enough, but only when taking for granted the processes which go into this understanding. The renting scenario may be held to be relatively simple: There is a place to live, it is for rent, there is somebody who can rent it, and somebody who can let it out – two agents, an object, and a few simple relations. Now, a ‘life’ is a different matter. Conveying in non-metaphorical terms the situation of the person whose life is for rent would take circumstantial explaining involving much more information and complexity than is found in the renting scenario. In one possible

interpretation, a "Life for Rent" is a sad and lonely life. It lacks personal involvement, and genuine emotions; it lacks Love. It is a life of waiting but not living while waiting, a life which wants to be fulfilled, but which probably never will be fulfilled. Either "residents" are lacking or they are just uncommitted transients who exploit the comforts of the life for a limited period of time and then disappear. Many associations and complex circumstances are brought to mind by this short and simple expression, a "Life for Rent." However, they acquire a comparatively simple, human scale expression through the renting scenario. In this sense, a lot of information is captured by being heavily compressed with the aid of simpler relations.

This notion of compression appears to be more viable, in the sense of being apt for capturing what actually goes on as people construct meaning. One really senses a compactness of information behind the title. Yet, as analysts we cannot know for sure whether such expressions always (to any reader, regardless of the circumstances) evoke an experience of compressed information. Might it not be possible that an understanding of the title could be achieved which does entail such "depth"? In another interpretation, may it not just evoke a sense of emptiness or loneliness without the compactness of information behind it? In other words, though compression in the sense of compacting information does seem psychologically very "real", we still need methods for documenting or providing solid ground for assuming that this *is* the case and for finding out *when* it is the case. We need to study cases where compression can be documented to be relevant to the involved cognitive agents/participants and where the very compression can be studied as it happens. Such a study is attempted in the present chapter.

2) Related to the question of *where* compression takes place is the question of what types of constructions can be used to achieve compression? According to blending theory (Fauconnier and Turner 2002a), quite many types of constructions involve some sort of compression (e.g. counterfactuals, *X is the Y of Z*-constructions, and metaphorical constructions) but certain types of constructions seem particularly potent in this respect. Among the examples discussed in chapter 1 were two metaphorical expressions ("Murdoch

knocked out Iacocca" and "You're digging your own grave"), both of which involved much compression. It is not stated explicitly anywhere in the blending literature (at least not to my knowledge) that particular types of expressions or constructions are particularly apt for compression. However, it appears to be in line with the focus on isolated constructions in blending theory to assume that certain types per definition are more apt at or involve more compression than others. Though this may indeed be the case, and though I have found myself that there is a tendency to using a particular construction type when doing compression in interaction (as we shall see below), it moves attention away from a circumstance that is claimed by the IA – in accordance with CA – to be essential to the construction of meaning, namely the significance of the particular interactional position of an action to its meaning. There is thus a contrast here between a canonical blending theoretical focus on assumed inherent meaning construction properties of certain construction types and an IA focus on the crucial importance of local position in interaction.

Take the case of metaphor which seems particularly relevant in connection to this discussion. Implied in the cognitive semantics theory of conceptual metaphor (Johnson and Lakoff 1980 & 1999) is the proposal that metaphorical expressions prompt certain generic processes of meaning construction regardless of their position in ongoing discourse or sequences of talk-in-interaction. Thus metaphorical expressions, it is held, always involve mappings from a source domain onto a target domain. Furthermore, metaphors, as we saw in chapter 1, can be an efficient device for comprehensive and very visible compression. Hence combining the implied claim of much cognitive semantics and linguistics work that particular construction types always prompt particular types of meaning construction, regardless of position, with the observation in blending theory that metaphor may be a particularly efficient tool for compression, the hypothesis emerges that if they display orientation to compression, participants in interaction must typically or particularly do so in relation to particular construction types, e.g. metaphorical expressions. Yet, the hypothesis does not hold against empirical data. For the types of compression in interaction that I have studied ('story packing utterances') at least, it does not hold that

metaphor or other particular construction types are what create compression. Metaphor may be used in achieving compression, and indeed, as I have said, there is a tendency to use a particular construction type when doing compression. However, what essentially matters, my study will show, is not the individual construction type or expression but the organization of talk and the positioning of the construction or expression at a particular place where it will be taken to compress information.

Still, the contrast mentioned above between a canonical blending theoretical focus on assumed inherent meaning construction properties of certain construction types and the IA focus on local position in interaction does not have to be irreconcilable. The context-focused approach does not deny that certain construction types or expressions bring to the particular interactional positioning of it particular, context-free, semantic, characteristics. It is only when being paired with studies of constructions or expressions which deal with their meaning solely in terms of their context free qualities (as is typically the case in metaphor theory) that a context-focused approach collides with a construction- and/or expression-focused approach. As described in the introduction, there is in cognitive semantics and linguistics a great awareness of the significance of context, but as also described, these approaches in practice remain predominantly construction- and expression-focused, discussing context typically only haphazardly and incorporating it merely as a sort of preface to discussing in detail the mappings and projections of a given construction or expression. My claim and proposal, is, nonetheless, that cognitive linguistics and semantics can go further and unite its construction- and/or expression-focused concerns with the contextual concerns of e.g. the IA.

The two questions discussed here constitute the primary concerns of the interactional approach to the notion of compression. Now let us move on to the very interactional study of cases of turns-at-talk that involve the cognitive operation of compression.

4.3 Story Packing Utterances

The following study has two major precursors which it is related to in different ways. One is Goodwin and Goodwin's (1987) study of the organization of assessments (evaluations of contents of talk) and the other is Heritage and Watson's (1979) study of 'formulations' (a sort of "meta-comments" in interaction). In a number of the cases that I have collected, actions which pack up talk also serve as assessments in one of the senses discussed by Goodwin and Goodwin; but this still only goes for some of them. Hence, it is only in local contexts that the actions that I am focusing on are also assessments. In all occurrences, though, the features and aspects of 'story packing utterances' – both those that are assessments and those that are not – closely relate or correspond to the features and aspects of what Heritage and Watson categorize as *formulations*. In describing story packing utterances as a specific type of formulations, I will however focus on a quality of these actions which Heritage and Watson merely mention *en passant*: the way in which story packing utterances compact a story. In other words, the phenomenon which is studied in the present chapter can be characterized as a subgroup of formulations which is sometimes realized as assessments. Notice that as opposed to the case studies in the following two chapters, I consider story packing utterances a "full-blown" interactional phenomenon because my findings are supported by earlier, widely acknowledged work, Heritage and Watson (ibid). I shall, however, start out by relating my study to the specific case of assessments.

4.3.1 Story Packing Assessments

During conversation both speakers and recipients can be observed to evaluate in some way the contents (e.g. persons, events, descriptions) of their talk. These assessments are a well-described phenomenon in conversation analytic literature (see, for instance, Pomerantz 1984 too). The activity of assessing the contents of talk takes many different forms. Some of these are described by Goodwin and Goodwin (1987):

4.1a-c:

a)

Curt: *Th*is guy had, a beautiful, thirty O:lds. ←
(G.84:10:30, borrowed from Goodwin and Goodwin (1987:44))

b)

Hyla: A:n then thay go t'this country club fer a party
en the gu:y, .hh u::m. (0.2)
eh they kick him out
becuz they find out eez Jewi:sh, .hh
an it's j's r:rilly s:::sa::d, ←
(HGII:12, borrowed from Goodwin and Goodwin (1987:20))

c)

Dianne: *Jeff* made en asparagus pie
it wz s::so[: goo:d. ←
Clacia: [I love it ←
(G.50:03:45, borrowed from Goodwin and Goodwin (1987:24))

In 4.1a, the assessment, "beautiful," is packaged together in an noun phrase with the phenomenon being assessed, "thirty O:lds." The assessment thus precedes the 'assessable.' In 4.1b, the assessment is performed separately after the assessable has been made available. Assessments which follow the assessable in a separate sentence Goodwin and Goodwin (ibid: 18) call "post-positioned assessments." These are useful in a number of different ways, Goodwin and Goodwin propose. For instance, "participants are able to assess phenomena that would not fit neatly within a single unit [together with the assessment]" (ibid: 20). 4.1c (which was also shown in chapter 2) differs from the two first excerpts of talk with respect to the social construction of the assessment activity (as was also discussed in chapter 2). In 4.1c the recipient participates in the assessment activity (concerning Jeff's asparagus pie). Goodwin and Goodwin describe the format of the post-positioned assessment as [it] + [copula] + [adverbial intensifier] + [assessment term]. The first part of the sentence references the assessable and the second part is occupied with the activity of assessment itself. Furthermore, Goodwin and Goodwin (ibid: 24) observe "at the point where speaker actually produces her assessment term recipient is simultaneously providing her own assessment of the same material." Thus, the example "provides a clear

demonstration of how the production of an assessment can constitute a social activity involving the collaborative action of multiple participants."

As stated above, story packing utterances may simultaneously function as post-positioned assessments of story material, and thus do both story packing and story assessing. Furthermore, the phenomenon as such – as we shall see in the following analyses – has several things in common with issues discussed by Goodwin and Goodwin in relation to assessments. Goodwin and Goodwin's study primarily focuses on how the assessment activity may be a social process whereby co-participants also demonstrate an orientation to assessments/utterance-in-progress (as in 4.1c). However, there still are further details of their work which fit descriptions of story packing utterances, and which I shall I refer to as I go along

Yet, as also stated above, the central feature of story packing utterances, according to this study, is their quality as actions that compact a story. These are actions through which participants achieve the conclusion of e.g. a report, a story/narrative, an account, a description, or any other stretch of talk by capturing the contents of it in a comparatively shorter formulation. Thus by the term *story* I do not mean narratives in a traditional sense or as necessarily constituted by a longer depiction of events involving a cast of characters and a plot. I mean any type of turn or multi-turn unit which provides information about something: a person, an event, a situation, etc. In 4.2 are two prototypical examples of story packing:

4.2a-b

a) C#1:

1D:	you know I went down on monday to the uh the demonstration
2D:	because i wAsn't sure how I felt.
3D:	uh i have uh FRIENDS whose BROthers are in saudi arAbia no:w,
4D:	i have FRIENDS that i went in hIgh school with (.) that are
5D:	thEre, (.)
6D:	a:nd (.) uh i wanna supPORT them,
7D:	<<laughing> but on the Other hand> I don't wanna see them
8D:	come back in a BOdy bAg. (.)
9D:	and uh it was REAlly NICE to go down and be with people who

10D: FELT the same way that I did.
11D: and uh (.) what i'm seeing today REAlly upsEts me;
12D: [<laughing>
13LL: [it's hArd to know HOW to feel now isn't it. ←
14D: it YEAH exACtly.
(6Gulfwar.ca, ll. 37-50)

b) C#4:
1T: well ↑i'd like to THANK the staff of uhm Knbr because; .hh
2T: I don't know maybe i am just a nervous PERson but;
3T: you guys were THERE for me;
4T: during the EARTHquake;
5T: that was my BIRTHday;
6T: and i spent about .hh
7T: TEN MINutes of AIR time <<laughing> talking to
8T: you gUYs that night;>
9T: and i wanted to THANK you for the;
10T: .hh you know the SHOULder to LEAN on. ←
11LL: <<l> our PLEAsure.>
(3Gulfwar.ca, ll. 169-179)

In C#1, recipient (Laporte) packs up the contents of first speaker's story with the utterance "it's hard to know how to feel, isn't it?" (l.13). This action invites recipient to agree in response (by "isn't it," l. 13), which is done in the following turn ("Yeah exactly," l.14).

In C#4, speaker concludes her own turn, i.e. lines 1-8, which consist of a thanks (l. 1) plus an account for the thanks (ll. 2-8). In line 10, following a second production of a thanks (l. 9), she captures the contents of the account for the thanks (in ll. 2-8) in the phrase "the shoulder to lean on" (l.10). In both cases, but through different means, a whole story is encapsulated and packed up in a single phrase: In C#1, the turn-packing utterance by recipient recycles central theme-setting terms with which first speaker begins her account of her mixed feelings: "How I felt" (l. 2) → "how to feel" (l. 13). Through the use of this phrase the conclusion is tied back to the opening statement, encapsulating the talk in between. The terms which are recyclings of earlier terms I call *anchor terms* and the original terms which they recycle I call *source terms*.

In C#4, first speaker encapsulates the account which is given for the thanks. In line 1 she produces a thanks which is then followed by the account (ll. 2-8). She repeats

this procedure in line 9 and 10, this time with a single phrase following the thanks as an account for it. With this structure a parallel is suggested between the first account for the thanks and the second account for the thanks, where the detailed account is substituted for the single phrase. Thus in both C#1 and C#4 a longer stretch of talk is packed up by the production of an abbreviated representation of it.

~

This study is based on only eleven occurrences, which, by itself, is not enough to establish an interactional phenomenon *per se*, but which suffices to indicate certain interactional structures and to provide evidence for involved cognitive processes. However, the much more comprehensive study by Heritage and Watson published in the article "Formulations as Conversational Objects" (1979) does, I believe, provide enough substantial support for my findings that I may consider my findings an actual interactional phenomenon. Indeed, the phenomenon which I am proposing is absorbed by their study as one example of what they, following Garfinkel and Sacks (1970), call 'formulations.' Heritage and Watson's work is based on Garfinkel and Sack's (ibid: 350) more general observation that

> A member may treat some part of the conversation as an occasion to describe that conversation, to explain it, or characterize it, or explicate, or translate, or summarize, or furnish the gist of it, or take note of its accordance with rules, or remark on its departure from rules. That is to say, a member may use some part of the conversation as an occasion to *formulate* the conversation.

Garfinkel and Sacks (ibid: 351) speak of such practices of "saying-in-so-many-words-what-we-are-doing" as "formulating," and Heritage and Watson (ibid: 124) define the phenomenon which they study as a "specific subclass of formulations." Their primary concern is with "formulations of conversational gists and, to a lesser extent, with formulations of upshots" (ibid: 136), such as when a recipient or speaker of a story, report,

announcement, or simply "news," as Heritage and Watson (ibid: 124) call it, formulates the sense or gist of the matters presented to him or by him.

Heritage and Watson discuss formulations in terms of three "orders" (ibid: 139) of conversational organization: 1) utterance-by-utterance organization, in relation to which Heritage and Watson discuss an adjacency pair organization involved in formulating, which I shall get back to below; 2) organization in terms of topic order, where formulations "may serve to demonstrate understandings of the *cumulative* import of a previous string of utterances" (ibid: 150); and 3) the overall structural organization of the unit "a single conversation," where formulations may have status as "preclosings," that is as an action which serves to bring the whole conversation as such into a closing sequence.

As Heritage and Watson (ibid: 139) point out, there is one important caveat to this division into organizational orders:

> that while such analytic isolations of conversational orders or general issues relating to conversational construction may prove useful from an analytic point of view, the production and monitoring of the orderliness of conversation is characteristically achieved through the simultaneous and integrated treatment of utterances in terms of all orders and with respect to the solution of all problems in maintaining conversational coherence.

The current study mainly focuses on issues pertaining to conversational organization in terms of the topic order (#2 above), but it also discusses important points in relation to the utterance-by-utterance order of organization (#1 above) and the overall structural organization of the unit "a single conversation." Furthermore, with its focus on formulations as story packing devices, the present study – as stated above – focuses on a quality of formulations which is only mentioned *en passant* by Heritage and Watson. As I go along below, I refer to Heritage and Watson as I have found it appropriate to support and elaborate my own findings and to credit them as precursors of a magnitude incomparably greater than mine.

~

Now let us go back to the discussion of story packing utterances. It is not always the case that a portion of talk is explicitly encapsulated (by e.g. anchor terms) by the story-packing action, such as we have seen above. In later sections we will see fragments of talk where there is no explicit encapsulation of the packed-up talk, that is where there is no overt indication of what part of the talk is represented in the comparatively shorter turn or phrase (see e.g. C#8 and C#6). However, the fact that we can find such examples, where the story packing action overtly encapsulates that which it represents in abbreviated form, suggests that such actions as we have seen above, which follow stories, accounts, reports, descriptions, or other multi-turn units, are generally understood to pack up a particular portion of talk. For the purpose of supporting this argument, let us look at some further examples.

The first two examples are parallel to C#1 in that next speaker's story packing action recycles a central, theme-setting term from the beginning of first speaker's story:

4.3a-b

a) C#9:

1GE:	hey thAt gUY that said that he's sick of Terrorists. (.)	←
2GE:	should rEAlly pay more attention to what's goin' ON in the	
3GE:	world. .hh	
4GE:	BUSH JUST okayed thIrty million DOllars for el SALvador -	
5GE:	.hh and it been a HUNDred thousand people mUrdered	
6GE:	<<aspirated> there.> .hh (-)	
7GE:	a:nd uh	
8LL:	we have a HIStory of supporting terror in ONE form or	←
9LL:	another.	←
10GE:	we DO ALL over the whole wOrld;	

(9Gulfwar.ca, ll. 15-24)

b) C#11:

1GE:	now i wanna proTEST; (-)	
2GE:	people who MARCH a::nd uh crEate vIolence;=	←
3GE:	<<acc> and i think you're exACtly rIght;> .hh	
4GE:	uh y your rePORTS <<monotonous> on your stAtion say that	
5GE:	there are about ten thousand	
6GE:	marching and a fEw hUndred [(-) broke off and did those	

7GE: things so;
8LL: [yeah;
9GE: .hh i ↑HOPE that we don't uh lUmp everybody together and say
10GE: that; (.)
11GE: PROtesters A:re violent people;=
12GE: they (.) they DON'T WANT the KILLing to contInue just like
13GE: myself;
14GE: .hh and we're VEry much against people that uh;
15GE: STOP TRAffic an an START FIRES.
16LL: [yeah
17GE: [<<all> and do other things.>
18LL: a lot of BRIGHT intElligent people of CONscience who a:re; ←
19GE: yeah;
20LL: OUt there uh mArching because they feel that they HAVE to. ←
21GE: i am GLAD you brought that up.
22LL: .hh i THANK y' for the cAll.
(9Gulfwar.ca, ll. 48-69)

In C#9, recipient uses the word "terror" (l.8) in his story packing utterance, which ties the story packing action back to the beginning of previous speaker's story where "terrorists" is a central theme-setter. In the same way that we saw in C#1, next speaker thus anchors his story packing utterance in storyteller's turn indicating an encapsulation of the portion of talk between the source, "terrorists" (l.1), and the anchor term, "terror" (l.8). In C#11, first speaker's story is packed up and assessed in lines 18+20. In line 20, the anchor term "marching" ties the story packing utterance back to the source "march" (l.2) which is a central theme-setter in the beginning of first speaker's story.

The next two examples are parallel to C#4 in that the story turn is built in such a way that the story (in C#5 a description of anarchists, and in C#7 a description of Howard Hunt) and its story packing utterance (in C#5 the last turn-constructional unit and in C#7 a subordinate clause in the utterance that does the description) are juxtaposed. Thereby it is suggested that the story packing utterance part may be seen as an abbreviated substitution for the (in these cases) description part. In C#7 the story packing utterance also has the quality of assessing the contents of the foregoing story:

4.4a-b

a) C#5:

1LL: i ↑GUESS they think that uh this is a corRUPT NAtion; .hh
2LL: a:nd that uh: that thee uh estAblishment is corRUPT and
3LL: prOperty is corRUPT and that .h it should all
4LL: be: uh: destroy:ed.=
5LL: or I don't know;
6LL: they're ANarchists. ←
7HE: yeah wEll they should think they VOted for these people,
8LL: I don't think they VOTE.
9HE: [(laughs)
10LL: [SERiously;

(13Gulfwar.ca, ll. 25-34)

b) C#7:

1Col: =We:ll (.) I am ↑too:.=obvious↓ly.=hEn I:, ë-I: (.) hhope tuh hell
2Col: yih hed nothing dih do with it? An:dü mghh I've: clung duh
3Col: that-(0.2) buhllief?=en ev tol' people ºthed?º nh And* eh
4Col: /(.hh-.hh-.hhhh-.hhhh)/ hë-an:d if yuh ↑did h'v=
5%com: /_____(1.2)_____/
6Col: =any=dih do with it ah'm go:d damn sure it w'z bec'z you w'r doin'
7Col: what chu were tol' duh do,hhh=
8Col: =C['z yer]
9Hun: [That's e]xac'ly right i[t w'z (uh-)]
10Col: [a l o y a l] soldier obviously,h ←
11Col: ë-En alweez hev been? .hh[h
12Hun: [WOULDJU BE wil[l i n g] ( )]
13Col: [fer yer] ↑country,]
14Hun: (yih-) [(0.3) [h u n h (0.3)]
15%com: [who[oshing noise,] tape glitch
16Hun: WouldJU BE: uh: wuh willing t*o receive a memorandum from me.

(Colson&Hunt.ca, ll. 76-91)

In C#5, we can view the storyteller's story turn (ll. 1-6) as consisting of two central components. The following representation of the turn is meant to capture that:

I guess

1) they think this is a corrupt nation,
the establishment is corrupt,
property is corrupt,
it should all be destroyed.

or I don't know

2) They are anarchists

The two major components share the referent 'they,' the referencing of which is followed by different components: One that describes the political standpoints of the assessables (what they "think," ll. 1-4) and one that packs up the story and assesses the assessables on the basis of the description of them (l.6):

1) [They] + [think + DESCRIPTION OF POLITICAL STANDPOINTS]
2) [They] + [are + STORY PACKING TERM/DESCRIPTION]

Thus via the shared reference of the two major components, which gives coherence to the turn, the structure of the turn can be seen to set up the story packing action as an abbreviated substitution for the description:

1) they think [this is a corrupt nation,
the establishment is corrupt,
property is corrupt,
it should all be destroyed.]

2) They are [anarchists]

Recipient's response (l. 7) supports this analysis (next term proof procedure, see chapter 2). The response does not just relate to the story packing action in the storyteller's turn (l. 6); the reference of "these people" (l. 7) is to the story before the story packing assessment, i.e. to the "establishment." Thus the completion of the story-packing utterance is taken to be a place where a response to anything in the story is appropriate. This in turn suggests that the completion of a story packing utterance is a place where a story as a whole and with all details is available, and not just immediately preceding parts of the turn.

In C#7, current speaker's story packing action (l. 10) – which also qualifies as an assessment – follows as a second consecutive subclause, subordinated by "because," after a first subclause subordinated by "because" which presents the assessable/story details. The assessable/story details and its story packing assessment are thus juxtaposed structurally by being given as listed, equal consequents of the antecedent ("And if you did have anything to do with it…", l. 4+6). This suggests that the story packing assessment may be seen as an abbreviated substitution for the assessable:

And if you did have anything to do with it I'm godamn sure it was

1) because [you were doing what you were told to do]

2) because [you're a loyal soldier]

Notice here, as in C#5, that the story packing assessment is not treated as adding new *story detailing* – although it may indeed add more interactional "material" and/or do other types of work, some of which will be discussed below (see sections 4.3.2, 4.3.4, 4.3.6, and 4.3.7). Next speaker onsets his response (l. 9) in overlap with the beginning of the second *because*-subclause. However, current speaker continues producing his story packing assessment (l. 10-11), which next speaker noticeable avoids responding to (l. 12), as I shall discuss below.

Thus far, we have seen two types of encapsulations of talk that is packed up by a story packing utterance. They are two types which may constitute general techniques: 1) encapsulation of a story by anchoring a term of the story packing utterance in a theme-setter (source) in the beginning of first speaker's story (or in what is thereby pointed out to be the beginning of the story), and 2) encapsulation of a story by structurally juxtaposing the story and its story packing utterance. The important argument that I want to support with this list of examples is that such formulating utterances which follow stories, accounts, reports, descriptions, etc. that span several or longer turn-constructional units are *generally* understood to pack up a particular portion of talk, *also* when there is no overt encapsulation.

4.3.2 Story packing Utterances as Techniques for Displaying Exit from a Story:

The movement in a turn from the story detailing component(s) to doing story packing of the contents of the story (as we have seen in e.g. C#5 and C#7 above) constitutes a "marked structural change," as Goodwin and Goodwin (ibid: 21) phrase it in relation to post-positioned assessments. "Such a shift from *Description* [what I call story, AH] *to Assessment of Described Events*," they state (ibid: 21), "in fact constitutes one of the characteristic ways that speakers begin to exit from a story." Goodwin and Goodwin of course make this observation in relation to post-positioned assessments only, but in my data I find it valid for story packing utterances in general. A couple of examples from the collection at hand will demonstrate how interlocutors orient to the story packing utterances as techniques for displaying exit from a story:

4.5a-b

b) C#1:

1D:	you know I went down on monday to the uh the demonstration
2D:	because i wAsn't sure how I felt.
3D:	uh i have uh FRIENDS whose BROthers are in saudi arAbia no:w,
4D:	i have FRIENDS that i went in hIgh school with (.) that are
5D:	thEre, (.)
6D:	a:nd (.) uh i wanna supPORT them,

7D: <<laughing> but on the Other hand> I don't wanna see them
8D: come back in a BOdy bAg. (.)
9D: and uh it was REAlly NICE to go down and be with people who
10D: FELT the same way that I did.
11D: and uh (.) what i'm seeing today REAlly upsEts me;
12D: [<laughing>
13LL: [it's hArd to know HOW to feel now isn't it.
14D: it YEAH exACtly.
15LL: dEbbie we're gonna go back to bob LAzec now. ←
16LL: he's gotta conTINue the Update. ←
17LL: BOB? ←
(6Gulfwar.ca, ll. 37-53)

c) C#4:
1T: well ↑i'd like to THANK the staff of uhm Knbr because; .hh
2T: I don't know maybe i am just a nervous PERson but;
3T: you guys were THERE for me;
4T: during the EARTHquake;
5T: that was my BIRTHday;
6T: and i spent about .hh
7T: TEN MINutes of AIR time <<laughing> talking to
8T: you gUYs that night;>
9T: and i wanted to THANK you for the;
10T: .hh you know the SHOULder to LEAN on.
11LL: <<l> our PLEAsure.>
12LL: thAnk YOU.
13T: THANKS.
14LL: alright. ←
15T: bebye. ←
16LL: take CARE of yourself and your bAby. ←
(3Gulfwar.ca, ll. 169-184)

Initially in next speaker's turn in C#1 (l. 14), the utterance (l. 13) seems not to be treated as a story packing action by the "it." The pro-term indicates a different trajectory, which is however repaired by the following items, "yeah exactly." D may thus at first have heard but not necessarily understood what Laporte does in the previous turn (l. 13). This may indicate that D initially is about to provide further elaboration of the story, while when understanding Laporte's prior utterance as doing something different, he shows a strong orientation to that different thing, now understood as an action requiring a particular sort of response (or in fact a second to a first pair part, as discussed in section 4.3.4). In and

through that response, which in this case is a strong confirmation (an alternative could of course be a disconfirmation), the speaker treats the prior turn as an understanding of his story, a formulation, which asks for a "decision," i.e. "did I understand your story correctly?" This action, the formulation, by attending to evaluative work and itself projecting evaluative work (see section 4.3.4), makes an elaboration of the story *not* relevant. Hence, in sum, the placement of an understanding of the prior story, a formulation and story packing utterance, turns this position in to a place for possible closing of it, which again may lead to a closing of the whole conversation.

C#4 differs from C#1 in that current speaker produces the formulation herself (see section 4.3.5b). Notice that she embeds the formulation in a thanking utterance (ll. 9-10), an utterance which can be understood as a closing action asking for a second pair part in the form of some sort of "your welcome." As in the previous case the formulation in conjunction with the projected next action leads to a closing of the whole conversation. By building the story packing utterance into a thanking sequence, T makes a further elaboration of the story irrelevant as next action, since next action orients to the main business of the prior turn, i.e. thanking. In sum then, by placing the formulation at a place where closing work is done, the speaker displays an orientation to the closing quality of formulations.

In their study of formulations, Heritage and Watson (ibid: 151) also find that such actions may "become a way to terminate talk to some topic." Watson and Heritage, however, further connect such termination of talk to a topic as "prefatory to the establishment to some new topic-at-hand or indeed the termination of the conversation as a whole" (op. cit.). My data seems to conform to this observation. Story packing utterances too may serve as prefatory to the termination of the conversation as a whole – we saw that in C#1 and C#4; and with respect to formulations as "prefatory to the establishment to some new topic-at-hand," this also seems to hold for story packing utterances. Here follow two examples where a shift to a new-topic-at-hand is prefaced by a story packing utterance:

4.6a-b

a) C#2:

1LL:	it's VEry very scAry.	
2LL:	you're dOing the r best thing y you CA:N do by the way,	
3LL:	which is TALKing to people. (.)	
4LL:	and NOT keeping it in.-	
5LL:	it IS;=	
6LL:	it's SCAry for us All.	←
7T:	well ↑i'd like to THANK the staff of uhm Knbr because; .hh	

(3Gulfwar.ca, ll. 163-169)

b) C#9:

1LL:	we have a HIStory of supporting terror in ONE form or	←
2LL:	another.	←
3GE:	we DO ALL over the whole wOrld;	
4GE:	i am callin' to proTEST the: (.) Entry into uh the WAR in	
5GE:	irAQ; .h	

(9Gulfwar.ca, ll. 22-26)

In C#2, the story packing utterance/assessment "it's scary for us all" (l. 6) prefaces a shift to a new topic by T in line 7. Notice, however, that a similar story packing utterance has already been produced line 1. This action is though followed by a by-the-way-comment (l. 2), a sidetrack with respect to which next action is relevant. The repetition of the story packing assessment in lines 5-6, revitalizes relevancies of the first production of the story packing action. In C#9, next speaker produces an agreement/a confirmation utterance in response to first speaker's story packing utterance. The agreement/confirmation utterance is then followed by a new topic. Here then too the story packing utterance as a part of a sequence (story packing plus confirmation, see section 4.3.4) serves as a preface to the shift to a turn which introduces a new topic-at-hand. Below, I get back to the significance of next speaker's contribution to the exit from a story.

Another phenomenon which has relevance to story packing utterances is 'preference for agreement' (Sacks 1987). In relation to the specific case of assessments, Pomerantz (1984) observes preference for agreement when the contents of some stretch of talk are assessed. However, preferences for agreement not only goes for story packing utterances which do assessment work. In the continuation of C#5 – in a version that is cut

differently from the version which was given as example 4.4a – we can see the recipient orienting to the norm of preference for agreement:

4.7: C#5:
1LL: they're ANarchists.
2HE: yeah wEll they should think they VOted for these people,
3LL: I don't think they VOTE.
4HE: [(laughs)
5LL: [SERiously;
6LL: I don't think these people vOte.
7HE: .hhh a:n i Also wanna say when ↑WE heard;
(13Gulfwar.ca, ll. 30-36)

In response to his packing up in line 1, current speaker gets what Pomerantz (1984) calls a 'partial disagreement' (l. 2), signaled by the components "yeah well" (l. 2). These components mark the response as not-the-preferred response.

In the study so far, I have given turn packing assessments uniform treatment as one homogeneous category. However, the activity of closing a story by packing it up may proceed in different ways. The examples I have found differ with respect to who does the packing up and who responds to the packing up by agreeing, disagreeing, initiating a new topic, or terminating the conversation. In the next section, I discuss how turn packing utterances differ along such parameters.

4.3.3 Next speaker story packing and current speaker story packing:

The data divides into two major types of story packing utterances: a) 'next speaker story packing' where next speaker participates in current speaker's story by packing it up and b) 'current speaker story packing' where current speaker packs up his own story for next speaker.

a) Next speaker story packing:

In my data, I find that next speaker story packing typically follows as a response to a shift in current speaker's story from story detailing to doing 'local assessments.' The shift marks

a culmination of current speaker's story turn. This finding is compatible with Pomerantz (1984) who finds that an assessment by current speaker is typically followed by a second assessment by recipient, which not only agrees with but upgrades current speaker's assessment.

4.8a-b:

a) C#1:

1D:	you know I went down on monday to the uh the demonstration	
2D:	because i wAsn't sure how I felt.	
3D:	uh i have uh FRIENDS whose BROthers are in saudi arAbia no:w,	
4D:	i have FRIENDS that i went in hIgh school with (.) that are	
5D:	thEre, (.)	
6D:	a:nd (.) uh i wanna supPORT them,	
7D:	<<laughing> but on the Other hand> I don't wanna see them	
8D:	come back in a BOdy bAg. (.)	
9D:	and uh it was REAlly NICE to go down and be with people who	←
10D:	FELT the same way that I did.	
11D:	and uh (.) what i'm seeing today REAlly upsEts me;	←
12D:	[<laughing>	
13LL:	[it's hArd to know HOW to feel now isn't it.	←
14D:	it YEAH exACtly.	
15LL:	dEbbie we're gonna go back to bob LAzec now.	

(6Gulfwar.ca, ll. 37-51)

b) C#2:

1T:	you know i was WATCHing Opra,	
2T:	and i went in there to chAnge the BAby,	
3T:	and i came BACK, .h	
4T:	and the MINute i hEArd uhm;	
5T:	i guess it was rIchard brOwns⌈VOICE <<breathy> i was like;>	
6T:	(.)	
7T:	OH nO;	
8T:	[don't tell -me;	
9LL:	[yeah.	
10LL:	yeah.	
11T:	you know because when it was still .hh operation desert	
12T:	SHIELD that meant -	
13T:	there was still a glimmer of HOPE;	←
14T:	but then when they said .hh dEsert STORM;	
15T:	that was like you know well forGET it.	←

16LL: it's VEry very scAry. ←
17LL: you're dOing the r best thing y you CA:N do by the way,
18LL: which is TALKing to people. (.)
19LL: and NOT keeping it in.-
20LL: it IS;=
21LL: it's SCAry for us All.
22T: well ↑i'd like to THANK the staff of uhm Knbr because; .hh
(3Gulfwar.ca, ll. 148-169)

In both C#1 and C#2, first speaker makes a shift in his turn from story detailing to assessment activity. In C#1, a first 'pre-positioned' assessment (cf. Goodwin and Goodwin 1987: 14), "it was really nice," is produced before the assessable, "to go down and be with people who felt the same way that I did" (ll.9 -10), has been made available. A second assessment, "really upsets me," follows (in l. 11) after its assessable, "what I'm seeing today" (l.11), has been made available. In both assessment utterances the central components ("really nice" (intensifier + adj) and "really upsets (me)" (intensifier + verb)) are produced with more intensity (higher sound) than their surroundings, which makes these assessment components stand out from the assessables ("to go down and be with the people who felt the same way that I did", ll. 9-10, and "what I'm seeing today," l. 11) as the components which define the current activity. Thus there is a clearly signaled shift from story detailing to assessment activity which brings current speaker's turn to a culmination. The turn has moved from story detailing (ll. 1-8) to an intensively produced assessment (ll. 9) followed by more detailing (ll. 10-11) followed by a second intensively produced assessment (l. 11) which is set up as a contrast to the first. As a whole, then, the two assessment utterances in C#1 make up a unit: one set of contrastive assessment utterances. It is in immediate response to that unit of assessment utterances and directly following an intensively produced assessment component that recipient participates with a next speaker story packing utterance.

In C#2, a shift from story detailing to assessment activity occurs in l. 13. The first assessment, "there was still a glimmer of hope," is placed after its assessable, "when it was still operation desert shield" (ll. 11-12), and a second assessment, "that was like you know well forget it" follows in l. 15, also after its assessable, "but when they said desert

storm" (l.14), has been made available to the recipient. Here as in C#1, the central assessment components ("hope" (noun) and "forget (it)" (verb)) are also produced with more intensity (higher sound) than the surroundings, marking clearly the shift from story detailing to assessment activity. As in C#1, next speaker participates in a position where current speaker's turn has culminated in assessment activity. Next speaker's response (l. 16) immediately (with no gap) follows current speaker's intensively produced assessment component. First speaker's intensifying assessment is then treated not just as a part of the story, but as something that should be responded to. Hence, C#1 and C#2 show how a shift from story detailing to assessment activity invites co-participation from recipient.

Important to the description of assessment activity in C#1 and C#2 is also that the first speakers' assessments are different in scope from story packing utterances. First speakers' assessments are, as we have seen, anchored locally, applying to a specific assessable in the story:

Assessable	Assessment	Assessable
C#1		
1)	it was really nice	[to go down and be with people]

2) [what I'm seeing today] really upsets me

C#2

1) [when it was still	there was still
operation desert shield]	a glimmer of hope
2) [when they said	that was like you
desert storm]	know well forget it

Next speakers' story packing utterances, however, apply to the whole story, as we saw above. Thus next speaker responds to first speaker's shift from story detailing to local assessments with a general story-packing assessment.

We can, for now, sum up the description of next speaker story packing in the following way:

- Speaker A reports a story.
- Speaker A makes a shift to doing locally anchored assessments.
- Speaker A's turn reaches a culmination in the assessment activity.
- At this culmination, next speaker engages with a story packing utterance.
- Next speaker's story packing utterance is a resource for interactionally exiting the story.

The last point is illustrated in the following example:

4.9

C#9:

1GE:	hey thAt gUY that said that he's sick of Terrorists. (.)
2GE:	should rEAlly pay more attention to what's goin' ON in the
3GE:	world. .hh
4GE:	BUSH JUST okayed thIrty million DOllars for el SALvador -
5GE:	.hh and it been a HUNDred thousand people mUrdered
6GE:	<<aspirated> there.> .hh (-)
7GE:	a:nd uh

8LL: we have a HIStory of supporting terror in ONE form or ←
9LL: another. ←
10GE: we DO ALL over the whole wOrld;
11GE: i am callin' to proTEST the: (.) Entry into uh the WAR in
12GE: irAQ; .h
(9Gulfwar.ca, ll. 15-26)

GE has presented an argument concerning terror in the world (ll. 1-3). He is then building a case for in what is recognized as the initiation of a catalogue of concrete examples of US support of terror (ll. 4-7). One example ("El Salvador," ll. 4-6) is mentioned, followed by the coordinator "and" (l. 7), which is a likely indicator that more concrete examples are to follow. GE's catalogue-in-the-making, however, is ended by next speaker's packing up (l. 8). The story packing utterance concludes a likely catalogue and thus effectively abbreviates GE's turn by suggesting itself to be a conclusion of a possible longer turn. In line 10 the story packing utterance is confirmed, after which, obviously, a topic shift is a relevant next action.

b) Current speaker story packing:

We have already seen how current speaker story packing can be used as a technique for displaying exit from a story-telling multi-unit turn (e.g. C#1 and C#4), and the point has been made that assessments and story packing utterances in general prefer confirmation/agreement (cf. Heritage and Watson 1979 and Pomerantz 1984). Another feature of current speaker story packing is that they seem to make a certain confirming/agreeing type of next action by recipient relevant. In the following example it can be seen both how current speaker pursues confirmation of his story packing utterance from recipient and participation in closing the story:

4.10

C#6:
1Col: hhh Lemme uh:m ih-:-: lumme before you say anything.=Lemme

2Col: say a couple a' things.=↑O:ne, .hhhhhh uh:b brghhhhhh hë-
3Col: (0.9) .p.t
4%com: swallow
5Hun: I don' know what's going o:n he:re. other tha:n.h I em to:l:d thed
6Hun: (1.1) hü-uh↓: everybuddy':s gunnuh c'm º↑outº ↓alright.h Thet's all
7Hun: I ¯know. hhh[h
8Hun: [Ah[↓hhah.
9Col: [An:d eh:b I've del:iberately no:t (0.3)
10Col: [a:st any specifig question:s=
11Hun: [( )
12Hun: =Right.
13Col: Fuh this ↑rea↓son./.t.hmh.t.hh (0.6)/ üthat* eh-uhmghm-ghm
14%com: / _____(1.1)_____ /
15Ps: (0.2)
16?Hu: [( )
17Col: [I hev my ↑own idears about how things ↓'ll kmhh turn out
18Col: .hhuhh[m But*]h
19Hun: [Ah: h]a,
20Col: .hhhhh (0.6) An' I'm not- worried about 'em a:nd you
21Col: shouldn't ↓be.h
22Ps: (0.2)
23Col: But .hh-.hh I've alweez thaw:t. thet if it ↑↑came to ay um
24Col: ghhm:: (1.0=
25(Ø): (All set)
26%com: crack[ling
27Col: =1.0)[.hhhh open trial,mhh.t.hh-.hh thet I would wanna ←
28Col: be free:,hhh to uh mhhh (0.3) .hh-.hh come into it- (0.4) ←
29Col: and uhb mhh-mh (1.3) ü-uh:: ↑character, hhh and ↓uh mhm
30Col: testimony en↓:d-nd and uh .p.hh-.hh (0.9) etceter etceter↓a.
31Col: kh[mhhh
32Hun: [ºY e : :[z..º]
33Col: [.hhh] .h[hhh [hh]=
34Hun: [Mm h[m,]=
35Col: =Uh::b (0.6) üTherefore the less: details I know of what's
36Col: going on:, in some ways the be'r.h
37Hun: Ye:s. I appreciate tha:t
38Col: p This is ↓a:ll.[.hhh (0.7=
39%com: [crackling
40Col: =0.7) p s-So: (.) ee-: I hev tried dih stay out'v uh easking
41Col: .hhh-.hhhhh ↓mrgh-mrgh↓ suh-p'sific quish'ns, en it's very
42Col: hard fer me dih ↑do that. fuh the reason thet-gnkk (0.7)
43Col: thet* you er en ol:d,h an' dea:r frien:dü and eh .hhhhhh
44Col: hh-uh↓: h- hI'm su:re you (.) you regret the day I ever

45Col: recommended yih dih the º↑White 'ou:se,º=
46%com: smile voice
47Hun: =↑Not in the ↑least Chuck I:'m jus' sorry thet it turned out the
48Hun: [way it d i]:d.=
49Col: [.hhh-.hhh]
(Colson&Hunt.ca, ll. 27-75)

In lines 27-28, Colson, for a first time, packs up his preceding story (ll. 1-22). Hunt, however, does not respond to the story packing utterance, which is completed in line 28 ("come into it"). Hence a pause (0.4) occurs. (In contrast, the first pause in line 28 (0.3) belongs to Colson as he produces a preposition, "to," which projects an upcoming completion of his turn.) In accordance with the turn-taking system (cf. Sacks, Schegloff, and Jefferson 1974, see chapter 2), Colson continues as he produces a "kind of" elaboration. The quality of Hunt's response, "yees" (l. 32), indicates that he recognizes Colson's turn to be completed, but does not recognize its interactional consequentiality. At this point then, Colson has not received an actual confirmation of his story packing utterance. Thus he produces a second story packing turn in lines 35-36, obviously pursuing a confirmation hereof. This second story packing utterance has strong preference for agreement built into it with the assessing items "the less details the better" (l. 35-36). Colson gets such agreement (l. 37) quite strongly: "Yes, I appreciate that." Subsequently, then, Colson treats this agreement sequence and story packing plus confirmation sequence as a pre-closing of the story, as he produces the terminal items "This is all" (l. 38). However, Hunt does not engage in such activity and hence a pause occurs. He only agrees with the assessment aspect of Colson's turn, but does not respond to its closing potential. Instead (again in accordance with the turn-taking system) Colson continues, elaborating and repeating story material and then stepwise moving into a new topic (ll. 40-45). In sum, this excerpt (Colson's actions) shows both how a current speaker story packing utterance prefers a confirmation and how a story, upon the confirmation of such an action, is treated as completed.

4.3.4 Story packing utterance-decision adjacency pair:

As we have seen, both types of story packing utterances invite a "decision," as Heritage and Watson (ibid: 141) call it, from next speaker, that is some sort of confirmation or disconfirmation. In their data, Heritage and Watson find that formulations strongly constrain "the items which may fill subsequent slots" (ibid: 140) and that the absence of a decision following a formulation is noticeable. Hence Heritage and Watson consider formulations and their decisions a type of *adjacency pair*. The formulation *projects* a decision as next relevant action. In my collection too, I have found case where co-participants orient to a story packing utterance as projecting a decision. In C#6 (4.10) we saw how Colson pursues such a decision by producing a second story packing utterance (ll. 35-36). Furthermore, it is a general feature of my data that a decision is indeed given in response to a story packing utterance, moreover that decision is typically a confirmation. (Compare to C#5 (4.4a) where recipient orients to the preference for confirmation by the items "yeah well" (l. 7), which indicate "I cannot give that which your utterance asks for.")

4.3.5 Different Access to Reported Events:

Another feature of stories and their packing up which participants orient to is the participants' different positioning with respect to access to the reported story.

a) Next speaker packing up:

Above in C#1 and C#2 (4.8a-b) we saw how in the case of next speaker packing up current speaker may align next speaker through local assessments to achieve a particular reception of the story reported. In those cases, current speaker has had direct experience of the reported events and second speaker makes an evaluation on the basis on the report alone, as made accessible by first speaker. In other cases of next speaker packing up, first speaker reports events that speaker and recipient have equal access to. That was the case in C#9 (4.9). In the case of next speaker packing up, then, recipient packs up reports of events which only first speaker has direct access to or which both participants have access to. This makes next speaker packing up a potential place for displaying empathy with first speaker as in C#1 and C#2 (see 4.8a-b above). In both of these cases recipient produces a story

packing utterance which clearly is in line with first speaker's local assessments, and in none of these cases does recipient relate first speaker's report to first speaker alone (as could have been done by keeping the story packing utterance in second person), thereby taking part in the emotional effect of the events experienced by current speaker.

In the following example, on the other hand, recipient establishes first speaker as an authority on the reported events. Recipient adjusts to current speaker's repair of the first story packing utterance by producing a new story packing utterance:

4.12:

C#10:
[DO: talking about the effectiveness of the allied attack on Iraq]

1LL:	it's prEtty aMAZing <<monotonous + l> what we were able to	←
2LL:	do last night.>	←
3DO:	i thInk uh it's <<all> gOnna tAke a lIttle lOnger to really>	
4DO:	you know sOrt out WHAT Happened.	
5DO:	but i REAlly fEEl like that uh; (.)	
6DO:	they've made a MAjor DEBT by what they dId last night;=	
7DO:	an and in ↑MAKing this very short an an nOt drAgging it on.	
8LL:	well if youre gonna FIGHT this is the way to DO it.	←
9DO:	i i aGREE.	

(10Gulfwar.ca, ll. 138-146)

Here, then, recipient displays second hand knowledge of the reported events and renounces expertise with respect to packing it up. Furthermore, of course, the excerpt shows orientation to preference for agreement, as already discussed above.

Among the things which may be at stake here is social group membershipping. In their study, Heritage and Watson point out that all talk is essentially "self-explicatory" in the sense that the "resources being mobilized in establishing the sense of the conversations are also being invoked or consulted as part of assembling sense" (ibid: 136) and that formulations "constitute a members' method for providing that the conversation has been and is ongoingly a self-explicating colloquy" (ibid: 139). Hence, Heritage and Watson (ibid: 144) argue at a later point, "to directly fault a formulation may come to constitute a criticism of a co-conversationalist's attention to what has been talked

about thus far," but more fundamentally the direct faulting of a formulation may also "imply a challenge to the formulator's membership: his capacity and competence in monitoring, cognitively processing, and reproducing these gists of talk." This point is of relevance to C#10 too. By disqualifying Laporte's packing up, DO makes Laporte a non-member of the group of people which have military expertise, and by packing up again (l. 8) in accordance with DO's correction, Laporte himself contributes to this construction of an expert-nonmember relation.

b) Current speaker packing up:

In the case of current speaker packing up, current speaker may also be the only one who has direct access to the reported events, as in C#6, or current speaker and recipient may have equal access to the reported events, as in C#4:

4.13a-b

a) C#6:

[Colson has produced a story and a story packing utterance. However, Hunt's does not respond to it and does not contribute to concluding the story, and Colson goes on to produce another story packing utterance:]

1Col: =Uh::b (0.6) üTherefore the less: details I know of what's
2Col: going on:, in some ways the be'r.h
3Hun: Ye:s. I appreciate tha:t ←
4Col: p This is ↓a:ll.[.hhh (0.7=
(Colson&Hunt, ll. 61-64)

b) C#4

[T has produced a story which is packed up by the expression "the shoulder to lean on":]

1T: and i wanted to THANK you for the; ←
2T: .hh you know the SHOULder to LEAN on.
3LL: <<l> our PLEAsure.> ←
(3Gulfwar.ca, ll. 176-178)

In C#6, recipient's "I appreciate that" (l. 3) excludes himself from the matters beings packed up. By his action, recipient indicates that he is in a position of (well) appreciation of the packed up matters which only current speaker has firsthand access to. Recipient is not

in a position of one who himself has primary access to the matters being packed up. In C#4, on the other hand, the thanking sequence (l. 1+3) sets up the packed up story as an issue between current speaker and recipient and hence involves recipient as one who has shared, primary access to the events being packed up.

4.3.6 Story Packing and Construal

The action of story packing is not just a production of a *neutral*, abbreviated representation of a story. A story packing utterance may to different degrees impose a particular construal of the story it packs up. Three examples from my collection will illustrate this point in forming a continuum from neutral abbreviation to abbreviation which simultaneously contributes an evaluative point to the story:

4.15a-c

a) C#1:
1D: you know I went down on monday to the uh the demonstration
2D: because i wAsn't sure how I felt.
[Lines 3-12 have which contain story detailing have been cut out]
13LL: [it's hArd to know HOW to feel now isn't it. ←
14D: it YEAH exACtly.
(6Gulfwar.ca, ll. 37-50)

b) C#10:
[DO: talking about the effectiveness of the allied attack on Iraq]
1LL: it's prEtty aMAZing <<monotonous + l> what we were able to ←
2LL: do last night.> ←
3DO: i thInk uh it's <<all> gOnna tAke a lIttle lOnger to really>
4DO: you know sOrt out WHAT Happened.
5DO: but i REAlly fEEl like that uh; (.)
6DO: they've made a MAjor DEBT by what they dId last night;=
7DO: an and in ↑MAKing this very short an an nOt drAgging it on.
8LL: well if youre gonna FIGHT this is the way to DO it. ←
9DO: i i aGREE.
(10Gulfwar.ca, ll. 138-146)

c) C#11:
1LL: a lot of BRIGHT intElligent people of CONscience who a:re;
2GE: yeah;
3LL: OUt there uh mArching because they feel that they HAVE to.
4GE: i am GLAD you brought that up. ←
5LL: .hh i THANK y' for the cAll.
(9Gulfwar.ca, ll. 65-69)

In C#1, recipient (Laporte) packs up the contents of first speaker's story with the utterance "it's hard to know how to feel, isn't it?" (l.13). As discussed above, the turn-packing utterance by recipient recycles source terms with which first speaker begins her account of her mixed feelings: "How I felt" (l. 2) → "how to feel" (l. 13). No new material is added. Thereby, the story packing utterance becomes merely an abbreviated reproduction of the story. In C#10, a strongly evaluative story packing utterance is at first produced (ll. 1-2) which is then disqualified and followed by another story packing utterance (l. 8). Hence, the excerpt shows how multiple, evaluative construals are possible and hence how the story packing utterance imposes a particular understanding of the story. Finally, in C#11, recipient orients to the story packing utterance as contributing a new point to the story while packing it up (l. 4).

These observations find support in Heritage and Watson's (ibid: 137) study of formulations:

> …multiple readings may, on occasion, prove extractable from stretches of conversation and, by the same token, members may thus be oriented to the occasioned multifaceted quality of their conversational productions with a view to establishing preferences among available readings. Thus, given that it is not the case that members can invariably treat stretches of conversation as automatically unproblematic from a descriptive point of view, it is clear that a concerted arrival at a "determinate, for-all-practical-purposes" reading of a stretch of conversation may, on occasion, be treated as problematic and hence in need of repair.

Story Packing Utterances as a Vehicle of Social Involvement:

One last general point that I wish to make in connection to story packing utterances is that both types (current speaker packing up and next speaker packing up) – though they differ on the specifics – are vehicles of social involvement. We have seen how next speaker's story packing treats current speaker's shift to local assessment activity as a point at which to respond and engage in current speaker's story. We have also seen how next speaker's story packing utterance aligns with the storyteller's local assessments, displaying involvement in and a shared mind on the story. In relation to current speaker story packing, we have seen how the story packing exits the telling of the story and calls for recipient to provide a decision, to participate in the conclusion of the story by providing an appropriate second (as in C#4) or by initiating an evaluation of the story (as in C#5).

Thus story packing is not just a way of evaluating, construing, and representing in abbreviated form a report of some sort; the act of capturing a story in a story packing utterance is also a vehicle of social involvement between interlocutors. Story packing can be either a way of involving in an other part's story (next speaker story packing) or it can be a way of calling for involvement at the end of a story (current speaker story packing).

Summary:

We can now sum up this study of story packing utterances in two general descriptions of ideal-case next speaker story packing and current speaker story packing.

Next speaker story packing:

Current speaker reports a story.

→ Current speaker makes a shift to doing locally anchored assessments.

→ The story turn culminates in local assessment activity.

→ The culmination in assessment activity displays exit from the story and invites involvement from recipient.

→ Recipient engages with a general story packing utterance, which, preferably, is in agreement with current speaker's locally anchored assessments.

→ First speaker delivers a conditionally relevant decision in response to recipient's packing up.
→ The story may thereby be closed and a closing sequence of the whole conversation may be initiated.

Current speaker story packing:
Current speaker reports a story.
→ Current speaker exits the story with a story packing action.
→ The story packing utterance projects a decision from recipient and participation in ending the story.
→ Recipient delivers a conditionally relevant decision in response to current speaker's packing up, displaying, preferably, agreement.
→ The story may thereby, in the case of agreement, be closed and a closing sequence of the whole conversation may be initiated.

With this interactional study we can now return to the cognitive theory and discuss what the empirical interactional findings tell us about online meaning construction and compression.

4.4 Cognitive Analysis of Story Packing Utterances: *Interactional Compression*

4.4.1 Questions in Relation to the Notion of Compression:

In the beginning of this chapter, I posed the following questions in relation to the notion of compression: 1) How is the notion of compression in fact to be understood and when does it in fact take place? 2) What construction types can be used to achieve compression? In relation to question 1), I argued that the notion compression as compacting information and handling it via a "simple expression" seemed realistic; but I also pointed out that we still have to see empirical support for that assumption. In this section, I demonstrate, in terms of a mental space and interactional script analysis, how the interactional study above provides

support for that assumption. In relation to question 2), I argued that compression is not achieved through particular construction types which, disregarding their context, has the inherent quality of creating compression. Instead, I suggested, the achievement of compression is crucially a question of organization of talk and positioning. In specific interactional positions, an utterance – no matter what construction type it is – will be understood to perform compression. This point will also be demonstrated in terms of the mental space and interactional script account below. It will however, also be clear that there is a distributional basis for saying that certain construction types are more often used when doing compression, but again these by themselves do not create the compression.

4.4.2 A Mental Space and Interactional Script Account of Compression in Interaction:

Mental spaces, Fauconnier (1998: 1-2) writes, "proliferate in the unfolding of discourse, map onto each other in intricate ways, and provide abstract mental structure for shifting anchoring, viewpoint, and focus, allowing us to direct attention at any time onto very partial and simple structures, while maintaining an elaborate web of connections in working memory and in long term memory." Compression in interaction achieved through the social activity of packing up stories is an example of how mental spaces proliferating during talk-in-interaction (those prompted by the story detailing) are connected in what Fauconnier refers to as "working memory"[28] and how the act of compression provides an overview of or global focus on the story spaces – what Fauconnier and Turner (2002a) would probably refer to as "global insight."

4.4.2.1 The Issue of Quantity:

In the study above, we have seen that the person who does the packing up may explicitly encapsulate a certain portion of talk, which provides empirical evidence that indicates that the mental spaces set up by the story are kept "active" at the same time when the compression is done. This, however, does not necessarily imply that the story spaces are all held fully active or that they are equally in focus at the same time. It merely suggests that these spaces are available for processing at some level of activity such that a single

expression can be understood as a representation of them all. Fauconnier and Turner (2002b) call for a research program on mental space activation, which focuses on how many spaces cognitive agents are able to 1) keep activated or 2) focus on at the same time. Their own "anecdotal hypothesis" is that human beings are able to have 15-20 spaces available for work at any moment, but that they only focus on 2-4 (maybe sometimes 5-7). Relying on the interactional data above, Fauconnier and Turner's hypothesis is a little high, but not too far off, when it comes to what people typically do. Consider one of the cases analyzed above, where a portion of talk is encapsulated and packed up:

4.17

C#1:
1D: you know I went down on monday to the uh the demonstration
2D: because i wAsn't sure how I felt.
3D: uh i have uh FRIENDS whose BROthers are in saudi arAbia no:w,
4D: i have FRIENDS that i went in hIgh school with (.) that are
5D: thEre, (.)
6D: a:nd (.) uh i wanna supPORT them,
7D: <<laughing> but on the Other hand> I don't wanna see them
8D: come back in a BOdy bAg. (.)
9D: and uh it was REAlly NICE to go down and be with people who
10D: FELT the same way that I did.
11D: and uh (.) what i'm seeing today REAlly upsEts me;
12D: [<laughing>
13LL: [it's hArd to know HOW to feel now isn't it. ←
14D: it YEAH exACtly.
15LL: dEbbie we're gonna go back to bob LAzec now.
16LL: he's gotta conTINue the Update.
17LL: BOB?
(6Gulfwar.ca, ll. 37-53)

Most mental space researchers would probably agree that the story (ll. 1-11) prompts at least 7-8 mental spaces and maybe more. Let us try to split the story into mental spaces. "Optional" spaces (that is spaces which I presume some mental space analysts would propose while others would not) are in parentheses. I only include spaces which concern the very story (not e.g. base spaces), since only these are taken to be compressed. Recall

that the interactional analysis showed that the story packing utterance in line 13 is anchored in the very beginning of D's story in the source terms "how I felt" (l. 2):

1D: you know I went down on monday to the uh the demonstration

Mental Space 1: 'D going down to the demonstration'

2D: because i wAsn't sure how I felt.

MS2: 'D feeling unsure'

3D: uh i have uh FRIENDS whose BROthers are in saudi arAbia no:w,

MS3: 'D having friends whose brothers are in Saudi Arabia'
(Alternatively. MS3a: 'D having friends in the US'; MS3b: 'The friends' brothers in Saudi Arabia')

4D: i have FRIENDS that i went in hIgh school with (.) that are
5D: thEre, (.)

MS4: 'D went to high school with friends that are there'
(Alternatively. MS4a: 'D went to high school with friends in the US'; MS4b: 'The friends are there')

6D: a:nd (.) uh i wanna supPORT them,

MS5: 'D wants to support her friends and friends' brothers in the Saudi Arabia'

7D: <<laughing> but on the Other hand> I don't wanna see them
8D: come back in a BOdy bAg. (.)

MS6: 'D does not want to see her friends and friends' brothers come home in a body back'
(Alternatively. MS6a: 'D not wanting something'; MS6b: 'D's friends and friends' brother coming home in a body bag')

9D: and uh it was REAlly NICE to go down and be with people who
10D: FELT the same way that I did.

MS7: 'D feeling nice at the demonstration with people who feel the same way that she does'

11D: and uh (.) what i'm seeing today REAlly upsEts me;
12D: [<laughing>

MS8: 'what is happening today upsetting D'

13LL: [it's hArd to know HOW to feel now isn't it.

MS9: 'D finding it hard to know how to feel'

This, of course, is just one way of splitting the story into mental spaces, but I suspect that most mental space researchers, who apply canonical space theory, would posit 8-15 mental spaces, with 15 as an absolute maximum. (Remember that I have not included e.g. base spaces (which would raise the number of mental spaces) since these are not included in the compression.) However, the 'compression space' itself (what Fauconnier and Turner call "the blend") is of course included. In none of the other cases of story packing utterances studied above does the story prompt more spaces than the fragment of talk analyzed here. Hence according to this data, participants in interaction do not keep more than 8-15 spaces available for work at the same time.

Of course analysts may disagree on the exact number of spaces involved, and of course it may turn out that people can and do go higher in other contexts. Hence it could be argued against my approach that there are other cases where discourse or other activities are somehow "packed up" which show quite different results that undermine my type of argument. For instance, book-length reports, dissertations, articles, etc. are also typically "packed up" in few or comparatively fewer phrases at the end. However, it would seem quite unreasonable, not to say ridiculous, to argue that the reader keeps the hundreds or thousands of mental spaces prompted by the text active at the same time when reading its conclusion. Rather in the case of such longer written texts, it seems that other types of compressions must be at work. Firstly, the author may rely on the fact that the reader does not have to memorize all spaces that have been active during the reading at the same time when reading a conclusion. This is possible because the detailed text is available to the reader, so that he may recall its detailed points in succession by revisiting them.

Alternatively, the author may briefly recapitulate the detailed points and then pack up these shorter accounts. Secondly, and overlapping, with the latter point, conclusion-compression may simply constitute the terminal level of several layers of compression. In that way, the conclusion of a text relies on pre-compressions which rely on pre-compressions, etc. Thirdly, any reader may "choose" a different set of essential details from the text to compress, and thus in fact, as in the case of interaction, have at most 8-15 spaces activated during compression out of the hundreds or thousands prompted by the text. (This is one type of explanation why different readers can understand the same conclusion in an endless number of ways.) Other ways of going about the compression of a larger text may be thought of too.

It may also be objected that my data is from a call-in show and that stories are only allowed a certain length on call-in shows, which is a superficial constraint on the participants' cognitive capacities. Yet, remember that current speaker is not interrupted by next speaker's packing up; she invites it through her local assessments, and during her story she does not display orientation to a certain, ideal, call-in show story length. (One could imagine such meta-remarks as "OK, I'm out of time; what I am saying is just that STORY PACKING UTTERANCE".) Instead, it may be the case that stories reported on air are just exactly governed by the natural constraint that they must not be longer than the maximum number of spaces which cognitive agents can be assumed keep active at the same time. Thus, stories which require simultaneous activation of too many spaces may be subject to social sanctions, i.e. be considered "bad" stories, "unclear" stories, "badly reported" stories, etc.

In other words, despite all necessary reservations, I maintain that talk-in-interaction constitutes at least some of the most reliable and "authentic" type of data when it comes to such questions as addressed presently. It constitutes naturally occurring, empirical data from an ordinary, everyday social life-event (reporting a story) in which participants themselves display orientation to a particular portion of talk. Thus, one reservation which cannot be made in relation to e.g. formulations/compressions is that participants do not orient to them as an interactional activity. The interactional analyses

above show that such formulating/compressing actions in specific positions are recognizable actions to both participants. Hence both current speaker and recipient may formulate/compress in that position. Who actually ends up doing it is decided by the participants in and through the details of their turns-at-talk. Moreover, the participants constantly display their understanding of such actions as formulations/compressions in and through their production of a decision as projected next action. In other words, the data shows us that people spontaneously *do* formulations of longer stretches of talk, that is they compress a number of story spaces which have been constructed during the storytelling. With regard to quantities of spaces activated, assumptions must be made on the basis of what people do spontaneously, assuming that their spontaneous placement of compressions, initially at least, is somehow accorded to concerns regarding quantities of information which can be "measured" roughly on the basis of mental space analyses, as it has been done above. The number of spaces found here is not necessarily the highest number that people are able to keep active at the same time. It is simply the number of spaces that they *do* typically keep active at the same time in interaction. However, why should people not use their full, "everyday" cognitive capacity in conversation if it makes it possible for them to report and handle a "full" story at a level of detail where all important facets are included? In this respect it would of course be interesting to look for cases where co-participants react to too many details being compressed – for instance by cutting the story short by interrupting it, by only orienting to latter parts of it as being included in the compression, or by interrupting the storyteller occasionally to do compressions of smaller parts of a story.

All in all, a study of naturally occurring stories in interaction which are packed up – including those in call-in shows – provide one solid way of going about or supplementing a research program into how many mental spaces human beings can and/or do (at most) keep active for work at one time.

4.4.2.2. The Elements of the Cognitive Process of Interactional Compression:

Stories in interaction then prompt the construction of a certain amount of information organized in mental spaces, and this information, we have seen, may be compressed by current speaker or next speaker through a story packing utterance. The elements and parts of the cognitive process are the following:

a) Story Network of Mental Spaces:

The participants construct a network of mental spaces that constitutes the detailed contents of the story. The network is constructed during a limited span of time. The reporting of a story in interaction is measurable in seconds.

a) *Interactional script*:

Two types of interactional scripts have been observed in relation to the packing up of stories in interaction:

Figure 4.1:

$Next speaker story packing:

Participant:	*Components*:	*Details*:
Current speaker:	Reports a story (e.g. a report, a story, an account, or a description)	Typically many turn constructional units, but sometimes just one
Current speaker:	Makes a shift to doing locally anchored assessments; the story turn culminates in assessment activity.	Typical constructions: " X is ADJ" "It is ADJ to X" (copula) – may be an assessment
ENCAPSULATION: Story packing/compression utterance by recipient which agrees with current speaker's local assessments is now relevant		
Recipient:	Engages with a general compressing, story packing assessment	May recycle theme setting terms from the beginning of current speaker's story to explicitly mark which part of the previous talk is packed up
PROJECTION: A decision from first speaker is projected, preferably in agreement		

First speaker:	decision	E.g. "That's right"
The story is thereby interactionally packed up/compressed and closed and a closing sequence of the whole conversation may be initiated		

$Current speaker story packing:

Participant:	*Components*:	*Details*:
Current speaker:	Reports a story (e.g. a report, a story, an account, or a description)	Typically many turn-constructional units, but sometimes just one
Current speaker:	Concludes the story with a compressing, story packing utterance which displays exit of the telling of the story	Typical construction: S V ADJ/N (copula) – may be an assessment
PROJECTION: A decision from recipient is projected		
Recipient:	Participates by contributing to evaluation/exit	–
The story may thereby by interactionally packed up/compressed and closed and a closing sequence of the whole conversation may be initiated		

c) Compression:

At some point an utterance is produced (either by current speaker or by recipient) which is understood to capture the whole story. In the interaction it is understood as an abbreviated substitution for the whole story. The whole story network of mental spaces is connected to the mental space of the story packing utterance, and through this connection, the story packing space comes to function as a compression of the whole story network of mental spaces.

b) *Integration and construal*:

As we saw above, however, there is also a conceptual integration at work, evidenced by the fact that the participants orient to the packing up of the story as imposing a particular construal on it. The single structure evoked by the story packing utterance is integrated

with the entire story network in an integration that is understood as an abbreviated, particular construal of the story.

Let us walk through a concrete case of compression in interaction in C#1:

4.18

C#1:
1D: you know I went down on monday to the uh the demonstration
2D: because i wAsn't sure how I felt.
3D: uh i have uh FRIENDS whose BROthers are in saudi arAbia no:w,
4D: i have FRIENDS that i went in hIgh school with (.) that are
5D: thEre, (.)
6D: a:nd (.) uh i wanna supPORT them,
7D: <<laughing> but on the Other hand> I don't wanna see them
8D: come back in a BOdy bAg. (.)
9D: and uh it was REAlly NICE to go down and be with people who
10D: FELT the same way that I did.
11D: and uh (.) what i'm seeing today REAlly upsEts me;
12D: [<laughing>
13LL: [it's hArd to know HOW to feel now isn't it. ←
14D: it YEAH exACtly.
15LL: dEbbie we're gonna go back to bob LAzec now.
16LL: he's gotta conTINue the Update.
17LL: BOB?
(6Gulfwar.ca, ll. 37-53)

Above I already discussed what construction spaces this very story itself (ll. 1-11) prompts. In accordance with a sparse mental space analysis of the story, I assume the following story construction spaces to have been constructed by line 11:

CS1: ‘D going down to the demonstration’
CS2: ‘D feeling unsure’
CS3: ‘D having friends whose brothers are in Saudi Arabia’
CS4: ‘D going to high school with friends that are there’
CS5: ‘D wanting to support her friends and friends’ brothers in the Saudi Arabia’
CS6: ‘D not wanting to see her friends and friends’ brothers come home in a body back’
CS7: ‘D feeling nice at the demonstration with people who feel the same way that she

does'
CS8: 'what is happening today upsetting D'

At this point, then, where the second local assessment has been completed and in accordance with the meaning construction CS1-CS8 and the structure of the interactional script for 'next speaker story packing' ($Next speaker story packing), the base space has a structure as diagrammed in figure 4.2 (see appendix 2). (Notice that recipient might have produced a story packing action already after the first assessment, but that would then have caused a different construal.) The base space (the orientation to what has happened right up to this point and the interactional script that is evoked by the actions) makes available conceptual structure which is compatible with current speaker's local assessments and the story as such. Thus though these cognitive activations are not very specific, not just any story packing utterance can be made at this point: Recipient shows orientation both to what has happened in the story telling up to this point and the interactional structure with his "It's hard to know how to feel, isn't it" (l. 13) which is compatible with current speaker's local assessment and the story as such, and which recycles a central theme-setting term from the beginning of current speaker's story ("how I felt", l. 2). Next speaker's utterance is taken to compress and represent, in abbreviated form and with a particular construal, first speaker's story. This is due to the following points: 1) its position, as following a shift to local assessments after the telling of a story and 2) its recycling of a central, theme-setting term from the beginning of current speaker's story, whereby it encapsulates the part of talk which constitutes first speaker's story. This is diagrammed in terms of mental spaces in figure 4.3 (see appendix 2)

4.4.2.3 Compression as a Specific Phenomenon:

Quite clearly the type of compressing integration which is achieved here is not a canonical type of integration where two inputs are fitted together in a blend. What is achieved here and what the participants orient to, we saw, is not primarily the emergent meaning of a blended conceptual structure, but the capturing of a considerable amount of information in a single expression which in turn constitutes a particular construal of this information.

Cases of 'story packing utterances' thus show participants orienting specifically to the achievement of compression *as a specific cognitive feat in its own right*, and this feat involves as one of its features a particular construal produced in and through the compression. Compression is the primary relevant cognitive activity in those fragments of talk. Hence, while the interactional study above on the one hand provides solid empirical support for the notion of compression, as developed by Fauconnier and Tuner (2002a), in the specific sense of compacting information, it does at the same time provide evidence for considering compression not just a central part of the general blending process but first and foremost a cognitive process and achievement by itself which in turn is accomplished through some sort of integration. In technical terms, it involves the integration of a many-space network with one space, whereby the one space comes to be an abbreviated representation of the many-space network. In other words, though compression can indeed be described in terms of a general blending process, this does not capture this process as the specific type of process it has been found to be. It would be more appropriate, I propose, to consider compression – as understood here – the relevant, specific phenomenon. Integration or blending on the other hand should be considered a general feature of meaning construction, but not a local phenomenon as such. Findings such as this, as stated in the introduction, will lead to much more precise hypotheses and research questions (cf. Gibbs 2000). They make it possible to focus on a particular cognitive mechanism, which can be observed in particular positions; and specific, falsifiable hypotheses can be made about its workings and significance. For instance, it could be proposed that compression is obligatory in all everyday conversations, that certain types of conversation have more compressions than others, that "rules" for doing compression in interaction can be observed "projected" to other domains, etc. All these are falsifiable hypotheses, and compression – as studied here – does not suffer from the weakness that blending does, namely that it is claimed to be ubiquitous across all kinds of behavior, which makes it very hard if not impossible to falsify.

4.4.2.4 Compression and Construction Types:

I am now in a position to document the claim made in the beginning of this chapter, that the achievement of such compression as studied here is primarily a matter of positioning in the interaction and not primarily a matter of what type of construction or expression is used. The types of constructions and expressions that are used to achieve compression in the data presented above include the following:

a. Metaphorical expression:

1) hh you know the SHOULder to LEAN on (C#4)

b. Copula construction

Abstraction:

2) it's hArd to know HOW to feel now isn't it (C#1)

3) they're Anarchists (C#5)

4) i think its inSANE (C#8)[29]

Analogy:

5) i think they're (.) a Replica of saddAm hussEIn himSELF (C#8)

Metaphorical:

6) C'z yer a l o y a l soldier obviously,h (C#7)

c. If-then construction:

7) well if youre gonna FIGHT this is the way to DO it (C#10)

d. Possessive construction:

8) we have a HIStory of supporting terror in ONE form or another (C#9)

From the perspective of a linguistic classification, the examples of compression that have been studied in the present chapter thus divide into at least four types. What can be observed is that there is clear majority of copula constructions (five out of eight of the examples given above), but that does not mean that copula constructions are always markers of compression and/or that they necessarily are a most efficient tool for achieving compression. There still are alternative constructions/expressions which are used in compression-position in interaction, and copula constructions may appear in interactional positions where the interlocutors do not orient to them as doing compression. What we can conclude on the basis of the data above is instead that since there are alternative ways of achieving compression construction/expression-wise, what matters primarily is not construction or expression type but position in interaction. The construction/expression type does not determine the interactional activity nor the interactional cognitive processing; construction/expression types are employed to get certain work done which is already anticipated. Still, of course the fact that there is a tendency towards employing copula constructions when doing interactional compression may indicate that this construction type has developed with compression sites as one of its primary milieus and thus with compression as a frequent, recurrent property.

In section 4.2, I also discussed and rejected the possibility of metaphorical expressions being a particularly efficient tool for achieving compression, in interaction at least. The data at hand indicates that metaphor at least isn't the type of expression which is most often used, and hence the interactional study does not show that metaphor should be more efficient than other construction/expression types for achieving compression.

The empirically based discussion of construction/expression types involved in achieving interactional compression reaffirms the discussion in relation to question 2) in section 4.2. The placement of an action (construction or expression) is crucial to the cognitive work prompted by it, and the construction type merely contributes sketchy, semantic guidelines to the specific mappings and projections taking place (see e.g. Fauconnier and Turner's 2002a study of *X is the Y of Z*-constructions). Thus depending on which construction/expression type is employed, the compression may be e.g.

metaphorical, copula, or possessive, but no construction carries a prompt for compression as a context-free feature. Furthermore, it is often through the context that it gets determined what type of expression an action is at all (e.g. metaphorical vs. literal, abstract vs. concrete, etc.). Finally, as also mentioned above, it is not even the case that the construction/expression types that we have seen used when achieving compression only appear in compression/story packing positions. Metaphorical constructions, copula constructions, *if-then* constructions and possessive constructions appear in many different positions where orientation to compression is not displayed by the participants. Here are some examples:

4.19a-b

a) C#4:

1T: well ↑i'd like to THANK the staff of uhm Knbr because; .hh
2T: I don't know maybe i am just a nervous PERson but;
(copula, no interactional compression)
3T: you guys were THERE for me;
4T: during the EARTHquake;
5T: that was my BIRTHday;
(copula, no interactional compression)
6T: and i spent about .hh
7T: TEN MINutes of AIR time <<laughing> talking to
8T: you gUYs that night;>
9T: and i wanted to THANK you for the;
10T: .hh you know the SHOULder to LEAN on.
(metaphor, interactional compression)
11LL: <<l> our PLEAsure.>
12LL: thAnk YOU.
13T: THANKS.
14LL: alright.
15T: bebye.
16LL: take CARE of yourself and your bAby.
(3Gulfwar.ca, ll. 169-184)

b) C#1:

1D: you know I went down on monday to the uh the demonstration
2D: because i wAsn't sure how I felt.
3D: uh i have uh FRIENDS whose BROthers are in saudi arAbia no:w,
4D: i have FRIENDS that i went in hIgh school with (.) that are

(possessive, no interactional compression)
5D: thEre, (.)
6D: a:nd (.) uh i wanna supPORT them,
(metaphor, no interactional compression)
7D: <<laughing> but on the Other hand> I don't wanna see them
8D: come back in a BOdy bAg. (.)
9D: and uh it was REAlly NICE to go down and be with people who
10D: FELT the same way that I did.
11D: and uh (.) what i'm seeing today REAlly upsEts me;
12D: [<laughing>
13LL: [it's hArd to know HOW to feel now isn't it.
(copula, interactional compression)
14D: it YEAH exACtly.
15LL: dEbbie we're gonna go back to bob LAzec now.
(C#1, 6Gulfwar.ca, ll. 37-51)

As for *if-then* constructions, we will see some cases in the next chapter (on the phenomenon of 'hypothesizing') where *if-then* constructions do not prompt interactional compression, but instead another type of interactional meaning construction process.

Summing up, interactionally achieved compression is a type of compression where some amount of information (a maximum of 8-15 spaces, it seems) presented in a story gets compacted and grasped in a single utterance or construction/ expression, by which global focus (what Fauconnier and Turner (2002a) would probably call "global insight") on the whole story is achieved. The copula construction (NP-BE-NP) seems to be the most used construction type when achieving compression. It is however the placement of the compression utterance in the interaction and not the construction/expression type which determines whether compression is achieved or not.

4.4.3 What is Achieved by Compression?

So what does the compression do? Further interactional studies will probably have a lot to say about that. Heritage and Watson make some suggestions as to the advantage of formulating stretches of talk. For one thing "the production of a formulation may serve to demonstrate understandings of the *cumulative* import of a previous string of utterances" (Heritage and Watson 1979: 150). This is the closest that Heritage and Watson get to define

the story compacting quality of formulations, which is the focus in the present study. They do not take it further than that. Secondly, they suggest that formulations do the job of ending a topic more efficiently than other techniques. As opposed to utterances such as "we can sum up for a minute" (ibid: 151) formulations minimize "breaks" with respect to the flow of topical talk when e.g. displaying and checking understanding of gists. Furthermore, formulations are economical in the sense that they serve double duties. For instance in reassembling the conversational sense, a formulation my also terminate a topic. In other words, the capacity for compression may have important communicative or interactional implications, and this makes it very useful in many specific contexts. For an interviewer on a news program, as Heritage and Watson (ibid: 157) discuss as one example, formulations may have a particular usability when simultaneously doing questioning work. A formulaic, "rhetorical" question may underline aspects of the news generated in an interview as especially important.

Thinking – more speculatively – about compression as a general cognitive capacity on the basis of what we have seen specifically in relation to interaction, it seems likely that compression may be a crucial, general cognitive capacity. It allows us to move beyond the simple details of the here and now, to see things, as Fauconnier and Turner (2002) point out, in a global perspective. The interlocutors in the study above illustrate that. They can abstract from and construe an amount of details as one compact whole; and without that ability what would be the point of a story (report, account, description, expression of opinion, etc.)? Human beings would be enslaved by and stuck with details; superordinate structures and patterns would escape them.

Given that compression is involved in exiting stories without having to retrace and do detailing over again to confirm a shared understanding of it, compression is probably a crucial condition for our ability to give implicativeness to larger chunks of information. Alternatively, we would have to deal only with small bits of information at the time, which would either make interacting and communicating in general extremely effortful and cumbersome activities or simply keep these activities at a level of very simple

and sparse exchanges of information. Our species would behave very differently and would have lost great advantages without the capacity for compression.

Yet, the capacity for compression is not just virtue. Science, to take another example than interaction, may depend on it too, but it can also be an obstacle to science. In the present dissertation, for instance, the goal is to disintegrate the "compressed" theory of blending for the purpose of developing it, for the purpose of preserving the real details of actual cognition in naturally occurring conversations. However, it is hard to think of blending in this decompressed way, when having been used for so long to think about it only in terms of the general process. Or take the doctor who must settle on a diagnosis to initiate treatment of a traumatized patient. On the one hand, he must reach some compression of symptoms to recommend a certain treatment, but on the other hand, his compression can be lethal if it misses certain details. Compression, it would thus seem, is both a gift and a trap to scientists and to human beings in general.

Now let us consider a completely different kind of online meaning construction phenomenon, the enlightening process of hypothesizing.

NOTES

[1] The type of transcripts employed in this preface differs crucially from the type of transcripts that will be employed in the rest of this dissertation. For the sake of simplicity, I only indicate the mere wording of the conversation and the interactional order of turns in the transcripts in this preface. The cost of doing so is that I loose many features which are potentially of great significance, e.g. exact pronunciation, pauses, and inbreaths. However, the rude transcripts in this preface suffice to illustrate general principles of the analysis.

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[2] *Second generation cognitive science* (SGCS) is a term for developments within cognitive science, the proponents of which distinguish themselves from disembodied, formalist, Cartesian classical cognitive science. SGCS emphasizes the biological, neurological, and recently also the contextual/social aspects of aspects of cognition. For accounts of SGCS versus classical cognitive science see Johnson and Lakoff (1999) and Sinha (in press)

[3] Cognitive linguistics (e.g. Langacker's 'cognitive grammar' (1990) and Croft's 'radical construction grammar' (2001)) and cognitive semantics (Johnson, Lakoff, Talmy, Turner, Fauconnier) – both of which are

often just referred to and grouped together as *cognitive linguistics* – are two central and closely related movements within the general *SGCS* movement.

[4] Johnson (1987: 29) proposes the following view on meaning: "in order for us to have meaningful, connected experiences that we can comprehend and reason about, there must be pattern and order to our actions, perceptions, and conceptions. *A schema is a recurrent pattern, shape, and regularity in, or of, these ongoing ordering activities*. These patterns emerge as meaningful structures for us chiefly at the level of our bodily movements through space, our manipulation of objects, and our perceptual interactions."

[5] Rohrer (2001) discusses a number of different senses of the term *embodiment* as it is employed in SGCS.

[6] Elaborating the eternal situation view, Schegloff (2003: 38) says: "...as Goffman (1967: 3) conveyed in his telling contrast between 'men and their moments' on the one hand and 'moments and their men' on the other, there is an alternative way of conceiving matters. We can understand 'the situation' as the reality, and the individuals who happen to compose the situation on any particular occasion as what is transient. A scholar of classical Greece named John Jones some years ago (1962) wrote a book called *On Aristotle and Greek Tragedy*, in which he argued that it is mistaken, or simply a subsequent cultural imposition, to treat the Oedipus myth as involving a tragic hero. That grows out of a tacit ontology in the Judeo-Christian stream of western culture that it is the single, 'minded' and embodied individual that is the locus of social reality – here realized as the notion that the person named Oedipus is the locus of the play's action and import, and its 'tragic hero.' The alternative view is that there are certain sorts of recurrent situation that are the locus of tragedy (as well as other 'narratives,' as the current parlance would have it), and the point of putting Oedipus into one such situation is to make the point that if a king, who is the son of a king, could be battered by the world by being caught up in this situation, how much more so is it the case for 'lesser' individuals. But it is the situation which is the relevant reality, the effective source of Oedipus' – and any person's – story and fate. The individuals who are caught up in it at any given moment are what is transient."

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[7] As quoted earlier Johnson (1987: 29) defines an image schema as "*a recurrent pattern, shape, and regularity in, or of, [...] ongoing ordering activities*. These patterns emerge as meaningful structures for us chiefly at the level of our bodily movements through space, our manipulation of objects, and our perceptual interactions." Among the types of image schemas most often discussed are the container schema ('X is in Y'), the path schema ('X moves from point A to point B'), the up-down schema ('A is over B'), and the equilibrium schema ('A balances B'). Image schemas are held to organize perception, and experience and to enter the conceptual system as a kind of basic gestalts out of which more complex structures are composed.

[8] In an impressive study, Talmy (1988) shows how constructions in English can be seen as organized in terms of force dynamic relations. For instance, in the sentence "The tower kept standing upright despite the hard wind," two forces are working against each other: the wind exerts force on the tower which, however, resists it, and the resultative state is that the tower keeps standing upright.

[9] Fauconnier (1997: 51-52) asks the reader to imagine that the British spy James Bond has just been introduced to Ursula (Andress, I presume) as Earl Grey, the wealthiest tea importer in the world. It is then equally true to say that

a) Ursula thinks the British top spy is handsome

and that

b) *Ursula thinks the wealthiest tea importer is handsome*.

The two presentations of Bond present a *referentially transparent* and a *referentially opaque* context. A) is transparent in that it presents Bond from the speaker's point of view, and b) is opaque in that it presents Bond from the thinker's (Ursula's) point of view. Sentence b) is false from the speaker's point of view, but at the same time, it is sentence b) which Ursula would accept (with her knowledge). Opacity, Fauconnier argues, presents a problem from a logical point of view. In particular, he continues, Leibniz's Law* of substitution of identicals fails. If it is the case that Ursula thinks that *the wealthiest tea importer in the world* is handsome, then, according to logical replacement, it should also be true that Ursula thinks that the ugly *Lord Lipton*, who is really *the wealthiest tea importer in the world*, is handsome. However, she does not necessarily think so

and thus *the wealthiest tea importer in the world* cannot be replaced by *Lord Lipton* although the two are identical, and the replacement rule has failed.
*Baron Gottfried Wilhelm von Leibniz (1649-1716), German philosopher: *If one thing is identical with another, then anything that is true of the one must be true of the other*.

[10] The notion of mental spaces thus contradicts most common sense or folk theoretic models of language and meaning. For instance, according to the 'conduit metaphor,' which has been studied extensively by Reddy (1979), words and sentences are carriers of meaning, and communication is a transfer of meaning in words and sentences.

[11] Completion and elaboration/"running the blend" quite clearly do not play the same role in all integration networks. In the "Buddhist Monk," completion and elaboration are crucial to solving the riddle. However, in "Digging your own grave" and "Murdoch vs. Iacocca," completion and elaboration may be available as further development of the blend, but the metaphorical expressions themselves only require composition.

[12] It would seem likely, however, that if the blending analysis had considered whole pieces of discourse instead of just isolated utterances, the type of blend might have changed constantly, from e.g. single-scope to double-scope. Take the case of "Murdoch vs. Iacocca" in the following imagined dialogue:

Speaker A: "Murdoch knocked out Iacocca."

Speaker B: "Yeah, and he has had his arms in the air ever since."

Speaker A's utterance can be analyzed as a single-scope network where the organizing structure of the blend is an extension of the organizing structure of the 'boxing' input. However, speaker B's elaboration brings in organizing structure from the 'business' input which interferes with the organizing structure of the 'boxing' input. Boxers do not literally keep their arms in the air many days after a victory, but business people might rejoice many days after a business victory. Thus, speaker B's elaboration changes what was initially a single-scope blend to a double-scope blend. The possibility of fluency of blend-type is not discussed by Fauconnier and Turner. Such discussions tend to be excluded as a consequence of their focus on isolated utterances.

[13] Besides compression, Fauconnier and Turner discuss the following governing principles:

Topology: "Other things being equal set up the blend and the inputs so that useful topology in the input and their outer-space relations is reflected by inner-space relations in the blend." (ibid: 327)

Pattern completion: "Other things being equal, complete elements in the blend by using existing integrated patterns as additional inputs. Other things being equal, use a completing frame that has relations that can be compressed versions of the important outer-space vital relations between the inputs." (ibid: 328)

Integration: "Achieve an integrated blend" (ibid: 328)

Promotion of vital relations:

1) Maximization of vital relations: "Other things being equal, maximize vital relations in the network. In particular, maximize the vital relations in the blended space and reflect them in outer-space vital relations." (ibid: 330)

2) Intensification of vital relations: "Other things being equal, intensify vital relations." (ibid: 330)

Web: "Other things being equal, manipulating the blend as a unit must maintain the web of appropriate connections to the input spaces easily and without additional surveillance or computation." (ibid: 331)

Unpacking: "Other things being equal, the blend all by itself should prompt for the reconstruction of the entire network." (ibid: 332)

Relevance: "Other things being equal, an element in the blend should have relevance, including relevance for establishing links to other spaces and for running the blend. Conversely, an outer-space relation between the inputs that is important for the purpose of the network should have a corresponding compression in the blend." (ibid: 333)

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[14] One way to "tease out" accounts of norms of social conduct or of the "anticipations" of social interaction were the so-called "breaching experiments" which Garfinkel developed and had his students perform. The person who is conducting the experiment will, when engaging naturally in some social situation, deliberately cause a breach on the social conduct of the situation to cause bewilderment and frustration. Breached people's reaction will then be reported carefully. Garfinkel (1963) reports a number of breaching experiments. One was designed to breach the "congruency of relevances" in social interaction, that is the expectation that when talking about "matters just known in common" (ibid: 220) other persons *will* understand, as in the following case reported by a student. S is the subject/victim and E is the breacher:

Case 6. The victim waved his hand cheerily.
(S) "How are you?"
(E) "How am I in regard to what? My health, my finance, my school work, my peace of mind, my…"
(S) "(Red in the face and suddenly out of control .) "Look! I was just trying to be polite. Frankly, I don't give a damn how you are."

[15] Hence a natural, empirical linguistics, according to CA, would have to start in the interactional context, and not just work its way out into it. In fact, among the many sub-branches of CA, an interactional *linguistics* has also developed through the 1990s. An increasing number of linguists have begun to explore the potential of a linguistic description which is based on the methods and assumptions of CA. Publications in this field include Couper-Kuhlen & Selting ((eds.) 1996); Ford & Wagner ((eds.) 1996); Ochs, Schegloff, and Thompson ((eds.) 1996): and Steensig (2001). The earliest source, however, and an inspiration to many, is Schegloff (1979).

[16] The assumption of "congruency of relevances" is demonstrated in a "breaching experiment" (see also note 1) developed by of Garfinkel (1963: 220-221) and conducted by his students. The students had been instructed to engage in an ordinary conversation with a friend or acquaintance and, "without indicating that what the experimenter was saying was in any way out of the ordinary, to insist that the person clarify the sense of his commonplace remarks." Here is what one student reported:

The subject (S) was telling the experimenter (E), a member of the subject's car pool, about having a flat tire while going to work the previous day:

(S) "I had a flat tire."
(E) "What do you mean you had a flat tire?"
She appeared momentarily stunned. Then she answered in a hostile way: "What do you mean? What do you mean? A flat tire is a flat tire. That is what I meant. Nothing special. What a crazy question!"

[17] The notion of interactional sequentiality thus differs crucially from the related notion of 'seriality.' The latter only implies that actions or objects appear in a linear step-by-step fashion, whereas the former implies a significance of each step with respect to preceding steps and with respect to following (projected) steps. In CA then actions are described as actions-in-sequences or actions-in-context.

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[18] As pointed out in footnote 4 in chapter 2 I use the term *projection* in both a conventional CA sense and in various cognitive senses in this dissertation. In most cases it should be clear from the context whether the term is used in the CA sense or in some cognitive sense. However, where I have found that there might be doubt as to which sense is implied (and I hope to have included all), I have added either the adjective *interactional* or the adjective *cognitive*, or similar distinctive adjectives, to specify the sense. The different cognitive senses of the term as it is used in this dissertation are, as also pointed out in chapter 2, discussed in section 3.4 in this chapter.

[19] Others have done research along these lines as well. See Alterman & Garland (2000), Grosz & Kraus (1996) Grosz and Sidner (1990), and Suchman (1987).

[20] From hereon I adopt Schank and Abelson's own convention of indicating a script name by putting a $ sign in front. Instead of their bold face, however, I use capitals for the script name itself.

[21] In this chapter, I use the ~sign to indicate where the IA comments begin and end.

[22] A candidate domain of experience may be the exertion of force on some objects which "responds" according to the way force is exerted on it (direction, power, etc.), e.g. a punching bag. However, I doubt that anybody experience that as genuine *exchange*, but rather a hard labor on the part of one part only to keep to the momentum going.

[23] The notion of 'image schemas' is not an uncontested notion in cognitive semantics as a recent extensive discussion on the cogling mailing list testifies to: are they primitives and in what sense may they be said to be primitives? How do they combine with the notion of linguistic relativity when claimed to be universal basic structures of thought? What evidence for and against image schemas theory is found in psychology and cognitive neuroscience, etc? The discussion of image schemas which took place in June 2004 can be downloaded from the cogling list archives: http://listserv.linguistlist.org/archives/cogling.html

[24] The term *canonicality* as applied by Sinha *et al* (Freeman, Lloyd and Sinha 1981 & Sinha 1983) denotes a child's knowledge of objects' appropriate use. Canonicality is a social phenomenon, which develops culture specific rules for handling objects, and it constitutes the child's basic knowledge of objects. Though the notion of canonicality as understood here is used by psychologists like Sinha (cf. also 1988) and others in a developmental context, I also believe it can be applied to denote interlocutors' knowledge of appropriate interaction, which indeed is also a socially developed phenomenon, and which also consists of a set of "rules" (see chapter 2) for appropriate conduct

[25] Here I adopt, for the cognitive description, the distinction that is most often seen in CA literature between 'projected' actions and 'relevant' actions. An action is only cognitively projected in so far as it is a strongly activated, *only* relevant next action, that is when interlocutors show orientation to it as a *conditionally* relevant action (a second in an adjacency pair).

[26] Interlocutors typically orient only to the last part of a turn. Hence they may only orient to the how-are-you part of a turn consisting of a greeting and a first pair part of a how-are-you

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[27] By the term *construction* is here understood an abstract form-meaning pairing (cf. Goldberg 1995). Examples studied in blending theory include X is the Y of Z constructions, counterfactual construction, and caused motion constructions (cf. Fauconnier and Turner 2002a).

[28] By the term *working memory*, I imply *the sum of activated cognitive structures and connections at any given moment during meaning construction*, which includes those not immediately involved at any moment.

[29] Notice that C#8 has not been discussed elsewhere in this chapter but has been included here since it is indeed a part of my collection that story packing utterances.

CHAPTER 5

QUESTIONABLES, FACTS, HYPOTHESES

STUDY#3: HYPOTHESIZING IN INTERACTION

5.0 Introduction: A World of Imagined Phenomena

In very persuasive ways, blending theory advocates the claim that human beings organize their lives not only in relation to phenomena (such as things and events) which are established as factually true. Human beings, blending theory has it (especially Fauconnier and Turner 2002a: Chap. 11), are beings to whom there is also a comprehensive world of phenomena which are not true in the sense that their presence is established factually. Still, they are equally important with respect to shaping their behavior, influencing their choices, determining their actions, and guiding their thinking. These phenomena are indeed recognized by those who reflect upon them as imagined phenomena, or at least as

phenomena which have never been and/or never can be experienced factually. That, however, does not necessarily reduce their influence on our lives. For instance, some people who believe in God acknowledge that definite proof of his/her/its existence will never be given, but they still (choose to) believe that there is "something bigger" or "something more," and they find comfort and answers to the deep questions of life in the idea of him/her/it. Relatives or friends who have died also continue to play a role in our lives. It is not unusual for sons and daughters to call upon or "summon" deceased parents for advice and guidance in connection to, for instance, important decisions (marriage, divorce, parenthood, etc.), imagining what advice they would give or imagining what they would do in the same situation. However, the world of imagined phenomena which play a role in our lives does not just include religious, metaphysical, or existential things or beings. Imagined phenomena also play a role in more mundane, everyday circumstances. A classical example in blending theory (Fauconnier and Turner 2002a: 227-230) is people's orientation to absent things. In a restaurant, a person might for instance be instructed to go and sit by "the missing chair." In more dramatic cases from everyday life, things which did not happen may cause illness. For instance, a person who was nearly run over by a big truck may afterwards throw up and get depressed by the chock and the thought of what might have happened, even though it did *not* happen. For others, the same situation may cause joy and exaltation at being alive, even though they were also alive before the incident and nothing in that respect has changed. One could go on and on listing familiar examples of imagined things, events and beings which play a role in our everyday lives.

Fauconnier and Turner (ibid: 217) refer to the world of imagined phenomena as the "unreal" arguing that "Our species has an extraordinary ability to operate mentally on the unreal, and this ability depends on our ability for advanced conceptual integration." Hypotheses make up one specific type of imagined or unreal phenomena. According to the dictionary definition (*Oxford Advanced Learner's Dictionary* 1948/1992: 612), the term *hypothesis* denotes "an idea or suggestion that is based on known facts and is used as a basis for further reasoning or further investigation." Typically, then, the term *hypothesis* has science connotations or is associated with "higher" or "advanced" forms of thinking.

The world of literature, movies and television abounds with famous, clever detectives such as Edgar Allan Poe's Auguste Dupin, Arthur Conan Doyle's Sherlock Holmes, Agathe Christie's Hercule Poirot and Miss Marple, Georges Simenon's Jules Maigret, William Link and Richard Levinson's television series and movie character Colombo, and Chris Carter's Scully and Mulder from the television series *X-files*. Apart from their fearlessness, high moral, and unique charm, what makes these characters extraordinary is their ability to treat sparse facts about an alleged crime in a cool and rational way, putting them together to reconstruct a "complete" event of crime which preserves the details of each established fact. This requires sensitivity towards details and a superb ability to imagine wholes on the basis of scattered parts, even in the unusual cases where the whole turns out to be quite unfamiliar or alien (as when Scully and Mulder work on a crime which turns out to require powers which no earthly or human creature possesses). Up there with the famous detectives in popular reputation are scientists like the paleontologist whose fossils are facts on the basis of which the development of life on earth is reconstructed in hypothetical scenarios or the linguist who reconstructs the history of language on the basis of collections of old books, engraved verse, pamphlets, etc. And other professions such as journalism or law could be mentioned too. All are spheres in which the skill of hypothesizing is celebrated as an advanced skill and as an example of human superiority. It may even be argued that the true protagonist or hero of the detective genre is the very process of hypothesizing itself.

However, the activity of hypothesizing (i.e. the activity of setting up hypotheses) also occurs as an ordinary, social activity between ordinary people. This is hypothesizing of a kind that takes place without institutional guidelines and which is an essentially human, not scholarly, activity that is shaped by "rules" which interactionally competent, ordinary people are familiar with. This latter kind of hypothesizing is the topic of the present chapter. I shall present a study of eleven cases of hypothesizing in interaction, all but one from the Laporte call-in show. I will evaluate the interactional analyses from a cognitive viewpoint and discuss my findings in relation to the treatment of hypothesizing in mental space and blending literature. The structure of the rest of the chapter is thus as follows. First I introduce another distinction (besides elite vs. mundane)

between types of hypothesizing which is crucial for my discussion of hypothesizing in relation to mental space and blending theory. Then I will offer an account of canonical mental space analyses of the different types of hypothesizing. After that I present the interactional study of hypothesizing, and finally I offer a cognitive description of hypothesizing in interaction in terms of mental spaces and interactional script theory. My analyses will be discussed in relation to the treatment of hypothesizing in blending and mental spaces theory.

5.1 Factual Hypothesizing and Counterfactual Hypothesizing:

For present purposes, I make a distinction between two types of hypotheses: 'counterfactual hypotheses' and 'factual hypotheses.' The first type has been subject to much attention in blending theory. Here I offer a small sample of examples from the blending literature:

5.1

a) *In France, Watergate wouldn't have done Nixon any harm*.
   (Fauconnier 1997: 196)
b) *If Churchill had been prime minister in 1938 instead of Neville Chamberlain, Hitler would have been deposed and World War II averted*.
   (Turner 1997: http://www.wam.umd.edu/~mturn/WWW/backcog/bcframe.html)
c) *Would she be a pro-life as a rape victim in a persistent vegetative state at 29 years of life*? (Fauconnier and Turner 2002: 219)

When studying these examples as isolated utterances, what characterizes them is that while they are indeed based on facts, each in its own way also violates facts. This is the reason why they are considered problematic in scientific contexts (see e.g. Turner 2001). We know for sure that Nixon never was and never could have been president in France, and we know for sure that Churchill was not prime minister in 1938. The last example, Fauconnier and Turner report, is a comment by a law professor to a bizarre case of a woman who had been

in a coma for ten years, was raped by a hospital employee and gave birth to a child. A debate ensued concerning whether the pregnancy should have been terminated or not. The full comment by the law professor is reported as follows: "Even if everyone agrees she [the comatose woman, AH] was pro-life at 19, she is now 29 and has lived in PVS [persistent vegetative state, AH] for 10 years. Do we ask: 'was she pro-life?' Or do we ask more appropriately: 'Would she be pro-life as a rape victim in a persistent vegetative state at 29 years of life?'" (ibid: 219). In connection to the pro-life rape victim counterfactual, Fauconnier and Turner comment:

> In the blend, the woman is in a persistent vegetative state, but has the reasoning capacities and general information that she would have had at age 29 under ordinary circumstances. The purpose of this blend is not to construct a plausible situation in which a woman is reasoning about her inability to reason. Nor, obviously, is the purpose to establish the causes of the woman's coma, her pregnancy, or anything else about the situation. The counterfactual blend is instead offered with the purpose of casting light on the element of "choice" in the input space in which the woman is indeed in a coma, so that we can come to a considered judgment about what action is legitimate. The issue is not causality but propriety. Professor Goldberg [the law professor, AH] is committed to framing this woman as having the right to choose, but what does it mean for a woman in a coma to choose? Her abstract opinion, voiced ten years before her specific dilemma, does not meet our frame for "choice," so the professor is offering an alternative: In the blend, the pregnant woman can make an informed choice about the specific dilemma, and this choice should be projected back to the input to guide our actions. (ibid: 219)

Factual hypotheses on the other hand make suggestions about how a thing, situation, or event might possibly *have been*, how it might possibly *be*, or how it might possibly *become* on the basis of established facts. Consider the following case where a caller on the Laporte call-in show hypothesizes about:

5.2.

1BI: he was getting strOnger insofar as as the INTERnal <<l>
2BI: support was concerned.>

3LL: what MAY well see that [aGAIN you -
4BI: [yeah;
5LL: w what could HAppen HERE is that the sAme that happened to
6LL: gamnul abdul NAsser,=
7LL: after uh the uh nineteen seventy three ↑SIX day war,
8LL: when Israel CERtainly BEAT him,
9LL: and beat him SOUNDly,
10LL: and yet he emerged a HEro. (.)
11BI: [that's POssible i suppose.
(8Gulfwar.ca, ll. 48-58)

LL constructs a hypothesis (ll. 5-10) on the basis of some facts provided by BI about the effects of international sanctions on Saddam Hussein's popularity internally in Iraq (ll.1 - 2). Factual hypotheses, however, have received very little attention in mental space and blending literature. Instead, a special case is made of counterfactual hypothesizing and counterfactual thinking in general.[29] Indeed, counterfactual hypothesizing may seem more interesting and attractive from the point of view of a blending approach which focuses on the meaning of isolated utterances. There is a very apparent element of creativity in producing imaginary scenarios which can never have a counterpart in real life. Hence such utterances can be seen to provide substantial evidence for complex processes of blending. Indeed, counterfactual hypothesizing seems quite distinct from factual hypothesizing when considering a wildly unrealistic, pro-life rape victim scenario of a comatose woman making rational decisions against the possible outcome of a war against Iraq. However, it must be kept in mind that such a distinction between counterfactual hypothesizing and factual hypothesizing is based solely on an analysis which compares the mappings and projections of isolated, end-product blends, and which does not take into account contextual aspects of the actual production of the hypotheses in particular events of talk-in-interaction.

As I shall demonstrate below, a counterfactual hypothesizing integration network looks quite different from a factual hypothesizing network when comparing counterpart mappings, projections, and the relationship between inputs and blends. This fact suggests that it must be possible to demonstrate that people who do counterfactual hypothesizing and people who do factual hypothesizing somehow orient to these activities

as different meaning construction processes. At least, if no difference can be demonstrated in any line of visible behavior, social or otherwise, it would be quite problematic, from an IA viewpoint at least, to sustain an absolute distinction between factual and counterfactual hypothesizing, despite the fact that differences can be found at the level of isolated, end-product analysis.

My interest is in cognition as it unfolds in social, interactional contexts, and what I find in my data – at this level of analysis – is, as we shall see, that there is no difference between counterfactual and factual hypothesizing as the activity unfolds interactionally. This, of course, does not exclude that "privately" the co-conversationalists may sense a difference between these two predefined types of hypothesizing. However, such finding as presented here should nevertheless give pause for thought. What are we aiming at describing when we do cognitively/psychologically responsible semantics, what evidence should we rely on, and to what should we ascribe cognitive significance? Thus as in the case of story packing utterances and compression (in relation to which I took issue with the idea – implied in much cognitive linguistics and semantics work – of certain expressions and constructions being characterizable solely in terms of context-free features of meaning), what is challenged here – methodologically, empirically, and philosophically – is another decontextually defined category. From an interactional viewpoint, it will be argued in this chapter, *hypothesizing* is a discrete type of meaning construction process which involves integration of conceptual structure. This process has *among* its instantiations a type of meaning construction process which has been treated as *one* special kind of process in blending theory, namely counterfactual hypotheses.

5.2 Hypothesizing in Mental Space and Blending Theory

In this section I discuss factual hypothesizing and counterfactual hypothesizing in terms of an isolated, end-product focused mental space and blending approach. As already discussed, counterfactual hypothesizing has received a lot of attention in blending theory, and here I shall discuss an example from Fauconnier and Turner (2002a). However, as concerns factual hypothesizing, I have found no treatment hereof in any of the literature by

Fauconnier or Turner or in the literature done by them jointly. Several studies can be found where the phenomena under scrutiny somehow involve factual hypothesizing (e.g. Fauconnier 1997: 131-138). However, in none of them is it the process of *factual hypothesizing* that is in focus. Therefore, I present my own version of a canonical blending analysis of a case of factual hypothesizing.

5.2.1 Factual hypothesizing:

Factual hypothesizing, as I argued above, builds on established facts; the envisioned hypothetical scenario must be supported by and must not contradict established facts. If the latter is the case, the hypothesis is no longer factual. In detective stories, the great challenge for the bright mind of the detective is often that the evidence (the facts) is of such a character that it may lead her astray because it points strongly to a solution which, it turns out, is wrong or because the evidence can be explained according to no ordinary event structure. The latter is often the case in e.g. the short stories of Edgar Allan Poe; for instance in "The Murders in the Rue Morgue" (1841) where the extremely clever Auguste Dupin figures out that the horrific, brutal murder of two women in their apartment and the uncanny circumstances of the murders are caused by a scared and wild monkey on the run from its owner!

In the case of everyday factual hypothesizing, however, it seems people will go for the most likely solution. For instance, if I come home early from work and find the front door wide open I will assume that my daughter has come home, even though she said that she would stay till late at the club where she often goes after school. I will not assume, for instance, that a monkey on the run crawled down the chimney, opened the door from the inside, and ran off. My motivation for assuming that my daughter is at home is that she often changes her mind about going to the club and goes home instead, and she always leaves the door wide open after having entered, even at winter. Let us consider a canonical blending analysis of my factual hypothesizing (see figure 5.1 appendix 2).

In one input (input 1) there is my conception of the present situation. The time (t1) is the time at which I come home early from work, which is mid-afternoon, and

the door is wide open. In the other input (input 2) is my knowledge of my daughter's (d) typical behavior with respect to her whereabouts after school and her coming home. I know that my daughter often changes her mind and comes home early in the afternoon or right after school (at t2) even though she has announced that she would stay all afternoon in the club that she goes to. I also know that she always leaves the door wide open when she comes home. The time of input 2 is between noon and early afternoon. The generic space may be seen to play an obvious role in my reasoning since it is the shared structure between the two inputs that forms the basis of my reasoning. The generic space has the generic time (tG) mid-afternoon and the door is wide open. In the blend my daughter is at home at the time t1 and the door is wide open. The property that the door is wide open and the time t1 are projected from Input 1, and the condition that my daughter is at home is projected from Input 2.

5.2.2 *Counterfactual hypothesizing: In France…*

As an example of counterfactual hypothesizing I will present a blending classic: Fauconnier and Turner's (2002a: 225-226) treatment of the statement "In France, Watergate would not have hurt Nixon." This statement, they point out, has many different readings. Here, of course, we are talking about the possible/imaginable meanings of the context-free statement. However, in a typical reading, they suggest, the American and French political and cultural systems are contrasted. A blended scenario is constructed in which a Watergate-like event takes place in France and where, consequently, the event does not turn into a scandal which forces Nixon to resign.

The integration network (see figure 5.2, appendix 2), Fauconnier and Turner argue, has the following structure: Two input spaces are set up: Input 1 contains knowledge about the Watergate affair: Nixon, the break-in, the tapes, the lies, impeachment, looms, resignation, the voters, etc. Input 2 contains knowledge about the French political system and the French people. A generic space is also set up, according to Fauconnier and Turner, which contains a generic structure for western democracies or a "Western Democracy frame." There is a country which has a political leader who is elected by the citizens. The

political leader's actions are constrained by bylaws, public reaction, etc. Hence, the political leader can bring harm to himself if his actions trigger negative public response and/or it is unlawful, etc. The blend has the following composition: The event taking place is a Watergate-like event (projected from input 1) adjusted to French circumstances (projected from input 2). The place in which it takes place is France (projected from input 2) and Nixon (projected from input 1) is president of France. The political and legal system reacting to the affair is French and so are the people/voters who react (all projected from input 2). When running this blend, Nixon is not harmed because the French political and legal system and the French people/voters react differently than the American political and legal system and the American people/voters do. Crucially, Fauconnier and Turner point out, the hypothetical blend brings to the fore disanalogies between the American and the French political systems. Its purpose is not to envision a situation which may be possible if "such and such," contrary to facts, was the case, that is if Nixon could have been president of France. Its purpose is to shed light on differences between the two cultures and political and legal systems.

5.2.3: Factual vs. Counterfactual Hypothesizing, in Terms of Integration Networks:

We have now seen an integration network analysis of a case of factual hypothesizing and an integration network analysis of a case of counterfactual hypothesizing. The differences between the two network types are obvious. In the following, I list some central differences between factual hypothesizing and counterfactual hypothesizing as they are represented in isolated, end-product focused conceptual integration network analyses:

Complete vs. incomplete input structure: In a counterfactual hypothesizing network both inputs contain a "complete" structure. For instance, in the "Watergate" integration network, both input spaces contain a complete structure of a political system. In a factual hypothesizing network, on the other hand, only one input contains a complete structure. The other contains a collection of facts which is completed in the blend by the full structure of the other input. For instance, in the "daughter home" integration network, one input

contains the facts that it is early afternoon and that the door is wide open, but the other input contains the complete structure of my daughter's typical behavior and whereabouts after school. In counterfactual hypothesizing, then, two equally structured inputs are blended, whereas in factual hypothesizing a complete and an incomplete input get blended.

Violation vs. preservation of input structure: In counterfactual hypothesizing, important input structure is violated in the blend. In the "Watergate" network, input structure which is violated in the blend includes the following: 1) In the input, Nixon was an American citizen and could never be president of France; 2) a precise input version of the Watergate affair cannot be transferred to France since their election campaigns, party system, and cultures are different; 3) Nixon could not be elected in France on his American policy; and so on. The whole point of this blend is, as we saw above, to shed light on differences between the two cultures and political systems, not to construct a likely situation. The latter, on the other hand, is the point of factual hypothesizing, and in factual hypothesizing networks, input structure is preserved in the blend. The facts of the "coming home" input (input 1) are the same in the blend and so is the input information concerning my daughter's typical behavior and whereabouts after school (input 2).

The role of generic structure and the nature of the mapping process: The generic space seems to play a more central, constructive role in factual hypothesizing than in counterfactual hypothesizing. This follows from the discussion above. Factual hypothesizing must constantly keep an eye on the shared structure of the inputs in order to construct a plausible factual hypothesis, whereas counterfactual hypothesizing is not guided by the need for an exact matching of the inputs. Factual hypothesizing establishes identity mappings between elements of the two inputs, whereas counterfactual hypothesizing establishes analogy mappings crucially paired with disanalogy mappings. Let me flesh that out. In the factual hypothesis network for the "my daughter is home" hypothesis, the time of the day and the wide open door of the two inputs are identical. This is why I recognize the situation as one in which my daughter is at home. In the counterfactual hypothesis

network for the "Watergate" hypothesis, however, there are analogies between the two political and cultural systems – both have a democratically elected political leader, voters, law, a press, etc. – but there are also crucial disanalogies – the French are more tolerant with respect to political scandals.

On the basis of such an isolated, end-product focused integration network study, then, we must conclude that factual hypothesizing and counterfactual hypothesizing are two quite distinct types of processes – though they are both considered realizations of the general process of blending. They have different types of input structure, different sets of cross-space mappings, different relations between their input structure and blended structure, and the generic structure plays a different role in the two types of networks. Yet, an empirical study of hypothesizing as an interactional activity gives a different result.

5.3 Hypothesizing in Interaction

In this section I describe the structure of hypothesizing in interaction as it unfolds in a collection of eleven cases. I start out by presenting a prototypical case and going through its structure. Then I discuss the generalizable components, that is each significant step, of the interactional process of hypothesizing separately and illustrate them with examples. The prototypical case that I start out with has a caller on the Laporte call-in show raising a question in relation to the sanctions against Iraq prior to the first Gulf War. Laporte constructs an answer which involves the production of a hypothesis:

5.5

Hyp#3:
1B: i just want to say i don't (.) really agree with the
2B: PROtesters and what they're DOing but; (.)
3B: i mean that's their peROgative;
4B: they're allowed to PROtest; .hh
5B: but just Everyone's sAYing that; (.)
6B: they thInk the SANctio:ns would have ↑WORKED;
7B: but (.) what if you gIve hussEin TI:ME;

8B: a:nd (.) he wOrks (.) on his chemical WEApons and he takes
9B: over jOrdan:,
10B: or (.) Israel or somethin ELSE; (-)
11B: well (.) he's DOing it.
12LL: .hh all we can rely all I could rely on when i say that i
13LL: think this sAnctions should have been given
14LL: TIME given TIME is that uh; .h
15LL: the rePORTS from independent uh (.) sOUrces that uh they
16LL: were WORKing.=
17LL: that hussEin was uh uh:: ecoNOmically in dEEp trOUble -
18LL: was nOt getting any MORE materials and uh; .hh
19LL: frAnkly this is a cOUntry that runs oh:: on one (.) EXPORT
20LL: and one export ONly;=
21LL: OIL;
22LL: an if nobody BUYS it;=
23LL: it CAN'T be very lOng before the country is brought to its ←
24LL: knEEs; .hh ←
(7Gulfwar.ca, ll. 14-37)

The activity of hypothesizing includes three generalizable components, of which the hypothesis itself is the central one:

The first step is the introduction of what I shall refer to as a 'questionable,' *an issue which is introduced as uncertain, unknown, a matter of opinion, or into which an inquiry is formulated*. In the fragment above the caller raises the question of what would happen if Saddam Hussein is given time "and he works on his chemical weapons and he takes over Jordan or Israel or something else" (ll.7 -10), which, it is indicated, he is already doing (l.11).

The next step which typically follows the questionable is 'factualizing,' that is a listing/cataloguing of facts which somehow relate to the questionable. This action may be produced by either current or next speaker. In Hyp#3, Laporte responds to caller's questionable by taking on a factualizing defense of the view that the sanctions should have been given more time. He refers to reports which say that the sanctions were working (ll. 15-16), that Hussein was "economically in deep trouble" (l.17), and "was not getting any

materials" (l.18). And finally he adds to the factualizing that Iraq runs on one export only, which is oil (ll. 19-21).

The third step is the production of a hypothesis which builds on the factualizing. In Hyp#3, the hypothesis follows as the second component of an *If-then* construction.
"[N]obody buys it [the oil]" (l.22) is its condition and "it can't be long before the country is brought to its knees" (ll. 23-24) is the consequential hypothesis which offers a particular understanding of where the facts listing may take the participants. The consequential is based on the fact that Iraq runs on one export only, which is oil (ll. 19-21). Internal to the *If-then* construction it answers the questionable "if nobody buys it" (as in "what if nobody buys it") which may then be seen as a disagreeing restatement of the original questionable "what if you give Hussein time…" (ll. 7-10) which the hypothesizing is a response to. The hypothesizing is thus concluded by a grammatical construction which provides a format for presenting questionable and hypothesis in a compact form where the questionable is a causal condition for the hypothetical consequential, given the facts listed just before (ll. 15-21). In the following, I study each component of the activity of hypothesizing more closely.

5.3.1 The questionable:
In all the examples I have collected the hypothesizing activity starts with the introduction of a questionable. In my data, a hypothesis is never produced without the prior introduction of a questionable. Sometimes the questionable is formulated explicitly as a question to next speaker and treated as such. This is seen in the following examples:

5.6

a) Hyp#1:

1LO:	<<all> yeah i have a QUEStion for you.>	
2LL:	sure;	
3LO:	uhm (.) if the <<all> ↑↑thIng in the> the wAr in the GULF	←
4LO:	continues to grOw um;	←
5LO:	<<all> are thEY ↑gonna> stArt to DRAFT or; (.)	←

6LL: wEll [uh:;
7LO: [<<p> you KNOW,>
8LL: all i can do is quOte the: uh <<monotonous> man in charge
9LL. for selective service for the bay area who
10LL: said ABsolutely POSitively not.>
11LO: oh so;
12LL: but i don't know if that's ↑TRUE;=
13LL: because uh if a pro↑LONGed war con↑TINues,
14LL: i would imAgine <<monotonous> that the volunteer force would
15LL: (may not) insuffIcient
16LL: they would HAVE to draft people.>=
17LL: <<all> certainly if they wanna rotate people> BACK to:: uh
18LL: am↑Erica;=
19LL: after a YEAR or (.) so of service in saudi ar↑Abia;
20LL: as they did in viet↑NAM;=
21LL: i think they'd HAVE to draft people.
22LL: .hh but uh let's HOPE<<l> it doesn't go that long.>=
23LL: but again to quOte the selective service at least the <<all>
24LL: local repre↑sentatives NO.>
25LO: <<all> oh thank you very MUCH.>
(12Gulfwar.ca, ll.18-42)

b) Hyp#2:
1DU: uh i've an oPINion question for you.
2LL: <<all+l> alright;>
3DU: is (.) the s sad↑DAM hussEin. ←
4DU: is he is he PLAYing naIve? ←
5DU: or is he just STU[pid. ←
6LL: [is he jUst DUMB.
7DU: <laughs>
8LL: bOY it BEATS ME.
9LL: he's ↑NOT dumb;
10LL: <<all> i ll tell you something;>
11DU: <<h> ↑NO he's [↑NOT dumb;>
12LL: [he's NOT DUMB.
13DU: he cAn't be DUMB i mean,
14LL: but he is
15DU: the POwer he has.
16LL: he ↑MIGHT be crAzy, (.)
17LL: [uh:.
18D: [↑HITler was crAzy,
19LL: he ↑MIGHT be crazy,

20LL: uh: you have the mA:n is living in a BUNker, (.)
21LL: uh:: with a MA:ZE,
22LL: uh. hhe has DONE some prEtty crAzy things to his <<len> OWN
23LL: COUNTry;>=
(15Gulfwar.ca, ll. 71-93)

In Hyp#1, the caller asks a specific question (ll. 3-5) which can be given a positive or a negative reply. Next speaker answers the question by first giving facts which support a negative reply (ll. 8-10) and then facts which support a positive reply (ll. 12-20). He then ends up basing a negative reply on the facts first mentioned ("to quote the selective service, at least the local representatives, no," ll. 24). In Hyp#2, the caller also asks a specific question (ll.3 -5) which initiates a series of hypotheses, of which one is settled on in l. 16 (and repeated in l. 19 when Laporte initiates a turn which he was apparently about to produce in l. 16, before D's second in line 18): "he might be crazy." Notice for Hyp#2, however, that the hypothesis is produced before any factualizing; the factualizing (ll. 20-23) follows the repetition of the hypothesis in line 19.

Of course other construction types than questions may be treated as questionables. Even though they are not explicitly formulated as questions, such utterances still initiate hypothesizing. In the following example, first speaker is simply doing an update on the situation in Iraq. He reports the current state of affairs (ll.1 -4), what may be going to happen (ll. 5-10), what is not known about what may be going to happen (l. 11), and what has not yet happened (l. 12). Next speaker treats the last component of first speaker's update as a questionable as, upon its completion, he provides a guess, a hypothesis, concerning the future development of the war (ll. 14-15):

5.7

Hyp#7:
1LL: all right
2LL: it's about ah: what 9 am in bagdad iraque
3LL: and the second wave of u.s. bombers is continuing to bomb (.)
4LL. iraque
5LL: and i guess we're just waiting to hear from saddam hussein

6LL: the only report we got (.) uh via service report that uh
7LL: said
8LL: the iraqui radio uh said that the united states and the
9LL: allies would
10LL: regret our decision
11LL: uhm but they didn't say how or why (.)
12LL: and we have yet to see any response from iraque at all (.) ←
13LL: [(any) retaliation]
14XX: [it would be] a long time before we see what their
15XX: idea of retaliation is
(1Gulfwar.ca, ll. 11-42)

Questionables, then, are not just defined by the participants as "ordinary" questions which project an answer; they are understood as a particular type of action, sometimes taking on the format of a question, which should be responded to by a particular type of action, as we shall see in the following sections. The questionable is treated by the participants as presenting a matter as unknown, uncertain or as a matters of opinion or for discussion. And as we shall see in the following only a particular type of response which focuses on the resolution of these matters is appropriate next.

5.3.2 Requesting an Investigative Reply:

Above we have seen that next speaker may respond to a questionable by factualizing and then hypothesizing. This is a common practice in the collection of examples I have studied. In fact, there is evidence that a questionable addressed at next speaker *projects* this sort of *investigative* reply as it does not just ask the recipient to answer but to select between a specific collection of answers. In the following example, which is an excerpt from a conversation between Nixon and Haldeman in the White House, factualizing is pursued by Nixon through a long stretch of talk:

5.8

Hyp#6:
1Nix: .t.hh.hhh hh (+) is there ↑any ↓uh hhh hh=uh wa:y thet* uh shh(+)-
2Nix: .hh h=e↓ven:: sirrup (++++)(1.4)(++++) creetly er

3%com: The skip here goes for about (1.4). The Watergate Special Prosecutor's
4%com: Force transcript has Nixon saying "surreptitiously or discreetly".
5Nix: otherwi:se I mean thet* in a pra(+) way you c'd .hhhhh (0.6)
6Nix: ººc'dºº (0.4) determine: (0.4) ü-whether uh (2.4) (ü)-this matter
7Nix: of whether .hhh.hh (0.3) n-nD(+)ea:n (0.5) might iv uh walked in
8Nix: there with a rechorder on ím?
9%com: rechorder should be recorder with the 'h' in superscript
10Ps: (0.8)
11Nix: hhI don'know.
12Hal: No:.
13Ps: (0.3)
14Hal: N[o(+) I don't think there is inny wa[y.
15Nix: [N(+)o [Mhh hhm
16%com: click
17Nix: Mghm.
18Hal: .h Ah(+) think yih gotta- (0.4) thih(+) so remote iz tuh be:
19Nix: ºMm[↓hm.º
20Hal: [.hh-.hh(+) almost beyond possibility, .hhhh
21Nix: nYe[hp(+)
(Nixon&Haldeman.ca, ll. 19-39)

In the first turn (ll. 1-9, including comments), a questionable is produced by Nixon concerning whether John Dean (Watergate star witness) had had a tape recorder on him during a conversation with Nixon. The questionable is followed by a long pause (0.8, l. 10), which is broken by Nixon himself (in accordance with he rules of turn-taking, see chapter 2) as he reformulates his lack of knowledge (l. 11). In response, Nixon finally gets a "No (0.3) no I don't think there is any way" (ll. 12-14), which however, is not treated as settling the issue. Firstly, if a short and simple negative answer had been sufficient for Nixon, he would have had plenty of time to move on during the silence of 0.3 seconds which follows Haldeman's first "no" in line 12. However, Nixon does not display an interest in taking the conversation on from there. Secondly, Nixon's "no" (l. 15) in overlap with the last part of Haldeman's second "no" (l. 14) and his "mhm" (l. 15) and "mghm" (l. 17) following Haldeman's rejection of his questionable are but minimal contributions by which Nixon does not take the conversation on. The turn thus goes back to Haldeman (again in accordance with the rules of turn-taking, see chapter 2). Haldeman's next turn, which simply refuses Nixon's questionable as "almost beyond possibility" (l. 18-20) does not

settle the matter either. Nixon responds with a "yep" (l. 21) which is a more positive token of reception than the previous ones, but still the issue is kept open. After this, the line of the present topic of the conversation changes a bit when Nixon starts talking about what would happen if indeed Dean had had a recorder on him. This option though is still rejected by Haldeman as "virtually impossible."

On the basis of the first fragment alone we cannot know what Nixon is after, we can only observe that he does not treat Haldeman's response as settling the issue. However, later (after ll. 40-78) Nixon restates the questionable:

5.9

Hyp#6:

1Nix:	No way duh,h no way duh find ↓out is [er.	←
2Hal:	[That's: no.h	
3Ps:	(0.2)	
4Hal:	There isn'any, there isn'any .pshhh	
5%com:	tik	
6Hal:	(Yih kno(+)w) no way anybuddy would ↑kno[:w. Ik]cept h i: m.]	
7Nix:	[We 'av]no rih ( )?]	←
8( ):	.p.hhh(+)	
9Nix:	record of: uh: we don:'ev any (0.3)(+) round ess tuh whether	←
10Nix:	he az: [done that] before hev [we:?]	←
11Hal:	[We've none.] [We've]none.	
12Nix:	.hhh.hhhh	
13Hal:	(+)t's been no evidince, (.) at any time under: any	
14Hal:	circumstances en I've- (0.3) in uh'v ben involved in enough	
15( ):	.hhhhhh	
16Ps:	(0.3)	
17( ):	.t	
18Nix:	º(degree[:?)º	
19Hal:	[yihknow wher eez (coming) on thet I (.)'d=I'd	
20?Nix:	.t'hhhhhhh	
21?Nix:	(Hm,)(+)	
22Hal:	I'd jis' find it,h	
23?Ni:	(Hm,(+)]	
24Hal:	(reed) (0.8) i:mpossible: duh think thet (.) thet there would (0.4) thet	

25Hal: it's (0.4) yihknow c'd ↑po(+)ssibly be the case.
26Ps: (1.6)
27Nix: ↑Mm: h[m.(1.0=
28%com: [bunk
29Ps: (0.2)
30%com: click
31Ps: (0.2)
32Nix: =1.0) .hhhh O(+)ne thing about tho:se ü-thet's: those things
33Nix: thet's uh- ah(+)↑think thet* .hhhh (ev'n) when a fellow
34Nix: walks in hhI mean I didn' l:ook et im that closely butchu
35Nix: were there b't .hhhh (0.2) ºGo:d ↑damnº I mean I, hhhI w'd
36Nix: (.) I'd think thet iss it's a little: it's ih=eh-eh=ih- (.)
37Nix: ë-even the smallest ones er: bulky enough thetche:=mean:
38Nix: w'th a fella like Dean yi'd sorta see thet wouldn'tche=where
39Nix: duh where dih you carry 'em in yer hip, pocket?=er yer:
40Nix: .hhhhh hip [uh breast pocket?]
(Nixon&Haldeman.ca, ll. 74-113)

Again Nixon only gets a rejection of the questionable (ll. 4 + 6). Of course Nixon's question in line 1 is built to get a negative reply as preferred answer. It is however important to this analysis also to observe that Nixon does not settle with the produced negative reply but instead pursues the matter further. He inquires into possible earlier experiences which might indicate whether Dean could have had a tape recorder on him (ll. 7-10). When Haldeman continues to respond rejectingly, Nixon again responds minimally or remains silent (l. 3 and ll. 26, 27, 29, 31 and 32) till he (Nixon) finally factualizes about things which could show whether Dean had had a tape recorder on him (ll. 32-40). In the second fragment, Nixon thus shows that the kind of response he is pursuing is not just an agreeing confirmation or an agreeing rejection of his questionable, but rather an investigative response which seeks to qualify itself on the basis of indications, or facts as they are called in this context. In other words, the example serves to show that a questionable is *not just a request for information from another part who is assumed to have that information; the questionable initiates an activity by which uncertainty, lack of knowledge, or beliefs are resolved or supported*.

5.3.3 The Strong Relevance of a Hypothesis:

While a questionable projects an investigative reply involving factualizing, there also seems to be an internal structure of consecutive, relevant actions in the investigative reply itself. Under certain circumstances, at least, a hypothesis occurs upon the completion of factualizing, following a questionable as next relevant action. Consider the following example:

5.10

Hyp#5:
1MAR: but what we DO know is hussEI:n's crazy. (.)
2MAR: he's [got (.) uh CHEMical warfare,=
3LL: [right;
4LL: he's not afraid to use on ANybody.
5LL: yep,
6MAR: uh:m he's had nuclear REsearch goin <<all> on to make a
7MAR: bOmb.> .hh
8LL: dOEsn't have one YET. ←
(12Gulfwar.ca, ll. 82-89)

MAR is listing facts about Saddam Hussein, but is interrupted by Laporte (l. 8) right at a point where a shift to talking about possible future scenarios can be anticipated. MAR's last fact, that Hussein has "had nuclear research going on to make a bomb" (ll. 6-7) is by itself just a fact of the situation. However, Laporte's "doesn't have one yet" (l. 8) treats this piece of facting as having implications in the direction of a possible a future scenario of some sort. The production hereof is however prevented by Laporte's interruption as he makes the specific facts irrelevant to possible future scenarios. Conceivably, the future scenario which is predicted by LL is predicted on the basis of the interactionally achieved structure which the factualizing has: First it is stated that Hussein is crazy (l. 1); then it is stated that Hussein has chemical weapons and that he is not afraid to use them on anybody (ll. 2+4). This latter component of the first bit of facting has the structure "he has it, and he's not afraid to use it," and the next piece of facting, "he's had nuclear research going on to make a bomb," could be heard as another first part of a "he has it, and he's not afraid to use it"-

structure, the template of which provides the context for the next piece of facting. The other half of the second "he has it, and he's not afraid to use it"-structure would then be the prediction that Hussein will not be afraid to use the nuclear bomb. Notice however that even though the "he has it, and his not afraid to use it"-structure does make it possible to predict what sort of hypothesis may follow, this structure alone does not necessarily provide for the relevance of a hypothesis as its second component. Rather it is *the shift in the mode* of facting which makes a hypothetical utterance relevant right in this very position. The first "he has it"-fact component ("he has chemical warfare") is uttered in the simple present whereas "he has had nuclear research going on to make a bomb" is uttered in the present perfect. The present perfect combined with the object form "nuclear research *going on*," profiles the referent as something which has duration in time, and this is then understood also to extend under further development into the future. Thus though the first "he's not afraid to use it"-component makes it possible to predict the wording of whatever comes after, it is the shift in facting mode, which makes a hypothesis predictable as the mode of the second component. Hence factualizing, produced in a certain mode at least, may, it appears, make a hypothesis relevant and hence predictable as next action.

Evidence that the interlocutors indeed orient to a possible future scenario of Hussein having and being ready to use a nuclear bomb and which Laporte obstructs to begin with appears in the talk that follows:

5.11

Hyp#5:
1LL: dOEsn't have one YET.
2MAR: n nOt YET. hh'
3MAR: [yeah.
4LL: [you know in the ↑pAst we HA:VE HA:NDled (.) other people
5LL: who had the p-
6LL: by the way making ' ↑ONE bomb is a bIg difference from
7LL: making a hUndred or a thOUsand. (.)
8LL: a:nd (.) NObody says he'd make more than one or twO.
9LL: so that takes a::(.) <<all> LOT of plutOnium.>
10MAR: well: Even then the damage with just ONE BOMB is quite a1

11MAR: bI:t.
12LL: <<p> yeah.>
(12Gulfwar.ca, ll. 89-100)

In response to Laporte's "doesn't have one yet," MAR repeats "not yet" (l. 2). Both Laporte's and MAR's "yet" is produced with emphasis. Laporte's emphasis would seem to indicate that though a hypothesis is obstructed, it may still become relevant, and MAR's repetition with emphasis on "yet" confirms this opening in Laporte's objection. Laporte's subsequent talk is about a scenario in which Hussein *does* have a bomb. He states that other people who had the plutonium bomb have been handled before, that one bomb is different from a hundred, and that nobody says Hussein would make more than one or two bombs (ll. 4-9). All statements relate to a scenario in which Hussein has a bomb which he is not afraid to use. Thus, though a hypothesis is in the first instance obstructed, the interlocutors still end up orienting to a hypothetical scenario. The fact that they orient to a un-uttered hypothetical scenario in continuation of Laporte's objection indicates that a hypothesis is anticipated at the place where Laporte utters his objection, following the shift to a particular, future-implicational mode of factualizing.

5.3.4 Shared Facts as Obligatory Features in the Social Making of Hypotheses :

In most of the cases I have studied, factualizing precedes the production of a hypothesis, but hypothesizing without preceding facts does occur as well. In both cases, though, the establishment of facts seems to be the norm. Thus in all cases where a hypothesis is uttered *without* prior factualizing, a response in terms of factualizing or which involves factualizing which either supports or challenges the hypothesis follows. In one case (Hyp#7), next speaker responds to a hypothesis (ll. 1-2) by assessing it positively (ll. 4-6) and then providing facts which support it (see arrows); in another case (Hyp#10), second speaker responds to a hypothesis (ll. 1-4) by providing facts to challenge it (see arrows) and then subsequently producing an alternative hypothesis (ll. 11-13); in a third case (Hyp#2),

same speaker himself provides the facts (see the arrows) to support a hypothesis (l. 1) immediately after the production of it:

5.12a-c

a) Hyp#7:

1XX:	[it would be] a long time before we see what their	
2XX:	[idea] of retaliation is	
3LL:	[yeah]	
4LL:	well it sEEms obvious	
5LL:	although uh there's nothing obvious and there's	
6LL:	nothing for sure in any of this	
7LL:	but that uh the iraqui airforce has been completely disabled	←
8LL:	and they have no missiles	←
9LL:	and they have no airforce to retaliate	←
10LL:	so (.) any military retaliation would have to come from the	
11LL:	gound forces	
12LL:	and there are a lot of them	
13LL:	250.000	
14LL:	amassed in kuweit (1Gulfwar.ca, ll. 24-42)	

b) Hyp#10:

1HE:	i think he's gonna do what HITler did;=	
2HE:	he's gonna start getting little countries together.	
3HE:	and MORE. (.)	
4HE:	and more it's just gonna get start GROWing.	
5LL:	.hh i think we've LEARNED One THING.	←
6LL:	i think we've LEARNED he doesn't have that abIlity. (.)	←
7LL:	i think uh (.) the fact that uh (.) he was uh NOT only taken	←
8LL:	by surprIse bY something Everybody	←
9LL:	expected to HAppen; (.)	←
10LL:	but was com↑PLETely unable to resPOND to it; (.)	←
11LL:	sho:ws ↑REALly how LITtle mIlitary (.) rEAdiness UH <<ALL>	
12LL:	a:nd military force saddam hussein> (.) in	
13LL:	TRUTH commAnds.	
14HE:	yeah;	
15LL:	so may be there ↑REALly there was lEss to fEAr from him than	
16LL:	uh anybody THOUGHT.	
17HE:	[( )	

(13Gulfwar.ca, ll. 70-90)

c) Hyp#2:

1LL:	he ↑MIGHT be crazy,	
2LL:	uh: you have the mA:n is living in a BUNker, (.)	←
3LL:	uh:: with a MA:ZE,	←
4LL:	uh. hhe has DONE some prEtty crAzy things to his <<len> OWN	←
5LL:	COUNTry;>=	←

(15Gulfwar.ca, ll. 89-93)

All three cases thus show participants orienting to building a case for or against a hypothesis – produced by themselves or by another – by providing facts which support it or contradict it. If a hypothesis is uttered that is not based on prior factualizing, facts will subsequently be provided.

5.3.5 Using a Construction Format as a Resource for Doing Hypothesizing:

Above in the case of Hyp#3 (see 5.5 and discussion below), we saw a hypothesis being produced as second component of an *If-then* construction, where a questionable makes up the first component. This format is seen in Hyp#10 too:

5.13a-b

a) Hyp#3:

1LL:	frAnkly this is a cOUntry that runs oh:: on one (.) EXPORT	
2LL.	and one export ONly;=	
3LL:	OIL;	
4LL:	an if nobody BUYS it;=	←
5LL:	it CAN'T be very lOng before the country is brought to its	←

(7Gulfwar.ca, ll.32-36)

b) Hyp#10:

1HE:	cause if they ↑dOn't ' STOP him. (.)	←
2HE:	i think he's gonna do what HITler did;=	←
3HE:	he's gonna start getting little countries together.	←
4HE:	and MORE. (.)	←
5HE:	and more it's just gonna get start GROWing.	←

(13Gulfwar.ca, ll. 73-77)

In the case of Hyp#10, we have also seen, factualizing follows the hypothesis, and in the case of Hyp#3, we have seen too, the hypothesis builds on facts already introduced. Thus in the presence of factualizing, the *If-then* format may be used as a resource for setting up questionable and hypothesis in a causal relationship. This matches the structure that has been found in hypothesizing in interaction: The hypotheses in my collection always follow a questionable and that a questionable projects an investigative answer. Thus this is an example of how grammatical structure can serve interactional structure.

The analysis of *If-then* constructions as resources for doing hypothesizing in interaction enters an area of interactional studies which has received growing attention for the past decade, the relationship between or intersection of interaction and grammar. Already in 1979, however, Schegloff described a program for a "syntax-for-conversation," and in his 1996 (54-55) article "Turn organization: one intersection of grammar and interaction," he writes, starting from a broad perspective:

> Let me begin with a point of departure on which I have relied before. In many respects, the fundamental or primordial scene of social life is that of direct interaction between members of a social species, typically ones who are physically co-present. For humans, talking in interaction appears to be a distinctive form of this primary constituent of social life, and ordinary conversation is very likely the basic form of organization for talk-in-interaction. Conversational interaction may be thought of as a form of social organization through which the work of most, if not all, the major institutions of societies – the economy, the polity, the family, socialization, etc. – gets done. And it surely appears to be the basic and primordial environment for the use and development (both ontogenetic and phylogenetic) of natural language.
>
> Therefore, it should hardly surprise us if some of the most fundamental features of natural language are shaped in accordance with their home environment in co-present interaction, as adaptations to it, or as part of its very warp and weft (Schegloff, 1989: 142-4; 1991: 153-5). For example, if the basic natural environment for sentences is in turns-at-talk in conversation, we should take seriously *the possibility that aspects of their structure – for example, their grammatical structure – are to be understood as adaptations to that environment*. In view of the thoroughly

> local and interactional character of the organization of turn-taking in conversation (Sacks, Schegloff and Jefferson, 1974), the grammatical structures of language should in the first instance be understood as at least partially shaped by interactional considerations (Schegloff, 1979). And one locus of those considerations will be the organization of the turn, the organizational unit which "houses" grammatical unit. [italics added, AH]

This deeply functional view on language goes well in hand, I suppose, with the views of such cognitive linguists as Peter Harder and Chris Sinha, who, as I discussed in the introduction, argue that language should be seen as dually grounded, as socially and as individually embodied. However, if taken seriously, this view has deep repercussions for the way we do cognitive linguistics. Grammatical structure is considered primarily a function of interactional structure and not just a property of isolated, semantically motivated types of constructions or expressions. The discussion of this issue was initiated already in the previous chapter in relation to story packing utterances and compression, where I proposed that construction types themselves do not carry the property of compression, but get to do compression when they appear in certain positions. However, the study of hypothesizing gives the discussion further depth. I shall return to this issue in the section on the cognitive processes involved in hypothesizing which follows this study.

5.3.6 Questionable, Factualizing, and Hypothesizing in the same Turn:

We have seen that interactional hypothesizing is a social activity and that that activity is manifested through a particular interactional structure consisting of the major components questionable, factualizing, and hypothesizing. In some cases, however, current speaker can be observed to produce all three components:

5.14a-b

a) Hyp#9
1GE: i am callin' to proTEST the: (.) Entry into uh the WAR in
2GE: irAQ; .h

3GE: a:nd uh i just wanna remind all of us that THOUsands people
4GE: <<acc> gonna lose their lives;=>
5GE: maybe TENS of thousands of pEOple.
6GE: .hh and ' I ' was very strOngly for (.) keeping the BLOCKade
7GE: going;
8GE: with the united NAtions; (.)
9GE: surROUNDing irAq;
10GE: and NOT letting supPLIES in; .h
11GE: a:nd irAQ doesn't manufacture pArts or or any ARMS.
12GE: so he COULDn't strengthen himself.
13GE: he you're RIGHT <<all> he would become weaker all the TIME.> ←
14GE: [.hh one
15LL: [i guEss the only question was if the blOckade was WORKing.=
16LL: and uh:
17GE: i think it WAS.
18LL: <<all> reports are that it WA:S;>
19LL: except for FOOD; (.)
20LL: <<all> which was getting in [through JORdan.>
21GE: [yeah.
22GE: i think we were being im imPAtient. (.)
23LL: yeah -
(9Gulfwar.ca, ll. 25-47)

b) Hyp#8:
1DO: i am a retIred AIR force Officer,
2DO: and i just WANTed;
3DO: to: uh PUT out the word that bAsically i appreciate the way
4DO: the (.) prEsident is HANDling this thing,=
5DO: he's going ↑ALL OUT; (0.3)
6DO: no HOLDS BARRED.=
7DO: i've been in Vietnam -
8DO: i've been in OTHer things, .hh
9DO: and when you ↑gO in there with your HANDS tIEd behind your
10DO: bAck - =
11DO: or you get CONGress inVOLVED - .hh
12DO: it's it's (.) kInd of scary because you REALly - (.)
13DO: Aren't in contROL of the situAtion.
14DO: a:n RIGHT now;=
15DO: <<all> CONGress will stay out of it;=
16DO: they`ve TURNED it over to the MILitary and LET them;> (.)
17DO: you know TAKE the action;
18DO: go in there CLEAN HOUSE; (.)
19DO: i THINK we'll be alrIght. ←

20LL: you've SEEN AIr action before;=
21LL: have you Ever seen anything like what HAppened tonight -
(10Gulfwar.ca, ll. 78-98)

In both cases, Hyp#9 and Hyp#8, the speaker presents an opinion about the way in which the crisis situation in the Gulf is handled. In Hyp#9, it is stated by the caller that "I am calling to protest the entry into war in Iraq" (ll. 1-2) and in Hyp#8 it is stated by the caller that "I just wanted to put out the word that basically I appreciate the way the president is handling this thing" (ll. 2-4). These statements of opinion are then followed by listings of facts (Hyp#9, ll. 3-12; Hyp#8, ll. 5-18), which relate to the situation that the statements of opinion concern. Hereafter hypotheses follow which are based on the facts and which support the initial statements of opinion: Hyp#9: "he would become weaker all the time" (l.13); and Hyp#8: "I think we'll be alright" (l. 19).

Having seen in the earlier sections how interlocutors organize the activity of hypothesizing interactionally, and seeing how the structures of the turns produced in Hyp#8 and Hyp#9 match the interactional structure of hypothesizing, we have established a solid indication that the recipients in Hyp#8 and Hyp#9 will also understand the activity by the speakers as being the activity of hypothesizing. This includes that having seen how the activity of hypothesizing is always initiated by a questionable, there is also evidence that the interlocutors in Hyp#8 and Hyp#9 may understand the statements of opinion (Hyp#9: ll. 1-2; Hyp#8, ll. 3-4) as questionables. The question is though when an action – which may be a question or a statement of opinion or some other type of action – is recognized as a questionable? Can anything be defined as a questionable? The present study does not provide any final answers to these questions in lack of data. However, in many cases it is the occurrence of certain question items in an action that makes it understandable as a questionable, which upon its completion projects an investigative reply (see section 5.3.2) . In other cases, nonetheless, there are no such questionable "markers." In those cases, the action is turned into or defined as a questionable in and through subsequent actions, that is in and through subsequent factualizing or a hypothesis (which is then followed by factualizing). In line with that argument, it can be proposed for the cases above that the

initial statements of opinion are understood as questionables in and through the following factualizing. Thus, in the cases in this section a hypothesis becomes expected with the production of factualizing as the next action upon the completion of that factualizing.

5.3.7 Looking Ahead to the Cognitive Analysis: Factual and Counterfactual Hypothesizing

The last point I wish to make in this interactional study is in fact not of interest interactionally. However, it does belong in the part of the chapter which provides empirical evidence for the cognitive theory. In fact, by not being relevant interactionally in the present collection it becomes significant to the cognitive analysis, and thus in a negative fashion, it is positive proof of a central cognitive point that I wish to make in this chapter. This is how: We have looked at a number of cases of hypothesizing above, which all constitute the same interactional process. From a cognitive semantics viewpoint, the collection contains both cases of counterfactual hypothesizing and cases of factual hypothesizing:

5.15a-b

Example of factual hypothesizing:

a) Hyp#1:

1LO: uhm (.) if the <<all> ↑↑thIng in the> the wAr in the GULF
2LO: continues to grOw um;
3LO: <<all> are thEY ↑gonna> stArt to DRAFT or; (.)
4LL: wEll [uh:;
5LO: [<<p> you KNOW,>
6LL: all i can do is quOte the: uh <<monotonous> man in charge
7LL: for selective service for the bay area who
8LL: said ABsolutely POSitively not.>
9LO: oh so;
10LL: but i don't know if that's ↑TRUE;=
11LL: because uh if a pro↑LONGed war con↑TINues,
12LL: i would imAgine <<monotonous> that the volunteer force would
13LL: (may not) insuffIcient
14LL: they would HAVE to draft people.>=
15LL: <<all> certainly if they wanna rotate people> BACK to:: uh

16LL: am↑Erica;=
17LL: after a YEAR or (.) so of service in saudi ar↑Abia;
18LL: as they did in viet↑NAM;=
19LL: i think they'd HAVE to draft people.
20LL: .hh but uh let's HOPE<<l> it doesn't go that long.>=
21LL: but again to quOte the selective service at least the <<all> ←
22LL: local repre↑sentatives NO.> ←
(12Gulfwar.ca, ll. 20-41)

Example of counterfactual hypothesizing:

c) Hyp#3:
1B: but (.) what if you gIve hussEin TI:ME;
2B: a:nd (.) he wOrks (.) on his chemical WEApons and he takes
3B: over jOrdan:,
4B: or (.) Israel or somethin ELSE; (-)
5B: well (.) he's DOing it.
6LL: .hh all we can rely all I could rely on when i say that i
7LL: think this sAnctions should have been given
8LL: TIME given TIME is that uh; .h
9LL: the rePORTS from independent uh (.) sOUrces that uh they
10LL: were WORKing.=
11LL: that hussEin was uh uh:: ecoNOmically in dEEp trOUble -
12LL: was nOt getting any MORE materials and uh; .hh
13LL: frAnkly this is a cOUntry that runs oh:: on one (.) EXPORT
14LL: and one export ONly;=
15LL: OIL;
16LL: an if nobody BUYS it;=
17LL: it CAN'T be very lOng before the country is brought to its ←
18LL: knEEs; .hh ←
(7Gulfwar.ca, ll. 20-37)

As discussed in section 5.1 and 5.2, counterfactual hypothesizing receives special treatment in blending theory as one discrete, exquisite type of meaning construction process. However, what these examples from my collection of cases of interactional hypothesizing show is that with respect to the way in which interlocutors orient to them interactionally, counterfactual hypothesizing and factual hypothesizing are the same. Both Hyp#1 and Hyp#3 start with a questionable by first speaker (Hyp#1, ll. 1-3 Hyp#3, ll. 1-4), both are given an investigative response by next speaker in the form of factualizing (Hyp#1, ll. 6-22

; Hyp#3, ll. 9-16) and a hypothesis (Hyp#1, l. 22; Hyp#3, l.17-18) based on the factualizing. Thus interactionally, the two fragments have the same overall structure. However, whereas in Hyp#3 first speaker's questionable (ll. 1-4) concerns a situation which at the time of speaking is no longer an option since war has broken out – this is made explicit by Laporte's use of the (passive) perfect in line 7 – and the hypothesis that is given is accordingly a counterfactual hypothesis (ll. 17-18), first speaker's questionable in Hyp#1 (ll. 1-3) concerns a possible future development and the hypothesis that is given is accordingly a factual hypothesis (l. 22). Thus in terms of the way in which counterfactual hypotheses and a factual hypotheses come about and are constructed in interaction, there seems to be no difference between them. This insight is important to the cognitive evaluation below of the interactional study of hypothesizing.

5.3.8 Summary:

I conclude this study of hypothesizing in interaction by summing up the major points:

– Hypothesizing occurs as an interactional process which involves three major components: a questionable, factualizing, and hypothesizing. Both factual and counterfactual hypothesizing are structured in this way.

– A questionable is an action which is understood as putting forth an issue as uncertain, unknown, or a matter of opinion, or into which an inquiry is formulated. The questionable may be formulated explicitly as a question to next speaker and treated as such. A questionable, if recognizable as such upon its upon its completion, projects an investigative action (factualizing plus hypothesis).

– Hypothesizing is based on and requires the presence of socially shared facts, which are either provided before the hypothesis or established immediately after.

– Internally to the investigative action, factualizing, at least if produced in a particular mode (future-implicative), seems to project a hypothesis as next action.

– A construction type may serve the purpose of producing a most compact questionable-hypothesis structure, reflecting the interactional structure of questionable → investigative reply: the *If-then* construction.

5.4 Cognitive Analysis of Hypothesizing in Interaction:

In interaction, hypothesizing is intersubjectively recognizable as a specific process which has its own structure and dynamics. What this tells us, if we are to make assumptions with regard to what *mental* operations are at work as we are in this part of the chapter, is that among its many imaginative, cognitive skills, human beings have the ability to construct imaginary things or events which expand the factual world dramatically. They are able to ask questions about things which are not and/or cannot be factually known, objectively true, or certain, and they have the ability to raise hypotheses to answer those questions. Thus human beings do not just stay within the limited field – *Lebenswelt* – of certain knowledge or factual phenomena. They venture on to map the unknown, and that, when you come to think about it, is a remarkable accomplishment. As in the case of compression, the ability to do hypothesizing takes human beings beyond factually known details, though in quite different ways. Compression prevents us from being enslaved by the details of each moment by allowing us to achieve a global insight into many details of many moments, whereas hypothesizing prevents us from being stuck in the factual details of the now, or of the past, by allowing us to envision moments that we have never experienced, and even moments that never could be experienced.

5.4.1 The Trinity of Hypothesizing:

The activity of hypothesizing in interaction involves two major feats, I would propose: 1) The realization that other things and events than the factually constituted *have*, *had*, or *will have* existence – or *might have had* existence if "such and such" could be changed (the

latter case being counterfactual), and 2) the ability to envision such things or events from what is factually known or believed to be the case. Blending theory only deals with the latter of these two major feats, but above we have seen that the former is an inseparable part of the total process of hypothesizing. Furthermore, blending theory treats different types of hypothesizing (factual and counterfactual) as different cognitive processes, which we have seen now that they are not necessarily, at least not when it comes to the way in which they occur in interaction.

The two major feats of achieving interactional hypothesizing – whether it is factual or counterfactual – are composed of three characteristic components, or of what I shall call the trinity of hypothesizing, a questionable, facts, and a hypothesis.

The Questionable: How this part emerges is not accounted for in the data above. What has been observed above is that some utterances are understood to be embarking on something which is unknown or uncertain and as inviting a response which is investigating and making guesses into this matter. The interacting minds are set in an investigative mode, not in the sense of being alert to discoveries, but in the sense of being attentive to the unknown. By "being alert to discoveries" I mean the way in which e.g. a piece of landscape is scanned by an animal or a human being. The questionable marks the threshold between the world of known things and events and the world of unknown things and events. In technical terms, it sets up partially structured spaces (both in the case of factual and in the case of counterfactual hypothesizing) between ("fully" structured) spaces of knowledge, and it requires these partially structured spaces to be "completed."

The Factualizing: The production of a questionable is (typically) responded to or followed by an inspection of relevant, known events and/or things. In other words, when confronted with an action (the questionable) which invites an investigative response into the unknown, a recipient "turns around," as it were, to the known, and starts his investigation there. This may show a trivial and yet deep and essential fact of human psychology. Attempting to respond to an utterance which embarks on the unknown, the responder will start from the

basis of the known. It is of course only common sensical that we can only make guesses on the basis of what we know. Nevertheless this basic condition often seems to be forgotten in science as well as in "popular" thinking. For instance, the prestigious Mars research project which has expanded drastically in recent years and which got a massive PR boost from president Bush recently, has reinforced a popular interest in space in general and the possibility of encountering extraterrestrial life. We speculate about how such life appears, how it communicates, whether it is moral, hostile, friendly, loving, disgusting, or stupid, but what we tend to forget is that such questions are shaped and answered entirely by human knowledge (facts) and human thought. Maybe extraterrestrial life, if such a thing exists, is completely beyond our comprehension. Professional science, however, is subject to the same kind of pitfalls. Often we pursue questions the answers to which we have very little or no, or only disputed facts to support, and often it turns out that the phenomenon we thought we had explained is completely different and must be understood from a completely different basis than initially believed. For instance, a tricky question for daring linguists is the emergence of language. Many celebrated scholars have come up with very interesting "stories," blending theory being one of them (Fauconnier and Turner 2002). However, there is much disagreement about what language really is, and about what may serve as evidence (facts) and what may not. Thus in science, practitioners often end up discussing how some phenomenon may be described rather than just describing the phenomenon. Yet, because we are bound to approach unknown things from the basis of that which we know, these discussions are necessarily a central part of science. I am, of course, talking about methodology.

The Hypothesis: The hypothesis is composed as an extension of factual knowledge into the partially structured spaces. In some cases a hypothesis comes right after the questionable, but in that case the hypothesis is followed by factualizing, which backtracks the process of hypothesizing. The hypothesis is the product of the action of doing a questionable, monitoring factual knowledge and setting up a possible completion (via other factual knowledge) of the established facts.

This description of the trinity of hypothesizing as observed in interactional data leads to an alternative mental space account of hypothesizing which treats factual and counterfactual hypothesizing as the same type of process:

5.4.2 A Mental Space and Interactional Script Account of Hypothesizing:

The interactional cognitive process of hypothesizing can be depicted in terms of the following components:

Interactional script: On the basis of the study above, we can deduce the following prototypical interactional script structure involved in interactional hypothesizing in interaction:

Figure 5.3

$*Hypothesizing*

Participant:	*Components*:	*Details*:
Current speaker:	Questionable	An issue presented as uncertain, unknown, or a matter of onion. Some words and phrases: I think/believe/suspect/etc., what, who, why, how, etc.
PROJECTION: Next relevant activity is an investigative response by recipient, typically initiated by facting		
Recipient:	Factualizing	Facts relating to the thing or event addressed by the questionable are catalogued. Some structures: X BE ADJ/PP/NP, THERE BE NP (PP), etc.
PROJECTION: Next relevant action (turn component) is a hypothesis by recipient		

Recipient:	Hypothesis	A guess which is based on the facts and which resolves the questionable. Some words and phrases: X could/couldn't/would /might/can't; I think, maybe

As we have seen, factualizing sometimes follows the hypothesizing, but still there is a constraint in on factualizing. If a hypothesis is not preceded by factualizing it must be followed by it. Additionally, we have seen how this interactional structure can be used as a resource for structuring a turn, where current speaker produces all three components.

Partially structured integration space: As described above, questionables set up partially structured spaces, calling for a completion of the partial structures. They designate an empty part of a space which is to be mapped. Thus the partially structured space is not considered a meaning structure as such. The focus of the partially structured space is the empty parts. In accordance with the interactional script for hypothesizing, what happens after the questionable in the interaction will be understood as orienting to the empty part. The partially structured space that is set up by the questionable is a space which is going to integrate structures from different sources – what Fauconnier and Turner (2002a) would refer to as the blended space – only nothing has been integrated yet. Hence, the interactional cognitive process of hypothesizing starts with a sparsely structured integration space.

Factual construction spaces: The facting which follows the questionable sets up spaces which are recognized as inputs for the integration/hypothesis/partial space. These spaces are recognized as input spaces because they are set up by a response to a questionable. Factual knowledge which is relevant to the questionable is brought to the fore, but nothing is yet projected to the initial integration/hypothesis/partial space.

Frame construction space: In the case of factual hypothesizing, an input space is set up which contains a "full" structure. This is projected to the integration space to give to the partially structured integration space and the facts projected from the factual inputs a completed, hypothetical structure. In counterfactual hypothesizing, it seems logical to argue, no such framing input is involved. However, this difference between factual and counterfactual hypothesizing cannot be observed to be of any significance in interactional hypothesizing.

Integrated, hypothetical scenario: The hypothesizing brings together the factual inputs – and, in the case of factual hypothesizing, the framing input – to create a hypothetical scenario – and, in the case of factual hypothesizing, a "complete" scenario. 'Pattern completion' (Fauconnier and Turner 2002a) is achieved in the case of factual hypothesizing; and creative, input-violating integration is achieved in the case of counterfactual hypothesizing (but still this is not a difference that participants in interaction can be observed to orient to).

Let us now quickly go through an actual analysis of a case of factual hypothesizing and a case of counterfactual hypothesizing.

5.4.3: A Mental Space and Interactional Script Analysis of Hyp#11 and Hyp#3:

5.4.3.1:

Hyp#11, "What could happen here," presents a case of *factual* hypothesizing:

1BI: ah: but uh when they when they SAY;
2BI: OTHer alternatives;
3BI: ↑WHAT alternatives.
4LL: well i [GUESS he;
5BI: [NObody comes UP with any.
6LL: <<acc> i guess the only al alternative I know of,=
7LL: was to let the SANctions work a little lOnger.>

8BI: WELL,
9BI: tha that's not an alTERnative then; Is it; (.)
10LL: [well its an altErnative to WAR;
11BI: [they they let the sanctions ↑WORK;
12BI: an an an the INterim uh::;
13BI: hussEin was getting ↑STRONGer; wasn't he,

[CUT OUT]

14BI: he was getting strOnger insofar as as the INTERnal <<l>
15BI: support was concerned.>
16LL: what MAY well see that [aGAIN you -
17BI: [yeah;
18LL: w what could HAppen HERE is that the sAme that happened to ←
19LL: gamnul abdul NAsser,= ←
20LL: after uh the uh nineteen seventy three ↑SIX day war, ←
21LL: when Israel CERtainly BEAT him, ←
22LL: and beat him SOUNDly, ←
23LL: and yet he emerged a HEro. (.) ←
24BI: that's POssible i suppose.
(8Gulfwar.ca, ll. 26-38 + 48-58)

A questionable is produced already in lines 1-3. A discussion ensues in which Laporte offers a resolution (ll. 4 +6-7) to the questionable which is in disagreement with BI's solution, and BI uses facting against that resolution (ll. 11-13). However, in response Laporte uses the same facting to produce a new piece of hypothesizing (ll. 16 + 18-23).

The space analysis starts with the initial questionable and then BI's counter-factualizing (see Figure 5.4, appendix 2):

CS1: A questionable space with very sparse structure has been set up by BI already in line 3. The questionable concerns alternatives to war.[29] Though this space has been set up prior to the fragment of talk which is focused on in this analysis, it belongs in the analysis because the process of meaning construction has been initiated with this space and because the purpose of the meaning construction is to complete this space. As it turns out however,

the resolution that is settled on does not just complete this specific space; the process starts out as an attempt to figure out if there are any alternatives to war and ends as a meaning construction which shows why war is *not* an alternative. Hence, at a more abstract level, which is brought to the fore by Laporte later, the general exercise in this fragment of talk thus *becomes* to figure how Hussein may most efficiently be defeated, and not just to consider the specific question of whether there are any alternatives to war. Thus in my "anticipation" (as analyst) of the meaning construction which follows (an anticipation which I have, because as analyst I know what happens later on in the data, but which the co-conversationalists of course do not have at this particular moment of talk!), I have diagrammed a more complex version of a questionable set-up which includes contrastive perspectives on the questionable space and an abstract square-shaped questionable/"How to defeat Hussein"-space. This is filled by different structures as the co-conversationalists go along, depending on which perspective is taken on it. (The dotted lines in the square in CS1 indicate that the structure is not an actual structure set up by anyone, but rather something that emerges as an implied structure which comes to be completed. And the dot-lined arrows indicate the alternative paths in the process of resolving the questionable space). The co-conversationalists share the viewpoint (VPs) that Hussein must be defeated (this is implied by Laporte's going along with discussing alternatives to war), but the co-participants disagree on the means. From BI's point of view (VPbi) it must be done violently, and thus there is no alternative to war; however, from Laporte's point of view (VPl) it must be done peacefully and thus there is in the questionable space an alternative to war (sanctions).

**CS1+t*: Laporte suggests that sanctions help against Hussein (ll. 4, 6-7), and he thus offers a resolution of the questionable space. This was also done prior to the fragment of talk which is in focus in this analysis but it is also involved in the meaning construction described here.

**+t* indicates that this CS1 is later than the CS1 described above.

Base space 1: Where the talk focused on here starts (l. 14ff.), the base space has the following structure: A questionable has been produced by BI (ll. 1-3) and a solution – in disagreement with the preferred answer invited by BI's questionable – has been offered by LL (CS1+t, ll. 4, 6-7)). BI's rhetorical "What alternatives?" (l. 3) clearly suggests that there are no alternatives. An argumentation path has thus been opened where counter-acting can be expected. Furthermore, given the constraint on factualizing, according to the interactional script of hypothesizing, facting by one of the participants should now follow as a cognitively projected action.

Action 1: BI produces facting defending his stance against that of Laporte's (ll. 14-15)

CS 2: In this space, set up by BI's counter-facting action, sanctions make Hussein stronger. Action 1 connects CS2 to CS1 by the relation of disanalogy.

Base space 2: Facting has been provided against Laporte's hypothesis. According to the initiated script of disagreement some action which in turn defends Laporte's stance is expected in response to BI's counterfacting. Furthermore, in accordance with $hypothesizing, hypothesizing, and thereby a conceptual integration, is again a relevant action in response to BI's factualizing.

Action 2: LL proposes a new hypothesis (ll. 16, 18-23).

Hypothesis network: Laporte sets up a space (COST) for Abdul Nasser and the Six Day's War, after which Nasser emerged a hero. Laporte's hypothezing connects this space to the space of BI's counter-facting (CS2) and prompts an integration of them, by which a hypothetical, integrated questionable space (CS1+tt) is created. From the viewpoint VPl this is another resolution of the general "How to defeat Hussein"-space, and this viewpoint finally becomes a shared viewpoint through BI's subsequent acceptance of it (l. 24). In the integrated space, Hussein is a new Abdul Nasser who due to international pressure, in the shape of bombings, emerges a hero. The structure that Hussein benefits from international

pressure comes from CS2, and the structure that a political leader can emerge a hero after loosing a war comes from CS3.

Notice then how Laporte's counter-hypothesis ("what could happen here…", ll. 18-23), employs available resources. The final construction of the integrated, hypothetical scenario, is the end-result of a local processing of the interactional script for hypothesizing and a script for arguing. The latter is brought to the fore by Laporte's producing a dispreferred action in response to BI's questionable (ll. 4, 6-7). In the process, the initial questionable which rhetorically indicated itself to be irresolvable (ll. 1-3) was turned around by using the facts for its defense in hypothesizing against it. The example thus shows that facts are not determinative with respect to what "complete" structures may be composed from them. It shows how human beings' ability to shift the perspective on (e.g.) facts may be used skillfully in argumentation. In chapter 6, I discuss other examples of how a shift of perspective may be used in interaction and how it and the resolution or the problems it may cause involve intricate cognitive structures and processes.

5.4.3.2:

Hyp#3, "What if you give Hussein time," presents as case of *counterfactual* hypothesizing:

1B: but (.) what if you gIve hussEin TI:ME;
2B: a:nd (.) he wOrks (.) on his chemical WEApons and he takes
3B: over jOrdan:,
4B: or (.) Israel or somethin ELSE; (-)
5B: well (.) he's DOing it.
6LL: .hh all we can rely all I could rely on when i say that i
7LL: think this sAnctions should have been given
8LL: TIME given TIME is that uh; .h
9LL: the rePORTS from independent uh (.) sOUrces that uh they
10LL: were WORKing.=
11LL: that hussEin was uh uh:: ecoNOmically in dEEp trOUble -
12LL: was nOt getting any MORE materials and uh; .hh
13LL: frAnkly this is a cOUntry that runs oh:: on one (.) EXPORT
14LL: and one export ONly;=
15LL: OIL;
16LL: an if nobody BUYS it;=

17LL: it CAN'T be very lOng before the country is brought to its ←
18LL: knEEs; .hh ←
(7Gulfwar.ca, ll. 20-37)

B produces the questionable "What if you give Hussein time…" (ll. 1-5), and Laporte offers an investigative reply in the shape of facting followed by hypothesizing (see figure 5.5, appendix 2):

Action 1: B produces a questionable in the format of a question (ll. 1-4).

CS1: A partially structured questionable space is set up, the only structure so far is that Hussein is given time.

Base space 1: A questionable in the format of a question has been produced. The question format projects an answer from Laporte, and the questionable action cognitively projects an investigative reply.

Action 2: Laporte produces factualizing (ll. 6-16)

CS2, 3, and 4: Three construction spaces (at least) are set up by LL's facting: In CS2 the sanctions are working: Hussein gets no "materials" and is in trouble (ll. 9-12). In CS3 Iraq depends on their oil being bought (ll. 13-15); and in CS4 nobody buys Iraq's oil (ll. 16) – this is the conditional structure of the *If-then* construction in progress.

Base space 2: Factualizing has been produced (ll.6 -16), and at the specific point at which I diagram the participants' orientation to the interactional structure here, an *If-then* construction is in the making, of which the first component ("If nobody buys it") has been produced. The first component of the *If-then* construction projects a *then*-component and the facting cognitively projects a hypothesis.

Action 3: Laporte produces a hypothesis in the shape of the second component of an *If-then* construction (ll. 17-18).

Hypothesizing: The second component of the *If-then* construction completes the questionable space with projections from CS2 and CS4 and from a modified CS3. CS2 and CS4 are set up as factual inputs for the integrated hypothetical scenario, which emerges in CS1. CS3 comes to serve as an input which lends to the facts of CS2 and CS4 a causal structure: if the sanctions work, as CS2 says, and if nobody buys the oil, as CS4 says, then, CS3 holds, Iraq will be brought to its knees. This integrated hypothetical scenario of course has the implicit structure that a country depends on trade. This is understood already in CS2. (I have not included in this analysis the metaphorical mapping of physically-being-brought-to-one's-knees-in-a-fight onto a country-being-defeated-financially – this structure is simply taken to be contained in CS3.)

5.5 Summing up the Space Analyses of Hyp#11 and 3 and the Chapter in General: The crucial point that I wish to make, and one of the two central points of this chapter, in connection to the two space analyses above is that though factual hypothesizing and counterfactual hypothesizing are different when comparing the detailed mappings of isolated end-products, they are, when they occur in interaction, identical processes. With respect to the finer structures, mappings and projections, where differences can indeed be found, these are only differences at a non-significant, non-distinctive level in the interactional process of hypothesizing. They are differences which the co-participants do not orient to interactionally. The process starts out with the introduction of a partially structured questionable space which has crucial empty parts, and the process that evolves culminates in the hypothetical completion of the partially structured questionable space through application of facts (and, in the case of factual hypothesizing, template structures).

The other central point that I wish to make in relation to hypothesizing in interaction is the same as the point I made in relation to compression in interaction, which I will make in relation to disintegration in the next chapter, and which indeed, as described in the introduction, is a central point of this dissertation as such: Hypothesizing certainly is a process which involves some sort of conceptual integration. However, as it occurs in

interaction, *it is recognizable as an important and remarkable interactive and cognitive achievement by itself*, which has its own dynamics, and develops in its own way. Crucially, furthermore, hypothesizing in interaction is not distinctive because of its special type of mappings and projections; it is distinctive for its dynamics between a questionable, factualizing and the hypothesis. Such things are not captured by a canonical, isolated, end-product focused blending analysis. Such an analysis captures "only" the final integration, which is only a small and not essential part of the process. Blending theorists may of course claim not to be interested in anything else but the final, isolated result, which would be fully legitimate as a semantics approach in a traditional linguistic vein. However, blending research seeks to go new ways and develop psychologically and cognitively real and responsible accounts of meaning construction. With that in mind, the claim of this dissertation is that it is hard to see how blending theorists could not care.

5.6 Wrapping up Chapter 4 and 5: The Semantics of What?

In chapter 4 and 5, I have presented studies which produce results that differ from the results of a canonical cognitive semantics study of constructions and expressions in isolation. I have done a type of semantics which has emphasized the function of actions in specific contexts, their real work in real situations, rather than the fine-grained mappings taken to be inherent to particular, isolated construction and expression types. My interest is primarily in the meaning that people orient to in real situations. This meaning is significant at a social, interactional level. It is not meaning that may be found by digging – introspectively or through the use of informants – into the deeper layers of each construction/expression in isolation. Thus from the basis of that view on semantics – a semantics of real, interactional, socially shared meaning – we have, in chapter 4 and 5, made the following observations:

- Compression may be achieved by any type of construction or expression. Though there seems to be a preference for using copula constructions to achieve compression, it is primarily the position of an action in an interactional structure and not its particular format that is essential to the cognitive work that is being done. Thus, for instance, in

some cases metaphorical expressions may prompt interactional compression and in other cases they don't.

- Hypothesizing is the same interactional, cognitive process whether participants are dealing with what – from a canonical cognitive semantics viewpoint – is considered factual or counterfactual hypothesizing. In both cases the process of hypothesizing is a process of completing empty parts in partially structured (or empty) mental spaces.

- Finally, a certain grammatical format, the I*f-then* construction, may serve as a format for doing hypothesizing.

The latter observation along with the observation that copula constructions (metaphorical as well as non-metaphorical) may serve to achieve compression, may be very significant for the way in which we consider language structure and meaning. Had it been the case that all cases of compression were achieved by copula constructions and that all cases of hypothesizing were achieved by *if-then* constructions, it might be argued that constructions have inherent properties which determine the interactional meaning construction. However, what we have seen is not that only certain construction types may be used to do certain interactional jobs, only that there is a tendency to using certain construction types to do this kind of interactional work. This suggests that interactional actions have a high degree of independence from linguistic structure and it leaves open the possibility suggested by Schegloff (above) that language structure in fact emerges in adaptation to environments of interaction. If that is the case, then the study of the interactional meaning of constructions is no longer just one way of studying linguistic meaning, but rather a primary way of studying linguistic meaning. Then the interactional processes that I have studied in chapter 4 and 5 may turn out to be more basic than the fine mappings which can be found through careful introspective examination of constructions in isolation. If nothing else, this does at least call for a more comprehensive and serious discussion of what we should aim at capturing in a modern cognitive semantics which strives to be neurologically, psychologically, contextually, and naturalistically responsible,

as most cognitive semanticists and linguists would probably agree. Decades of laboratory studies and studies of individuals' comprehension (whether the analyst's own or that of informants) of various "artifacts" (from language to computer interfaces) has taken us to where we are today and given us such insightful and inspiring approaches as conceptual metaphor theory, blending, cognitive semantics a la Talmy, cognitive grammar a la Langacker, etc. The result of these approaches has made possible excursions such as the one undertaken in the present dissertation. However, from the point of view of the IA, a further development of the study of the mental nature of human beings must include careful considerations of what exactly has been described so far and what has not. What is being captured when introspectively analyzing an individual's interpretation of an utterance in a possible context and what is not captured? How important is the meaning that has been described in comparison to other layers/types of meaning, and how may it be important? To me there is no doubt that e.g. blending theory has captured meaning construction that is experienced at some level as significant and which plays some role, but we need to clarify that level and that role. By aiming at describing a level of meaning which differs from the individual, isolated level of meaning and which incorporates detailed, contextual aspects as a part of the very cognitive work that is being done, I hope to have contributed to the further development of an awareness of this issue. 'Meaning' cannot just be understood in one way, and we cannot just generalize across such parameters as social vs. individual, general vs. local, etc. Finally, I do believe, as has been emphasized earlier and as will be emphasized later again, that the interactional approach – as opposed to e.g. introspective approaches and/or approaches which use informants – has the great advantage that we become able to study meaning construction as it unfolds and as people actually do it, not relying on subjects' intuition or recollection, only on the analyst's analytic skills.

CHAPTER 6

TIGHT CONCEPTUAL STRUCTURE AND DISINTEGRATION
STUDY #4: PINPOINTING AND RESOLVING PROBLEMATIC ASPECTS OF UTTERANCES

6.0

In chapters 3, 4, and 5, I have analyzed and discussed three different cognitive phenomena of online meaning construction in interaction: interactional scripts, compression, and hypothesizing. All three phenomena involve constructive operations on conceptual structure, and in the latter two cases, and sometimes in the former case, it also involves some sort of integration of conceptual structure. Such processes require work, interactional and cognitive work. However, though co-conversationalists constantly explicate sense for each other and consciously negotiate meaning, most of the time the actual cognitive work that goes into constructing interactionally shared meaning goes on unnoticed – consciously but unnoticed. Yet, there are of course cases where the cognitive effort to establish a shared mind on a topic of conversation is brought into the center of attention as an achievement that is explicitly worked on and which causes difficulty. The present chapter presents an interactional study and cognitive evaluation of a collection of a certain type of such cases found in the Watergate data and the San Francisco Bay Area Radio call-in show data. More specifically, the interactional study focuses on cases of talk which feature *a recipient's pinpointing of problematic aspects of an utterance produced in a prior turn and an attempt at resolving or initiating a resolution of these problems*. A problematic utterance may for example be a comparison, a suggestion, or a statement of opinion. Such cases of interaction, I argue in the cognitive evaluation of them, provide evidence of 'tight conceptual structure,' which constitutes both conceptual stability and, in particular situations, an obstacle to online meaning construction. This obstacle however, may be resolved by the constructive operation of 'conceptual disintegration.'

6.1 Tight Structure, Partitioning, Selective Projection, and Conceptual Disintegration:

Mental space theory assumes that people engaged in interaction are able to partition the steady flow of information (in e.g. conversation) effortlessly into discrete mental spaces (Fauconnier 1994: xxxvi-xxxvii), separating for instance past scenarios from present scenarios and reality from representation, fiction, or counterfactuality. Furthermore, blending theory assumes that cognitive agents are able to carry out effortless selective projections during blending, partitioning, as it were, information into input information and blended information (Fauconnier and Turner 2002a: 47-48). The notions of partitioning and selective projection give an impression of processes of meaning construction as smooth operations. Furthermore, in blending theory only the compositional part of the process is profiled. It is assumed that conceptual structures are readily available for selective projection to fit an appropriate integration in the blend. What is focused on is how structures are matched in the blend, not how selective projections are possible in the first place and what problems may arise from the very composition of the input structures themselves.

This chapter holds that crucial aspects of online meaning construction are neglected by the focus on meaning construction processes as smooth operations and by focusing only on the compositional aspects of blending. One of the issues that get to be overlooked is the problems that certain input structures pose in certain contexts, and how such problems must be overcome in order to be able to achieve composition at all. In this chapter, I propose that given certain, local, interactional contexts, particular conceptual structures may pose problems in connection to mental space construction and integration due to the 'tightness' of certain relations in those structures. This tightness makes them inflexible with respect to partitioning and selective projection. Examples of tight relations, I have observed, include close associations, causal relations, and representational relations. Two things or events that are closely associated may be hard to separate and so may causes from effects and representations from the things that are represented. For instance, it may be hard to separate the causal event of reading a note from the effect-state of possessing the knowledge given in the note, and it may be hard to separate a representation from the

things it represents, e.g. violence done to a representation may also to be considered as an assault on the thing that is represented.

Tight structure then seems to be a good candidate for a constraint on meaning construction or a governing principle (see chapter 1) in blending theory: e.g. *Other things being equal, avoid selective projections which partition tight input structure*. However, the reality of interactional meaning construction is not like that. Participants regularly negotiate partitioning of tight conceptual structure during meaning construction, though certainly not always successfully. Yet, this reality of meaning construction tends to be out-biased, so to speak, in blending theory, which typically focuses only on successfully accomplished, efficient products. And this of course supports the general impression that meaning construction is smooth, often effortless and an all-the-way-through-logic process closely guided by principles of optimality. However, this dissertation insists that processes of meaning construction should be studied *as processes* and that data and methodologies should be chosen which allow such studies and which show meaning construction as it actually unfolds in naturally occurring situations. As a consequence of such studies, new facets and processes of meaning construction, which are neglected by the end-product focused approach, emerge.

In this chapter, then, I first present an interactional study of naturally occurring cases, in talk-in-interaction, of the pinpointing of and attempt at resolving problematic inferences following from a prior utterance. On the basis of this empirical, interactional, study, I offer a cognitive description of online meaning construction which involves tight conceptual structure and the attempt to *disintegrate* such structure to resolve problematic inferences or the *refusal* of such disintegration. The notions of 'tight conceptual structure' and 'disintegration,' as defined here, are completely novel in mental space and blending theory, and they are distinctly a product of a *process-focused approach*.

6.2 Interactional Study: Pinpointing and Resolving Problematic Inferences:

6.2.1 The Ideal Case:

As mentioned above, any type of utterance, it seems, may, under the right circumstances, cause problems to the achievement of a shared mind on a topic: a comparison, a proposal, a statement of opinion, a hypothesis, etc. This type of interactional problem, then, does not seem to be related to a particular interactional activity or action type[29], but it seems that certain referents can cause problems when appearing in utterances in particular contexts. In the ideal case, recipient pinpoints the problem in the trouble utterance, which is then subsequently resolved by the speaker of the trouble source, as in the following case:

A retired air force officer, Don, has called Laporte to express his appreciation of the way the Bush (senior) administration is handling the Gulf War, or more specifically the war-so-far, with heavy bombings the night before the call-in show. In the following fragment of talk, Don has just expressed his appreciation, and he is then asked by Laporte if he has ever seen anything like what happened the night before:

6.1

Pin#1:

1LL:	you've SEEN AIr action before;=	
2LL:	have you Ever seen anything like what HAppened tonight -	
3DO:	no.=	
4DO:	i tEll you what i've SEEN uh;	
5DO:	RAIDS In NORTH vietNAM and things like thAt and I don't	
6DO:	believe that uh i've ever heard of anything	
7DO:	CLOSE to this.	
8	(0.4)	
9DO:	uh the only thing MIGHT be close is some of the LARGE	
10DO	BOMBing rAIds on gErmany in world war twO:	
11DO:	and that ' you know and thAt type of situation.	
12LL:	[DRESden DRESden;]	←
13DO:	[but i don't think that pro] probably the number of (2sylls) the	
14DO	number of AIRcraft is Anywhere clOse to that.	
15	(.)	
16LL:	i hOpe we're not gonna do to BAGdad what we did to drEsden.	←
17DO:	I don't think so;=	

18DO: i think that they've DONE it uh:; (.)
19DO: uh as they said SURgically -
20DO: they've gone in there to HIT the TARgets to prevEnt
21DO: cAsualties;=
22DO: and it appEArs that that's ' COME TRUE.
23DO: that they're DOin' that;
24DO: they're trYin' to mInimize the CASualties the u s and to (.)
25DO: irAqi civIlians.
26LL: were you surPRISED at the effectiveness of the technOlogy,
27LL: it MUCH of it unproven,
(10Gulfwar.ca, ll. 97-122)

In the first part of the excerpt (ll. 1-11 + 13-14) Don is brought into doing comparison to find a suitable match for the events the night before. In lines 12 and 16 recipient (Laporte) pinpoints a problem in relation to speaker's (Don's) comparison., and in the second part of the excerpt (ll. 17-27) the problem with the comparison that is settled on (ll. 9-11) is resolved. The excerpt thus has the following overall structure:

Trouble source activity (comparison) → pinpointing of problem by recipient → resolution of problem by speaker of trouble source

Let us look at the details of the structure I have sketched above. In this first and prototypical case, I offer a full analysis of the action leading to the utterance that is treated as problematic and its subsequent resolution. I do this to provide interactional evidence – for the cognitive section – of a beautiful example of an interactional build-up which culminates in a type of integration, which involves tight input structure and disintegration of this tight input structure as it gets integrated. The fragment thus not only shows us problems with tight structure in relation to what may be described as an online integration process, it also shows how a certain type of online integration process may emerge interactionally.

Getting into doing comparison: Don does not by himself get into doing comparison; the comparison activity is an interactional accomplishment which is initiated by Laporte's turn in line 1-2. The turn consists of two major components: a "you've seen air action before" (l.1), which brings to the fore Don's military experiences, and the comparative question "have you ever seen anything like what happened tonight" (l.2). The comparative question is built for a negative response through the elements "ever" and "anything." Thus the combined work of Laporte's turn is to invite a negative answer and an elaborative negative comparison with earlier experience that Don has had in his time in the military.

In his responsive turn, Don first rejects by a simple "no" (l.3) the possibility of finding a suitable match of "tonight," by which his response fits the design of the "ever"-question. Subsequently Don goes into doing negative comparison – signaled by the contrastive "I tell you what I've seen" (l.4) – which in turn gives the elaborative negative comparison prompted by Laporte's "You've seen air action before" (l.1). In accordance with the design of Laporte's question and Don's initial "no," the comparison is not done to demonstrate how the events "tonight" are *like* events that Don has experienced before, but to say that they are *not* like events he has experienced before: Don brings up "raids in North Vietnam and things like that" (l.5), and then rejects to have "ever heard of anything close to" (ll. 6-7) "tonight." (Notice here how Don recycles the terms "ever" and "anything" from Laporte's question thereby matching his conclusion to the initial question in line 2.) In sum, Laporte's question (ll. 1-2) and the first parts of Don's answer (ll. 3-7) match in the following way: a) the bringing to the fore of Don's military experience by the first turn ("you've seen..." and "I tell you what I've seen," l. 1) and b) the first turn's negative comparison question are matched by a negative answer and a negative comparison. The important interactional point is that Don does not get into doing comparison all by himself. On the contrary, it is an interactional achievement.

A significant non-action: The second part of Don's reply is separated from the first part by a long and significant moment of silence (0.4 seconds, l. 8). In most cases, gaps between utterances in a turn are minimal, much shorter than 0.4 seconds. This moment of silence is

a significant non-action which can be ascribed to Laporte. By producing a conclusion which recycles terms from the initial question, Don indicates – syntactically, pragmatically and prosodically – that he has finished his turn. Thus turn transition is relevant (see chapter 2). However, Laporte does not take a turn. This non-action is treated by Don as an indication that his response-so-far is not sufficient, that his conclusion that "tonight" is not categorizable in term of Don's earlier experiences is not satisfactory or enough. This definition of the silence is done through lines 9-11, in which Don, contrary to his first conclusion (ll. 5-7), now *does* suggest a possible match of "tonight" with his "the only thing might be close…" (l.9). The possible match that is brought up is "some of the bombing raids on Germany in World War Two" (ll. 9-10). Thus Don, prompted by the silence and in accordance with turn transition rules (see chapter 2), carries on doing comparison but shifts from 'non-matching' to 'candidate-matching' comparison. Again, the important overall point of the talk in lines 3-11 is that Don does not just bring up Germany as a possible match of "tonight" by himself. This assessment of tonight in the shape of a comparison comes about as a result of interactional work; it is again an interactional accomplishment.

Pinpointing and resolution of problematic inference: Don's comparison is not completed until l. 13. In lines 13-14, Don modifies his comparison to "Germany in World War Two," pointing out that the number of aircraft is different in the two events. (It is unclear to me which situation Don estimates had most aircrafts involved, Iraq or Germany?) However, overlapping with the first part of Don's modification of his comparison ("but I don't think pro," l. 13), Laporte produces what retrospectively can be heard as his first attempt at pinpointing a problem in the comparison.[29] Laporte's treatment in lines 12 and 16 of Don's last comparison reveals a – for the interaction – political danger zone. Laporte does not reject or express complete disagreement with Don's last comparison ("large bombing raids on Germany in World War Two," l. 10), but he has reservations about it, which are expressed by the "I hope we're not…" (l. 16). This type of response to an assessment (here Don' comparison of "tonight" to "Germany in World War Two") is

similar to one of the cases that Pomerantz (1984) discusses in her general study of "agreeing and disagreeing with assessments." In her example first speaker talks about the weather:

6.2:

A: <u>God</u> izn it dreary.
(0.6)
A: [Y'know I don't think
B: [.hh- It's warm <u>though</u>.

Pomerantz (ibid: 63) comments:

> B's second assessment is proffered as a partial disagreement with A's prior complaint. The inclusion of "though" does the work of claiming to agree with the prior while marking, and accompanying, a shift of assessed parameters which partially contrasts with the prior.

Laporte's response has the same kind of partially disagreeing though-quality to it. Laporte does not express disagreement with all of the above. There are no tokens or expressions of complete disagreement in what he says. Yet, he introduces "what we did to Dresden" (l. 16) which pinpoints a certain problematic aspect of Don's comparison of "tonight" to "Germany in World War Two." Furthermore, his pinpointing introduces a shift of "assessed parameters" (as Pomerantz (ibid) calls it) from a focus on the military comprehensiveness of the air attack on Baghdad to a focus on the consequences of it for the city and its people. The problem that Laporte pinpoints has not been expressed directly by Don. He talks about "Germany in World War Two" and Laporte in response talks about "Dresden." Yet, in Don's response to Laporte's partial disagreement the shift of assessed

parameter is explicitly addressed: In his response to Laporte's "…what we did to Dresden…" (l. 16), Don addresses the issue of bombing "surgically" (l. 19) and of attempting "to minimize casualties [to] the US and to Iraqi civilians" (ll. 24-25). He no longer talks about the comprehensiveness of the military activity, as he did in lines 4-11 and 13-14 (e.g. "number of aircraft" (l.14)). Hence, Don's dealing with a shift of assessed parameter establishes Laporte's turn in line 16 as a partial disagreement. Don is not saying "alright, forget about that comparison"; he takes Laporte's pinpointing as a prompt to find a resolution for a problematic aspect of the assessment, which Laporte has made relevant: the loss of lives, which turns out to be severe.

Thus what can be observed here is an apparent causal chain of mentioning particular things, and then recipient's picking out and finding it relevant to deal with particular elements that are presented by recipient as integral to or following from a trouble source utterance. Don talks about bombing raids in Germany. This leads Laporte to talk about the specific case of Dresden, indicating problems in relation hereto, and this finally leads Don to talk about surgical bombings and civilian Iraqi and military US casualties. Laporte shows that particular inferences follow from Don's assessment in lines 9-11, and he also shows that these inferences are problematic. Furthermore, upon Laporte's pinpointing of the problematic aspects of Don's comparison, Don shows that Laporte's use of the place name *Dresden* as the component which pinpoints a problematic inference is enough to pick out a new specific parameter for assessment. Don has entered an interactional, political danger zone where the mentioning of a particular event to a particular end (here "Germany in World War Two" in a comparison) has made a particular shift of parameter relevant, which has a particular unfortunate effect.

Another important thing to observe in anticipation of the mental space analysis which I will do in the next section is that a third and ultimate step is taken along the comparison path by Laporte's pinpointing. To begin with, Don (prompted by Laporte) made a comparison of "tonight" to Vietnam, which he then rejected as non-matching (ll. 4-6). Don was then brought on (by the "action" of silence by Laporte) to make a comparison of "tonight" to Germany, which he suggested was a possible match (ll. 9-11). In line 16,

then, Laporte's shift of parameter settles the categorization of "tonight" in terms of "Germany in World War Two": a prediction of an unfortunate future situation is made on the basis of the assumption that "tonight" *is* a new Germany. Thus what started out as a rejection of a possible match has now become a discussion of unfortunate hypothetical consequences following from a specific match – an interactional accomplishment driven by coordinated interactional actions.

In the last part of Pin#1, Don and Laporte collaborate to resolve the problematic inference and get out of the danger zone again. Laporte's "I hope we're not…"-question (l. 16) has a preferred negative response built into it, and a negative answer is what the interlocutors establish in the following talk. Don treats Laporte's "I hope we're not…" as a prompt to do something about the problematic inference following from the comparison. He does so by accounting for the military strategy that the US said they would employ: surgical bombings that will minimize losses. Don's use of phrases like "I think…" (l. 18) and "it appears" (l. 22) shows that this is not actual facts that he has about the operation; nevertheless these phrases also place Don in a position as an expert who can make such judgments. Don makes the guess that what the US said they would do has in fact "come true" (l. 22), and in his subsequent turn Laporte turns that expert guess into a fact of the events by inquiring if Don was "surprised at the effectiveness of the technology, it much of it unproven" (l. 27). This turn by Laporte (while initiating a new sequence) settles Don's resolution of the problematic inference following from this comparison and closes the fragment that I have picked out as the collection's ideal case of pinpointing and resolution of problematic aspects or inferences. We can capture the central action of the fragment of talk in the following way:

Don makes an assessment in the shape of a comparison (prompted by Laporte) → Laporte pinpoints a problematic inference following from Don's comparison/ assessment in an utterance which shifts assessed parameter → Don's offers a resolution → Laporte settles the resolution offered by Don.

The reason why I treat Pin#1 as an exemplary case is that a resolution is invited in recipient's pinpointing and subsequently given in agreement by the speaker of the trouble source. The recipient points out the problematic inference for the speaker, "saving" his comparison, and the speaker of the trouble source acknowledges the problem and offers a resolution of it in return. In this case then a *resolution in agreement* is achieved interactionally. However, the structure of *trouble source → pinpointing → speaker's treatment of pinpointing* may unfold in very different ways in local contexts. Thus, the rest of this study takes the shape of a sort of typology of this recurrent interactional structure. I discuss five more cases which divide into four types, which all share the generic structure outlined above.

6.2.2 Unqualified Resolution made in Agreement:

The following case is similar to the ideal case discussed above in the following way: a problem is pinpointed by the recipient in connection to a particular suggestion by the speaker. The pinpointing is done in a way which opens for a resolution which can get the suggestion through, and the speaker of the trouble source acknowledges the problem and attempts a resolution. The resolution, however, is unqualified:

6.3

Pin#2:
1Hun: WouldJU BE: uh: wuh willing t*o receive a memorandum from me.
2Col: /.hhhhhhhhhh/ Well the only-=
3%com: /___(1.0)___/
4Col: =Yea:h?hh ↓uh[:
5Hun: [For yer (.) ge[neral informa]tion.
6Col: [e h h h h h h]
7Ps: (0.2)
8Col: eh-↓Yah ix[↑cept-] ←
9Hun: [C'z I] ↑think it might help you:[( )
10Col: [Ixcept there're ←
11Col: ↑thhings you may not want=tell ↓me.hhh[hh ←

12Hun: [nNo, there's really
13Hun: nothing I don't wantuh t*ell you, I would think thet (.) you
14Hun: could receive this memorandum, .hhh read it en destroy ↓it.h
15Col: ºNo I ↓couldn't*.º nhh[h
16Hun: [You couldn' do tha:t.=
17Col: =Nope?=the reas'n I ca:n't./(.hh-.hh hh)/ is the same reas'n
18%com: /____(0.8)___/
19Col: (.) ih-ih yer letter.h=
20Col: =to me?h [uh:](0.3=
21?Hu: [( ) [ )
22%com: [clack
23Col: =0.3).p.hhhhhhh when I gut thet- (0.3) en then I w'z eaast
24Col: (.) by, mkhh Federal authorities:? (.) did I ↓ever ë-had I
25Col: hed 'ny c'mmunication?=I sid ↑yeah I've ↓received this
26Col: lett↑er?=en,hh (.) en here's /(.hh-.hhhh .hh-.hhhh)/
27%com: /_____ (1.1) _____/
28Col: here it ↓i:s.=Yih know I, I can't* ih yih can't (0.2) id-git
29Col: (.) in the puhsition where yer pkhhhhmhhm neh:perjur¯ing.hhm .tch
30Ps: (0.2)
31Hun: No a'course not.=
(Colson&Hunt.ca ll. 91-121)

The general line of the conversation between Colson and Hunt is that Hunt tries to share information with Colson while Colson tries to resist receiving information from Hunt. In this excerpt, Hunt makes the suggestion that Colson receives a memo from him (l. 1). The suggestion is received by Colson with hesitance. His immediate response, which starts of with a long inbreath and which seems to be going towards some sort of reservation, (l. 2) is cut off by a kind of hesitant/thinking-it-over "yeah, uh" (l. 4). Hunt at first reacts to the hesitance by elaborating his proposal (l. 5). This elaboration is followed by a short silence. In line 8, then, a response is initiated which again indicates some reservation, which Hunt in turn responds to by qualifying his proposal by "I think it might help you" (l. 9). Hunt's qualification of his proposal starts off in overlap with the "cept" of Colson's "Yeah except" which Hunt thereby interrupts with the qualification of his proposal. In chapter 2 and 4, we saw that recipients orient to utterances not as "monolithic wholes, or simply as a static string of symbolic components tied together through syntax, but rather as a process that

emerges through time and carries with it an expanding horizon of projective possibilities that are relevant to the actions that recipient might engage in while acting as a hearer to the utterance" (Goodwin and Goodwin 1987: 24-25). In this case, a partially disagreeing reservation (of the same type as Pomerantz' "though" and the "I hope we're not" above) is a possible projection on the basis of the segment "Yeah, ex," and Hunt's response may thus be designed to counter such a reservation. Thus far, then, Colson has displayed hesitance and thinking-it-over in response to Hunt's proposal, which makes likely some sort of reservation from Colson, and Hunt has already started building a case in support of his proposal. However, the explicit pinpointing by Colson of a problematic aspect of Hunt's proposal, which follows as next action (ll. 10-11), expresses both a reservation and an indication of a possibility of getting the proposal through.

Notice here, as in Pin#1, that the pinpointing indicates a preferred/suggested resolution. In Pin#1, Laporte's "I hope we're not…" indicates the preferred/suggested resolution that the US somehow are not going to do to Baghdad what the allied forces did to Dresden, and Colson's "there are things that you may not want to tell me" (ll. 10-11) indicates the preferred/suggested resolution that Hunt can give Colson a censored memo. Thus the pinpointers in Pin#1 and Pin#2 invite a particular resolution from the speaker of the trouble source. In contrast to the speaker of the trouble source in Pin#1, however, Hunt does not give Colson a preferred resolution. The suggested resolution is emphatically rejected by Hunt's "No, there's really nothing I don't want to tell you" (l. 13) with its emphasis on the first syllable of "really" (l. 12) and "nothing" (l. 13). Instead an alternative resolution is then offered: "I would think that you could receive this memorandum, read it and destroy it" (ll. 13-14). This alternative resolution is rejected by Colson and an account is given for the rejection: that Colson would have to commit perjury if he read such a memo (l. 15, 17, 19-20, 23-26, 28-29). Colson thus emphasizes the unavoidable causal relation which will emerge from his reading an uncensored memo – that he will then have unwanted knowledge – and thus overrules the solution of destroying the memo. Perjury is not an option to Colson and hence reading the memo and throwing it away is not an option – he will not pretend not to have the knowledge that he does in fact have. Pin#2 then shows

that if the speaker of the trouble source does not follow the indication that is given in recipient's pinpointing, there is a risk that the trouble source proposal (or what other action is at stake) will be rejected altogether by the participant doing the pinpointing.

Summing up the study-so-far, it can be observed that Pin#1 and Pin#2 are identical in the sense that the pinpointing indicates a preferred resolution and thereby a possibility of getting the assessment or proposal through. The two cases are also identical in so far as the speaker of the trouble source acknowledges the problem. Another parallel is that the pinpointing shifts the perspective of the trouble source. In the discussion of Pin#1, following Pomerantz (1984), I called this shift of perspective a shift of "assessed parameter," but that of course only goes for pinpointing which relates to assessments. It turns out that the shift of an assessed parameter constitutes a special case of shifting perspective. In Pin#2, recipient's pinpointing shifts the perspective from "Hunt's" concern with transferring certain information to "Colson's" concern with avoiding the transfer of certain information. Finally, the two examples differ with respect to the speaker of the trouble source's response to the pinpointing. In Pin#1 a preferred resolution is offered and in Pin#2 an alternative to the preferred resolution is offered.

What has been observed so far is captured in the following list:

- Utterances such as assessments and proposals may be subject to reservations where recipient pinpoints a problematic aspect or inference following from the utterance.
- The pinpointing shifts the perspective of the trouble source.
- The pinpointing may carry in it a preferred/suggested resolution.
- The speaker of the trouble source may acknowledge the problem and offer the preferred resolution or some other resolution.
- If the preferred resolution is not given, the trouble source (the assessment/proposal, etc.) is at risk of being rejected altogether by the recipient.

6.2.3 Withdrawing a Proposal in Agreement with Pinpointing:

In another case the pinpointing does not indicate a preferred resolution, and the trouble source action, a proposal, is rejected altogether: Herbert Kalmbach has been scheduled to give a testimony in front of the Watergate grand jury, and he is calling John Erhlichman to "run through quickly couple of things" (ll. 30-33 in the full transcript) with him. At some point he asks Ehrlichman if he can get to see him just before his testimony:

2.4

Pin#3:
1Kal: [.hhhhh NoÃ:w. Ken I (0.9) kin I git in: dih see you
2Kal: duhmorrow before I go: (.) in there et two?
3Ps: (0.8)
4Ehr: If you wan' to now theh'll aa- ih=eh they'll a:sk you, ←
5Ps: (0.3)
6Kal: Will they?=
7Ehr: =Yup,
8Ps: (0.4)
9Kal: W'l maybe it shi- maybe I shouldn['t* ( )
10Ehr: [They'll ask you: tuh whom
11Ehr: you've (.) spoken about cher testiÃmony,
12Ehr: .p (0.3) .hhhh An:d uh-I would app⌉reciate it if you w'd (.)
13Ehr: say you talk' tuh me. ÃIn California. (0.8=
14?Ka: .Yhheyah
15Ehr: =0.8) Becuz et that ti:me I wiz investigating this
16Ehr: thing for the Pres'dint.=
17Kal: =En: not no:w?
18Ps: (0.3)
19Ehr: uu-Uh:Ã::w:Well, I wouldn:' ask yih dih lie:.
20Kal: No I know
(Ehrlichman&Kalmbach.ca, ll. 322-341)

Kalmbach's proposal (ll. 1-2) is followed by a long silence (0.8, l. 3) which, as in the case of Colson's long inbreath in Pin#2, indicates hesitance on the part of Ehrlichman, since a second pair part by him is projected by Kalmbach's question. A type of negative reply is then given by Ehrlichman (l. 4) which pinpoints the problematic aspect of the proposal that the jury will ask Kalmbach to whom he has spoken about his testimony. In contrast to the

pinpointing in Pin#1 and Pin#2, this pinpointing does not indicate a preferred/suggested resolution. However, the pinpointing does not reject the proposal either. Rather, instead of suggesting a resolution the pinpointing simply does not indicate a possible way through for the proposal, which in turn invites from the speaker of the trouble source a withdrawal of the proposal. Thus while the pinpointing in Pin#1 and Pin#2 suggests a resolution, the pinpointing in Pin#3 encourages a withdrawal. Support for this analysis is found in the talk that follows. In response to Ehrlichman's pinpointing, Kalmbach tentatively suggests a withdrawal of his proposal (l. 9). The job of making it a tentative suggestion is done by "maybe." However, the suggestion immediately receives support from Ehrlichman. First he rephrases his pinpointing, formulating it more explicitly, and then he explicitly presents his preference for another possibility instead of the one proposed by Kalmbach (that instead of having to tell the jury that he has just spoken to Ehrlichman, Kalmbach refers to an earlier conversation between the two in California) (ll. 10-13).

6.2.4 Resolution Offered by Recipient in Disagreement with Speaker of Trouble Source:
The following excerpt is from a call to Laporte on the call-in show. The caller is calling in to express his disgust with the flag burnings that took place at demonstrations in the USA against the Gulf War. Burning the flag the caller states "is a slap in the face of every American." A veritable argument unfolds between Laporte who argues for the right/liberty to protest and burn flags and the caller who will not hear of any rights/ liberties in that regard. The protesters, he insists, should be with Saddam Hussein and burning the flag is not a liberty, even though, as Laporte points out, the supreme court has stated that it is. The two parties then are head-to-head on this issue when the caller produces the statement that initiates the excerpt:

2.6

Pin#5:
1RO: if you don't (.) have respect for your COUNTry; (.)
2RO: and your FLA:G;
3RO: you shouldn't even BE here.

4LL: [well we just i would distInguish between a FLAG and a COUNTry;
5RO: [((hangs up))
6LL: that's uh i think a big DIFFerence.
7LL: flags a piece CLOTH,=
8LL: a cOUntry is (.) twO hundred and fIfty million ↑PEOple;=
9LL: who have the right to disaGREE with one another and; .h
10LL: i think this is ONE night many of us DO disagree.
11LL: DON on the line from san francIsco.
12LL: YOU'RE on the giant sixty eight knb↑R;
(10Gulfwar.ca, ll. 63-75):

RO's statement that "if you don't have respect for your country and your flag, you shouldn't even be here" (ll. 1-3) is taken by Laporte to express the view (stated earlier by RO) that an assault against the flag is an assault against the country. In response to that statement, Laporte pinpoints that he "would distinguish between a flag and a country" (l. 4). This pinpointing very clearly presents an invitation for a withdrawal of the statement or a particular resolution of it which, however, would probably absolve or weaken the statement considerably. (If burning the flag is not an assault then how can the demonstrators be showing disrespect for their country by burning it?) The caller, however, hangs up (l. 5) at the point where Laporte onsets his pinpointing (l. 4). Yet, at this point some sort of disagreement is already anticipated from Laporte since the co-conversationalists are already head-to-head on the topic. Thus the caller's hanging up comes to stand as a clear action of determined unwillingness to find any sort of resolution. Instead, Laporte produces a resolution which shifts the perspective on the flag and the protesters, and which thereby undermines or dissolves RO's statement. A flag is just a piece of cloth and a country is 250 million people, and protesting is disagreeing, which people have a right to (ll. 7-10).

In Pin#5 then, a withdrawal or rather drastic resolution is invited by the pinpointing, and through that the caller's statement comes to appear as a bombastic statement: It asserts, as an objective fact, a perspective (that an assault on a flag is an assault on the country) which cannot be taken for granted, it turns out. Thus in argument situations such as this, a pinpointing may be a place where differences of opinion are

defined rather than a place where a resolution is initiated. In the next fragment of talk, a statement similar to RO's is made, but the whole argument evolves differently and has a different outcome:

2.7

Pin#6:

1M: but I don't understAnd like the bUrning of the FLAG;
2M: uh uh it seems to me <<all> there is a difference between>
3M: anti wAr and anti a↑MErica. =
4LL: I don't think you burn being uh <<all> burning the flAg is
5LL: anti aMErican EIther.>
6M: uh I DO:,
7M: i i i i i look BACK at what what my uh; .h
8M: you know uh my GRA::NDfather DI::D -
9M: you know an an people like ↑THAT or o who- (.)
10M: who the the the FLA:G represents ME and YOU;
11M: it doesn't represent that GOvernment,
12M: it represent rEpresents ↑U:S.
13M: and ↑THOSE people,
14M: are TAKing THA:T, .h
15M: and they're and they're and they're just stEpping All ↑ON it;
16M: that has nOthing to dO with what GEORGE BUSH is doin. .hh
17M: it has to do with ↑U:S. .h
18M: a: a:nd you know Anti:⌈`⌈WA::R, (.)
19M: you know yOU can <<monotonous> go out there and prOtest what
20M: gEOrge bUsh and his>
21M: adminiSTRATion did, .h
22M: but ↑WE:: make up the COUNTry,
23M: and we PROtest,=
24M: and we can ↑CHANGE things.
25M: or we can agREE. .h
26M: but thAt flAg stands for US.
27M: and i think that .h Alienates ↑MORE ↑PEOple; (.)
28M: tha that would be on their ↑SI:DE;
29M: that are like on the middle of the ROAD on this, .h
30M: then that they could ↑EVer gEt,
31M: you know to to ↑GO on their side <<l> by doing those things.>
32M: i think it's ↑CRAzy.
33LL: well i h yeah i have to SAY uh; ←

34LL: pErsonally it doesn't hurt uh offEnd me to see the flag burn ←
35LL: it's just to me a piece of ↑CLOTH. ←
36LL: and our cOUntry is mUch MORE than that piece of cloth.
37M: [what
38LL: [<<all> and one of the things it IS is;> .h
39LL: the the: uh the fact that we CA:N disagrEE on things.
40LL: <<all> .h on the other hand i ↑DO agree with you that it
41LL: dOEs Obviously turn a lOt of people off;> (.)
42LL: a:nd it maybe what we need to do here is uh is
43LL: ↑WIN some supporters to our side;
44LL: nOt ALienate them.
45M: well uh here you're ABsolutely rIght.
46LL: yeah.
(2Gulfwar.ca, ll. 58-103)

M makes a statement (ll. 1-3) which is treated by Laporte as saying that burning the flag is anti-American, which he disagrees with, stating that he does not find burning the flag to be anti-American (ll. 4-5). Laporte's response is a mere rejection of M's statement. M however, defends his position in a long account, explaining how the flag stands for the people and not for the government (ll. 6-26), and then he predicts that burning the flag will only alienate people instead of winning them to the anti-war side (ll. 27-32). What Laporte gets then is a thorough account in response to his disagreement, and in response he produces a pinpointing (ll. 33-39) and offers a resolution which gets the second part of M's account through (ll. 40-44), the part which concerns the alienation of people by flag-burning. Laporte's pinpointing contradicts M's account of a flag which stands for the people, shifting the perspective to Laporte's personal view: Yet, in contrast to Laporte's personal view, he admits the perspective of other people who may be alienated by the flag-burnings and expresses agreement with M on that issue. Thus in one perspective he expresses agreement and in another perspective, he expresses disagreement, but with its position as second concluding part of Laporte's turn (ll. 40-44), it is the former, agreeing perspective which is interactionally consequential and comes to establish agreement between the two interlocutors.

In sum, what Pin#5 and Pin#6 show is that while it is possible for participants to be head-to-head on a proposal which there can be achieved no agreement of, it is also

possible to be head-to-head on a proposal and still achieve agreement and get a resolution through by exerting flexibility of perspective, shifting between possible perspectives. A crucial part of that activity is the action/act of pinpointing.

6.2.5 Projection of Resolution

So far we have looked at different types of pinpointing, some of which invite some sort of resolution of (others a withdrawel of) the trouble source. A central question which I can now attempt to answer is then: does the pinpointing in fact *project* a particular type of response? On the basis of the data, studied here it seems reasonable to propose that this is indeed the case. Consider Pin#3 again:

2.8

Pin#3:
1Kal: [.hhhhh NoÃ:w. Ken I (0.9) kin I git in: dih see you
2Kal: duhmorrow before I go: (.) in there et two?
3Ps: (0.8)
4Ehr: If you wan' to now theh'll aa- ih=eh they'll a:sk you, ←
5Ps: (0.3)
6Kal: Will they?=
7Ehr: =Yup,
8Ps: (0.4)
9Kal: W'l maybe it shi- maybe I shouldn['t* ( )
10Ehr: [They'll ask you: tuh whom
11Ehr: you've (.) spoken about cher testiÃmony,
12Ehr: .p (0.3) .hhhh An:d uh-I would app⌉reciate it if you w'd (.)
13Ehr: say you talk' tuh me. ÃIn California. (0.8=
14?Ka: .Yhheyah
15Ehr: =0.8) Becuz et that ti:me I wiz investigating this
16Ehr: thing for the Pres'dint.=
17Kal: =En: not no:w?
18Ps: (0.3)
19Ehr: uu-Uh:Ã::w:Well, I wouldn:' ask yih dih lie:.
20Kal: No I know
(Ehrlichman&Kalmbach.ca, ll. 322-341)

In Pin#3 a silence of 0.3 seconds (l. 5) follows Ehrlichman's pinpointing in line 4. A turn transition is relevant at this point but Kalmbach does not take a turn a talk right away. However since Ehrlichman does not continue, Kalmbach initiates a question-answer sequence in and through which Ehrlichman`s previous action gets resettled. This sequence is followed by yet another silence which may indicate that Kalmbach expects a specific action to be carried out by Ehrlichman, namely a resolution. Notice that when finally produced in line 10, the resolution is treated as a relevant action even though it follows a turn to which it does not relate. Rather, it is built to relate to the question posed by Kalmbach in line 6 ("Will they") with the items: "(yup) they'll ask you". The relevance of a resolution thus seems so strong that another sequence (an insertion sequence) and a further action (indicating a completion of the whole sequence and thus accepting that a resolution will not be produced) following a pinpointing do not cancel it. Of course the position in which it occurs – upon an action suggesting an ending of the sequence – is probably the last position in which the resolution can occur without the speaker having to do further interactional work to make the action relevant (e.g. with a "by the way...") On the basis of such evidence, I propose that a pinpointing indeed does *project* a resolution Furthermore, as we have seen, the particular resolution that is offered may be a preferred resolution, carried out in accordance with the pinpointing utterance.

6.3 Summary of the Interactional Study:

Actions such as statements of opinion, proposed hypotheses, suggestions, etc. may be subject to reservations or disagreements where recipients pinpoint a problematic aspect or inference following from the action. The pinpointing involves of shift of perspective on the matter being brought forth. The pinpointing may indicate a preferred/suggested resolution, but it may also carry recommendation/preference for a withdrawal of the proposal, which, however, it will leave to the speaker of the trouble source to do. The speaker of the trouble source may acknowledge the problem and resolve it (as in Pin#1) or withdraw the proposal in agreement with recipient. Withdrawal has been seen to take place where no preferred resolution was indicated in the pinpointing (as in Pin#3). Also, if a preferred resolution is

not indicated in the pinpointing, and the speaker of the trouble source offers a resolution of his own (so to speak), the trouble source (the utterance) is at risk of being rejected altogether by the recipient (as in Pin#2). In an argument, the speaker may insist on his proposal (as in Pin#5), in which case the activity of pinpointing comes simply to serve to define the oppositions of opinion instead of resolving or initiating a resolution of them. Yet, even in arguments, agreement can be achieved through flexibility of perspective (as in Pin#6).

6.4 The Cognitive Analysis: *Tight Conceptual Structure and Disintegration*:

The cognitive phenomenon which is involved in cases of pinpointing problematic aspects of utterances, I propose, is tight conceptual structure. Examples of tight relations, I proposed in the beginning of this chapter, include close associations, causal relations, and representational relations. In the five fragments of talk above we have seen five different examples of tight structure: (The symbol ≡ means 'tight connection')

Pin#1: Germany in World War Two ≡ Dresden
Generic structure: Superordinate category ≡ subordinate event

Pin#2: Reading a memo ≡ possessing its information as official knowledge
Generic structure: Cause ≡ Effect

Pin#3: Kalmbach talking to Erlichman before his testimony ≡ the Watergate jury knowing that Kalmbach talked to Ehrlichman
Generic structure: Cause ≡ Effect

Pin#5/Pin#6: The American flag ≡ the American people
Generic structure: Representation ≡ represented

In relation to Pin#1, I presented a detailed interactional discussion which shows how speaker's mentioning of the superordinate category 'Germany in WW2' evokes the tightly connected and representative sub-event 'Dresden.' 'Germany in World War Two' and 'Dresden' are tightly connected conceptual structures, and in the context of comparing Iraq

"tonight" to 'Germany in WW2' in terms of the scale of the bombings it turns out to be a problematic tight connection. The problem, however, is resolved. In the case of Pin#2, the tight causal relation of having read a memo and consequently possessing the information it contains causes problems. According to Hunt's resolution, throwing the memo away means not possessing its information (officially), but to Colson the tight causal structure between reading a memo and possessing its information cannot be resolved. In Pin#3, Ehrlichman's "If you want to now they'll ask you" pinpoints the problem that if Ehrlichman and Kalmbach are going to talk just before Kalmbach is giving his testimony, the jury will know because they will ask. Finally, in Pin#5 and Pin#6 there are, for the callers, tight representative connections between the American flag and the things it is believed to represent: e.g. the people and their history. In these cases, the tight connection is irresolvable to the callers.

For all types of conceptual connections goes that they can be viewed as more or less "symbiotic," that is depending on each other for definition. An analogous structure is defined as analogous because it has a matching counterpart structure; a point in time is defined by being prior to, simultaneous to or, subsequent to another point in time; a changed form is defined as changed because it has had a different constitution, etc. For some connections, however, this symbioticness is particularly outspoken, and that is where we find the *phenomenon of tight connections*, I propose. How tight a connection is seems to be a member's problem, that is it is a matter of negotiation between them. For instance, in Pin#1, the superordinate category 'Germany in WW2' is comprised by sub-events such as 'Dresden,' but this superordinate-subordinate connection is strengthened by the bombing of Dresden being considered an horrific event which must not be repeated. Thus the participants cannot think about bombings of Germany in WW2 without thinking specifically about Dresden. Consider also the cause-effect relation of Pin#2. If Colson reads a memo from Hunt (cause), he simultaneously acquires its information (effect). Thus it is hard to separate Colson's reading of a memo from Hunt from the effect of Colson possessing its information officially. However, in the specific case studied here, it is not just hard but impossible because Colson does not want to commit perjury. In Pin#3, it is

hard to separate Kalmbach's going to see Ehrlichman (cause) from the effect of the jury knowing this when they ask and Kalmbach, under oath, answers. Kalmbach cannot see Ehrlichman without knowing that he has seen Erlichman when he faces the jury, and since he should not lie, the jury will also know that Kalmbach saw Ehrlichman. Thus the fact that Kalmbach must not lie makes the cause-effect relation very tight.

The representation case of the American flag (Pin#5 and 6) may seem less symbiotic. On the one hand there is a piece of cloth with a particular pattern which is used to indicate nationality and on the other hand there is a people and its history, deeds, values, hopes, ideas, memory, etc. There is no necessary (as in the case of the cause-effect relations) connection between these. Yet, to the participants, it seems, the correlation of the use of the flag to indicate nationality and events whose import is historical, emotional, idealistic, moral, etc. makes the connection between the flag and the things it represents, beyond mere nationality, tight.

Based on the interactional analyses above one can set up the following cognitive hypothesis:

Tight Conceptual Structure Hypothesis, Part A:
Cases of pinpointing of problematic aspects of utterances in talk-in-interaction involve the cognitive phenomenon of tight conceptual structure. In most cases, it is such tight structure which facilitates the shift of perspective by which a problem source is pinpointed interactionally.

There is a second part to this hypothesis which concerns the resolution of the problematic inferences:

Tight Conceptual Structure Hypothesis, Part B:
Problems with tight conceptual structure may be resolved by the laborious cognitive process of 'conceptual disintegration.'

To illustrate the two parts of the tight structure hypothesis in the best possible way, I organize the rest of this chapter around a detailed walk through a mental space and blending analysis of Pin#1 based on the interactional analysis above. The analysis will show how tight structure is involved in problematic utterances, how it causes problems in relation to blending and selective projection and how it may be resolved by the process of conceptual disintegration. In addition it shows how a particular type of integration may be brought about interactionally. I discuss Pin#2-Pin#6 in relation to Pin#1 as I go along.

6.4.1 The Dresden Case: an Interactional Mental Space and Blending Analysis:

The problems that emerge from Don's assessment, I believe, are an excellent example of what Fauconnier (1994) calls "backstage cognition." Simple actions produce a wealth of space network activations, and one thing may quickly lead to another, through rapid activations "backstage." In the Dresden case, however, "backstage" cognition is brought onto "center stage" through interactional work. Contrary to the credo in blending theory of fast and smooth meaning construction, something is stumbling and attention is brought to it. In the following, I attempt to describe in cognitive terms the interactionally achieved, intersubjective understanding of pinpointing and resolution as exemplified in the Dresden case.

The problems in Pin#1 arise when the juxtaposition of different mental space structures leads to an integration operation in which certain unfortunate and unwelcome projections follow from other projections. The resolution of these problems requires a cognitive effort that is reflected in the interactional effort of pinpointing problematic aspects of the assessment and resolving them. The cognitive effort is conceptual disintegration on an input structure, which makes very visible the selective projections which take place. Essentially what is done is to *avoid* that certain projections follow "automatically" from others as a result of tight conceptual structure in the input. My description starts with a theoretic-level discussion of conceptual disintegration in relation to selective projection. Then I move on to a technical description of the example at hand.

Selective projection is, as we saw in chapter 2, a constitutive principle of blending (Fauconnier and Turner 2002a) and a prerequisite for the goals and governing principles of blending. If selective projection did not take place, appropriate integration could not be achieved. Nonetheless, this fundamental notion receives very little separate attention in blending theory. Selective projection appears to be dictated as self-given by blending theory. Indeed, most of the time selective projection seems unproblematic and goes on unnoticed. However, in cases such as Pin#1 selective projection becomes very visible because it requires great effort. In the standard sense, *selection* indicates picking out elements from a group where the elements appear either individually or with some degree of integration. In cases where conceptual disintegration is involved, *the selected and projected elements all stem from the same tightly integrated source which, by the selection and projection to the blend, is disintegrated*. In such cases, then, selective projection is brought into the foreground as a discrete feature of the general integration process of online meaning construction.

All problem utterances in Pin#1-Pin#6 involve or lead to some sort of conceptual integration where the tight structure, and, in some cases, the attempt to resolve it by disintegration are brought into the foreground. In Pin#2, for instance, the tight structure 'Reading a memo ≡ possessing as official knowledge its information' causes problems for the proposed plan of getting certain information across to Colson. Furthermore, the attempt to resolve the problem by suggesting that Colson throws away the memo after having read it, whereby the causal relation would officially be disintegrated, is not accepted by Colson. Hence in that context, the structure is treated as non-disintegrationable and thus the particular integrated, future event of Colson reading the memo and not possessing its information officially cannot be achieved as interactionally settled meaning. The condition which makes the disintegration impossible is that Colson will not commit perjury. In Pin#5-6, to take an example which has the quality of a classic blending example, the speakers assume a tight integration between the American flag as a representation and the American people as the represented. However, the recipient does not share that integration and thus cannot follow the statements of opinion − about an assault

on the flag being an assault on the American people − and the emotional impact of these assaults. Here then − contrary to Pin#1-4 − it is not tight conceptual structure that facilitates a shift of perspective but rather its absence: since recipient does not have the same tight conceptual structure he is able to see the flag as just a piece of cloth. Nonetheless, perspective in all the cases studied in this chapter (Pin#1-6) is still governed by tight structure, though in different ways. In Pin#1-4[29], it is tight structure which facilitates recipient's shift of perspective, and in Pin#5-6, tight structure determines the speaker of the trouble source's particular perspective. The ideal case in Pin#1 evolves as follows (see figure 6a-e, appendix 2)

1) The first comparison, ll.4-7 (figure 6a, appendix 2):
Prompted by Laporte's "you've seen air action before" (l.1) and "have you ever…" (l.2), Don juxtaposes military air action against Baghdad ("tonight") and raids in North Vietnam (NV).

Interactional scripts: The interactional study above showed evidence of a particular interactional script for events of pinpointing problems in regard to an utterance. In response to the pinpointing, the speaker is expected to provide some sort of solution to the problems. Given the local design of the pinpointing, the speaker of the trouble source is expected to 1) resolve the problem in accordance with the recipient's preferred/suggested resolution as indicated by the pinpointing or 2) withdraw the proposal altogether if no preferred/suggested resolution is indicated in recipient's pinpointing:

$Pinpointing

Participant:	*Action:*	*Details:*
Trouble source speaker:	Trouble source utterance	Utterance type: opinion, proposal, suggestion, comparison, etc.
Recipient:	Pinpointing	Some terms: I don't hope..., well, the only thing..., I don't think, etc.
PROJECTION: A resolution is projected as next relevant action, preferably is accordance with the pinpointing's "guidelines"		
Trouble source speaker:	Resolution of trouble involving the cognitive process of disintegration, or through withdrawal of trouble source utterance	

Deviation from this script structure may create certain effect. In Pin#6, we saw how the refusal to provide a resolution to a pinpointing action contributes to marking talk as an argument.

The interactional script for pinpointing is central to Pin#1, but there is another prominent script at work too in the build-up of the interaction: the very tight adjacency pair script structure of first and second pair parts in a question-and-answer sequence.

Base space 1, at the completion of Laporte's question (ll. 1-2): The very tight interactional script structure of 'question → answer' projects a reply from Don. The comparative nature of the question makes relevant a comparative reply, and the mentioning of Don's earlier military experience makes relevant and available particular earlier experiences to be mentioned in the comparative reply.

Construction spaces: Two mental spaces are set up: a space for Baghdad "tonight" (CS1) was introduced by Laporte in his initial question (ll. 1-2), and a space for NV and "things like that" (CS2) which is introduced by Don and connected to the Baghdad "tonight" space by Don (l. 5). The two spaces are connected by disanalogy between the assessed parameters that I call 'scale of bombing.' Don then does not himself mention Baghdad, but since his mentioning of NV is in a response to Laporte's question which refers to Baghdad, the interactional cognitive effect is one of juxtaposition of these two. Furthermore, the expression "and things like that" sets up NV as a kind of metonymically structured category (NV stands for other events which are placed in the same category, cf. Lakoff 1987), which by the statements "no, I tell you what I've seen" (ll. 3-4) and "I don't believe that I've ever heard of anything close to this" (ll. 5-6) is contrasted to Baghdad ("tonight").

2) Second comparison, ll. 9-11 (figure 6b, appendix):
Base space 2: Following Don's first negative comparison, there is a silence (0.4) (l. 8) which makes relevant (in accordance with the rules of turn-taking, see chapter 2) a further elaboration by Don in terms of comparison.

Construction spaces: Don comes up with "Germany in World War Two" (l.10). Hence a new mental space (CS3) is set up, and this new space is connected to the Baghdad "tonight" space by an analogy connector. (Notice that the disanalogy to Germany in terms of "number of aircraft" (l.14) has not yet been mentioned by DO at this point.). Again the connection is between the assessed parameters 'scale of bombing.'

(I do not do a cognitive modeling of ll. 11-14. As discussed above Don does not orient to Laporte's turn in l.12, and ll.13-14 merely concern a modification of the network in figure 6b by the addition of some Disanalogy connections between the space for Baghdad tonight and the space for 'Germany in WW2.')

3) Conceptual integration, ll. 16 (figure 6c, appendix 2):

Base space 3: Don has mentioned 'Germany in World War Two' as a possible match of Baghdad "tonight." Due to the tight structure between 'Germany in World War Two' and 'Dresden,' Don's comparison makes available the conceptual structure 'Dresden.' Furthermore, it seems (I shall discuss this further below), the shift from a non-matching comparison to a matching comparison, which in turn brings to the fore a more specific comparison ('Dresden') makes the option of some sort of integration immanent. The build-up towards an integration thus is: non-matching comparison → matching comparison → specific comparison → integration.

Construction spaces: Laporte sets up an integration on the basis of the juxtaposed and analogized Baghdad "tonight" and Germany spaces, but with more structure coming in via the Germany input. The phrase "gonna do to Baghdad what we did to Dresden" (l.16) has this effect of bringing the two spaces together in an integration constructing a future situation which (and this job is done by "I hope we're not…," l.16) is considered unfortunate. The component "what we did to Dresden" (l.16) indicates the "automatic" inclusion in the Germany space of certain elements that have an unfortunate impact on the integration.

Thus the setting up of a Germany in WW2-space (by Don) makes Laporte include 'Dresden.' Apparently, there is so tight integration between 'bombing raids on Germany in WW2' and 'Dresden' that the inclusion of a Germany in WW2-space in an integration process is particularly prone to give rise to certain unwelcome mappings and projections, although the integration concerns a different matter (scale of bombing, not unfortunate outcome). Thus, as I argued above, it is this tight integration which, at the cognitive level, makes potent the possibility of a shift of assessed parameters (perspective).

Disintegration, ll. 17-25 (figure 6d-e):

Base space 4: Laporte has pinpointed a problematic aspect of Don's comparison. That is, in mental space terms he has set up an integration driven by tight structure which predicts an unfortunate outcome of the campaign against Iraq. He has not however mentioned explicitly just what was unfortunate about the WW2 allied campaign against Dresden. Yet, Laporte's mentioning of Dresden has made available further conceptual structure in relation to Dresden, as a result of tight structure. According to the interactional script of pinpointing, which we saw interactional evidence of above, Laporte's turn makes projects a resolution by Don.

*Construction space*s: Don elaborates the structure of what has become Input 2 (Baghdad "tonight") of an integration network and thereby establishes an integration network in which the unfortunate projections are *inhibited*. The tightly connected, further conceptual structure which Laporte's mentioning of Dresden has brought to the fore is "casualties" (l. 21). To avoid the inference of heavy casualties, Don inserts a specific intention in input 2, an intention of "surgical bombings," and makes the assumption that this intention has been realized to a desired outcome: minimizing casualties (ll. 22-25). Additional structure is thus added to the Baghdad "tonight" space (figure 6d), and this structure is presented as incompatible with the parallel structure in input 1. (The implied historical knowledge evidently is that in the famous case of Dresden the allied intention was to cause as much destruction of the German army's homeland as possible, with no concern for civilian casualties. The outcome was indeed devastating.) Hence, by setting up new structure in the Baghdad "tonight" input, Don sets up barriers against unwelcome automatic projections following from tight integration between certain elements in the general frame for Germany during WW2. The barriers work in the following way: The incompatible, parallel structures ('scale of bombing') are the current assessed parameter (perspective). Since it is the Baghdad "tonight" space that is being assessed, what is established as knowledge of Baghdad "tonight" holds primacy over what follows from integrating Baghdad "tonight" with Germany during WW2. Notice that this is not just a question of negotiating possible selective projections. The interactional analysis showed that both Laporte and Don orient to the unfortunate projections as a very potent problem in relation to using Germany as a source for conceptualizing Baghdad "tonight."

As a result, a new integration (figure 6e) of the Baghdad "tonight" space and the Germany in WW2 space is in operation. New structure from the Baghdad "tonight" input yields a different outcome of the bombings: Baghdad is under bombings that are as massive as those in Dresden[29], but they are carried out with surgical precision, which minimizes casualties. (Notice that Don does not reject the integration altogether. Remember that the interactional analysis showed that Don only responded to one pinpointed aspect of the established future prediction, not the whole thing. The new integration is the accomplishment on the interactional/shared level.)

From the point of view of the IA, this analysis has shown us how an integration and disintegration process in interaction may be initiated, driven and negotiated via interactional actions, and that the end-result is a product of interactional work. This makes it possible for us to base a process description of integration and disintegration on interactional analysis. We can challenge the analysis and ask if integration is at all in the picture? A question could thus be: Are we not just looking at some kind of comparison all the way through? This, however, is a place where CA shows its advantages. I have shown by interactional analysis that there is an interactional progression from contrastive comparison to possibly matching comparison, to more specific comparison ("Dresden, Dresden", l.12), to the formulation of an undesired hypothetical outcome. These things are not just the same, there is an interactional development. Laporte's formulating a hypothesis is a treatment of Don's comparison. Simply calling it all comparison would be to neglect the detailed insights of the interactional analysis. Laporte's hypothesis ("I hope we're not...," l. 16) involves predicting (on the basis of the preceding comparison) an outcome which cannot be known at the time at which it is uttered and which is copied from a different event (Germany in WW2). Thus it makes good sense to distinguish this from Don's comparison and argue that an integration process takes place. The fragment of talk may then show us a general feature of yet another type of integration process. We have seen that the action of comparison (juxtaposition of conceptual structures) with increasing degrees of matching and specification (Germany → Dresden) can be a resource for integration, on a par with the other types of integration-producing interactional structures that we have seen in connection to compression and hypothesizing. This raises the question if doing comparison in interaction (and perhaps outside interaction too) is always a potent resource for doing a certain type of integration?

6.5 Tight Structure and Disintegration: *an Obstacle and a Constructive Process*:

Tight structure brings stability to concepts, I propose. Certain things just go together, and that means that you cannot just do anything to concepts during meaning construction. Certain elements seem to obstruct individual treatment of them because they are tightly connected to other elements, which follow automatically. Tight structure is thus both a backbone of cognitive processing and a constraint on it. In the study of Pin#1-Pin#6, we have seen how interlocutors orient to tight conceptual structures in relation to integrated conceptual structures (imagined future or past events, representations, etc.). In some of these cases, the tight structure prohibited conceptual integration or it prevented participants from viewing a matter from a different perspective (as in the cases with the burning of the flag, Pin#5-6). However, we have also seen (in Pin#1 and 2) how a disintegration of such tight structure, in order to achieve some conceptual integration, may be attempted and/or carried through successfully. What these examples show then is that online meaning construction is far from always just smooth and efficient, and they also show that avoidance of violation of conceptual structure is not always a sovereign governing principle. Tight structure may constrain meaning

construction, but cognitive agents do not necessarily stop at it; their cognitive resources are powerful enough to overcome it, but it takes extra work.

This aspect of meaning construction has been completely overlooked in blending theory, probably because of its end-product focus. It is only by studying actual processes of meaning construction that such phenomena truly become visible. The end-product may give a false impression of the work that went into it. An end-product analysis of the Dresden case (Pin#1) which focuses on the proposal that Baghdad "tonight" is a new Dresden except for the heavy casualties is likely to miss the true impact of the cognitive work signaled by "except"; it would just focus on "except" as a guideline for what selective projections were to be made in order the construct that scenario.

Disintegration has a negative ring to it, and the term is indeed most often used in a negative sense in blending theory – typically to denote lack of coherence in a blend (Fauconnier and Turner 2002a). Yet, as we have seen above, the disintegration of conceptual structure can be a constructive process by which other integration or alternative perspectives is achieved. Furthermore, given that it works on backbone structures in the conceptual system, the ability to disintegrate testifies to the power of human cognition. The present dissertation is only concerned with interactional cognition, but I would hypothesize that tight structure and disintegration play a role in meaning construction in many other domains too. Examples of that were discussed in Hougaard (2002). Such examples will of course have to be studied using different methods, which is not within the scope of the present dissertation.

I believe there is a wealth of examples in the existing blending literature that involves disintegration or problems with or exploitation of tight input structure. However it would be too much of a diversion from the scope and method of the present dissertation to get into that. Instead, summing up the present study yields the following general points in regard to tight structure and disintegration:

- Disintegration takes place in relation to integration of conceptual structure.
- It works on tightly integrated input structure, which constitute a source of stability in concepts.
- It requires great effort.
- It enables the cognizer(s) to manipulate parts of a conceptual structure independently of other tightly integrated parts.[29]

The Neurological Implementation of Tight Conceptual Structure and Disintegration

As a final point in this section, I will make some suggestions about the neurocognitive implementation of tight structure and disintegration. What, at a neurocognitive level of description, constitutes tight structure and disintegration? Grady (2000: 340) hypothesizes that a neural basis for selective projection may be the neurological notion of *inhibition*: "while some elements of a cognitive representation (corresponding to an

input space) are activated, others are inhibited, possibly because they represent elements that clash in some sense with other, more strongly activated features that are imported to the blend." Yet, the firing of one neuron may not only inhibit the likelihood that another neuron with which it shares a synapse will subsequently fire; firing of one neuron may also increase the likelihood that another neuron will fire, if the connection is *excitatory*. Thus, if inhibition is the neural basis of effortless or successful selective projection, then *excitatory* connections may the neural basis of meaning construction that involves disintegration.

In neural network terms then, what happens in the example above, is that neurons which represent 'bombings in Germany during WW2' are connected by excitatory connections to neurons which represent 'the bombing of Dresden' which again are connected by excitatory connections to neurons which represent 'heavy civilian casualties.' What then happens when partitioning selection is carried out? Above we have seen that the modification of the topic input (Baghdad "tonight") sets up barriers against certain projections. This, then, might correspond to Grady's inhibitory connections. In the neural network there are also connections between 'heavy civilian casualties'/'the bombing of Dresden' and 'surgical bombings', but these connections are inhibitory. Thus when neurons that represent 'surgical bombings' are activated, the activation of 'heavy civilian casualties' is inhibited. At this neurocognitive level of description, blending theory meets with other ways of doing psychological representation, e.g. connectionist modeling (cf. McLeod *et al* 1998).

CHAPTER 7

TOWARDS AN INTERACTIONAL COGNITIVE SEMANTICS: SUMMARY, CONCLUSIONS, AND FURTHER PROSPECTS AND TOPICS

7.0

The goal of this dissertation is to introduce an interactional approach into the field of cognitive semantics. I have argued for the need to and benefit of taking on such a socially oriented, strictly empirical, process- and locally focused approach and I have attempted to

carry it out in four case studies. In this final chapter of the dissertation, I briefly some up the major points of the dissertation, its background/philosophical discussions and the four studies. This summary leads me to consider the status of the IA as such and to look at further prospects and topics of the IA.

7.1

In this section, I recapitulate the major goals, claims, and results of the dissertation. Furthermore, I briefly discuss how the four studies have pursued those goals in accordance with the IA sentiment and background. I focus on the cognitive results and not the interactional ones. The interactional results have mainly been a means to achieve the cognitive insights which constitute the main results of this dissertation. First, however, I restate the IA's philosophical basis and methodological stance.

7.1.1 A Cognitive Semantics Grounded in Ethnomethodology:

The object of the IA is conversation. The IA, I discussed in chapter 2, is grounded in a social phenomenology as developed by Schutz (1962 & 1964) and carried on by Garfinkel's ethnomethodology (1963) and it employs the strict method of CA. According to the ethnomethodological view which provides a philosophical basis for the empirical method of CA, interlocutors assume a shared world, which can be broken into a number of "assumptions" of everyday life. An example of this was "congruency of relevances," the definition of which I repeat here:

> The person [who] expects, expects that the other person does the same, and expects that as he expects it of the other the other expects the like of him that the differences in their perspectives that originate in their particular individual biographies are irrelevant for the purposes at hand of each and that both have selected and interpreted the actually and potentially common objects in an 'empirically identical' manner that is sufficient for the purposes at hand. (Garfinkel, 1963: 220)

In a phrase, assumptions of this type amount to what is called *meaning for all practical purposes*. The IA then focuses on meaning as a socially defined and shared phenomenon and on the individual sense-maker as "engendered and constituted by the world around in the first instance," to re-quote Schegloff (2000: 39).

Additionally, this dissertation's employment of CA as its methodological apparatus, leads it to emphasize, in contrast to mainstream cognitive semantics, that recordings and transcriptions of naturally occurring talk-in-interaction and *only* recordings and transcriptions of naturally occurring talk-in-interaction count as scientific data. Neither self-made examples, recollected examples, nor experimental data counts

when it comes to figuring out how people actually construct meaning, spontaneously, in their natural environments. This, however, I should emphasize at this point, does not mean that the IA does not acknowledge the results of other types of cognitive approaches which study other types of data. The methodological requirements laid out in the present dissertation, specifically concern the online construction of meaning in relation to utterances/actions in interaction. According to the IA, an utterance only has a genuinely empirical meaning in a particular position in a particular, naturally occurring piece of conversation. Furthermore, in accordance with the ethnomethodological, philosophical basis of this dissertation, the meaning which is under scrutiny at such a point is that meaning which the interlocutors experience as shared and interactionally relevant.

The IA with its grounding in ethnomethodology constitutes a non-canonical, cognitive semantics approach. The very characteristics of this approach, as summed up in this chapter, are intended as the contribution of the present dissertation, as I have pointed out in the introduction and chapters 1 and 2. It may, I have acknowledged, seem to be an approach that is incompatible with the canonical, predominantly individual-focused cognitive semantics approach. However, bringing in views and analytic concepts presented in Brandt (MS) and Brandt & Brandt (2002) (cf. chapter 1 and 2), I have argued that a basis for the IA as a cognitive semantics approach is provided for by the argument that a genuine cognitive semantics is one that aims at a "full scale" study of the phenomena in question, which includes "discussions of the real structural and functional grounding of cognitive and affective productions in the architecture of the socially committed human mind and of its pragmatic and semiotic dispositions" (Brandt, MS). Such a genuine "cognitive" approach finds a strong expression in a "genuinely" empirical approach grounded in ethnomethodology. Hence, the broader and more ambitious goal of this dissertation has been to contribute to or initiate the establishment of a *cognitive semantics grounded in ethnomethodology*, or simply an *interactional cognitive semantics*, which may, in the long run, be a more suitable label, for the IA.

7.1.2 Positioning the IA

In the introduction I positioned the IA in relation to three scientific divides which were claimed to be of relevance to canonical cognitive semantics. Here I briefly recapitulate the IA's positioning in relation to those scientific divides, while restating that the six poles are not actually believed to fully cover any particular approach but rather to be a sort of ideal types which overlap to a greater or lesser extent with actual approaches.

a) Localism vs. Generalism:

Cognitive semantics, I argued in the introduction, is a discipline of "powerful" generalizations. There seems to be a general zest for spotting *the* general principle meaning construction (metaphor, blending, force

dynamics, etc.) – the "all-embracing formalism", as Schank and Abelson (1977: 3) would probably call it – or for coming up with the *silver bullet* theory, the theory that ties up everything, from the emergence and evolution of language to ontogenetic development to everyday creativity. Critics may say that this is in part due to a bad influence from computer science, math, and earlier formalistic approaches. Defenders may say that this is simply what science does and should do: develop theories that give us "global insight," that is science understood as a Great Story or Telling about Man and the World.

. Thus, as I have described, cognitive semantics and linguistics seek to describe cognitive operations and principles which not only apply to language understanding, but to understanding and cognition in general. They seek a very broad kind of generalizations, and to Fauconnier (1999: 97-98), we have seen, "the most powerful ones are those which transcend specific cognitive domains." Blending, I have argued is an example of that; it generalizes across cognitive domains and across very different activities. In its canonical version, I have argued, it constitutes a *general hierarchical process view*.

While acknowledging, and indeed being heavily indebted to the canonical insights of blending theory, I have emphasized the need to take blending theory and cognitive semantics in general in a different, "complementary" direction: one that emphasizes the specifics of local phenomena in particular domains and one that emphasizes the need to dwell by and integrate local contextual circumstances and only to generalize in so far as such local features and contextual circumstances allow it or can be a part of the generalization. The local contents must never drown in generalized form. The prize we are at risk of paying by adopting the generalist approach is that we lose contact with the concrete, empirical examples that we are, or ought to be studying. We simply risk loosing the actual, real phenomenon as it unfolds spontaneously. This, in my view, is an important caveat and a crucial point to address in the effort to establish a genuinely "cognitive" semantics, to borrow the phrasing from Brandt (MS), quoted in chapter 2.

An important point following from the local focus of the IA, which I have mentioned a couple of times (in the introduction and in chapter 4), is the one raised by Gibbs (2000), that blending theory is in need of specific, precise hypotheses which isolate aspects of the general, hierarchical process for testing. What I hope to have shown in this dissertation is that the IA generates such local hypotheses concerning specific cognitive processes that are empirically testable.

b) Social vs. Individual:

The IA is a fundamentally *social* approach to meaning construction, and as such it takes issue with the canonical focus on the individual in cognitive semantics and with the history of cognitive, psychological, or simply "minded" approaches in general.

Cognitive semantics attempts to distinguish itself from the focus on the disembodied, decontextualized individual in earlier cognitive approaches. However, despite their *programmatic intentions*,

I have argued, these theories are in fact themselves typically based on and typically focus on meaning as experienced, constructed or developed in or by individuals. To re-quote Schegloff (2003: 37-39) (from the introduction) cognitive semantics still "takes the single, 'minded,' embodied individual person as the basic, enduring, integrally-organized reality to be studied," Analyses are often based on the analyst's own introspection or intuitions. Furthermore, a common view which finds a strong expression in Johnson and Lakoff's founding works (1980, 1999; Johnson 1987; Lakoff 1987) is that what we think and what we *can* think can be traced back to the structures of individual bodily experience of the world. Blending theory is no different in that respect. Often the social, historical and contextual grounding of meaning construction is dealt with or touched on only in haphazard ways.

A further point which I borrowed from Schegloff (2003: 38-39) in that connection was that the focus in cognitive semantics on the individual mind is carried further to a focus on isolated sentences, or single, isolated actions "as the target of study and the fundamental locus of reality." This point of course overlaps with the localism vs. generalism issue. Possible contexts are indeed typically considered by the analyst, for which the meaning of analyzed actions and constructions vary. However, in most cases, the description of a contextually relevant meaning is rather a preparation for the analysis proper of mappings and projections. It is not a part of the actual description of the way in which the context determines the meaning of the action or construction, whereby it is treated as an integral part of the meaning construction.

In contrast hereto the four studies in this dissertation have focused on meaning as constructed jointly by interlocutors in particular situations of talk-in-interaction, and it has focused on utterances/actions as actions-in-a-context, and not as self-contained units. Consequently, I hope to have demonstrated in this dissertation that, as Schegloff (op. cit.) has put it, "If one is committed to understanding actual actions (by which I mean ones which actually occurred in real time), it is virtually impossible to detach them from their context for isolated analysis with a straight face. And once called to attention, it is difficult to understand their source as being an 'intention' rather than in the immediately preceding course of action to which the act being examined is a response and to which it is built to address itself."

As I pointed out in this connection, the approach presented in this dissertation may be taken in essence to be a pragmatics approach with its focus on utterance meaning, contrary to isolated sentence meaning. To that I answered that cognitive semantics already covers many topics which may be considered pragmatic. Furthermore, one might also boldly turn such an "objection" around and say that any empirical pragmatic approach must in fact depend on the methodology of the IA.

c) Process vs. Product:

The last scientific divide which this dissertation has positioned itself in relation to is that between approaches which specifically focus on processes of meaning construction *as processes* and those which study the products of such processes and make assumptions about the causal processes from their products. The

dissertation has placed itself firmly in the former category.

Referring again to Gibbs (2000), I have argued for the need to take blending theory and cognitive semantics as such beyond *post hoc* analyses, to develop process-focused analyses that are can stand against more critical psychological evaluation as well, and to avoid the pitfalls involved in making assumptions about what caused a product on the basis of the product alone. Along with Coulson and Oakley (2000: 192) I have acknowledged the role of *post hoc* approaches in developing theories of online meaning construction, but with the IA I have attempted to contribute to that empirical work which must follow in order to develop the *post hoc* insights. Hence the IA studies online meaning construction as an "onstage" phenomenon as it unfolds, "visibly" between interlocutors. Naturally this means that only one level of cognitive processing is of interest to the IA, as already stated, namely the *interactional* level, the level at which interactionally relevant meaning is experienced. This, of course, also means that the IA does not make any claims about other levels of cognitive processing, which may be active simultaneously but which the interlocutors do not orient to in their interaction. Now let us consider in specific terms how the concrete studies have contributed to, demonstrated and filled out the philosophical framework of the IA.

7.1.3 The Phenomena

In this section I shall sum up the result of the studies in chapterwise chronology.

7.1.3.1 Chapter 3: Base spaces and Interactional Scripts

Chapter 3 constituted an attempt at a technical realization of a cognitive semantics grounded in ethomethodology. Modelwise this was done by elaborating the canonical space network representation mode with the inclusion of a base space, inspired by the work of Brandt and Brandt (2002), and the notion of an interactional script. The latter was seen as a central organizing principle of the base space, and hence as the cognitive principle underlying the sequential/action-by-action construction of meaning in interaction. The latter notion built on the work of precursors Schank and Abelson (1977), but departed from their text-oriented and rather inflexible ideas on a number of crucial points:

Base spaces: The notion of a base space has been developed and presented by Per Aage Brandt in countless talks, working notes, informal discussions, mailing list debates and in a more formal fashion in e.g. Brandt and Brandt (2002). The base space is a new type of "reality" space – albeit still a *mental space* – which represents the cognitive agents' conception of the very situation of the cognitive activity, which then becomes an integral part of that cognitive activity. With the base space, the cognitive activity is not only situationally grounded, the most concrete and immediate reality itself acquires a cognitive constitution on a par with those freaks of meaning – counterfactuals, ghosts, talking donkeys, missing chairs, etc – which blending theory in

particular has been bound to (see the summary of Brandt's argument in chapter 2). The base space has been applied in this dissertation in an interactional manifestation, as representing interlocutors' conceptualization of each interactionally relevant here-and-now of the unfolding interaction. More specifically, the base space is organized in terms of what is understood to specifically happen at each moment against the generic structure of an interactional script.

Interactional scripts: My introduction of interactional scripts has been based on an empirical study of openings of phone calls to host Leo Laporte's call-in show on the San Francisco Bay Area Radio. My observations of recurrent, normative structures in those openings, supported by the massive work on the openings of private American phone calls by Schegloff (1979), determined my discussion of Schank and Abelson's work on scripts. This gave rise to a definition of interactional scripts, which can be summed up as follows:

An interactional script is the interlocutors' shared conceptualization of recurrent, more or less fixed co-occurring actions of talk organized in sequences.

And here follows an abbreviated list of points which characterize interactional scripts:

1) They are processed at a level between, on the one hand, 1977-scripts and frames and, on the other hand, image schematic structure. Interactional scripts may be a part of larger knowledge structures, such as frames, and they are themselves, I have proposed, structured in terms of image schematic structure – e.g. *interactional exchange sequencing schemas*.

2) Interactional scripts are normative structures whose parts can be scaled with regard to their obligatoriness and fixity. Some parts are more obligatory than others, and some actions – whether very obligatory or less obligatory – are more fixed with respect to their execution than others, for instance with respect to their exact wording.

3) Interactional scripts represent the interlocutors' conception of the immediate, relevant, local context on the basis of which actions are interpreted and executed. They do not include all issues addressed to understanding, e.g. "deep" personal scripts, general, historical, cultural context. The latter are only included in so far as they are made relevant by the interlocutors here-and-now.

4) Interactional scripts do not make assumptions about actions which are being "filled in" since interlocutors

do not ordinarily do that. However, interlocutors can often be observed to orient to actions that are missing, e.g. a second to a first – a second greeting to a first greeting or a decision to a story packing utterance – may be noticeably absent.

5) Interactional scripts are narrow event structures composed of generic cognitive structures of interaction (sequence organization) in combination with local (non-generic) sequences, such as QUESTIONABLE → INVESTIGATIVE REPLY. These are in turn paired with actual events of interaction. An interactional script may consist of several actions organized in sequences, or it may consist of just one sequence. Each action in a script either projects or encapsulates a following action. Cognitive projection of a next action is at work in the case of conditional relevance (adjacency pairs) and encapsulation is at work where a following action or actions are relevant but not noticeably absent and socially sanctionable if not produced. When an interactional script is being processed, any next action will always be understood in terms of how it relates to the "running" interactional script.

6) Interactional scripts are interactional, not textual. Hence many "textual" problems which play a role in much linguistics and cognitive semantics seem rather exaggerated, superficial and/or speculative when related to empirical interactional script theory.

7) Interactional scripts should be thought of as being recreated, stepwise on every occasion of their manifestation. Interactional scripts do not lay out a fixed overview of all steps to come at the beginning of some recognizable structure of interaction. Each step is recognizable as a relevant next only upon the production/completion of previous actions.

8) Finally, descriptions of concrete instances of interactional scripts are based solely on empirical evidence in the shape of naturally occurring talk-in-interaction. In this dissertation, we have seen four instances of interactional scripts: openings of calls to the Laporte call-in show, story packing utterances, hypothesizing, and pinpointing and resolution of problematic inferences.

7.1.3.2 Chapter 4: Compression

Based on a study of eleven occurrences of story packing utterances, I aimed at studying empirically how compression in fact appears as a relevant *cognitive* process for the interlocutors. The following issues were addressed: 1) What is compression in fact? 2) Compression as a specific phenomenon by itself. 3) The elements of the cognitive process in technical terms. 4) How many spaces do people keep active at the same time during compression? 5) Compression and construction types. 6) What is achieved cognitively by

compression.

My treatment of and standpoint in relation to those cognitive issues is summarized in the following:

1) A realistic notion of compression is the one which has that a large amount of information may be handled by capturing it in a comparably simpler expression, which sums up and construes the details in a particular fashion.

2) Compression is oriented to in interaction as a specific type of process by itself. It involves integration and often a particular construal of the information that is compressed,
but it is the very achievement of compression which is in focus.

3) The technical components of the process of interactional were depicted as: a) an interactional script for respectively "current speaker story packing" and "next speaker story packing"; b) a story network of mental spaces; c) integration, construal and compression of the story network of mental spaces.

4) The interactional study showed that interlocutors may explicitly signal, through "anchor terms" or through the structure of their turn, how much of the previous talk is included in the compression. Hence through the empirical study of cases of story packing utterances, it may be possible to learn something about how many spaces cognitive agents do in fact keep active for work at the same time. My empirically qualified guess was 8-15.

5) An important point with respect to the chapter and the dissertation as a whole was that the achievement of compression is caused by interactional positioning. It is not ascribable to context-free features of certain construction or expression types. Both interlocutors recognize the particular position as such a position at which compression can take place, and both may carry it out. The subsequent decision component demonstrates their understanding of the utterance as having performed summing up, i.e. compression, in cognitive terms. Construction type does not matter in that regard. although a tendency to using copula constructions could be traced.

6) Heritage and Watson (1979: 150), I reported in accordance with my own findings, argue that formulaic expressions "demonstrate understandings of the *cumulative* import of a previous string of utterances." They also suggest that formulaic expressions are efficient topic ending actions and that they are economical because they may serve double duties (ibid: 151, 157). In addition to that I proposed in quite general terms that compression is both a vital but also sometimes problematic cognitive capacity. As Fauconnier and

Turner (2002a) have observed, it allows us to acquire a global perspective on things by which we avoid being enslaved by details. At the same time, though, the tendency to conclude detailing by compression is prone to pitfalls when details get lost in the process.

7.1.3.3 Chapter 5: Hypothesizing

The third type of phenomenon which I looked at was hypothesizing. The study departed from the popular/canonical notion of hypothesizing as a kind of advanced thought process to demonstrate in an interactional study that it is also an ordinary activity unfolding between ordinary people. In the interactional study, the activity of hypothesizing was found to be composed of a dynamic triadic structure: 1) a questionable, which is understood to address an issue as uncertain, unknown, a matter of belief. The questionable projects an investigative reply consisting of 2) factualizing which relates to the questionable and 3) a hypothesis which is based on the factualizing. The cognitive study which I carried out on the basis of the interactional study addressed the following issues:

1) *Factual hypothesizing vs. counterfactual hypothesizing*: For present purposes I made a distinction between these two types of hypothesizing to demonstrate the point that an end-product-focused and isolated, utterance-focused approach may over-emphasize the significance of network structures which are found introspectively. In canonical blending terms, it was shown, the two types of hypothesizing are quite different types. Yet, in the interactional data we saw these two types of hypothesizing being oriented to as the same type of process, where a questionable initiates an investigative reply which resolves the questionable, whether counterfactual or not. The central question which this observation gave rise to was whether it makes sense to distinguish between two types of mental processes for what is oriented to as the same activity? The question relates directly to the precaution formulated by Gibbs (2000: 351) that researchers must distinguish between "how language is processed and the meanings that are produced once language has been understood." Hence there is no denying that interlocutors may reflect on the hypotheses having been constructed and find that they have different qualities with respect to their being factual or counterfactual. However, such differences of conceptual composition was not interactionally significant in the very process whereby these hypotheses were constructed. Instead of a dynamics of contradicting or matching conceptual structure, the interactional study indicated that the dynamics between the partially structured spaces of questionables and the pattern completion by the investigative reply was significant to the process. Factual and counterfactual hypothesizing had that in common as their central feature.

2) *Hypothesizing as a distinct, online meaning construction process*: In line with the general argument of the dissertation, and as I had also argued in connection to the study of interactional compression, the processes of

interactional meaning construction studied in this dissertation are not just considered to be cases of the general, unified, hierarchical process of blending. They are considered *specific* processes of online meaning construction which have their own distinct dynamics. These distinct dynamics make them recognizable as the certain kind of online meaning construction process which they constitute. Both interactional compression and interactional hypothesizing may be seen as different manifestations of the same general blending process, and indeed, as I have pointed out in both cases, both types of processes involve some sort of conceptual integration. However, the objection in this dissertation goes, how much should one differentiate and still posit the *same* process, when so many important nuances, are lost in such generalizing accounts? Interactional compression is characterized by its own features and dynamics and hypothesizing is characterized by the dynamic between the partial structure of a questionable and the pattern completion of an investigative response.

7.1.3.4 Interactional Compression and Hypothesizing vs. Isolated Constructions

Both in relation to interactional compression and hypothesizing we saw that particular construction types may serve as devices for achieving the interactional feats in case. However, it was also clear that it was not the construction or expression type as such that did the interactional work. The interactional work was essentially done by the interactional positioning, which in turn was supplemented or reinforced by the construction's inherent semantic features. For instance, in the case of interactional compression, copula constructions were often employed as the utterance which did the compression, but this construction only got to do this compression because of its position. Copula constructions in other positions, we saw, do not necessarily do interactional compression.

Such observations, I argued, give rise to very important considerations about what we are actually studying when we do cognitive semantics, or indeed what we should be studying. This dissertation has made a case for the centrality of the construction of meaning which is experienced as interactionally relevant and shared in actual cases of interactional meaning construction. Canonical blending theory, however, has tended to focus on those constructional meaning construction features which are independent of context, relying on context only to show how the context-free features are manifested in different ways. According to the IA, that is not an actual, "real" semantics, but rather an abstract, "possible" semantics. Both may of course be the more appropriate approach given the goal of the particular study. Thus the context-free construction approach may be the more appropriate approach for developing insights into the general, semantic features of constructions. However, in the end, in a genuine "cognitive" approach, to use Brandt's terminology (se chapter 2), all theoretical predicates and hypotheses must in the end come down to empirical testing.

7.1.3.5 Chapter 6: Tight Conceptual Structure and Disintegration:

Chapter 6 constituted the shortest of the main chapters of the dissertation, but the analyses and findings in that chapter are quite important to the deeper understanding of the IA. Based on the interactional study of a small collection of cases where a recipient pinpoints a problem in regard to some prior utterance, a proposal, hypothesis, suggestion, etc., and hence projects a resolution of that problem, I argued that there are cases of online meaning construction where tight conceptual structure comes across the effort to establish a shared mind on an issue. However, though a violation of such tight structure may seem to violate also the type of optimality constraints on meaning construction which are normally anticipated from the point of view of blending theory (cf. Fauconnier and Turner 2002a: chap. 16), this is in fact done. Apparently, under some circumstances, the achievement of a shared mind on an issue is more important than the initial, structural incompatibilities of concepts that each individual may have. Naturally, as we also saw, there are cases where such incompatibilities cannot be overcome. Four central cognitive points were made in regard to the interactional study of pinpointing and resolution of problematic aspects of utterances, all of which also constitute important points of the dissertation as such and its overall endeavor:

1) When interlocutors are talking to each other they are not just constrained by the structural logic of the concepts that they are assumed to share. Indeed the study of pinpointing shows that interlocutors aim at making their concepts fit, but sometimes they violate tight, backbone, conceptual structures to achieve a higher social goal: the achievement of a shared mind on a topic. Such real facts of online interactional meaning construction only become visible, when using methods such as the IA methods, which make it possible to study the online meaning construction processes *as processes*. This is the first specific and general point to bring from this chapter.

2) Achieving a shared mind on an issue is not just a question about integrating conceptual structures. At times other online constructive online processes are at work in the joint construction of meaning, sometimes interacting with integration processes. The process of conceptual disintegration is one such process. When interlocutors face problems with tight conceptual structures, disintegration provides the cognitive means for a possible resolution, for instance to make possible appropriate selective projections. Thus disintegration is yet another process in relation to the general notion of blending which needs to be studied and understood as a phenomenon with its own specific features, and not just as one of many sub-processes of the general process of blending. Hence the second specific and general point of this chapter is that there are also processes which cannot be seen as just an instantiation of the general process of blending, but which may interact with integration processes, which require specific studies.

3) The "discovery" of tight structure and disintegration as important phenomena in online meaning construction is distinctly a result of a process-focused approach which makes visible the import of these

phenomena. In an end-product approach the significance of such phenomena in online processing tends to get lost because when simply reconstructing a process on the basis of an end-product that process will tend to be seen as "ideally" causing the product and not as starting out with incompatible sources of meaning structure.

7.1.3.5 Specific Hypotheses and Falsification:

This dissertation has presented four case studies each of which has focused on a specific aspect of online meaning construction. It has not aimed at studying the general process of blending, but specific processes which somehow involve conceptual integration as a general feature of online meaning construction. Following Gibbs (2000), who was mentioned in the introduction and a few other places, this dissertation argues for the need to split blending theory into more specific, empirically testable and hence falsifiable hypotheses. In the four studies, this dissertation has presented five empirically testable and falsifiable hypotheses, which may all be broken into further sub-hypotheses. Here I mention the general hypotheses of each chapter:

1) The stability of interactional structure is caused by the interlocutors' orientation to interactional scripts. Specific instantiations of such scripts are: the opening of phone calls, story packing, hypothesizing, pinpointing.

Potential falsification criteria: In general: further empirical study may find that interlocutors' orientation to interactional structure is not stable in the sense suggested by interactional script theory; specifically: that the four types of scripts presented here are not recurrent structures after all.

2) Following a story, interlocutors may do interactional compression, by which the gist of a story is captured in a comparatively shorter phrase, utterance or turn.

Potential falsification criteria: E.g. empirical evidence which shows interlocutors doing story packing while, however, not doing compression.

3) Some utterances are understood as questionables which project an investigative reply, consisting of factualizing and a hypothesis. Investigative replies complete the partial structures of mental spaces set up by questionables. In this specific type of hypothesizing interlocutors do not distinguish between factual and counterfactual hypothesizing.

Potential falsification criteria: E.g. cases where hypothesizing of the same kind as described here is carried out but where a distinction between factual and counterfactual hypothesizing is added.

4) Some utterances in interaction are problematic because they involve tight conceptual structure which comes across the effort to establish a shared mind on an issue. Problems with tight conceptual structure may be overcome via the process of conceptual disintegration.

Potential falsification criteria: E.g. collections of phenomena which overlap crucially with the type of cases presented in this dissertation, but which show that a different sort of work is being done than I have assumed on the basis of the examples I have studied.

All these claims may then be falsified by further interactional studies and be replaced by other or more appropriate/fitting claims, I propose, through further empirical study. Thus even though the hypotheses constitute this dissertation's "results," what essentially matters on a higher level of philosophical, methodological and theoretical reflection is not whether the hypotheses hold, but rather whether the approach as such holds. If it does, then new and better results can always be produced by taking the approach further.

7.2 The Status of the Interactional Approach and Further Prospects

In this very final section of the dissertation, I briefly consider the present state of the interactional approach and consider some further prospects.

7.2.1 More comprehensive studies:

All studies in the present dissertation, except for the study of story packing utterances which is thoroughly supported by the work of Heritage and Watson (1979), have presented *candidate* phenomena, that is studies which suggest a phenomenon but which however, do not present sufficient empirical evidence for the phenomenon to be considered a genuine, general interactional phenomenon as such. Documentation of full-blown interactional phenomena is however not required in order to be able to make well-supported inferences from them in terms of conversationalists' cognitive capacities. However, it goes without saying that more comprehensive study of these phenomena with more examples in different contexts will refine, elaborate and further support the cognitive claims made on the basis of the interactional studies. Thus an obvious further goal of the IA is to consider bigger collections of data.

7.2.2 More phenomena:

Another obvious further goal for the IA is to study further phenomena of online meaning construction. What these phenomena might be only empirical study can tell, although blending theory may serve as an initial source of inspiration as has been the case within this dissertation with the study of interactional compression. However, the theory must only "guide" the initial phases of browsing data, once the study gets on track of

something the data must "speak for themselves."

7.2.3 Further Challenges for the Modeling:

The mental space modeling that has been done in this dissertation I consider a kind of minimal modeling of interactional online meaning construction. A primary aim of the dissertation has been to integrate the dynamic relationship to specific context in the cognitive modeling. This is the goal I have stuck to with my application of the notion of a base space (cf. Brandt and Brandt 2002) and my introduction of the notion of interactional scripts as bringing stability to the base space processing and hence to the interactional online meaning construction as such. However, I will certainly not deny that the focus on interactional meaning construction and the expansion of mental space modeling by a base space and interactional scripts gives rise to further considerations in regard to the modeling.

For instance, it has not been described in mental space terms in the present dissertation how the meaning of a prior turn is in fact settled on through a second turn. I have simply stated that the prior turn is conceptualized in a base space and that the current turn is interpreted in relation to that base space representation. Yet, that very interpretation process - utterance 2 as understood against the background of utterance 1 - itself is not represented. In a recent discussion (June 2004) on the on the Mental Space Lab mailing list (http://www.mentalspaces.sdu.dk/), Per Aage Brandt suggested that the very process by which an interactional meaning space is constructed is a blend itself of S1's utterance and S2's utterance. I responded to that suggestion by offering a possible account of such a process, which took into account the temporal development of a sequence and added to the representation such things as projections from the utterance 1 input.

In the same contribution to the discussion, I suggested that the very process by which an interpretation of an utterance leads to a locally constructed renewal of the base space together with the activated interactional script is itself also a kind of blending process. Here then, the structure of the interactional script gets blended with the structures of the locally constructed utterance meaning to create, through integration, a locally emergent next base space. I am not offering these expanded modeling options as concrete suggestions here but only as solutions which shed light on the actual complexity of processes which have been given only a very superficial treatment in the present dissertation. Naturally, further work on the modeling of all aspects of interactional meaning construction is an urgent goal for further IA research. In the present dissertation only a first step has been taken with the inclusion of base spaces and interactional scripts.

7.2.4 The IA and the Neural Grounding of Cognitive Semantics:

Current cognitive semantics and cognitive linguistics have a strong orientation to the prospects of grounding semantic and/or linguistic processing in the insights of neurology and in realistic neural processing. This, of course, is only natural since cognitive semantics aims at being cognitively realistic, and it is hard to be

cognitively realistic without being neurologically realistic. Cognitive semanticists and linguists tend to see the cognitive and linguistic phenomena they propose as connected to the minutest biological processes of the body through still more microscopic levels of processing. These levels of processing extend from linguistically orienting to spatial location, composing poetry, constructing shared meaning in interaction, etc., and all the way down to neural network processing of object recognition or even further down in neural cellular and subcellular systems (cf. Rohrer 2001). One example of an ambitious attempt to link cognitive semantics and linguistics with "low" levels of neural processing is The Neural Theory of Language Project at University of California, Berkeley which takes on the strong embodiment stand that the human body and brain are very central elements in characterizing language and thought (cf. Johnson and Lakoff 1999). Drawing on ideas from e.g. cognitive linguistics, the project aims at modeling various cognitive phenomena in biologically plausible ways.

As one who is attracted to the cognitive linguistics idea of studying language and meaning as it is really processed, I can hardly disagree with the goals of the NTL. However, as regards the empirical input that such projects as the NTL employs, the IA will again have reservations to make. As long as neural theory projects rely on evidence such as decontextualized utterances or lab results only, the modeling will necessarily be out of touch with those actual, real life, empirical situations in which people use language and experience meaning in a dynamic relationship with specific contexts. Thus, however grounded in neural processing the cognitive phenomena become, they are still only the processes of a peculiarly decontextual, ahistorical, acultural, atemporal brain. According to the IA, neural theory projects must be fed by genuinely empirical insights from the study of actual cases of human cognitive processing in actual contextual, historical, cultural, and temporal situations. Hence, detailed, empirical studies of actual human conduct such as the ones attempted in the present dissertation, I propose, should always be at the beginning of any cognitive approach.

7.3 Back to the Beginning

With this proposal we end up back at the beginning with Colson and Hunt opening a phone call about the Watergate affair – an actual phone call, conducted on a particular date under particular circumstances between two particular individuals doing a particular sort of activity, manifested in a particular way. What these two particular individuals are doing and how they do it is what we are trying to understand, and what *they* show is what we can know about the meaning that is constructed right there, and the meaning that is constructed right there is the genuine, empirical meaning. We must never loose sight of that.

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APPENDIX 1

TRANSCRIPT GLOSSARIES

1) The GAT System (Selting *et al* 1998)

[ ]	simultaneous talk, overlapping utterances
=	latching
(.)	micropause
(-), (--)	longer pauses, with one `-`for each quarter of a second, i.e. 0.25, 0.5, 0.75 sec.
(0.8)	pause timed in tenths of a second
:, ::, :::	prolongation or stretching of the sound just preceding them. The more colons, the longer the stretching.
'	glottal stop
haha hehe	laughter

so(h)o	laughter inside the boundaries of a word
hm,yes	receipt tokens, one syllable
hm=hm,ja=a	receipt tokens, two syllables
akZENT	primary accented syllable of a unit
ak!ZENT!	extra strong/loud accent
?	final pitch of intonation unit/contour: rise to high
,	final pitch of intonation unit/contour: rise to mid
-	final pitch of intonation unit/contour: level
;	final pitch of intonation unit/contour: fall to mid
.	final pitch of intonation unit/contour: fall to low
((coughs))	para- and/or non-linguistic events
( )	something is being said, but no hearing can be achieved
(solche)	uncertainty on the transcriber`s part, but represents a likely possibility

2) The Jefferson System (copied from http://talkbank.talkbank.org/ca/gail.doc)
(by Gail Jefferson)

[A left bracket indicates the point of overlap onset

Kalm: uhv never do anything (.) improp[e[r?
Ehrl: [Su:re.

] A right bracket indicates the point at which an utterance or utterance-part terminates vis-a-vis another

Kalm: en uh [g o for]ward,
Ehrl: [Mmhm,]

= Equal signs indicate no break or gap

A pair of equal signs, one at the end of one line and one at the beginning of a next, indicate no break between the two lines.

Kalm: Hi:.=

Ehrl: =How'r you:.

A single equal sign shows no break in an ongoing piece of talk where one might otherwise expect it.

Ehrl: A:nd uh so I said I jis' find that hard to ima↓gine.=Now (0.4) .p ↑since ↓then I've retained coun↓sel.

(0.0) Numbers in parentheses indicate elapsed time by tenths of seconds.

Kalm: kin I git in: dih see you duhmorrow before I go: (.) in there et two*?*
(0.8)
Ehrl: If you wan' to

(.) A dot in parentheses indicates a tiny 'gap' within or between utterances. It is probably of no more than one-tenth of a second's duration.

Kalm: Ehm: I:'m uh scheduled för ↑two duhmorrow afternoo:n.
(.)
Ehrl: Aah:: w*h*e:re.

_____
| Numbers in parentheses bracketing several lines of transcript indicate time elapsed between
(0.0) the end of the utterance or sound in the first bracketted line and the start of the utterance
__|__ or sound in the last bracketted line.

Kalm:		He i↓:[s.
Ehrl:	_____	[Ya:h.
	|	
	|	(0.6)
Ehrl:	(1.3)	.p.k
	|	(0.3)
Kalm:	__|__	°hHe is.°

In this case, then, one and three-tenths second elapses between Ehrlichman's "Ya:h." and Kalmbach's "°hHe is.°".

Underscoring indicates some form of stress, via pitch and/or amplitude. A short underscore indicates lighter stress than does a long underscore.

	Ehrl:	Well Dean has: uh:,h totally coop'rated with the U.S. Attorney

:: Colons indicate prolongation of the immediately prior sound. The longer the colon row, the longer the prolongation.

	Kalm:	The who:::le (.) enchilada?

:: __ Combinations of underscore and colons indicate intonation contours.

Basically, the underscore 'punches up' the sound it occurs beneath.

wo:rd If a letter preceding a colon is underscored, the letter is 'punched up', i.e., the underscored-letter-followed-by-colon combination indicates an 'up-to-down' contour.

	Kalm:	Hi:.=
	Ehrl:	=How'r you:.

wo:rd If the colon is underscored, then the colon is 'punched up', i.e., the letter-followed-by-underscored-colon combination indicates a 'down-to-up' contour.

	Ehrl:	He tell yih 'bout Dea:n*?*
		(0.4)
	Kalm:	No:*p*e?

wo:rd If underscoring occurs prior to the vowel preceding the colon, then the entire word is 'punched up', i.e., there is no mid-word shift in pitch.

	Kalm:	he said the ↑rea:son thet
		wuz: ü-fer the ca:ll wz
		LaRue
		ed (.) tol:d hi:m…

In this case, the entire word "rea:son" is punched up, in contrast to the words "ca:ll" and "hi:m" in which pitch drops at the colon.

This also holds for multi-syllabic words.

Ehrl:	[He said] ë-I came dih you:,hh fr'm Mitchell,hh en I sai:d*,h
	uh↓: Mitchell needs money?

Here, the first mention of "Mitchell", with only the initial consonant underscored, is produced with the entire word punched up, while in the second mention, "Mitchell", with the underscored vowel, pitch drops at the second syllable. Likewise, the entire word "money" with only the initial 'm' underscored, is punched up.

↑ ↓ Arrows indicate shifts into especially high or low pitch.

Ehrl: A:nd uh so I said I jis' find that hard do ima↓gine.=Now (0.4) .p ↑since ↓then I've retained coun↓sel.

. , *?* ? Punctuation markers are used to indicate intonation. (The italicized question-mark [*?*], substituting for the question-mark/comma of my typewritten transcripts, indicates a stronger rise than a comma but weaker than a question-mark.)

These symbols massively occur at appropriate syntactical points, but occasionally there are such displays as the following (an old favorite, not from the Watergate materials):

Marge: Oh I'd say he's about what.=five three enna ha:lf?=aren'tchu Ronald,

WORD Upper case indicates especially loud sounds relative to the surrounding talk.

Kalm: I returned it 'n went over the:re (.) tih↑da:y, (0.5) A::ND uh (0.8) he said the ↑rea:son thet…

t*,d* An asterisk following a consonant replaces the single sub- or superimposed dot which serves as a 'hardener'in my typewritten transcripts.

Kalm: I w' jist (.) understa:nd thet* uh: you en I are deh- abs'ooly dihgether on tha:t,
Ehrl: No question about it*?=uh hHerb

In this case, while Kalmbach produces "jist" and "tha:t," with the American- standard, soft 't', the 't' in "thet*" and in Ehrlichman's "it*?" are crisp, dentalized, i.e., 'hard'.

ä,ë,ï Two dots (trema, diaresis, umlaut) over a vowel replace the single sub- or superimposed dot which, as well as a 'hardener', serves as a 'shortener' in my typewritten transcripts.

Ehrl: ë-he:: told me::*?* . . . an:d uh,h ï-he sid we:ll? (.) that ↑does it,

Here, while conceivably the 'e-' in "e-he" and the 'i-' in "i-he" could be read as long sounds, "ee" and "eye", the diaresis confirms that they are short. I don't show them as "eh" and "ih" because they are more fleeting than those spellings indicate.

The diaresis does an additional job in transcripts where I'm using non-standard orthography. Many words get a range of oddball spellings, in keeping with the range of pronunciations they are subject to. On occasion such a word appears in its standard spelling. If that word carries a diaresis, this means that while such a spelling could be the result of a lapse of transcriber concentration, in this case it does indicate the way the word was pronounced.

1	Kalm:	Ehm: I:'m uh scheduled för ↑two duhmorrow afternoo:n.
.		.
.		.
17	Kalm:	he said the ↑rea:son thet wuz: ü-fer the ca:ll ez LaRue ed (.)
18		tol:d hi:m…

In this case, while Kalmbach is shown at line 17 pronouncing the word 'for' as "fer", the diaresis in "for"at line l indicates that it's not that the transcriber at that point simply wrote the word in its standard orthography, but that it is there pronounced as "for".

(*b*) A parenthesized italicized letter replaces the prenthesized letter with a sub- or superscribed degree sign which, in my typewritten transcripts, indicates an 'incipient sound'.

	Ehrl:	But they- (.) thë(*p*) the point is…

Here, after an initial "the", Ehrlichman is about to produce something beginning with a 'p' which remains unvoiced (perhaps 'point', perhaps not), and then starts again with "the" and goes on with "the point is…".

w*h*en an italicized 'h'appearing in such a word as 'which', 'where', 'what', 'when', 'whether'', etc., indicates that while such words are often produced with the 'h' silent (as if they were the words 'witch', 'wear', 'wen', 'weather', etc.), in this case the 'h'was sounded.

	Ehrl:	En I said well Joh:n w*h*at 'n the world er yih talking ↓about*.
		.
		.

Ehrl:	See ↑what they've said duh Dean is thet he gets no consideration from the:m, unless they c'n corrobor↓ate.

In this case, while at one point in the conversation (3:8) Ehrlichman pronounces the word 'what' with the 'h' sounded, at another point (6:15) the 'h' in 'what' is silent.

no*p*e An italicized letter replaces the sub- or superscribed degree sign which, in my typewritten transcripts, indicates unvioiced production.

Ehrl:	He said We:ll?=h*m*hh ë-I came dih you:,hh fr'm Mitchell,hh en I sai:d*,h uh↓: Mitchell needs money? (0.6)=
(Kalm):	(°°R*i*ght°°)
Ehrl:	=(0.6) Uh::: could*=uh we::: ca::ll Herb Kalmbach en ask im duh raise ↓some.
Kalm:	°°Y*ea*h.°°

< A pre-positioned left carat is a 'left push', indicating a hurried start; in effect, an utterance trying to start a bit sooner then it actually did. A common locus of this phenomenon is 'self repair' (not from Watergate materials):

Ruth:	Monday nights we play, (0.3) <I mean we go to ceramics,
	---
Polly:	y'see it's diff'rent f'me:. <eh f' (.) the othuh boy:s

A post-positioned left carat indicates that while a word is fully completed, it seems to stop suddenly:

Meier:	Uh well I fel' like my lef' side of my (.) chest I c'd (.) mah had a k- cramp<

\- A dash indicates a cut-off.

Ehrl:	An' I said (0.2) 'n dee- uh Dean said t'me…

> < Right/left carats bracketting an utterance or utterance-part indicate speeding up.

> < Left/right carats bracketting an utterance or utterance-part indicate slowing down.

.hhh A dot-prefixed row of h's indicates an inbreath. Without the dot, the h's indicate an outbreath.

wohhrd A row of h's within a word indicates breathiness.

(h) A parenthesized ‘h’ indicates plosiveness. This can be associated with laughter, crying, breathlessness, etc.

£ The pound-sterling sign indicates a certain quality of voice which conveys ‘suppressed laughter’.

w*gh*ord An italicized *‘gh’*stuck into a word indicates gutteralness.

( ) Empty parentheses indicate that the transcriber was unable to get what was said . The length of the parenthesized space reflects the length of the un-gotten talk. If possible, nonsense syllables are provided to give at least an indication of various features of the un-gotten material.

In the speaker-designation column, the empty parentheses indicate transcriber’s inability to identify a speaker.

(word) Parenthesized words are especially dubious hearings or speaker-identifications.

(Ø) A nul sign indicates that there may or may not be talk occurring in the designated space. What is being heard as possibly talk might also be ambient noise.

(( )) Doubled parentheses contain transcriber’s descriptions