# Universität Potsdam

Margret Selting

# Intonation as a contextualization device : case studies on the role of prosody, especially intonation, in contextualizing story telling in conversation

# Intonation as a Contextualization Device:
## Case Studies on the Role of Prosody, Especially Intonation, in Contextualizing Story Telling in Conversation

*Margret Selting, University of Oldenburg*

## 1. Introduction

In this paper I want to analyse the role of intonation especially in the organization of story telling in conversation. The stories taken as examples here are quite short ones which are delivered as "embedded short stories" in an argumentation to support the story teller's point. My analysis will be anchored around the in-depth analysis of two examples. These examples of story telling within argumentations are taken primarily as examples for the explication and demonstration of an approach to the analysis of prosody and intonation in conversations based on what might be called "co-occurrence" and "relational meaning" hypotheses. Prosody and intonation are analysed as contextualization devices (Gumperz 1982), i.e. as a means of signalling both the internal structure and the relation of the story to the preceding activities in conversation. The analysis of intonation will be largely auditive. In the following section 2, I will briefly present and justify the descriptive categories used here and explicate some of my general premises with respect to the analysis of intonation in conversation. In section 3 and 4 the transcripts of my examples will be presented and analyzed in detail, before drawing some conclusions in section 5.

## 2. Premisses and descriptive categories

The following categories which I use for the auditive analysis and description of

---

intonation in discourse are intended, firstly, to allow a fairly accurate
reconstruction of the actual (phonetic) pitch trajectory/tune of utterances in
conversations by a reader of the transcript, and secondly, to suggest categorial
distinctions which are hypothesized to be relevant in view of a more
comprehensive (in the long run phonological) theory of intonation in discourse.
They are the result of extensive auditive and more limited acoustic analyses of
conversational data, in the course of which they have been constantly refined.

Intonation is conceived of here as the perceived temporal organization of
predominantly pitch in speech. It is represented in a separate "intonation line"
underneath the "text line" of transcripts. In order to describe intonation in
German conversational speech data, I use the category of "intonation contour"
as the basic category. It is intended as a looser and more phonetically based
category than the tone unit. An intonation contour is a structured pitch
configuration or tune which is interpreted as a prosodically cohesive whole on
the grounds of (interpreted) rhythm and/or pitch "gestalt"; it is used in co-
occurrence with a locutionary or textual stretch of speech to constitute utterance
or turn-constructional units. The beginning of such a prosodically cohesive unit
is noted as "|" in the text line of transcripts.

Schematically, the (type) structure of an intonation contour can be
represented as follows; for convenience, the notations for possible (token)
occurrences are also given here, as a shorthand notation:

```
("onset")           "cohesive sequence of accents"       ("tail")
noted before "("    delimited by "(          )"      noted after ")"

                    F(alling)
    \               R(ising)                                \
    /               M(id)        (          )               /
    -               L(ow)                                   -
                    H(igh)

    "accent types" within the cohesive sequence of accents
                    (always notated within "(    )")
                    \   falling
                    /   rising
                    -   level

            ...     sequence of weakly accented syllables,
                    not specified further
```

The most relevant unit is the "cohesive sequence of accents". It corresponds to
von Essen's (1964) "rhythmischer Körper", without, however, accepting his
commitment to a nucleus in last position. "Onset" and "tail" refer to sequences of
unaccented syllables, in general optionally before and after the accent sequence

respectively. They correspond to von Essen's "Vorlauf" and "Nachlauf".

To describe the contour, I differentiate between global and local categories. Both these categories are still holistic, interpretive ones. My attempt to distinguish between global and local categories and modifications in accent strength and bandwidth can be seen as an attempt to decompose successive contours into some auditively discriminatable parameters.

Global categories refer to the pitch movement within the accent sequence as a whole, i.e. as a sequence with mostly one global direction of pitch movement which is in general constituted by the pitch of unaccented syllables and/or accent peaks (F, R, M, L, H in the notation given above, with "( )" denoting the length of the accent sequence and - if necessary - "[ ]" denoting the length of a larger unit of combined or possible conjoined contours).

Local categories refer to the pitch movement especially within accented syllables and the following unaccented syllables in the "accent unit" before the next accented syllable. I differentiate between basically three different accent types: A (peak and/or) falling accent ("\") in which the accented syllable nucleus is high up on, or immediately after a pitch peak and the rest of the word or accent unit is falling; a (valley and/or) rising accent ("/") in which the accented syllable nucleus is deep down in, or after a pitch valley and the rest of the word or accent unit is rising; and a (plateau or) level accent ("-") in which the accented syllable stays level in pitch, sometimes as a whole set off from preceding sequences by a pitch jump, sometimes the accentuation being constituted by increased loudness and/or segmental lengthening alone.[2] "..." refers to a

---

[2]Possible schematic representations of the pitch configurations in and after accented syllables associated with the three accent types would be:

"\" (peak and/or falling accent): ⌐\. Here it should be noted that the "onglide" of pitch before the pitch peak in the accented syllable as in a configuration like ⌐\ is not taken as the decisive pitch movement here, but the decisive pitch peak and/or falling pitch movement starting in and continuing after the accented syllable.

"/" (valley and/or rising accent): ⌣/. Again, a possible "onglide" as in a configuration like ⌣ is not taken as the defining pitch movement here, but again the pitch movement starting in and continuing after the accented syllable.

"-" (plateau or level accent): ⌐‾.

The definition of accent types as given here differs from the definitions given in Selting 1987. In that paper, I defined the accent types in relation to a "baseline" of unaccented syllables. Problems to identify this baseline in many utterances in my data and more extensive work with respect to the clarification of my own criteria of transcription and analysis and particularly some collegues' critical questions convinced me that the concept of a baseline is unnecessary and perhaps misleading for the auditive analysis of empirical conversational data. I profited most from the criticism by the participants in the workshop "Intonation und Diskurs" at the "Diskursanalytische Forschungswochen" in September 1987 in Bielefeld and especially Friederike Jin in a number of discussions after that workshop. As a result, the definition of accent types must be revised. Instead of defining them in

sequence of not further specified weakly accented syllables within a contour. Even if not every prominent syllable can be identified equally easily as an instance of these accent types, most accents do more or less clearly tend towards one of these prototypical types. The temporal organization of accentuation constitutes relatively regular "isochronous" or irregular "unisochronous" accent rhythms (cf. Bolinger 1986: 63ff.) with shorter or longer accent units.

Accents can be different in strength and/or in local modification. Thus, capital letters in the text line, plus accent type notation in the intonation line indicate most prominent primary accents, whereas only accent type notation in the intonation line indicates less prominent secondary accents. This might be caused by differences in loudness, or also by local pitch jumps. Local pitch jumps in accented syllables (noted as e.g."↑\", "↓/", constitute a larger bandwidth on the respective accent than in surrounding accents of the same type. There are no theoretical restrictions on the occurrence of the number of more and less prominent accents; degree of prominence or strenght of an accent is defined in relation to surrounding accents.

The notation of the onset seems only necessary when an onset is exceptionally high or low. A tail needs to be noted more often, especially when there is still a change in pitch direction within the final unaccented syllables after the last accent of an utterance.

Global and local intonational categories, combined into complex contours, are used in co-occurrence with textual segments to constitute utterance and turn-constructional units (Sacks/Schegloff/Jefferson 1974); specific relations between successive units can be used as cues in the constitution and contextualization of activity types and cohesive relations in conversation (cf. especially Gumperz 1982).

---

relation to a baseline, the defining criterion is now taken to be the local pitch movement within an accented syllable and thereafter within the accent unit. In accordance with this, I also alter the representation, specifically "+" and "-" to "\" and "/" for accent types noted within brackets.

The accent types as defined here broadly correspond to the three most important tones in tonetic analysis of German intonation, like e.g. that of Pheby 1980, who distinguishes between falling, rising and level tones. His variants of these tones, the falling-rising and rising-falling tones, however, often correspond to an accent plus a following tail in my analysis. (I do not, though, believe in Pheby's "tone group" as being a relevant category for the analysis of German conversational speech data.) The accent types as assumed here are "simpler" than Bolinger's pitch accents (cf. 1986) or Pierrehumbert's inventory of accents (1980); both of these, however, were suggested for English (but cf. Uhmann 1988 for applications in German) which is commonly held to rely solely on (more varied forms of) intonation for more functions, e.g. in the modality system, than German. Furthermore, "transcription tests" revealed that more complex categories cannot be handled with sufficient reliability in the transcription of natural data, not even by trained linguists.

The "meaning" and function of intonation is thus assumed to be a relational one. Intonation is conceived of as an autonomous signalling system which is mapped onto locutionary textual structures (cf. especially Gibbon 1981, 1984, cf. also Bolinger, e.g.1986). Intonation in co-occurrence with syntactic, semantic and other locutionary properties is used as a contextualization device in conversational activities to signal the status and contextual presuppositions of segments and utterances (Gumperz 1982: cf. esp. chapter 5). Local and global categories seem to play different roles in the contextualization and signalling of activities in conversations, though: Whereas local categories like accents and to some extent tails seem to be relevant for the signalling of semantic focussing, grammatical modes, and for the signalling of the expected local organization of conversational sequences with respect to e.g. turn construction and turn taking, global categories such as different holistic contours as a result of the differentiation of accent types and/or global pitch direction, seem to be relevant in the signalling of activity types and kinds of interactive cohesion and participant relations in conversations.

For instance, with respect to the relationship of syntax, or more precisely, grammatical mode, and intonation as traditionally focussed on, there seems to be a complex "interaction": For a speaker to signal e.g. a sentence as a question via the use of intonation only, it is enough to produce a rising pitch movement at the end, no matter whether this involves the last accent movement or only a tail. Thus, if for the signalling of grammatical mode via intonation only the last pitch movement is relevant, the choice between accent types generally can carry other · than grammatical functions, one of them certainly being the signalling of activity types and cohesive relations as analysed further down in this paper by sticking to or modifying or contrasting holistic contours.

Well known and well described holistic contours in German are e.g. the so-called "lecture-intonation", the "Zickzackmelodie", the "hat pattern" and stylized contours. The "lecture intonation" is the intonation prescribed by von Essen 1964 for the style of public speech, a continously falling contour with peak or falling accents: F(\ \ \). The "Zickzackmelodie" is a globally falling contour with valley or rising accents: F(/ / /)\. A contour which von Essen 1964 wanted to see banned from the speech of a good public speaker (cf. idem.: 29). The "hat pattern" or "suspension bridge" (Bolinger 1986: 46ff, Cohen/'t Hart 1967), is a contour with two corner accents, the first one a rising accent and the last one a falling accent with the intermediate syllables either staying up high or falling below the level of the peaks again, i.e. R(/ \). In stylized contours (Ladd 1980, Bolinger 1986: chapter 10) mostly level accents on different pitch heights are

used on lengthened syllables, e.g. (↑- -).

　　Yet, although there may be recognizable holistic accent patterns or even stereotypical contours like the ones mentioned above, with associated general abstract meanings or functions in discourse, each conversation has to be taken as a unique episode in which participants negotiate and establish their interaction, relationships, and also make use of prosody and intonational devices in a unique way. Each conversation also has to be looked upon as a universe in its own right, as a locally achieved interaction in which in some cases the background of prior interactions between the participants has to be taken into account. For this reason I think it might be more relevant to look at the relation of utterances and formal features to each other in a conversation, than to look only for general meanings of formal properties. Therefore the point is not that e.g. in story telling story tellers always use the particular contours which they happen to use in the examples given here, but rather that story tellers will always establish and signal some sort of relation within their stories and of their stories to the surrounding talk by constituting prosodical and intonational relations. The particular cues and contours can be quite different from the ones used in the examples here.

　　In the following analyses I am primarily concerned with the relationship of categories on the global level, i.e. with accent sequences and contours. I will trace relations between intonational patterns, using participants' establishing of formal relations like similarity, variation, opposition etc. as evidence of their signalling different kinds of cohesive and perhaps interactive relations between activities. As far as is possible, recipient reactions will be considered as criteria for the interpretation of the signalling value of formal properties.

## 3. A first example

The following stretch of conversation is taken from an informal conversation in the sound-studio at the University of Oldenburg. Two female students, N and I, and one male student, R, are having their afternoon coffee and cakes there. The three have been talking about R's music studies, in particular about singing being a subject. After R maintains that everyone has the ability to sing, and that professional singing is basically only based on additional technique, I and N argue that a lot of people, and in particular they themselves cannot sing. It is with R's reply to this that the transcript begins:[3]

---

[3]In the text line of transcriptions, the following transcription conventions have been used:

(1) Transcript "Gesangsausbildung"
Tonstudio, 29.06.88; Laufnr. Uher 184-199

368 R: ⌈|also ich denke mir

          *well     I     think myself*
369 I: |          |ich au nich
          |          (\                    )
          ⌊            *I  also   not*

370 R: daβ die MEIstn . sich das:   .  einredn oder
                    F(\                              \
          *that the  most    themselves this        talk into or*

371 R: ham einredn lassn ne        |von andern leutn  .
                        \  )  /              (\                )
          *have been talked into you know     by    other   people*

372 I: ⌈|jaa
          |   \
          |  *yes*
373 R: |  |du kanns sowieSO nich singn und
          |  L(                    \
          |  *you  can   anyway   not   sing   and*
374 I: |              |viele bestimmt
          ⌊              M(/         \   )
                          *many   certainly*

375 R: solche sachen       (3.1)
                                )

---

| | | |
|---|---|---|
| \| | | beginning of a new prosodically cohesive unit |
| aber DA kam | | primarily accented syllables of a unit |
| SIcher | | extra strong accent |
| si:cher | | lengthening of a sound |
| s:i:ch:er: | | lengthening of a word |
| n, m | | syllabic sound according to the criteria of sonority and length of the sound |
| (fast) | * | characterization of way of speaking |
| (loud) | * | until "*" |
| . | | short pause of less than 0.5 secs |
| (0.8) | | longer pause in secs. |
| ((sniffs)) | * | extralinguistic activities until "*" |
| (?er kommt?) | | uncertain transcription |
| ich gehe | | simultaneous speaking |
| jaha | | |
| = | | latching |

For the independent transcription of the sequences presented here, I am indebted to Friederike Jin and Christel Gebel.

*such*     *things*

376 R:   ((click)) |ich bin auch: . zum beispiel
                    F(\
          *I   have  also        for   example*

377 R:   relativ  SPÄT  damit  angefangn  mit  .  mit
                   \
         *relatively   late  with it  started  with  with*

378 R:   singen  (1.2)  |äh: inner SCHUle hab ich mich
         \    )                     M(/
         *singing             eh    in  school have I myself*

379 R:  ⌈immer geweigert in  CHOR zu gehn
        ⎮               \    )  /
        ⎮*always    resisted   into   the choir   to go*
380 N:  ⎮                                       ((laughter))
381 I:  ⎮                                    . |jaa
        ⎮                                        ‾
        ⎣                                        *yes*

    R:   (2.1)  ((clears his throat))  (2.1)

382 R:   |un dann hab ich  .  m: allerdings auch noch
              F(\
         *and then have I      m  however   also  even*

383 R:   während der schulzeit angefangn  .  äh:  (0.9)
                          \
         *during   the  schooling time  started      eh*

384 R:   in einer BÄND zu spieln=da ham wa so
                  /   )  -
         *in   a   band  to  play   there have we such*

385 R:   KANtrirock gemacht  (0.8)  |und äh  (2.5)
         F(\            )/
         *countryrock   played          and eh*

386 R:  ⌈wollte AUCH erst keiner singn  ((laughter))
        ⎮    F(\              /  )
        ⎮*would   also first  nobody   sing*
387 I:  ⎮                              mhm
        ⎮                              \/
        ⎣

388 R:  ⌈in der bänd ((laughter)) │jeder wollte sch äh sch
        │        (/ )            M[M(/
        │*in the   band*              *everyone wanted sch eh sch*
389 N:  │((laughter))

390 R:  schlachzeuch spieln gitarre spieln und
           \\               \\
          *drums*        *play   guitar   play   and*

391 R:  ⌈SOLche sachen  aber SINGN wollte K(h)EIner │un
        │ /        )        F(/         \\     )]
        │*such    things   but   sing   would   nobody   and*
392 N:  │                             ((laughter))
393 I:  │                                ((laughter))

394 R:  dann . ((clears throat)) mußte sich da´ma einer zu
                         F[F(\\
        *then*                    *must himself then  somebody*

395 R:  durchringn  hab ich da ma angefangn damit
        \\         ) F(\\        \\          )]
        *convict*      *have I  then*      *started with it*

396 I:  │ja
         \\
        *yes*
397 R:    │also n:atürlich toTA:L ohne TECHnik  ne   (1.1)
                   R(\\          \\     )    /
          *well  naturally  totally without technique  you know*

398 R:  │und ich hab noch AUFnahm davon  │und das
                        (\\          )
        *and  I   have  still  recordings from it  and that*

399 R:  ⌈klingt zum teil . also wirklich  │ohoho  ((laughter))
        │F(\\         \\           \\   )  (\\)\\ \\
        │*sounds   partly*         *well really*     *ohoho*
400 N:  │                             ((laughter))
401 I:  │                             ((laughter))

---

368 R:  ⌈well I think
  I:      ⌊    neither do I
370 R:  that most people talk themselves into this or
  R:  have been talked into it you know by other people
  I:  ⌈yes
  R:  ⌊ ⌈you can't sing anyway and such things
  I:     ⌊               certainly many
376 R:  ((click)) I have also for instance

```
       R:    started relatively late with with
378    R:    singing eh in school I
       R:    ⌈always resisted joining the choir
       N:    |                                    ((laughter))
       I:    ⌊                                         yeah
       R:    ((clears his throat))
382    R:    and then however also
       R:    during schooling I started eh
       R:    playing in a band = we were playing
       R:    ⌐countryrock and eh
386    R:    |at first also nobody would sing ((laughter))
       I:    ⌊                                    mhm
388    R:    in the band ((laughter)) everyone wanted to sch eh sch
       R:    ⌐play the drums play the guitar and
       R:    |such things but nobody would sing   and
       N:    |                                ((laughter))
       I:    ⌊                                      ((laughter))
394    R:    then   ((clears throat)) one of us then had to
       R:    ⌐convict himself   then I started with it
396    I:    |yeah
397    R:    ⌊    well obviously missing technique totally you know
398    R:    and I have still kept some recordings    and
       R:    ⌐partly it sounds    well really    ohoho  ((laughter))
       N:    |                                    ((laughter))
       I:    ⌊                                    ((laughter))
```

All the participants have delivered their prior short arguments almost exclusively with falling "\" accents; moreover, R's description of his singing lessons prior to the argumentation also made use of almost only falling "\" accents. R's use of his F(\ \ \)/ and (\) contours in his argument in lines 368-371 links up with these prior turns and contours. In lines 376-378 (*ich bin auch: . zum beispiel relativ SPÄT damit angefangn mit . mit singen*), R signals a transition from the argumentation to his telling a story. Textually, this transition is signalled by shifting topic from other people's general problems with singing to R's talking about himself right from the beginning of the turn: *ich bin* ('I have been'). Intonationally, R still links up with the preceding argumentation by using the same kind of contours and accent patterns, here constituting a F(\ \ \) pattern similar to the ones used before.

The actual story starts with *äh: inner SCHUle hab ich mich immer geweigert in CHOR zu gehn* in line 378 and ends with common laughter in lines 399-401. R tells about two "stages" on his way towards singing. The first one is his resisting to join the choir in school, which is presumably relatable to his two interlocutors' ostensible reluctance to sing. The second one is his joining a country rock band and the need for one member of this band to sing, although no one wanted to. The first stage thus represents his starting point, i.e. his former thinking which

was quite similar to his interlocutors' present thinking. Only at the second stage does this sort of thinking begin to present a problem for him, which has to be solved. In contrast to the relatively brief presentation of his starting point, the "complication" of matters at the second stage is told in more detail and in greater length, before the "result" is again presented quite briefly, namely he taking the initiative when it was necessary (cf. esp. Labov/Waletzky 1967 for the terminology used here and Quasthoff 1980 for a more comprehensive critique and evaluation of these categories).

Intonation is used here both to differentiate between the story telling and the surrounding activities of arguing, and to differentiate between the three mentioned parts of the story: In contrast to the almost exclusive use of falling "\" accents in arguing before and in the transition to the story telling, the story itself begins immediately with a rising accent, followed by a falling accent and an again rising tail: M(/ \)/. In the telling of the first stage of the story and thereafter, we find constant alternations of falling and rising pitch movements in prominent syllables; the story telling as a whole sounds livelier and more musical than the more serious sounding argumentation before it. Immediately after the introduction of the first stage in his story telling, N in line 380 reacts with laughter, thus possibly displaying her understanding that an activity other than arguing is now at issue.

The contrast between the first (*schule*) and the second stage (*bänd*) is also signalled; besides using the particle *allerdings* ('though', line 382), by using reversed accent patterns: M(/ \)/ for the first stage versus F(\ \ /)- F(\)/ now for the second stage. The complication within the second stage, which is told next, neatly links up intonationally with the introduction to this second stage: The problem statement *wollte AUCH erst keiner singn in der bänd* still has similar pitch movements as before, i.e. particularly rising pitch movements at the end of the utterances are used here, too: F(\ /) (/). The following expansion and illustration of this problem statement *jeder wollte sch äh sch schlachzeuch spieln gitarre spieln und SOlche sachen |aber SINGN wollte K(h)EIner* varies these patterns further, without, however, repeating the former one "belonging" to the first stage: M(/ \ \ /) F(/ \). In each case we find the first accent of an accent sequence taking up the last accent movement of the preceding accent sequence, thereby linking up and constituting cohesion. Accent types come in pairs, then they alter.

At the same time, all the accents within the complication from *da ham wa so KANtrirock gemacht* (line 384f) onwards, are placed in roughly equal distances within the accent sequences, the accent units here being markedly shorter than

before. Thus, we find here a sort of "speeding up" within the complication of the story.

Laughter as a reaction to R's story telling occurred after every instance of his mentioning his own or others' reluctance to sing: cf. N in line 380, R himself in line 386 and N immediately following in line 389, all three in lines 391-393.

In the telling of the result (lines 394-395), we find only two globally falling accent sequences constituting a larger combined overall falling "paragraph intonation" (Lehiste 1975) or "paratone" (Yule 1980, Couper-Kuhlen 1983) with falling "\" accents only: F[ F(\ \) F(\ \) ]. The first accent unit here is again longer than the rhythmic ones before and thus seems to break the prior rhythmic pattern. This more serious sounding result is thus intonationally quite distinctly separated from the prior complication; a different activity seems to be signalled here by using a different contour type; the entire result furthermore being signalled as one cohesive whole by using the paratone. Because this is in contrast to the immediately preceding telling of the complication of the story, it seems to relate intonationally back to the transition from the argumentation to the story telling in lines 376ff, the last utterance in which a F(\ \ \) contour was used. Textually, there is also a clear cohesive relation: In both utterances R deals explicitly with the beginning of his singing; even the same words *damit angefangn* are used in both utterances, which thus build a sort of frame for the actual story.

Following the result of the story, R gives an explicit "evaluation" (Labov/Waletzky 1967) in lines 397-399. In the first utterance of this (*also n:atürlich toTA:L ohne TECHnik ne*), the accents are falling, but the global pitch movement is rising: R(\ \)/. More specifically, the accent peaks in the accented syllables are on an ascending line, whereas in the prior telling of the result they were on falling lines. The evaluation ends with the seemingly onomatopoetic expression *ohoho* reminiscent of a person's shaking something off. Perhaps it is these two features which make this evaluation sound livelier and more cheerful than the prior result. It is evidently again part of the story telling designed to make the recipients react with laughter.

On the whole, intonation is used here as a means to differentiate and establish specific kinds of cohesive relations within story telling and in the embedding of story telling into a preceding argumentation. Intonation contextualizes different parts of the story telling and their relations to each other as well as the relation of the entire activity of story telling to the prior activity of arguing.

## 4. A second example

Different contours in detail but the same kind of signalling of the internal structure and embedding of a story can be seen in the following example. This time, the story itself is very short and simple and the surrounding conversation will be considered in more detail.

The following sequence is taken out of another informal conversation of three closely acquainted women having their after-lunch coffee and conversation in the sound studio at the University of Oldenburg. Before the transcript starts, they have been talking for some time about M's visit to a doctor in the Public Health Department the same morning to obtain a certificate of (good) health, a visit that E is due to perform the next day. In the sequence given here, D initiates the topic of smoking. D, who has quit smoking a few weeks ago and is thus much admired by the other two smoking women, had obviously expected that smoking would be a risk factor worth taking into consideration in a certificate of good health or would at least be critically commented on by the doctor.

(2) Transcript "Das schlechte Raucherinnengewissen"
Laufnr. Uher 1:177-190, Revox 360-380

```
37:7 D:   |wie HATtese denn nich SCHISS von wegn mit deiner
              F(\                      \
             how   were  you  then   not  afraid  with   respect  to   your

   8 D:   LUNge röntchen daß de da:   .   dein rauchen feststelln
            \                                    /                )
           lungs  x-raying   that   they       your  smoking  find    out

   9 M:   |(tense) do:ch:*   .
                     (-   )
                      yes

38:1 D:   ┌|bo DA hätt ich ja total e   .
          │    F(\          ...         )
          │   bo   that  were  I    totally    e
   2 M:   │|aber das hab ich doch IMmer
          │  M(          ...          \    )
          └  but   that   have   I   got    always
```

```
  3 D:   |DA hätt  ich ja  total schiß vor
         F(\                      \     )
          that  were   I    totally  afraid of
  4 M:   |hab ich doch IMmer  .   |NEI:N:
         M(  ...      \    )       T(-)
          have  I   got   always      noo
  5 E:   |hat se was gesacht
                     (/  )
          has she something said

  6 M:   |die hat die hat
         T(    ...     )
          she  has  she  has

  7 M:      ich bin ni ma geFRAGT wordṇ ob ich  .  RAUche*=
         T,F(                \                        \   )
            I   have  not  even asked  been  if  I      smoke

  8 D:   =|(relatively loud) HAM se no nimmals geFRACHT*
                             H,F(\          \       /  )
                                have they  not  even  asked

  9 M:   |NEEE
         (\  )
          noo

 10 D:   |EHRlich nich  ..  |OH
         H(/          )    H(\)
          really  not       oh

 11 M:   |(a bit tense) das RAUchen KÖNṇ die da
                        F(↓/     ↑\
                         the smoking  can  they  there

 12 M:   nich feststelln*
              \       )
          not   find  out
 13 E:           |DO:CH=|das (?SEHN die?)
                 T(- )    T(\      )
                    yes    that  see  they

 14 D:     |(a bit tense)=|ja WENN die dich ABhö:rn*  .
                          F(\                /    )
                           well  if  they  to you(r lungs) listen

39:1 D:  |wenn die dich ABhörn dann HÖRN die   ob du rauchs
                        R(/           \              )
          if  they  to  you listen then hear they if you smoke
  2 E:                                   (piano) |das SEHN die
                                                 (\      )
                                                  that  see  they
```

```
 3 D:  |aso MEIN: hausarz hat soFORT gemerkt daß ich rauche  .
          R(/                           \                    )
          so   my   doctor  has   immediately  noticed  that  I   smoke

 4 D:     |der hat mich ABgehört un hat gesacht RAUchen sie
       F[F(      ...      /      ...              /         )
              he  has  to  me  listened  and  has  said   smoke  you

 5 D:  meint ich JAA  'meint er JA   HÖRT man     .
       F(            /)  F(      \)  (\      ,)]
       said  I  yes      said  he  yes   hears  one


 6 M:  |naja |is wahrSCHEINlich deswegɲ weil die BRONchien
       (\ )               F(\         /              \
       well     is  probably  for  the  reason  because  the  bronchia


 7 M:  ⌈da IMmer drunter   leidn  .
       │         \              )
       │there  always  under  suffer
 8 D:  │                       |JAA
       │                       (\ )
       ⌊                       yes

 9 D:  |aso der meinte das hört sich an als ob se halt immer
                 F(\                  ...
                 so  he  meant  that  sounds  as  if  you  just  always

10 D:  erkä   also so erkältes bis   .
                             \         )
       a col   so so  a  cold  have

11 D:  ⌈|also so inner LUNge |dasse nich richtig LUFT kriss so
       │                (\ )                    (\          )
       │ so  so  in  the lungs   that  you  not  properly  breathe  can  so
12 M:  │(rel.piano)|ja |sie hat nix gesacht
       │              \            M(/      \ )
       ⌊             yes    she  has  nothing  said


13 M:  |(relatively piano) sie hat nix gesacht  ..
                                    M(/      \  )
                            she  has  nothing  said
```

---

```
37:7 D:  well weren't you afraid that with x-raying
         your lungs they would determine your smoking
   9 M:  ⌐(tense) yes
38:1 D:  │oh that's what I would be
   2 M:  └but that's what I always feel
   3 D:  ⌐that's what I would be afraid of
   4 M:  │that's what I always feel noo
   5 E:  └did she say something
   6 M:  she has she has I haven't even been asked if I smoke=
   8 D:  =(rel. loud) they haven't even asked
```

```
    9 M:   noo
   10 D:   really not   oh
   11 M:   ,(a bit tense) they can't determine there
   12 M:   [that you smoke
   13 E:   L         yes [they can see it
   14 D:   ,(a bit tense)Lwell if they listen to your lungs
39:1 D:   [if they listen to your lungs they notice if you smoke
    2 E:   L                                        they see that
    3 D:   so my doctor immediately noticed that I smoke
    4 D:   he listened to my lungs and said do you smoke
    5 D:   said I yes  said he well one notices (it)
    6 M:   well okey it's probably because the bronchia always
    7 M:   [suffer from it
    8 D:   L       yeah
    9 D:   so he meant it sounds as if you just always had a cold
   11 D:   [in your lungs that you can't properly breathe
   12 M:   L       yeah she didn't say anything
   13 M:   (rel. piano) she didn't say anything
```

The sequence is a relatively self-contained entity. After this sequence, the three talked about plans and problems about quitting smoking. I will start with the analysis of the internal structure of the short story told by D in lines 39:3ff. After that I will look more closely at the sort of embedding of this story into the surrounding conversational sequence.

### 4.1. The internal structure of the story

The story consists of the following sequence:

```
 4 D:     |der hat mich ABgehört un hat gesacht RAUchen sie
        F[F(    ...      /      ...         /           )
          he  has  to  me  listened  and  has  said   smoke  you

 5 D:     meint ich JAA    meint er JA  HÖRT man    .
        F(         /) F(          \) (\      )]
          said  I  yes    said  he  yes  hears  one
```

The entire sequence is globally falling in pitch. An acoustical analysis also shows that the pitch tends to be globally falling from the beginning to the end of the story, with the first weakly accented part of the first contour being the highest in F0, and the global fall covering a range of approximately five semitones in all. This corresponds, like the "result" in the first example analysed in this paper, to a "(major) paratone" (Couper-Kuhlen 1983). Thus the intonation in this case seems to signal the entire short story as one cohesive whole delimited by a high beginning and a low ending and a short pause before and after it.

Internally, this short story is divided intonationally into two parts: a first

part in which all accents are "/" and a second part in which all accents are "\". This corresponds to the text structure here: The first part could be analysed as the telling about the complication of the event with the second part being analysable as the culmination, intonation thus being used as a cue to the internal structure of the story.[4] Formally, the iteration of accent types within the two parts can be compared to the "minor paratones" (ibid.) as structural constituents of the major paratone.

This structure parallels the textual structure: The first two phrases are conjoined by *un* ( = und, 'and') and are formulated in one long contour with two accents; the third phrase is conjoined without an explicit conjunction, but with subject-verb inversion as if implying a possible conjunction like *da* or *dann* ('then'), which might have been omitted for reasons of pace or rhythm. For the accents on *ABgehört, RAUchen* and *JAA* seem to be placed in roughly equal distances so as to constitute a regular isochronous rhythm here. The last phrase of this first part of the story, namely *meint ich JAA*, is structurally repeated with a change in the personal pronoun only to cohesively start off the second part of this short story, namely *meint er JA  HÖRT man.* Here, the first accent on *JA* follows at a shorter temporal distance after the last preceding accent than the distances between accents in the first part; and the final accent on *HÖRT* follows at a still shorter distance with no intervening unaccented syllable at all in between. As in the first example, the rhythm seems to speed up here, as if with strong rapidly occurring falling accent beats highlighting the doctor's merciless pointing out of D's fault. In this sense here the placing of accents and thus the constitution of accent rhythms seems to exploit and constitute a relation between the slower build-up or examination of the problem in the doctor's examination of his patient and its culmination in his brief pointing it out to her as a mere fact.[5] In addition, with the accent types used here, D seems to simultaneously exploit a metaphorical association of intonation: D's "/" accents in the entire first part of the story can be seen as building up suspense with the following "\" accents giving a kind of resolution: [F(... / ... /) F(/)  F(\)(\)]. Rhythm and accent types are thus used in combination as rhetorical story telling devices.

Unfortunately, there is no sequential structure or recipient reaction to confirm this hypothesis directly. Yet, M's reaction *naja* ('oh well') plus her

---

[4]Cf. also Schwitalla 1988, who notes similar prosodic and/or paralinguistic structurings used in story telling.
[5]On the laconic brevity of story culminations or punch lines in albeit mostly longer stories see Kallmeyer 1981: esp. p. 413.

further reply in line 39:6f is only given after the entire story plus a short pause, so displaying her interpretation of the entire story having been ended.

*4.2. The embedding of the story into the surrounding conversation*

The story is used by D as an example to back up her point in an argumentation specifically between M and herself. In this function it is explicitly contextualized and prefaced by D's utterance in line 39:3 and this again is directly related to D's prior proposition in lines 38:14-39:1 in which she argues M's belief that doctors cannot find out against a patient's will if s/he is smoking or not. In the following, I will work through these relations in detail, working from the story as a center outwards. I will analyse the way in which the story is contextualized within the conversational sequence by the speakers using, besides lexico-grammatical cues, non-contingent intonation contours and other prosodic cues as means of signalling formal cohesion and perhaps the type of intended relation between utterances.[6]

The utterance immediately before the story has an intonation contour called "hat pattern" or "suspension bridge" above (section 2):

```
3 D:   |aso MEIN: hausarz hat soFORT gemerkt daß ich rauche    .
          R(/                          \                          )
          so   my    doctor   has   immediately  noticed   that   I   smoke
```

Not this fact in itself is relevant, but the relation between this contour and the entire combined contour within the immediately following story. Looking at the accent pattern, this utterance sets the stage for what is to follow: The accent pattern constituted here, namely (/ \), is simply expanded in the following combined contours in the story telling, namely [/ / / \ \]. Textually, the utterance could be interpreted as a transition, indicated as such by the particle *aso* (= also, 'thus'), from the argumentation to the story telling by giving a kind of "abstract" of the story to come if no one else takes the turn during the short pause before the actual story telling. And the story itself is indeed a sort of expansion of the abstract. This structural relation is thus clearly mirrored on the intonational level.

The relation of the story telling to the argumentation also becomes

---

[6]On the embedding of so-called "functional" stories within discourse contexts like argumentations and their typical structural properties as compared to so-called "non-functional" stories in the narrower sense see also Gülich 1980: esp. section 1.

evident by looking at the intonation contours before the abstract:

```
11 M:    |(a bit tense) das RAUchen KÖNṇ die da
                        F(↓/          ↑\
                        the smoking can  they   there

12 M:    ┌nich feststelln*
         │         \      )
         │  not    find  out
13 E:    │            |DO:CH=┌|das (?SEHN die?)
         └            T(-  )  │      T(\     )
                      yes     │  that  see  they

14 D:    |(a bit tense)=┌ja WENN die dich ABhö:rn*   .
                        │  F(\              /     )
                        └well if  they to you(r lungs) listen


39:1 D:  ┌|wenn die dich ABhörn dann HÖRN die    ob du rauchs
         │             R(/              \          )
         │  if  they to you listen then hear they if you smoke
  2 E:   │                                  (piano) |das SEHN die ·
         │                                           (\        )
         └                                          that  see  they
```

The argumentation is started by M in line 38:11-12 by explicitly affirming that doctors cannot determine that a patient smokes. In this utterance, she already ties a relation to preceding turns by using a large bandwidth and thus going to very low and very high pitches in the course of accent movements. (An acoustic analysis confirmed that in contrast to the ca. five semitones covered in the story telling, the bandwidth covered here is ca. a whole octave, i.e. twelve semitones.) The contour is globally falling with a "/" and two succeeding "\" accents; the voice sounds a bit tense. Next, D in 38:14 starts contradicting M's affirmation, also with a slightly tense voice, but with a nearly reversed accent sequence of a "\" followed by a "/" accent. This utterance is in part spoken simultaneously with E's comment in 38:13 which also contradicts M. After a short pause, in 39:1 D resumes the turn to start with the same words again, this time obviously finishing her "sentence" and then going on to back up her argument. Yet, after she has been granted the turn for sure after the short pause, she changes her intonation on the repeated words *wenn die dich ABhörn* to an accent sequence (/ \) and thus establishes via intonation a different relation with the statement to be contradicted. Whereas the first accent sequence (\ /) was directly opposed, the second one (/ \) links up positively and maybe more cooperatively with M's argument.

In a folk psychological interpretation one could speculate on D's strategy

as follows: In a friendly and cooperative conversation like this one, an obvious hint at a contradiction to follow might run a good chance to secure the speaker who gave the hint, i.e. in this case D, the next turn by "irritating" current speaker; and now, when D has had the turn longer than E anyway and E did not claim the next turn during the pause and when thus D has got the turn for sure, she can be more cooperative again and link up with the utterance she wants to contradict. The resulting intonation pattern is then also used in the abstract to the story.

It is thus formally signalled on the intonational level throughout several turns which utterance and which argument the (projected) story is related to; intonation contributing to the "local occasioning" of the story by "methodically introducing" it (Jefferson 1979).

## 4.3. Some other relations within the sequence

To further illustrate the speakers' use of intonation and prosody to constitute different kinds of cohesive relations within conversation, the relations between utterances and successive turns can be traced from the beginning and to the end of the transcribed sequence. In order to demonstrate my fundamentally relational methodology more generally, I will leave the focus on story telling in this section of the paper. For reasons of space, the extracts of transcript (2) referred to here cannot be given again in full.

Let us start at the beginning. D's first question in lines 37:7-8 *wie HATtese denn nich SCHISS von wegn mit deiner LUNge röntchen daß de da: . dein rauchen feststelln* initiates the topic of smoking as a problematic one in the context of an examination by a Public Health Department doctor. Nothing, however, is remarkable about intonation and prosody here. Neither is prosody especially exceptional in D's further comment *bo DA hätt ich ja total e . |DA hätt ich ja total schiß vor* (38:1-3) which is spoken simultaneously with M's turn. M, however, first reacts with a tense *do:ch:* with a level accent on a lenghtened syllable on a mid pitch level. After her generalizing overlapped comments still spoken in a tense voice *aber das hab ich doch IMmer |hab ich doch IMmer* (38:2-4), she changes her global pitch level to low for the next comments *N:EI:N: |die hat die hat ich bin ni ma geFRAGT wordn ob ich . RAUche.* In this turn, M uses the particles *ni ma* ('not even') to indicate the unimportance of the whole matter to the doctor. This interpretation also corresponds to her prior overlapping repetition of *hab ich doch IMmer* and her also overlapped *NEI:N:* in lines 38:2-4 with which she in fact denied D the floor to make her point. In relation to the utterances spoken on mid pitch level before and in co-occurrence with the prior

tenseness of her voice and the locutionary content and turn position, low pitch level here seems to contribute to a signalled "playing the whole matter down" (cf. Bolinger's similar interpretations in his 1986 monograph).

Also remarkable, however, is the fact that D builds up in her following questions a clear contrast to M's preceding low global pitch levels in the utterance in line 38:8 *(relatively loud) HAM se no nimmals geFRACHT** with H,F(\ \ /), and, after M's answer *NEEE* on a normal mid pitch level, in her further utterance in line 38:10 *EHRlich nich   ..   |OH* with H(/) H(\), in which she repeatedly uses high global pitch level, extra strong and loud accents compared to the surrounding accents, and in the first question also increased overall loudness. In the sequential position in which they occur here, questions especially marked by prosody like the first one belong to the dispreferred forms of manifesting problems of expectation with respect to the prior turn. Presumably the manifestation of this problem type without prior "preparatory" interactional work is felt to disturb reciprocity between participants more than other more preferred problem types (cf. Selting 1987, 1987a and 1988 for details on this point).[7] A more preferred way might have been to first ask the same question signalled as an echo question, i.e. without prosodic marking by high pitch level, extra strong accents and increased loudness (ibid.). Here, however, D both locutionary and prosodically establishes a clear contrast and highlights that she can hardly believe M's words. If indeed M has been using low global pitch for "playing the matter down" before, D now seems to "play the matter up" again by using high global pitch level in three successive turns and by signalling her problem of expectation in the most blunt and direct way.

And exactly this built-up contrast between higher and lower pitches than "normal" in this context in almost immediate succession is both linked up with and combined, when M uses the contour F(↓/ ↑\ \) in her initiation of the argumentation in line 38:11, which was already commented on briefly above: *(a bit tense) das RAUchen KÖNn die da nich feststelln**. M seems to signal a sort of synthesis here: The solution to the problem might lie in the fact that the preceding discussion of this problem was based on the untenable premiss that doctors can find out. So, although M links up intonationally with both higher and lower global pitch level, covering a whole octave, she constitutes a completely new contour so as to also express contrast to the prior talk. Her new

---

[7]This is true at least in conversations between officials and clients in Northern German Public Administration offices. Similar preference hierarchies within so-called repair or local problem handling sequences might very well exist in other contexts.

contour, F($\downarrow$/$\uparrow\backslash$ \\), thus is almost opposed to the contours used before.

Now, let us finally look at the sequence after the story telling. M in her acceptance of D's argument in 39:6-7 uses three "\\" and one "/" accent as well as a strong accent marked by a larger bandwidth than the surrounding accents in the utterance *naja |is wahrSCHEINlich deswegn weil die BRONchien da IMmer drunter leidn* with (\\) F(\\ / \\$\uparrow$\\). The contour thus combines different categories but does not establish a clear relation to one of the contours used before in this extract. Maybe this corresponds to M's topic shift here: The issue is no longer whether doctors can or cannot determine that their patients smoke but why they can (cf. *DESwegn weil*, 'because of').

In D's affirming reaction to this (39:9-13 *aso der meinte das hört sich an als ob se halt immer erkä also so erkältes bis . |also so inner LUNge |dasse nich richtig LUFT kriss so)* she uses "\\" accents only, but rather arhythmically placed, with rather long stretches of unaccented syllables between the accents. The sequence is obviously being ended: Particles indicating conclusion *(also)* are used besides the arhythmic accent placement with relatively long accent units signalling the final stage of talk on this issue; maybe the point is only developed a bit further from 39:11 onwards because of M's late reaction in 39:12. Simultaneously with D's concluding comments, but uncompetitively (French/Local 1983), M once and then a bit later again remarks in a relatively piano voice *sie hat nix gesacht* with a M(/ \\) contour. On the locutionary level, M could here finally be answering E's question in line 38:5 at the beginning of the entire sequence; if so, this is signalled by her choice of words. On the other hand, her accent sequence of a "/" accent followed by a "\\" accent could be cohesively linking up with D's story, thus signalling that in her answer to E's question she is taking the in-between argumentation into account. Furthermore, another contour here might have established other relations with other contextual implications. But maybe these last interpretations have taken my methodological point a bit too far. After all, the temporal distance between E's question in line 38:5 and M's remarks is quite large and M could just as well be simply making a last thoughtful remark on the topic. Yet the utterance concludes the whole episode which was started off, among others, by E's question, but ended in D's being right on the issue. Consequently, M's utterance sounds more like a concluding remark to the sequence than like a comforting reassurance for fellow-smoking E who has to visit the doctor the next day.

## 5. Conclusions

In the analysis proposed in this paper, I have assumed intonation and prosody to be one formal cue used besides textual, lexico-grammatical choices and cues of turn structure in the signalling of conversational activities and cohesive relations between utterances, i.e. in contextualizing an utterance within its surrounding conversational sequences. Intonation and prosody belong to the formal cues which we use among others when we arrive at holistic interpretations of cohesion, cooperativity, participant relations, intentions, emotions, the "atmosphere" of a conversation etc. I take it to be a goal of conversational analysis to explicate as far as possible the formal properties and categories which our, i.e. recipients' and analysts', functional holistic interpretations are based on.

The view of intonation has been a relational one: Rather than searching for general and/or abstract meanings of intonational categories I have been looking at formal relations established within the sequence via intonation and prosody in co-occurrence with lexico-grammatical and other cues. As Levinson (this volume) pointed out, contextualization cues like intonation are used to build contrasts, attract attention to sameness, difference or the like, much like "a knot in the handkerchief" as a formal reminder of something. It is thus via accent pattern and intonation contour iteration, variation, opposition and similar relations between cues that participants in the sequences analysed here signal the sort of cohesive relation and thematic progression they want to establish between their utterances and turns. Furthermore, rhythmic pacing and/or tempo seem to play a role. These prosodic and intonational cues were used co-occurring with other cues to signal structural relations between utterances, the specific interpretation of which can only be arrived at in looking at the activities as a whole.

In some cases, the interactive meaning of specific intonational and prosodic patternings especially in the second sequence seem to be analysable with respect to notions related to Bolinger's (1986) use of the metaphors of "up" and "down" or "high" and "low" (cf. also Lakoff/Johnson 1980). Yet, here too, it was especially intonational contrasts established within the sequence in co-occurrence with the locutionary and sequential structure which gave rise to their interpretation along a dimension which I tentatively call "signalled and/or intended conversational relevance" and the ascription of "playing something up" to the choice of high or "playing something down" to the choice of low global pitch level. Furthermore, in relation to the participants' "normal" tempo as established in this conversation, contrasts in rhythmic pacing were tentatively

analyzable along a dimension of displayed "definiteness" or "control of the situation": quicker regular rhythmic pacing with relatively short accent units is sometimes like "hammering something into a listener's consciousness" whereas irregular arhythmic accentuation and in some cases longer accent units in contrary sound as if the speaker signals the message as tentative and maybe less important, less foregrounded or sequence ending (cf. also Selting 1989 for another example of this). Intonational and prosodic cues are thus used to signal specific locally relevant interpretive frames of different sorts and on different levels like e.g. "same or different activity/subactivity", "more or less cohesive", "more or less expected", "more or less important or in the foreground", "more or less like recognizable activity types like lecturing, reading aloud, telling a fairy tale, chatting" etc. With respect to all these dimensions, however, it should be primarily contrasts and relations established within each conversation which give rise to such general interpretations. A lot more research is needed, however, to confirm whether these interpretations are generalizable.

## References

Bolinger, D. [1986]. *Intonation and Its Parts*. Stanford: Stanford University Press.

Cohen, A./ 't Hart, J. [1967]. On the anatomy of intonation. *Lingua* 19, 1967: 177-192.

Couper-Kuhlen, E. [1983]. Intonatorische Kohäsion. Eine makroprosodische Untersuchung. *Zeitschrift für Literaturwissenschaft und Linguistik* 49, 1983: 74-100.

Crystal, D. [1969]. *Prosodic Systems and Intonation in English*. Cambridge: CUP.

Essen, O. v. [1964]. *Grundzüge der hochdeutschen Satzintonation*. Ratingen/Düsseldorf: Henn.

Gibbon, D. [1981]. A new look at intonation syntax and semantics. In: James, A./Westney, P. (eds.): *New Linguistic Impulses in Foreign Language Teaching*. Tübingen: Narr. pp 71-98.

Gibbon, D. [1984]. Intonation as an adaptive process. In: Gibbon, D./Richter, H. (eds.): *Intonation, Accent and Rhythm. Studies in Discourse Phonology*. Berlin, New York: de Gruyter. pp 165-192.

Gülich, E. [1980]. Konventionelle Muster und kommunikative Funktionen von Alltagserzählungen. In: Ehlich, K. (ed.): *Erzählen im Alltag*. Frankfurt/M.: Suhrkamp. pp 335-384.

Gumperz, J. [1982]. *Discourse Strategies*. London: Cambridge University Press.

Jefferson, G. [1979]. Sequential aspects of storytelling in conversation. In:

Schenkein, J. (ed.): *Studies in the Organization of Conversational Interaction.* New York etc.: Academic Press. pp 219-248.

Kallmeyer, W. [1981]. Gestaltungsorientiertheit in Alltagserzählungen. In: Kloepfer, R./ Janetzke-Dillner, G. (eds.): *Erzählung und Erzählforschung im 20. Jahrhundert.* Stuttgart etc. pp 409-429.

Labov, W./ Waletzky, J. [1967]. Narrative analysis: oral versions of personal experience. In: Helm, J. (ed.): *Essays on the Verbal and Visual Arts.* Seattle, London. pp 12-44.

Ladd, D. R. [1980]. *The Structure of Intonational Meaning.* Bloomington, In.: Indiana University Press.

Lakoff, G./ Johnson, M. [1980]. *Metaphors We Live By.* Chicago, London: University of Chicago Press.

Lehiste, I. [1975]. The phonetic structure of paragraphs. In: Cohen, A./Nooteboom, S.G. (eds.): *Structure and Process in Speech Perception.* Berlin etc: Springer. pp 195-203.

Pheby, J. [1980]. *Intonation und Grammatik im Deutschen.* Berlin: Akademie-Verlag, Second edition.

Pierrehumbert, J. B. [1980]. *The Phonology and Phonetics of English Intonation.* PH.D. Thesis, M.I.T.

Quasthoff, U. [1980]. *Erzählen in Gesprächen.* Tübingen: Narr.

Sacks, H./ Schegloff, E. A./ Jefferson, G. [1974]. A simplest systematics for the organization of turn-taking in conversation. *Language* 50, 1974: 696-735.

Schwitalla, J. [1988]. Erzählen als die gemeinsame Versicherung sozialer Identität. In: Raible, W. (ed.): *Zwischen Festtag und Alltag.* Tübingen: Narr. pp 111-132.

Selting, M. [1987]. Descriptive categories for the auditive analysis of intonation in conversation. *Journal of Pragmatics* 11, 1987: 777-791.

Selting, M. [1987a]. *Verständigungsprobleme. Eine empirische Analyse am Beispiel der Bürger-Verwaltungs-Kommunikation.* Tübingen: Niemeyer.

Selting, M. [1988]. The role of intonation in the organization of repair and problem handling sequences in conversation. *Journal of Pragmatics* 12, 1988: 293-322.

Selting, M. [1989]. Konstitution und Veränderung von Sprechstilen als Kontextualisierungsverfahren: die Rolle von Sprachvariation und Prosodie. In: Hinnenkamp, V./Selting, M. (eds.): *Stil und Stilisierung. Arbeiten zur interpretativen Soziolinguistik.* Tübingen: Niemeyer. pp 203-225.

Uhmann, S. [1988]. Akzenttöne, Grenztöne und Fokussilben. Zum Aufbau eines phonologischen Intonationssystems für das Deutsche. In: Altmann, H. (ed.):

*Intonationsforschungen*. Tübingen: Niemeyer. pp 65-88.

Yule, G. [1980]. Speakers' topics and major paratones. *Lingua* 52, 1980: 33-47.