ON THE INTERPLAY OF SYNTAX AND PROSODY 
IN THE CONSTITUTION OF TURN-CONSTRUCTIONAL UNITS 
AND TURNS IN CONVERSATION

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1. Introduction

In their famous 1974 paper, Sacks, Schegloff & Jefferson posed one of the most fundamental problems for conversationalists to handle and for conversation analysts to explain: The problem of how smooth turn taking, without too much overlap and without too much gap, can be achieved. Their solution is the proposal of "A simplest systematics for the organization of turn-taking for conversation". They propose a mechanism for the organization of turn taking in which a turn-constructional component deals with the construction of units, turn-constructional units, at the end of which the regulation and negotiation of turn allocation for the next such unit becomes relevant. For this to be achieved, points of possible completion of unit-types, so-called 'transition relevance places' (TRPs) are particularly important.

There are various unit-types with which a speaker may set out to construct a turn (...) Unit-types for English include sentential, clausal, phrasal, and lexical constructions (...). Instances of the unit-types so usable allow a projection of the unit-type under way, and what, roughly, it will take for an instance of that unit-type to be completed (Sacks, Schegloff & Jefferson 1974: 702).²

Sacks, Schegloff & Jefferson, when commenting on the structure and recognizability of units, primarily mention and elaborate on their syntactic structure. Nevertheless, the kind of syntax compatible with and suitable for their model of turn-taking is a particular one: "A syntax conceived in terms of its relevance to turn-taking" (ibid.:

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¹ I am grateful to the participants in the Odense workshop for their discussion of the paper read there, and to Ceci Ford and Johannes Wagner for comments and criticisms of a previous version of this paper which helped to improve this final version.

² Later on in their paper, Sacks, Schegloff & Jefferson (1974) continue to point out the relevance of their model as follows: "We have proposed that the allocation of turn-space is organized around the construction of talk IN the turn. That organization appears to key on one main feature of the construction of the talk in a turn - namely, that whatever the units employed for the construction, and whatever the theoretical language employed to describe them, they still have points of possible unit completion, points which are projectable before their occurrence" (ibid.: 720). What matters for turn-taking, are, thus, 'possible completion points' of constructions: "These turn out to be 'possible completion points' of sentences, clauses, phrases, and one-word constructions, (...) and multiples thereof" (ibid.: 721).
721). More detail of the questions and problems that such a syntax has to be able to deal with is given by Schegloff (1979, especially 280ff.). Schegloff's remarks can be seen as the proposal to develop a new model of syntax, an interactionist 'syntax-for-conversation' (ibid.).

At the same time, however, Sacks, Schegloff & Jefferson, while not dealing with it in detail, were well aware of the importance of prosody and intonation to the formation and recognition of units and, possibly, unit types. In their 1974 paper, they comment on the role of intonation as follows:

Clearly, in some understanding of 'sound production' (i.e. phonology, intonation etc.), it is also very important to turn-taking organization. For example, discriminations between what as a one-word question and as the start of a sentential (or clausal or phrasal) construction are made not syntactically, but intonationally. When it is further realized that any word can be made into a 'one-word' unit-type, (...) via intonation, then we can appreciate the partial character of the unit-types' description in syntactic terms (ibid.: 721f.)³

In the following, I want to take Sacks, Schegloff & Jefferson's model as the starting point for my own analysis. I want to have a closer look at the specific roles that a few particular linguistic devices and schemata play for the organization of the turn-constructional unit and the turn.⁴ In particular, I want to show

(1) that and how syntactic structures like the 'possible sentence', as a flexible syntactic schema, can be used for comparatively far-reaching projections,

(2) that and how intonation, too, is a flexible schema with 'possible contours' that is used to configure, delimit and more locally contextualize the production of turn-constructional units,

(3) how both syntax and intonation play their own individual roles and interact as resources in the organization and projection of turn-constructional units and turns-at-talk.

A few notes of caution: Firstly, I am trying to deal only with the units that are relevant in Sacks, Schegloff & Jefferson's model, and I am not giving a detailed account of turn-taking itself. Secondly, I am not going to present detailed analyses of single phenomena here to prove one particular point, and I am not going to give detailed warrantings for each single analysis. I am trying to draw together some

³ In recent research, the relevance of prosody for the organization of turn-taking and other sequencing in conversation has been given attention by some researchers in England and Germany, see, e.g., Local, Kelly & Wells (1986); Local, Wells & Sebba (1985); and some of the papers presented in this volume. In particular, work in the German research context is trying to bring together work in CA and John Gumperz' (1982, 1992) work on 'contextualization', for the latter allows a more flexible view of the relation of prosody and other linguistic structuring than other approaches to the study of prosody and intonation (cf. Couper-Kuhlen and Selting 1996).

⁴ For recent work that seems to head in a similar direction see, e.g., Ford, Fox & Thompson (1995).
results and arguments that prior analyses of syntax and prosody have yielded, predominantly those presented in my post-doctoral thesis (Selting 1995a), in order to come closer to a model of how projectability with respect to the construction of turn-constructional units and turns-at-talk might work.

I will use the terms 'schema', or 'construction schema', and 'gestalt' in the following way. With reference to linguistic resources of social interaction, 'construction schema', or simply 'schema', is used in order to denote the way in which a flexible, dynamic, and situationally adaptable linguistic structure is organized. Construction schemata provide knowledge about constitutive entities of a structure which can be expectably linked in more or less tight and in more or less varied ways, their exact relation and enactment being dependent on and open to the task at hand. Schemata are assumed to be cognitively and interactionally relevant.5 'Gestalt' is a particular kind of construction schema that foregrounds the holistic - and yet analytically decomposable or deconstructable - nature of a 'unit'. Linguistic gestalts typically have a beginning, a trajectory, and an end. The initiation of a particular gestalt-type configuration or activity as well as the ongoing emerging production of it, project gestalt closure or completion. As gestalts are flexible schemata, however, this projected completion can be flexibly organized and can be adapted to the task at hand. As I will show, both syntax and prosody provide holistic construction schemata or gestalts that are realized with flexible beginnings and ends as well as flexible details of their internal structure. Irrespective of the flexible and variable details, the actual tokens are recognizable as realizations of a particular holistic schema or gestalt that participants rely on for their orientation in constructing and interpreting turn-constructional units: For instance, the schema of a 'possible sentence' or a particular kind of 'intonation contour'.

With respect to the projection of units, I will differentiate between four kinds of projection: Syntactic projection, which is done by the initiation of syntactic schemata; prosodic projection, which is accomplished by the use of prosodic means of unit and/or turn holding or yielding; semantic projection, which is realized by the use of particular lexical constructions such as either ... or, first ... second, etc., or by starting to provide a piece of information that needs to be completed; discourse-pragmatic or sequential projection, which is achieved by the formulation of announcements, prefaces or other kinds of initiation of recognizable activity types which are thus being made expectable. I will show some points of interaction and interdependence between these methods of projection.

My data base is a corpus of informal conversations between three participants who all speak a variety of North-Western Standard German. Thus my analyses of the details of intonation contours need not be valid for other dialects of German.

5 Cf. Gumperz (1984) and Tannen (1979) on the notions of 'schemata' and 'frames'. Although the notion of 'frame' seems to have become more widespread than that of 'schema' recently, to me 'schema' seems to be more appropriate than 'frame' to denote the kind of rather formal linguistic construction devices that I have in mind.
In this section, I will first look at two fundamental resources for the construction of turn-construction units, syntax and prosody, separately, I will then analyse their interaction. For syntax, I will largely restrict myself to units whose syntax can be described in terms of possible sentences or clauses and expansions at their beginnings and ends; other constructions are neglected here. This approach makes necessary another word of caution: Although I will mostly analyse a particular kind of syntactic schema and its possible completion points, it should not be overlooked that the interpretation of these schemata themselves is largely context dependent (see below, cf. also Selting 1995b; Ford, Fox & Thompson 1995).

2.1. ‘Possible sentences’ or ‘possible clauses’ as an interactionally relevant resource

In syntactic theory, the sentence and/or clause is looked upon as the fundamental unit of linguistic description. In general, however, it is difficult to give a precise definition of this entity, especially if it ought to be applicable to and compatible with structures found in talk in conversational interaction (cf. Crystal 1979). The most important problem is that sentences/clauses in grammar books are presented as static structures, the fixed results of a production process that normally has been writing, not speaking (cf. also Auer 1992). In the literature, ‘sentence’ seems to be used as a superordinate term which refers to simple or complex syntactic units that can be used independently, whereas ‘clause’ refers to subordinate parts of ‘sentences’, such as subordinate or conjoined clauses which are syntactically dependent on or closely linked to a superordinate clause together with which it forms a complex sentence.6

For many sentences and clauses to be found in natural talk in conversational interaction, these notions also do not pose a problem (although they might not lead us to very interesting questions). What is difficult to deal with, though, are the so-called ‘elliptical’ or the additional phrases ‘before’, ‘at the beginning and end’, ‘after’ or ‘in-between’ sentences or clauses. How are they to be analysed? In what ways are they related to the co- and context? As turns are flexible entities which have to allow room for incremental production processes and interactional negotiation, the linguistic structures constituting them should reflect this (Schegloff 1979). So, for a ‘syntax-for-conversation’, a more flexible notion of the ‘sentence’ or the ‘clause’ seems to be more promising. The notion of "possible completion points" of sentences, clauses, phrases, and one-word constructions" (Sacks, Schegloff & Jefferson 1974: 721 and passim) seems to suggest more flexible entities such as, e.g., the ‘possible sentence’, ‘possible clause’ etc. (cf. also Selting 1995b).

Yet, a notion of the possible sentence or clause is not just relevant because

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6 In general, such constructions that show a finite verb form qualify as sentences, or as a ‘Satz’ in German grammar. Sentences have been classified further and we learned the traditional notions of declarative, interrogative, imperative, etc. sentences. Complex sentences can consist of one or several subordinate finite, non-finite or verb-less clauses which precede, follow, or are inserted into, the superordinate finite clause (cf., e.g. Quirk & Greenbaum 1978).
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the 'sentence' or 'clause' is relevant in grammar books and written language, but because it is relevant for participants in conversational interaction. In order to demonstrate this, we have to show empirically how participants orient to such an entity. To this end, I will present some data extracts. The transcription conventions are listed in the appendix. For the time being, we only need to consider the text lines.

Evidence for the participants' orientation at a notion of the possible sentence or clause can be gained from different kinds of recipient responses to a speaker's production of his or her unit: One kind of evidence comes from cases in which recipients refrain from turn taking as long as the present speaker has not ended a sentence or clause under way, even if the speaker pauses or hesitates after he or she has started and projected the unit to come. See data extract (1): lines 826f.

(1) K4: 824-833

824 Eli: "ich HAB mir keine geDANkn darüber gemacht (...)"
M(/ \ )
I didn't think about that
826 Eli: "zuMAL ich auch ÜBERwiegend studentn hab die:*"
M(/ \ )
since I also overwhelmingly have students who
((schluckt))
((swallows))
827 Eli: "die also schon Älter sind die: schn ein"
M(/ \ )
who are older already who already
828 Cis: mhm
829 Lea: mhm

In line 826, speaker Eli produces the clause zuMAL ich auch ÜBERwiegend studentn hab 'since I also overwhelmingly have students'. She then projects another clause with the relative pronoun die: 'Who', after which she stops with a glottal closure and swallows, before she repeats the relative pronoun and then produces some full relative clauses. Although Eli's silence in line 826 is quite long, recipients Cis and Lea do not take over but leave the turn with Eli. - As this kind of turn-holding is
a fairly well-known strategy, I will not deal with this kind of evidence in more detail here (on the prosodic details of this kind of turn-holding see Local & Kelly 1986; Local 1992; Selting 1995a).

Another kind of evidence can be inferred from the positions in which recipients of a turn place their recipiency tokens and/or their early starts for their intended next turns. The most frequently chosen place for recipiency tokens such as mhms and the start of the next unit is after the end of a sentence or clause, with or without a brief gap. This can also be seen in extract (1), where the recipients place their mhms in lines 828, 829 and 831 after the end of Eli’s clauses.

This type of placing, when the recipient is arguably not giving earlier recipiency tokens or is not trying to start a new turn early, or when in general the pace/tempo of the interaction is a rather slow one, can be looked upon as evidence that, in these cases, the recipient simply waits for the actual end of the prior syntactic unit. This is a second type of unproblematical evidence that I am not going to deal with any further here.

More interesting evidence can be gained from cases in which recipients place their reactions shortly before the actual end of the prior speaker’s unit. The question here is: At exactly which points are these reactions positioned, and what does this tell us about the recipients’ orientation to syntactic and/or prosodic structures?

One point at which recipients may place their reactions is, as Sacks, Schegloff & Jefferson (1974) noted, the possible end of syntactic constructions such as ‘possible sentences’ or other phrases. Such points are denoted ‗|‘s in the following transcripts. Extracts (2) through (6) show examples with mhms as reactions, extracts (7) through (10) show examples with early starts as reactions:

(2) K4: 857-862

857 Cis: un:d (. ) m die WAHRnehmung die ICH davon habe is: (. )
858 M( / \\
\n1 1 
\nand m the impression that I have is

859 SCHON eher so eine daß (...) es NICHT einglich an den
1 \ 1 1
\ rather such that they don’t lack the

860 Lea: [AUSdrucksform mangelt ] s sondern (...) a oh eher an
1 /
\ means of expression but a oh rather

861 Cis: was was AUSzudrückn wäre ] s
1 \ 1>
\ the ideas to express

7 I will almost only deal with mhms at and near the end of turn constructional units and neglect those which might occur in overlap with earlier points or spaces of a speaker’s unit.
In (2) it is a ‘possible sentence’ after which Lea produces her recipiency token *mhm* in line 860, but Cis still adds a further clause without any kind of prosodic break.

(3) K4: 809-812

809 Lea:  
also ich hab NIE n eindruck daß die (...) GRUNDsätzliche

810 Eli:  
well I never have the impression that they principally

811 Lea:  
politisches denken oder handeln ABliehn: ne

812 Eli:  
object to political thinking or acting you know

In extract (3), the first clause, *also ich hab NIE n eindruck* ‘well I never have the impression’, is not complete; the subordinate clause is an obligatory verb complement here. Nevertheless the recipient’s *mhm* is given after the superordinate clause. This fragment thus shows that the recipient does not orient to a larger piece of semantic information comprising both clauses, but to a syntactic unit.

Very frequently, recipiency tokens are produced in overlap with the tag question *ne*. One such case can be seen in extract (4).

(4) K4: 651-653

651 Lea:  
also es GEHT ja immer um die

652 Lea:  
zukunft der germanistik }s ne

653 Cis:  
future of German you know

The frequency of these occurrences shows that the German tag question *ne* does not seem to count as part of the possible sentence.

Extracts (5) and (6) present examples in which a constituent which could have been placed within the middle of the sentence is placed at the end of a possible sentence, for reasons of semantic focusing and turn organization (cf. also Auer 1991, 1996; Uhmann 1993):

(5) K5: 440-441

440 Cis:   
un wir KANNtn uns alle nich AUS ]s mit dem medium ]s ne

441 Lea:   
and we all didn’t know anything about this medium you know
(6) K5: 418-421

418 Cis: [ IRgnwann (..) m bröckelte das ausNANDer=wie das F(/ at one point it fell apart / )
419 Lea: [ as it jaa \]
420 Cis: [ ja OFT so is ]s in (. ) solchn (. ) zusammnhängn ]s
421 Lea: [ M/ often does in such groups jaa \]

Syntactically, the sentence in (5) could have been produced as wir kannn uns alle mit dem medium nich aus, an English translation displaying this word order might be ‘we all didn’t know about this medium anything’; and the clause in (6) could have been produced as wie das ja oft in solchn zusammnhängn so is ‘as it often in such groups does’. Instead, a constituent is extracted from the middle and is placed, in extract (5), after the split verb construction kannn ... aus (sentence brace) or, in extract (6), after the finite verb is as possible ends of possible syntactic sentences or clauses. In both cases, the recipient reacts to the first completion point of the possible sentence and the postponed material, which is more redundant, is not or less focused than the material included in the possible sentence up to its first possible completion point.

In the following extracts (7) through (10), an early start is produced in overlap with the continuation of a possible sentence or clause. In extracts (7) and (8), an early start is produced in overlap with the expectably last trail-off items of the prior speaker’s turn.

(7) K4: (cf. also K4: 1177-1179)

655 Cis: war das IRgendwas mit äh: (.) die verANTwortung des H.R( / was that something with the responsibility of the
656 Cis: [ geist (.) Grieswissenschaftlers ]s oder so ]s
657 Lea: [ social scientist or so ja s SELBSbewußtsein ja th selfconsciousness ]s

(8) K5:

503 Eli: [ ZyNisch (. ) würd ich sagen M( / )
504 Cis: [ cynical I would say p>
505 Cis: [ das is eine DURChaus reaL(h)ISTische EINschätzunG ]s
506 Cis: [ that is actually a realistic assessment R(/
507 Cis: [ that I would say ]s ]
oder so ‘or so’ in extract (7) as well as würd ich mal sagen ‘I would say’ in extract (8) can be analysed as turn-final trailing-off phrases.

In extracts (9) and (10), however, early starts are produced in overlap with the beginning and thus projection of a new turn-constructional unit:

(9) K4:

801 Cis: EINfach nur weil du das nich WILLS \ oder
802 Lea: is it simply because you don’t want it or
803 Lea: die sich verHALtn ne
they behave you know

In (9), after the clause EINfach nur weil du das nich WILLS ‘is it simply because you don’t want it’, which functions as a question here, the speaker Cis produces the word oder ‘or’ as the possible start of a next possible sentence, but drops out almost as soon as the recipient comes in.

(10) K1: 500-501

498 Ida: da KRISs ja bald EIne daZU
you’ll get one more there
(...)
500 Ida: ICH KENN eine \谁 
I know a girl who
501 Nat: KATrin=
\f

In (10), Ida has been telling Nat that another student that she knows (EIne ‘one’) will start working at her job place, but Nat cannot identify the reference of this EIne; after a pause Ida has produced the beginning of an identification sequence with the minimal syntactic clause ICH KENN eine ‘I know a girl’ and the beginning of a relative clause die ‘who’ which projects further identification talk. Nat, in order to avoid continued talk by Ida because she now has identified the referred-to person as KATrin, comes in exactly at the first possible end of Ida’s possible clause or sentence. Again, this shows that for the placement of an early start, it is not the larger piece of semantic information consisting of both the superordinate and the subordinate clauses that the recipient orients to, but a minimal syntactic unit.

From these extracts, it can be seen that the point at which the recipiency
token or the early start is produced, is just a point at which a or the projected syntactic sentence or clause is possibly complete. Auer (1996) has called such a point a ‘possible sentence completion point’ (PSCP). It is the point at which a syntactic structure might end without leaving a fragmentary construction behind. In German, this point regularly occurs when - in a particular context - the final part of the split verb construction of a sentence (sentence brace) and/or all the obligatory complements/arguments of the verb have been produced.

Actual sentences can have more than one possible sentence completion point:

(11) K5:

564 Cis: und sie SUCHte also immer (. ) nach diesn: (. )
     and she was always looking for these

565 Cis: auch explizITN (. ) äh aussagn \_s über den INhalt \_s und die

566 Eli: more explicit \eh statements about \the content \and the
\ach SO (. ) \mhm

567 Cis: diskusSIONstränge \_s und hin und her \_s

568 Lea: arguments \and on and off
\hm \hm \hm

In (11), the recipient’s response is given well after the first possible sentence completion point, but note that it is a fast \ach SO ‘oh’, i.e. a ‘change-of-state’ token (Heritage 1984) that is used here to signal sudden and by now ‘late understanding’ of the prior turn-constructional unit. The \ach SO is followed by a \mhm which by producing it after the \ach SO seems to be presented as a late \mhm. Here, the actual sentence is expanded three times after prior possible sentence completion points.

Syntactic expansions need not be integrated into the same unit. Extract (1), here presented again as (12), shows syntactic expansions that are presented in independent turn-constructional units: All the phrases beginning in lines 827 \die:: schn ein studium A:Bgeschlossen ham ‘who already finished one degree’, 830 \oder: faMi:lie habm ‘or have a family’ and 832 \im beRU:F stehn ‘are working’ each form an independent unit. The way in which this is achieved, their prosodic packaging, will be dealt with below.

(12) K4: 824-833 (= (1))

824 Eli: ich HAB mir keine geDAnkn darüber gemacht (. . )
     \I didn’t think about that

825 Lea: \mhm

826 Eli: \zuMAL ich auch ÜBERwiegend studentn hab die:*  

\since I also overwhelmingly have students who
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From all this it follows that recipients orientate to the possible sentence and/or clause as a kind of syntactic orientation schema: The possible sentence or clause is a syntactic figure or gestalt or construction schema that reaches from the possible beginning of a possible sentence till a first or any further possible completion point. Once a possible sentence has been projected, recipients seem to be able, because of their knowledge of possible syntactic structures and schemata, to recognize potential end points of these constructions. They can then use these as a resource for the placement of their own recipiency tokens or their attempts to start their intended next turns as early as possible without interrupting the prior speaker. Yet, neither the first, nor any of the later possible sentence completion points need to be actual sentence completions. This means that by simply expanding possible sentences beyond these points the speaker uses the schema of a sentence as a dynamic and flexible resource, the possible endings of which can be shifted according to the exigencies of the situation. As I have already mentioned, however,

8 Both possible sentences as well as possible sentences plus expansions can be produced by speaker and recipient in co-operation: In (12a), in line 97, the recipient Cis produces an expansion of Lea's sentence.

(12a) E:

94 Lea: aso ich WEIS wohl konKRET so\nwell I know in particular\n\n95 meine Mütter de macht zum beispiel so SACHen daß dann:\nmy mother she does for example such things that then\n\n96 gehts so irgndwie sowas ähm: (...) SUCHN se FRAUngestalt(n )\nthere is the issue of somehow they look for female\ncharacters
prosodically these expansions can be organized and packaged very differently: By prosodic integration or independence. I will shortly come back to this point.

While talking about the possible completion points of syntactic constructions such as possible sentences is a good means of showing that participants in interaction do indeed orient to syntax as one kind of flexible construction schema, this might obscure the fact that the perception and interpretation of possible syntactic units is, however, itself highly context dependent. As long as one looks at possible completion points of possible sentences, possible completion seems to be determined syntactically. When one starts looking at other syntactic construction schemata, e.g. so-called ‘elliptical’ constructions, it becomes clear that possible completion points are not only syntactically but also sequentially dependent and constrained -- the possible completion points of syntactic constructions used for doing, for instance, repair are quite different from those of possible sentences and some other constructions doing other kinds of interactional work. This shows that possible syntactic completion is not only a syntactic but also a contextual notion (cf. also Ford, Fox & Thompson 1995). This issue, however, is not at the center of this paper.

2.2. ‘Possible contours’ as an interactionally relevant resource

The question now is: How is it achieved that, as I have claimed, syntactic constructions and their expansions can be packaged in one or more than one turn-constructional unit? For the answer to this, we have to turn to a second kind of structuring, the prosodic one. On the prosodic level, intonation contours are used to configure stretches of speech as units, i.e. as holistic melodic gestalts. From the beginning of a unit till it’s end, the continuation of pitch movements that constitute the contour is used as a cohesive signal, primarily the global pitch of the entire unit, in co-occurrence and interplay with pitch accent movements.

An ‘intonation contour’ is a prosodic or melodic gestalt that is perceived by recipients and analysts as prosodically cohesive because of its pitch trajectory, and in some cases also its rhythm, and that is delimited from neighbouring contours by boundary signals. A ‘boundary signal’ involves a prosodic or melodic break and a new onset, constituted by one or more of the following devices: Upstep or downstep at the beginning of a new unit, latching and/or faster anacrustic syllables at the beginning of a new unit, sound stretches or final lengthening at the end of a unit, pauses before the beginning of a new unit. The intonation contour itself can be described in terms of global and local pitch movements.

For an illustration, a few frequently used prototypical pitch contours in Standard German with falling, rising and mid level global pitch and falling and rising local pitch accent movements can be represented as in Figure 1:

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97 Cis: ((haucht aus)) inner Bibel |
        <c> \ )
        <D> 
        ((outbreath)) in the bible
        \NE
        (/)
        you know

98 Lea: }
"Global pitch movement" refers to the pitch movement of longer stretches of speech, for example entire turn-constructional units. The stretch of speech made to be interpreted as a 'unit' via global pitch is sometimes called an 'intonation unit' in other approaches, and defined as follows: "Roughly speaking, an intonation unit is a stretch of speech uttered under a single coherent intonation contour" (DuBois, Schuetze-Coburn, Cumming & Paolino 1993: 47). In the notation given in Figure 1, the stretch of speech which is configured as a cohesive one is indicated by the round brackets ( ); in cases of unfinished units, the right bracket may be left open. Global pitch is constituted by the pitch of unaccented syllables in co-occurrence and interplay with the pitch of successive accent peaks or valleys. It can be described and notated in terms of the parameters global pitch direction, such as falling (F) or rising (R), and/or pitch register, such as high (H), mid (M) or low (L), and it is notated before the brackets. Such global pitch movements configure turn-constructional units as internally cohesive, while boundary signals such as upstep (<u>), downstep (<d>) or faster syllables at the beginning of new units (<all>) delimit it from neighbouring turn-constructional units. Global pitch seems to be related to what is known as 'declination' in intonation research, while the boundary signals seem to be related to 'reset' for the start of a new unit.

"Local pitch movement" refers to the pitch movement of component parts of a contour, especially the 'onset' pitch of the unaccented syllables before the first accent of a contour, and the pitch movement in and after accented syllables which is notated inside the round brackets. The 'pitch accent movement' in and after accented syllables is commonly described in terms of falling, rising, level, rising-falling and falling-rising. In my Standard German data, pitch accent movements in general start in the nucleus of the prominent accented syllable and are continued in the subsequent less prominent, unaccented syllables till the beginning of the next accented syllable, till another change in pitch direction, or till the end of the utterance.

The intonation contour is a flexible gestalt that speakers can continue, expand, or come back to after unit-internal pauses, trouble or side-material. In general, 'pitch continuation' is used to signal that what is coming now is the continuation of the prosodically cohesive unit that has been started before. In cases of unit-internal pausing or side-material, the speaker can contextualize such side material as unit-internal. For this, he or she can produce holding devices such as sound-stretches and, most importantly, locally level or slightly rising pitch before, for example, the pause, and he or she can continue with just that pitch, and most often...

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**Figure 1:** Some prototypical intonation contours in Standard German

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\[
\text{\(F(\_\_\_\_\_\_\_)\)}  \quad \text{\(<u>R(\_\_\_\_\_\_)\)}  \quad \text{\(<d>M(\_\_\_\_\_\_)\)}
\]
also the same loudness, after the pause (cf. Local 1992; Selting 1995a: chapter 2.3.1.1.).

Extract (13) gives an example in which speaker Eli interrupts herself and pauses in the middle of her unit. After recipient Cis has provided the projected item, Eli repeats it. Both Cis and Eli continue the pitch and loudness of the pre-pause part of Eli's unit and thus present the lexical help as the continuation of the previously begun unit and not as the start of a new unit.

(13) K4: 50-51

50 Eli: was is denn feminismistische* (0.3) THEologie
        \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   \   

Here, we can see that Eli's pitch peak in the word feminismistische has roughly the same height as the successive pitch peaks of both Cis' repair as well as Eli's own (only slightly lower) repetition of it.

If, on the other hand, the speaker wants to start a new unit, after a preceding one or after a pause that he or she originally produced prosodically as a unit-internal one, he or she displays a break by deploying an upstep or a downstep and maybe also greater or lower loudness than before, or by using increased speech rate for the beginning of a new unit (cf. Local & Kelly 1986; Local 1992; Selting 1995a: ch. 2.1.).

The global pitch trajectory of a contour is especially significant as a resource used to signal internal cohesion. Speakers can return to this global pitch; they recognizably repeat, cite, reverse or vary holistic contours; and more than one participant can produce contours in co-operation. These practices present evidence that participants orient themselves to contours as interactionally relevant entities. (On the internal structures of contours see Selting 1995a.)

Yet the contour is also a very flexible and expandable schema. Just as syntactic constructions such as possible sentences or clauses can be expanded, so also the pitch contours which package speech into recognizable 'units' can be expanded. Most commonly, for added verbal material, a contour that has been established before can simply be expanded by using pitch movements that either continue the global pitch direction or, if that contour has already reached high or low pitches, by adding pitch movements which are flatter but still continue the pitch direction without a melodic or other break. This is why the ultimate end of a

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9 In contrast to holding devices in English, which have been analysed by Local & Kelly (1986) and Local (1992), in my German data I did not find the same systematic usage of the glottal stop in such circumstances.
contour and, in consequence, of a turn-constructonal unit, can only be analysed retrospectively.

Syntactic expansions as well as any other continuations of the utterance can be packaged in different prototypical ways: 'Prosodic integration' refers to the co-occurrence of the verbal continuation with a simple continuation of the contour without a melodic or other break, 'prosodic independence' refers to the co-occurrence of the verbal continuation with a new prosodic unit with its own intonation contour which sets it apart from the prior contour and unit by constituting a prosodic break.

Look at extract (12) again which is here presented with a more detailed representation of intonation:

(12) K4: 824-833

ich HAB mir keine gEDAlkn darüDer gemacht(...) M(/
I didn't think about that mhm /
zuMAL ich auch überwieqgend studentn hab die:* <u>M(\ since \I also overwhelmingly have students who 
(schluckt))}
((swallows))

die also schon Alter sind die:; schn ein <c> <f> <d> who are older already who already mhm /

studium Aßgeschlossen ham oder fami:lie habm M(\ <d> M(\ finished one degree or have a family mhm /

im berU:P stehn <d> M(\ are working
The first unit, *ich HAB mir keine geDAnkn darüber gemacht* ‘I didn’t think about that’, ends with falling pitch. The second unit, *zuMAL ich auch ÜBERwiegend studentn hab* ‘since I also overwhelmingly have students’, starts with an upstep, thus signalling it as a new unit. At the end of this syntactic clause, now, we have the prosodically integrated continuation of this possible clause with the relative pronoun *die* ‘who’: Both the end of the possible clause, *studentn hab*, as well as the continuation *die*: Are at the same pitch, there is no prosodic break. After *die*, however, Eli cuts off with a glottal stop and swallows. For the repetition of the relative pronoun *die*, Eli starts with the same pitch as that where she cut off before and thus signals ‘continuation’. The end of this unit, *die also schon ÄLter sind* ‘who are older already’, is falling, after which for the beginning of the next unit, *die:: schn ein studium A:Bgeschlossen ham* ‘who already finished one degree’, is delivered as a downstep. The next two units, *oder: faMI:lie habm* ‘or have a family’ as well as *im beRU:F stehn* ‘are working’, are again delimited and added through downsteps. Similar to the upstep in line 826, the downsteps in lines 827, 830 and 832 constitute prosodic breaks and contextualize the beginning of prosodically independent (new) contours. These cases thus show how prosodic continuation and integration are differentiated from prosodic independence in constructing turn-constructional units in turns.

The terminal pitch movements, which can be retrospectively reconstructed as the last pitch movements of a unit, are locally falling, rising or level. In general, falling, rising and level local pitch movements start in the last accented syllable and are continued till the end of the unit. In the cases of so-called falling-rising or rising-falling pitch accent movements, the pitch direction after the falling or rising accented syllable changes again to constitute the second, i.e. rising or falling, part of the movement in a later unaccented syllable. In both cases, we find locally falling, rising or level pitch as the last pitch accent movements of possible contours in units which are potentially complete. As I will discuss below, however, not all of these possible contours for possible unit completion are used to signal possible turn completion.

In general, the accented syllable has greater loudness and sometimes also greater length than the following unaccented syllables at the end of the unit.10 In Standard German, however, I could not auditorily identify specific pitch configurations, such as a specific depth or height of the terminal fall or rise, which is characteristic of unit- or turn-endings. Instead, in a most fundamental sense, every terminal pitch movement and its possible completion can retrospectively be continued and thus made into a non-terminal one, by simply taking up the pitch the speaker has ended with and continuing it. This can even be done after pauses of several second’s length.

Extract (14) shows a case in point:

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10 Cf. also the parametrical analysis of the prosody of unit endings and turn taking in varieties of British English in Local, Wells & Sebba (1985), Local, Kelly & Wells (1986) and Wells & Peppe (1996).
Here, after a discussion of Ron's attitude towards playing the piano, Ron had arguably intended his turn-constructional unit to be complete after also mir FÄLLT das sehr SCHWER 'so I have a hard time with it', this being a conclusion that is also presented as such by the use of the particle also ('so' or 'consequently'). Yet, in the pause that follows, neither of his recipients takes the floor to contribute a turn of her own. Instead of this, Nat produces ähn, a token that starts with the vowel quality of a hesitation signal äh, which can be used in order to signal intended turn-taking, but she changes it into a token that resembles more a recipiency token nhn, not taking the turn but leaving it with Ron (cf. Schegloff 1982, 1987). After Nat's production of this token and another pause, Ron now continues and expands his unit. Syntactically, he expands the prior anaphoric pronoun das 'it', which in this context is perfectly comprehensible on its own, by providing its full form das spieln 'the playing' (see below). Prosodically, he continues the prior unit by taking up and continuing its pitch for two more unaccented syllables. With this continuation of his prior unit, Ron brings his turn to a second point of possible completion and thus offers a new point where a recipient could, and in this case should, come in. This interpretation is confirmed by the fact that after Ron's expansion of his turn, both Ida and Nat simultaneously take the turn, both now displaying their willingness to take over. This example shows how the possible end of a contour can simply be taken up again and expanded and how thus a contour can be used as a flexible resource for unit-construction in conversation.

In summary, units are packaged and delimited via intonation contours. The contour, and especially the global pitch movement, is the parameter that signals the unit as an internally cohesive gestalt. Unit-internally, in cases of pausing or trouble,
level (or slightly rising) pitch is used in co-occurrence with, e.g., sound stretches, in order to project a continuation of the unit to come. Turn-constructional units in most cases end in falling, rising or level local pitch movements; these, however, can always be expanded and thus have fundamentally flexible end points.

Falling, rising and level last pitch movements, although all being possible endings of possible contours that can signal possible endings of single turn-constructional units, do not seem to have the same status with respect to the signalling of possible turn endings. While extracts (7), (10) and (14) presented examples which show that last turn-constructional units in a turn can end with falling or rising pitch accent movements and their tails, level pitch accents typically seem to be used in order to hold the turn and project another unit to come. Since this latter point does not concern the internal organization and delimitation of single turn-constructional units, but rather the relation of syntax and prosody in the organization of entire turns and in particular the prevention of turn-ending, it will be dealt with in the next section.

2.3. The roles of prosody and syntax in the projection or prevention of turn-completion

If syntax and prosody are deployed in co-occurrence for the construction of internally cohesive and delimited turn-constructional units, what specific roles do they play in the projection process which makes it possible to achieve smooth turn taking? What roles do they play in the prevention or projection of unit or turn completion? How do they interact with each other in the construction of single turn constructional units and how do they interact with more 'global' semantic and/or discourse-pragmatic projection in the organization of turn-taking? From the analyses presented so far, the following can be concluded.

Syntactic units such as possible sentences or clauses can of course have variable length. Yet in many cases for a sentence to be possibly complete, all the grammatically projected slots that the chosen verbal element opens up need to be filled. In general, that means that after the beginning of a possible sentence, the recipient can, disturbances and unforeseen trouble notwithstanding, expect at least a particular number of constituents to come. Thus, possible sentences are holistic syntactic entities that speakers can deploy in order to project continuation till at least a first possible completion point. By inserting material into the middle of such a construction, for example adjectives, modifiers, adverbials, particles or parentheses, he or she can postpone possible sentence completion points. So, potentially, the projected unit can become quite long and, as a consequence, syntactic projection can be quite far reaching.

Nevertheless, recipients seem to at least sometimes orient themselves to a minimal syntactic clause, even though the entire piece of expectable semantic information is presented in two clauses, for instance a superordinate and a subordinate one. This shows that at least in some cases participants orient to a rather formal notion of a syntactically possible clause in which the syntactically opened up slots are filled formally or minimally, even if this is not a semantically complete piece of information.

Yet, although, as a result of its expandability, the possible sentence can become quite long, on the level of syntax, there is no means of projecting further
than the end of the possible sentence under way. More far-reaching discourse-pragmatic projection of multi-unit-turns such as stories, descriptions, etc. is done via, e.g., announcements, story prefaces, and/or other ways of initiating recognizable sequential or activity-type specific construction schemata. That means that syntax on its own cannot be used as a turn-holding device beyond the unit under way. But that unit can be relatively long and syntactic projection can thus reach quite far.\textsuperscript{11}

In comparison to this, prosodic projection is much more local in scope. It is true that a few holistic global contours such as the so-called ‘lecture intonation’ in German (von Essen 1964), the ‘hat pattern’ (Cohen & t’Hart 1967), the ‘suspension bridge’ (Bolinger 1986), a ‘contradiction contour’ and a ‘surprise/redundancy contour’ (Ladd 1980; Bolinger 1986) have been described in the literature.\textsuperscript{12} But even if particular pitch contours on their own had such general ‘meanings’, one has to consider that many of these contours can nevertheless be realized on short items such as single words. For this reason, these contours do not on their own and by themselves seem to qualify as candidates for far-reaching projections.

From the above examples, however, especially from the extracts (7), (10) and (14), it can be seen that the last turn-constructional units of turns end in falling or rising pitch accent movements. There does not seem to be a particular turn-ending pitch, such as a particular height of rise or depth of fall (cf. also Jefferson 1986). As I will now show, however, there is a particular turn-holding pitch, namely (non-low)

\textsuperscript{11} This might be the reason why in turn-by-turn talk, the sentence seems to be the longest unit deployable without needing to attain special ratified allowances for the floor. In contrast to this, for more far-reaching discourse-pragmatic projectioning for multi-unit-turns, for instance activities such as story-telling, the floor arguably needs to be secured and ratified via story announcements (Sacks 1971, 1986; Jefferson 1979).

\textsuperscript{12} More recent work in intonation research proposes a compositional theory of the meaning of intonation in discourse. Pierrhumbert and Hirschberg (1990: 308) give the following summary: "We propose that S (= speaker, M.S.) chooses an intonational contour to convey relationships between (the propositional content of the) current utterance and previous and subsequent utterances - an between the propositional content of the current utterance and beliefs H (= hearer, M.S.) believes to be mutually held. These relationships are conveyed compositionally via selection of pitch accent, phrase accent, and boundary tone. Pitch accents convey information about the status of discourse referents, modifiers, predicates, and relationships specified by accented lexical items. Phrase accents convey information about the relatedness of intermediate phrases - in particular, whether (the propositional content of) one intermediate phrase is to form part of a larger interpretative unit with another. Boundary tones convey information about the directionality of interpretation for the current intonational phrase - whether it is 'forward-looking' or not. So, not only do different features of an intonational phrase convey different aspects of its meaning, but the meaning conveyed by each feature has scope over a different phonological domain. Together, pitch accents, phrase accents, and boundary tones convey how H should interpret the current utterance structurally - with respect to previous and subsequent utterances - and with respect to what H believes to be mutually believed in the discourse." Cf. also Hirschberg & Ward 1992, 1995.

The problems with this approach are that these interpretations are (a) the result of analyses of, in general, decontextualized sentences or utterances, some arguably 'cleaned' natural data, some manipulated, some invented, which (b) refer to speaker and hearer beliefs, sometimes even called 'private beliefs' that arguably are very hard to warrant, and which (c) are arrived at on the basis of introspective judgements that especially in the case of ascribing intuitive interpretations of meaning to intonational features are notoriously vague and unreliable.
level (or only slightly rising) pitch accent.

At the end of a possible syntactic unit, level pitch accents can be deployed in order to project intended turn-holding for a continuation of the turn, until later a unit ending in falling or rising pitch is produced, then signalling possible turn-ending. See extracts (15) and (16) (cf. Selting 1995a: ch. 2.3.1.1.):

(15) Kl: 422-431

422 Nat: aber KUNST is aber nich kein gutes ANgebot hier oder
   L,F(\ / )
   but there's not much offered in art here is there

423 Ida: (0.5) ES GE:HT NEE: (0.3) NICH so SONderlich GUT
   F(\ / ) M(\ ) F(\ / )
   it's alright no not so very good

(0.5)

424 Nat: mhm

(1.0)

425 Ida: aber ich mach das jetzt hier zuENde (0.7)
   M(-)_
   <-
   <f>
   but I'm going to finish this now here

426 Ida: WEIL: eine ausbildung BRAUCH der mensch (1.4)
   M(-)_
   <-
   because everyone needs an education

427 Ida: aso s HAB ich mir jetzt so geSA:GT (0.2)
   F(\ / )
   or so I've said to myself now

428 Ida: und: (0.2) ich KÜmmer mich da nich WEIt:er drum (0.7)
   M(-)_
   <-
   and I'm not going to worry about it any more

429 Ida: ich MACH das hier zuENde (0.7)
   M(-)_
   <-
   < all >
   I'm going to finish this here

430 Ida: un mal SEHN was DANN kommt (1.0)
   F(\ / )
   and I'll see what happens then

431 Nat: in WELchem semester BIS du denn
   R(\ / )
   what semester are you in anyway

On syntactic, semantic and discourse-pragmatic grounds, Ida's turn could be complete after each of the units in lines 425, 426, 427, 428, 429 and 430. They all end after syntactically possible sentences, present semantically complete pieces of information, and no announcement or preface has projected a longer contribution. Yet, the units in lines 425, 426, 427, 428, 429 are produced with last level pitch accents which the speaker jumped up to from lower pitch prior to these accents. After each of these units, the speaker even leaves quite long pauses without the
recipients' taking the floor. In each case, the level pitch accent is used as a prosodic turn holding device.

Evidence for this functioning of level pitch accents as a turn holding device can be gained from extract (16):

(16) K1: 1021-1027

1021 Nat: aber daß sie nach Oldenburch ganz kommt
F[ H,F(/)
but that she move to Oldenburg

1022 Nat: oder daß ihr HIER lebt
F(/)
or that you both live here

1023 Ron: NEE das kommt nich in Frage weil sie dort Arbeit ne
F(\)
no that's out of the question because she works there you know

1024 Nat: is nich DRIN
\)
that's not possible

1025 Ron: sie hat n festen JOB da
-> M( - )
she has a permanent job there

1026 Nat: ach SO mhm
(\)
\)
oh

1027 Nat: das s ja AUCH ne blöde situation ne
L( \ /)
that's a silly situation too isn't it

Here again, on syntactic, semantic and discourse-pragmatic criteria, Ron's turn could be complete after his unit in line 1025, and in fact, Ron does not continue. Yet, as he used a level pitch accent, i.e. a prosodic turn holding device, Nat responds with only a recipiency token in line 1026, and neither recipient takes the floor. It is only after a pause of 2.4 seconds in which Ron has not shown any intention of continuing that Nat then takes the floor and continues talking. So, Ron's having used level pitch accent as the last unit of his turn is interpreted as a turn holding device which secures him the turn even when he in fact does not want to continue.

A further example is (17):

(17) K5: 559-562

559 Cis: und åh: also die
and well the

560 Soz:Entin (...) konnte damit überHAUPT nichts anfangn
H,R( )
lecturer couldn't make anything of it

561 Cis: und hat überHAUPT nix kaPIERT åh: von
F(\ )
and didn't understand a thing of

562 Lea: ((räuspert sich))
((clears throat))
Again, Cis’ turn could, on syntactic, semantic and discourse-pragmatic grounds, be complete after line 560. It is a syntactically complete sentence and a semantically complete piece of information, after which in principle Cis’ turn could end. Cis’ choice of level accent as the last accent of her unit signals turn holding, though, and she continues her turn by producing some other turn-constructional units. So, when the recipients might indeed interpret a unit as a turn yielding one, prosody can be deployed to signal that the speaker intends to continue her turn beyond the unit under way.13 With this device, then, prosody provides resources for the projecting of another unit to come, but in constrast to the discourse-pragmatic projection of multi-unit turns, this is still a local device.

The functioning of prosody, in particular intonation, in Standard German can thus be summarized as follows. Contours ending in falling or rising pitch accent movements can be used to configure a potentially complete turn-constructional unit which under the appropriate circumstances can also be a turn-yielding one. Contours ending in level pitch accent movements, however, project another contour and unit to come. They are thus holding the turn for later units that, by means of contours with falling or rising last pitch accent movements, may later signal turn yielding then. Thus, while contours ending in falling or rising pitch accent movements are possible turn-ending contours, contours ending in level pitch accent movements are not possible turn-ending contours, but turn-holding ones (for more detail see Selting 1995a: ch. 2.3.1.ff.).

With respect to the organization of turn-constructional units and turns, prosody is used as a signalling system that is deployed to locally project and contextualize the relation of items to each other and the present state of the speaker’s production process. The ‘meaning’ of prosody in this process can be glossed as follows. At the possible beginning of a new turn-constructional unit, prosody can signal that new items being now produced are intended as starting a new unit and are not continuing a prior unit. Before unit-internal pausing or trouble, it can signal that the unit under way will be continued (‘unit and turn holding’), afterwards it can signal that a unit which was previously underway is now being continued. At the end of a possible syntactic construction, it can either signal that this is indeed a possible ending (which can, however, still be expanded), or that the speaker projects to hold the turn for another unit to come; etc. This kind of projection is arguably much more local in scope than syntactic or discourse-pragmatic projection. It can be conceived of as contextualizing the present state of the speaker’s production process.

Yet, in contrast to syntax, which as I said above, cannot be used to project

13 The precise interaction of prosodic and syntactic projection with more far-reaching semantic-pragmatic projection such as in storytelling that in many cases seem to make such holding devices superfluous is largely neglected here.
On the interplay of syntax and prosody

a unit beyond the current one, prosodic cues can be used to project continuation and turn-holding beyond the unit under way. Apart from the prosodic devices that signal unit-internal holding, cohesion and delimitation, i.e. the devices analysed above, there is, indeed, a pitch configuration that uniformly signals and locally projects non-ending of a turn: (Non-low) level (or slightly rising) pitch accents which sound as if held in suspension. - Note the similarity of this unit-transcending holding device to the level pitch that was described above as a unit-internal holding device.

From all this, it follows that in Standard German turn-endings are not projected by a specific ending intonation, but projected turn ending can only be defined negatively: Projected turn endings are points at which (a) a possible syntactic construction and, if relevant, a possible activity-type specific semantic or discourse-pragmatic unit and (b) a prosodic unit, i.e. an intonation contour, are potentially complete, and (c) there are no holding devices being used (Selting 1995a: 195).

This corroborates Sacks, Schegloff & Jefferson's (1974) model that turn-yielding at the end of a turn-constructional unit is indeed treated as the unmarked case, whereas turn-holding is treated as the marked case which may make relevant specific holding devices, when there is no superordinate semantic or discourse-pragmatic projection for particular activity types such as story telling.

But the picture is not complete yet. There is one further structure that seems to allow even more precise anticipation of possible sentence and unit completion (points) than we have reconstructed so far: Accentuation, or more precisely: The 'possible last accent' of a unit.

2.4. The 'possible last accent' of a unit

In general, the accentability of items in sentences is a very complex phenomenon that is exactly at the crossroads between phonology, syntax and interaction. I can only hint at the most important principles here.

Accentuation of syllables and words has the effect of semantic 'focussing'. For this reason, the accentability of items in sentences is determined by the intended meaning that the speaker wants to express. In German, it is the interplay of syntactic structure, word order, semantic weight of a constituent, and accentuation that play a role in signalling the so-called focus-background structure of sentences and turn-constructional units (cf. Jacobs 1988; Uhmann 1991; Selting 1995a: chapter 2.2.2.2.). Quite a few turn-constructional units have two accents, many have more than that (cf. Bolinger 1986, 1989; Uhmann 1991; etc.). - The principles that regulate accent placement in detail are beyond the scope of the current paper. - I deal here with the relevance of the 'possible last accent' of a turn-constructional unit for speakers and recipients; that is, the last prominent syllable in which the terminal local pitch accent movement starts.

According to Schegloff (1987), a syllable with a pitch peak and raised amplitude (loudness) near the end of a turn-constructional unit can open the 'transition relevance space'. Schegloff (1987: 106f.) states:

the developing grammatical structure of an utterance in the course of its production is potentially compatible with alternative points of possible completion. Pitch peaks, and their
suppression, are one means by which speakers can indicate which syntactically possible completions are built to be completions on this occasion, and which not. A pitch peak thus can project intended turn completion at the next grammatically possible completion point. In doing so, it can also open the ‘transition relevance space’ (Sacks et al., 1974, p. 703 et passim), the stretch of time in which transition from current to next speaker is properly done. It is after such pitch peaks that intending-next-speakers who aim to get an early start begin their next turns. It is such pitch peaks which speakers suppress to show their parsing interlocutors that imminent syntactically possible completions are not designed to be actual completions. It is such pitch peaks after which speakers may increase the pace of their talk in an effort to ‘rush through’ into the next turn component. Such a pitch peak can, then, mark the imminent completion of a turn, and the appropriate place for a next turn, and its speaker, to start.

In my data, such a pattern is also attested. For instance when speakers start turn holding devices such as their ‘rush through’ into the next unit after the last accent of the prior unit. See extract (18):

(18) K2: 382-384

382 Ron: un dann HAB ich (. .) m: allerdings auch noch während der  
< all >F(\  
and then still during time of school  

383 SCHULzeit angefangn (. .) äh: (0.9) in einer  
I started in a  

384 BÄND zu spielen=da ham wa so KANtrirock gemacht  
/ ) (F(\ / )  
<all all>  
band to play we did some country rock there

In (18), line 384, Ron starts faster speech rate in the last word of his first unit, quickly goes into the next unit and maintains fast speech rate right until the first accent of his second unit. As Schegloff (1982) shows, and as also extract (19) demonstrates, this rush through can be used as a device to secure one’s turn before then pausing within the next unit:

(19) K2: 425-426

425 Ron: öhm: (0.8) bin ich an ein GOSpelchor rangekommen=  
F[H(/  
<all  
öhm then I got into a group of gospel singers

426 =un hab (0.6) dann DA: (0.4) MITgesungen (0.7)  
< c> < c> M(/  
all > and I then joined in there

In (19), the speaker Ron starts increasing his speech rate within the last syllable of his first unit in line 425 and then quickly adds his next unit in line 426, still maintaining faster speech rate for the first two words of this unit, before he then
pauses.

Recipients, too, seem to orient to the 'possible last accent' of a unit. Another place from the above-mentioned end of a possible sentence or clause, where recipients often place both their recipiency tokens such as *mhm* and early starts of their own turns, is after the last accent, but before the actual end of a speaker's unit. See the following examples (20) through (22):

(20) K4: 854-856

854 Cis:  also: ich rede jetzt über dieses seminar in dem ich
         well I am now talking about that seminar in which
         F\[                          /
       855  Cis: [AUCH zeitweise (. ) gesessen habe bei dir ne
                      also sometimes sat with you you know
                      \[                          /
     856  Lea:  nhn nhn
                      \[                        /

(21) K5: 148-150

148 Eli:  un dann MACHS du unter UMständn
         and then perhaps you don't take
         M\[                          /
        149 Eli: überHAUPT kein u kein urlaub ne
                      any vacation you know
                      \[                          /
     150 Cis:  nhn nhn
                      \[                        /

(22) K1: 1052-1055

1053 Ron:  =aber Dann: is es ja auch:
            but then it is as you know also
            F\[                          /
        1054 Ron: [auch die die ART der beziehung irgndwo ne
                       also the the kind of relationship somehow you know
                       \[                                    /
       1055 Ida:  ja yes
                       \[                                    /

In all these cases, the recipients provide their recipiency tokens after the last accent of the speaker’s unit, but in some cases well before the actual end of the possible sentence or clause.14

The following extracts (23) and (24) show examples, in which a recipient's recipiency token is given after a possible last accent which then, however, turns out to actually not have been the last one.

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14 In many of these cases, the point at which the recipiency token is given is also the point at which the recipient can just about recognize the speaker's point (cf. Jefferson's 1986 'recognitional overlap').
A possible unit here could have been *daß wir bestimmte n: markante SZEN: so vorstellen wolltn* ‘that we certain important episodes wanted to present’, with all the rest of the actual unit not being produced at all. If this had been the speaker’s choice, the accent in *SZEN:* Could have been the last one and the recipient would have given her *mhm* after the last accent of this unit. In fact, however, speaker Cis continues and produces another two accents before the end of her unit. Cases like this show that, here too, in order to be precise we ought to talk about ‘possible last accents’ of a unit as a relevant locus for the recipient to react.

(24) K1: 736-738 (**‘der’ = the reputation of a particular university**)

Here, Nat’s evaluation with respect to the reputation of a university could very well end after the first part of her unit, i.e. after *also der is NICH besonders* ‘well it isn’t particularly’. And it is here that Nat places her first recipiency token *hm*. Ida continues her unit, however, by adding the accented adjective *renomMIERT* ‘renowned’ and thus retrospectively turns the possible last accent in the word *NICH* into a non-last one.

The ‘possible last accent’ of a unit is also the point after which recipients place their early starts: This can be seen in extracts (25) and (26):
(25) K1: 874-878

874 Nat: ICH würd AU nich fahnn wenn ich so:
M/
I wouldn't drive home either if I

875 LEUte hier hätté mit deman was am wochenende
R/
<all
had people here with whom at the weakends one

876 Nat: [MACHN könnté oder so
)/
all
<all>
could go out or so

877 Ida: [nee DANN: wär ja alles: (.) in ORDnung=
\ M(/
\ )
no in that case everything would be fine

(26) K1: 53-54

53 Nat: [WARS du inner ERsten sitzung da
H, R(/
)/
were you there in the first meeting

54 Ida: [NEE da war ich nich mit BEI
F(/
\ )
no then I wasn’t there

In all these cases, speakers start turn holding and recipients place their reactions after the possible last accent of the speaker’s turn.15 This accent thus seems indeed to be treated as the beginning of the transition relevance space in which either the speaker starts turn-holding devices, such as ‘rush through’ or ‘holding intonation’ (see above), or the speaker produces possible terminal intonation contours and speaker and recipients negotiate turn allocation for the next turn. This shows that the possible last accent is indeed a local point which participants orient to for their own reactions.

Yet, how does the recipient know which of the accents will be the possible last one? In the recipient’s view, he or she can only estimate this by tacitly

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15 I have not dealt here with cases in which tokens of mhm are given early in the unit, for instance in order to acknowledge a topic shift. If however, such an early token is given, the recipient often provides another mhm at or near the end of the unit. Cf. K6: 446-450.
'calculating' the position of the accent in relation to the progress of the emerging possible sentence or other syntactic construction so far. In those passages of speech where speakers have established a salient and recognizable rhythm, this rhythm might help the recipient to estimate the position of the next and then possibly last rhythmic beat in a unit (cf. Couper-Kuhlen 1993; Auer & Couper-Kuhlen 1994). So again, the participants seem to orient themselves primarily to the possible syntactic construction as the more globally projecting structure and to take prosodic structures as additional local points of orientation in order to estimate the possible end of the turn constructional unit. (For more detail on these points and the usability of the last accent unit as a resource, see Selting 1995a: chapter 2.3.1.3.)

5. Conclusions

The evidence presented here shows that for the signalling of a turn-constructional unit as an internally cohesive unit, and for the signalling of the division of the stretch of speech into turn-constructional units, the co-occurrence of syntax and prosody is relevant. Besides possible syntactic schemata and their possible expansions we saw possible intonation contours as relevant for unit production. The 'possible sentence' with its 'possible expansions' as well as the 'possible contour' are flexible entities and cognitively and interactionally relevant orientation and construction schemata that participants can make use of as a resource in conversational interaction.

In analysing the role of linguistic schemata for the organization and projection of turn-constructional units and their ends, both syntax and prosody have to be studied in their interplay. Participants use and orient to syntax as the more far-reaching projection, but syntactic units are locally contextualized by prosody. Both syntactic as well as prosodic units must be conceived of as flexible schemata that participants adapt to the exigencies of the situation. In the projection of turn-constructional units, both play their own individual and complementary roles.

Yet, when talking about a more global projecting power of syntax and a more local contextualizing power of prosody, this does not mean that the two resources can be ranked in a hierarchy in such a way that syntax plays the more important role or 'comes first', and prosody plays a less important role or 'comes second'. If it is true that the different prosodic packaging of syntactic material is, as I have tried to show, interactionally meaningful and relevant, then prosody has differentiating power and it may in some cases be the decisive cue. If researchers claim not to need to refer to prosody for their descriptions and accounts of conversational interaction, this may be so because in many cases a particular prosody is presupposed and taken for granted in interpretations and descriptions of contributions to conversational interaction. If, however, our goal is to isolate the "ultimate behavioral material" (Goffman, as cited by Streeck 1989: 204) that we use in our construction of interaction, or to "describe the practices of constructing and interpreting turns" (Ford, Fox & Thompson 1995), our task is to isolate each individual device and to describe their contribution and interplay for our processes of understanding and interpretation in interaction.
Appendix: Transcription conventions

**Transcription symbols in the text line of transcripts:**

- aber DA kam: primary accented syllable of a unit
- aber DA kam: secondary accented syllable of a unit
- si:cher: extra strong/loud accent
- si:cher: lengthening of a sound
- (.): lengthening of an entire word
- (0.8): brief pause of up to ca 0.5 secs.
- ((lacht)): each dot ca 0.5 secs. pause, here ca 1 sec
- (? er kommt?): pause timed in tenths of a second
- a(l)so: para- and/or non-linguistic events
- *: uncertain transcription
- ich gehe: doubtful sound within a word
- jaha: glottal stop
- =: latching

**Transcription symbols in the prosody line(s) of transcripts:**

**Global pitch direction:** (noted before the left "(" parenthesis)

- F: falling
- R: rising
- H: high
- M: mid
- L: low

- (Parentheses are usually noted before the first accent and at the end of the cohesive unit; left open in cases of unfinished units.)

- H, F(): combination of global characterizations
- [( ]( ]](): combined contours with only weak or no boundaries between units with different global pitch directions (e.g. 'paratones')

**Accent (proto)types or unaccented local pitch movements in and after accented and/or unaccented syllables:**

- \: falling
- /: rising
- -: level
- \/: falling-rising
- /: rising-falling

**Accent modifications:**

- \, \/: locally larger pitch movements than in surrounding accents, higher or lower accent peaks than usual, or jump to higher level pitch
- \, ...: falling to very low pitch
- \, \: sequence of unaccented syllables

(Outside the parentheses, local pitch movements function as 'pre-head' ("Vorlauf") or unstressed pitch movements after the accent sequence.)

**Local pitch parameters used as boundary or continuation signals:**

- <u>: upstep
- <d>: downstep
- <e>: continuing pitch

**Other prosodic parameters** which are used with local or global extension, the extension is indicated by the position of the < >:

- <f>: forte, loud
- <l>: lento, slow
- <p>: piano, low
- <all>: allegro, fast
- <dim>: diminuendo, decreasing loudness
References


