

Between grammar and conversation :  
On the well-formedness of beat clashes  
in natural conversation

**Susanne Uhmann**

*Bergische Universität Gesamthochschule Wuppertal*

THIS PAPER DEALS WITH THE INTERPLAY between grammar and conversation. This will be exemplified by a rhythmical phenomenon that has been described as *beat clash* in metrical phonology. In metrical phonology beat clashes are regarded as highly marked or even deviant rhythmical structures because the phonologically unmarked alternation between prominent and non-prominent syllables is cancelled in favour of a succession of prominent syllables. It will be shown that participants in natural conversation not only let beat clashes happen, but that beat clashes are actively constructed by turning non-prominent syllables into prominent ones. But these achieved beat clashes seem to be restrained by sequential and grammatical constraints : they occur in extended first assessments like stories, news or informings and in seconds to these conversational objects, but they are absent in first and in second assessments of assessment pairs; they respect the prominence structure which is the result of grammatical rules.

1. METRICAL RHYTHM : ON THE PHONOLOGY OF BEAT  
CLASHES IN GERMAN

1.1. BEAT CLASHES IN METRICAL PHONOLOGY

Speaking is a rhythmic process. In this respect human language and especially verbal interaction are in no way different from other recurrences of events in time which determine the way we experience ourselves (heartbeat, breathing, etc.) and the world we live in (alternation of day and night, the phases of the moon etc.). While

talking, speakers organize their utterances in patterns of more or less prominent syllables. This phonological generalization is expressed by Selkirk's (1984) *Principle of Rhythmic Alternation*. She claims that the overall rhythmic patterns of natural speech tend to achieve an alternation between prominent, i.e. stressed (strong) and non-prominent, i.e. unstressed (weak) syllables. By means of this alternation languages are said to avoid strings of consecutive unstressed syllables as well as strings of consecutive stressed syllables :

(1) Principle of Rhythmic Alternation (Selkirk 1984 : 52)

- (a) Every strong position on a metrical level  $n$  should be followed by at least one weak position on that level.
- (b) Any weak position on a metrical level  $n$  may be preceded by at most one weak position on that level.

The two ways in which metrical patterns can be ill-formed are by violations of (1a) or (1b) and they are discussed in the literature under the headings *beat clash* and *beat lapse*. Since Liberman & Prince (1977), it is especially beat clashes and their resolution via *Euphony Rules* like Stress Shift, Rhythm Rule, Iambic Reversal or Beat Movement that have been at the center of attention<sup>1</sup>. Following Nespor & Vogel (1989 : 98) the definition of beat or stress clash in a *stress-timed*<sup>2</sup> language like English or German crucially depends the definition of adjacency. They define as clashing those configurations like (2) with no more than one intervening unstressed syllable between two syllables with minimally level 3 stress :

(2)

Minimal stress clash

x		x		word
x		x		foot
x	(x)	x		syllable
$\sigma$	( $\sigma$ )	$\sigma$		

They also claim that there is no rule like e.g. Iambic Reversal that moves a beat from one grid position to another. What happens instead according to Nespor & Vogel (1989 : 77) is « that a beat is merely deleted by a rule of *Beat Deletion* (BD) ». As the physical correlate of BD is destressing, the affected syllable is perceived as weaker and the perception of beat clash is eliminated. But Beat Deletion reduces stress

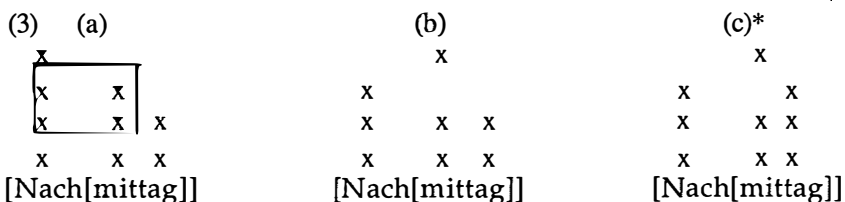
<sup>1</sup> For critique cf. Hayes (1984) and Selkirk (1984).

<sup>2</sup> For a critical discussion cf. Auer & Uhmman (1988).

only when it is at the minimal level that constitutes clash, which is level 3 in English. The remedy that Nespor & Vogel (1989 : 100ff) suggest for level 4 and higher accents is *Beat Insertion* (BI) to create a distance between two accents. The extra beat can be inserted in one of two positions if there is an unstressed syllable between the two accents. If the beat is inserted before the unstressed syllable the acoustic correlate is lengthening of the accented syllable, and if it is introduced after the unstressed syllable its physical correlate is a pause. Nespor & Vogel (1989 : 77) also claim that « in certain cases, another strong stress may appear elsewhere in the string but, (...), this is the result of a more general phenomenon of *Beat Addition* (BA), a rule that eliminates lapses, whether they are inherently present or whether they arise as the result of BD. »

Beat Deletion and Beat Insertion seem to be the more frequent remedy for beat clashes in German than the combination of Beat Deletion and Beat Addition (for details cf. Uhmann 1994). This might be due to the higher number of secondary accents but also to the fact that at the phrase level inflectional endings, which all contain a schwa as syllable nucleus, and accent-neutral suffixes provide intervening unstressed syllables. Configurations with the strongest pressure for changes, i.e. no intervening unstressed syllable, cannot be found in German adjective + noun phrases. But they can be found in compounds. Compounds are especially interesting objects in prosodic phonology. German compounds like *Nachmittag* or *Generalfeldmarschall* are composed of more than one lexeme. Although each of them retains its own stress pattern, only one syllable is singled out to carry the primary stress (i.e. the pitch accent) of the whole unit. The rules which identify this syllable crucially depend on the internal structure of the compound (details are not relevant for the purpose of this paper) and secondary stresses are assigned to the main stresses of the other lexemes.

In the case of beat clashes derived from configurations with the strongest pressure for changes, i.e. no intervening syllable with a level-1 beat, Beat Deletion only instead of Beat Deletion plus Beat Addition applies both to the left and to the right of the most prominent syllable :



(4) (a) <pre style="margin: 0;">           x         [x x]         [x x]       x x x x       x x x x       [General[feld[marschall]]]         </pre>	(b) <pre style="margin: 0;">           x           x         x x x x         x x x x       [General[feld[marschall]]]         </pre>	(c)? <pre style="margin: 0;">           x           x         x x x x         x x x x       [General[feld[marschall]]]         </pre>
---	---	--

The stress pattern of (4c) sounds rather odd. If it were heard at all, it would be on a barracks square. (4d) might be the most natural realization :

(4) (d) BI

```

          x
        x x
      x x x
      [General X [feld[marschall]]]
  
```

The compounds discussed so far all belong to a group called *determinative compounds* (Determinativkomposita). There are two semantically different groups, *coordinative compounds* (Koordinativkomposita) and *augmentive* or *relative compounds* (Augmentiv- or Elativkomposita). Determinative compounds [XY] denote a special type of Y-entity and its sister-constituents are related in such a way that X specifies Y. In coordinative compounds the sister-constituents are in a relation of addition, whereas in relative compounds X intensifies Y. The three types of compounds also show differences in their accentual patterns. Unlike the determinative compounds, which designate by rule<sup>3</sup> only one syllable to bear the primary stress, coordinative compounds and relative compounds have no internal hierarchy and treat their sister-constituents with equal rights.

Coordinative compounds are quite rare in German and in most cases they fuse with other elements to determinative compounds : *rotgrünblind*, *Schwarzweißfilm* etc.). But relative compounds are very productive and many of them are lexicalized, which means especially in case of monosyllabics that beat clash is lexicalized. (Syllable boundaries are marked by dots (.) and ambi-syllabicity by a tilde (~). : *'stroh.'dumm*, *'stink.'faul*, *'stock.'steif*, *'haut.'nah*, *'stock.'schwul*, *'sau.'dumm*, *'sau.'kalt*, *'eis.'kalt*, *'scheiß.e.'gal*, *'blut.'jung*, *'blut.'arm*, *'tot.'schick*, *'Scheiß.'spiel*, *'Bul~len.'hi.tze*, *Höl~len*.

<sup>3</sup> The immediate constituents of determinative compounds meet the conditions for integration (for details cf. section 3 and Jacobs (1993) or Uhmman (1994).

'lärm, 'Pfund<sub>s</sub>. 'kerl etc)<sup>4</sup>. Well-known minimal pairs like 'blut. 'arm/'blut.arm (very poor/anaemic), 'stein. 'reich/'stein.reich (very rich/stony), 'Höl~len. 'lärm/ 'Höl~len.lärm (infernal noise/noise in hell) show that Beat Deletion cannot apply, because this would transform the relative compound into a determinative compound :

(5)

a) relative compound (very poor)    b) determinative compound (anaemic)

	x		x
x x	x	x	x
x x	x	x x	x
x x x	x x	x x x	x x
ein blutarmes	Mädchen	ein blutarmes	Mädchen

We conclude : In these cases of intensifying relative compounds the Principle of Rhythmic Alternation seems to be abandoned and beat clash is systematically lexicalized. Although this fact does not prove the Principle of Rhythmic Alternation to be wrong, it has to be revised such so that it covers only a tendency to avoid successions of prominent or non-prominent syllables. But rhythmically marked structures - especially beat clashes - are in some constellations not ill-formed. One constellation, the rule-governed beat clashes on relative compounds, has been described in this section. Relative compounds - which are quite frequent in German - are thus highly marked but not ill-formed cases concerning their rhythmical properties. It seems to be the case that the Principle of Rhythmic Alternation can only prevail via the application of Euphony Rules if the grammatically induced prominence rules (for details cf. section 3) allow an alternating rhythm. It is only on the basis of this result that the aim of this article, i.e. the description of the interplay between sequential constraints and grammatical rules, can be accounted for.

## 1.2. BEAT CLASHES IN NATURAL CONVERSATION

If we leave the field of metrical phonology and have a look at conversational data, this shift of perspective implies that accentuation patterns<sup>5</sup> of spoken discourse instead of abstract lexical features of words or phrases (i.e. stress) become the center of attention.

<sup>4</sup> For morphological details cf. Fleischer & Barz (1992: 204f, 230ff) and for the accent pattern cf. Kohler (1977: 194) and Wurzel (1980).

<sup>5</sup> The accent notation in the transcripts will be a relational and not an absolute one. It orients to the fact that participants in natural conversation don't calculate

Examples (6) and (7) are instances of beat clashes on the elative compounds 'haut.'nah and 'eis.'kalt which seem to kind of “infect” their environment in such a way that they occur in intonational phrases with higher *density of accented syllables* (cf. Uhmann 1989, 1992) than surrounding intonational phrases of the same speaker :

(6) China 52

- 01 I : für 'mich wär das ja auch ne 'irre 'Chance gleich dann (0.9)  
 02 in das 'volle 'Leben da ei(h)nzustei(h)gen hehehe  
 03 T : jaja jaja (.)  
 -> 04 I : s(h)o 'a(h)lles 'ganz 'haut'nah (0.5) 'mit 'zu'kriegem,

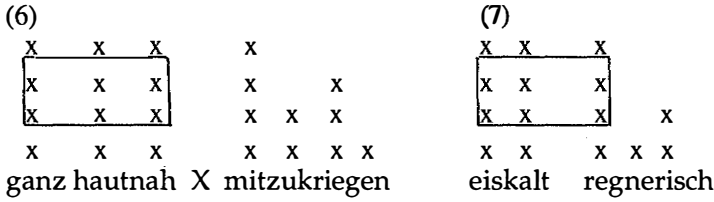
(7) Hunderfünfzig 10

- 01 H : (...) schon richtig 'Frühlings(stimmung)?  
 02 X : jaja (.) wie es : wa-  
 03 also =es blüht alles : (.) und : (0.5) (sehr) 'warm  
 04 (1.0)  
 05 es war 'schön  
 06 und jetzt stehn wir hier wieder in diesem häßlichen 'Kiel  
 -> 07 es is 'eis'ka :lt 'regnerisch (.) 'miese 'Stadt,

These excerpts show instances of remedies of beat clashes as well as their renunciation in example (6) Beat Insertion (X), which corresponds to a pause, creates a distance after three clashing accents :

---

absolute hertz, decibel and centiseconds, but perceive successions of alternating prominences or successions of prominences with more or less equal strength. So accent notation, i.e. the distinction between *primary* (ˈ), *secondary* (ˑ) and *emphatic accents* (ˆ) cf. the transcription conventions for details, is restricted to the domain of intonational phrases. If intonational phrases are not too complex, each line in the transcript belongs to an intonational phrase. Intonational phrases can contain more than one primary, secondary or emphatic accent. The relational character also implies that for example the actual phonetic prominence of a secondary accent in one intonational phrase can be the same as the prominence of a primary accent - even uttered by the same speaker - in another intonational phrase, because in this environment it might be the strongest accent.



But beat clashes don't need relative compounds as a starting point. In natural conversation speakers not only let beat clashes happen - as in examples (6) and (7) - but they are also deliberately produced on words which lexically have only one primary stressed syllable :

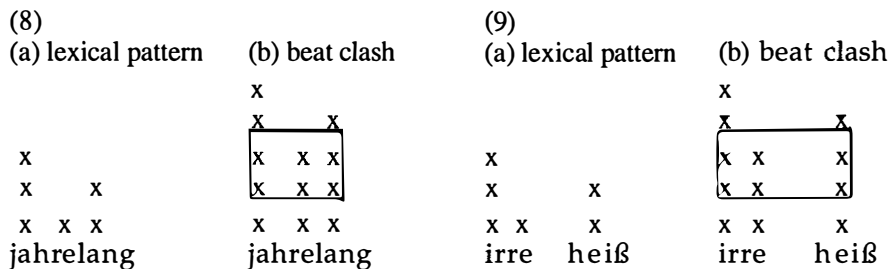
(8) China 52f

- 01 T : aha (0.3) dann ists auch viel 'spannender;
- 02 I : hm
- 03 T : weil man dann so die Struk'turen gut mitkriegt=
- 04 =vor allem das to- intere'ssante ist halt das sind 'Leute.
- > 05 die 'alle "jah're'lang in 'England stu'diert ham;

(9) China 56

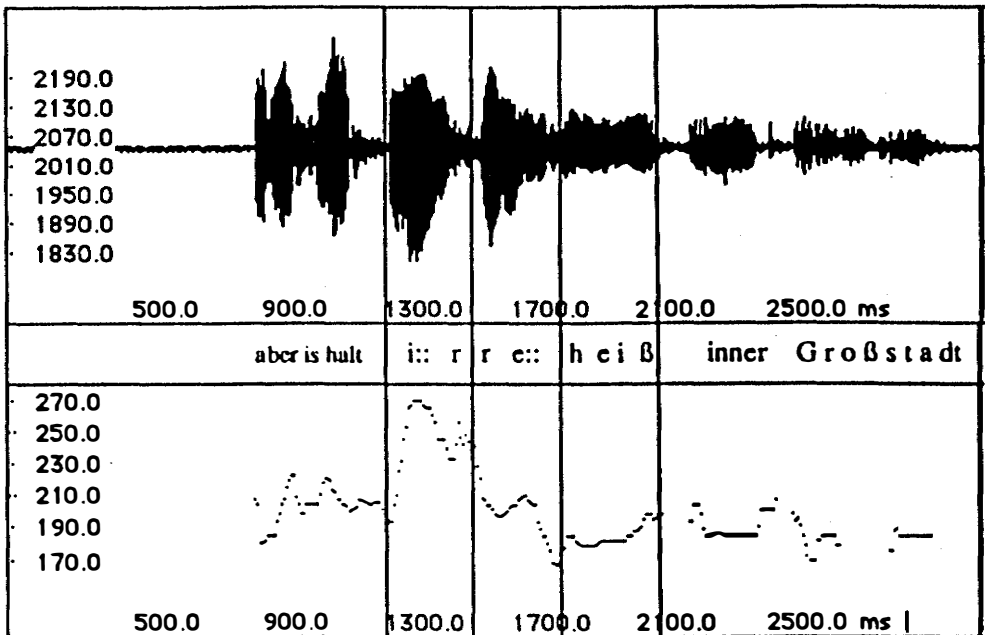
- 01 T : von daher isses schon interessant
- 02 so vom Stadt | bild | her
- 03 I : | mhm |
- > 04 T : aber s=is halt "ir're : 'heiß ° inner Großstadt°

Speakers achieve beat-clashing rhythms in these examples by Beat Addition on syllables that would “normally” receive only level-1 prominence (cf. the two schwa-syllables) and not more than level-2 prominences in the “ideal” metrical grids after Beat Delation to eliminate the beat clashes between the first and the third syllable. Let us suppose a kind of *Emphasterstärkung* which promotes each syllable with an extra prominence that corresponds to two metrical beats, then the internal prominence relations are kept constant but the conditions for beat clash are met. In both cases we perceive three clashing accents :



The speech waveform and the fundamental frequency ( $f_0$ ) of example (9) (Fig. I)<sup>6</sup> show that the duration of the syllables that were perceived with beat-clashing accents show a remarkably high correspondance in their duration and they are also set off prosodically by changes in the  $f_0$ - contour that can be phonologically analysed as pitch accents (cf. the increased pitch range on the emphatically accented syllable *ir-*).

Figure I



But even more interesting is the comparison between the beat-clashing accentuation on the adjective *irre* in example (9) and another realization of this adjective (Fig. II) by the same speaker in example (10):

<sup>6</sup> The acoustic measurements were done with the program Signalize<sup>TM</sup>. I wish to thank P. Auer for helpful instructions and for making this program available to me.



(10) China 15

01 I: Ja=die Ho'tels sind=sicher (0.6)

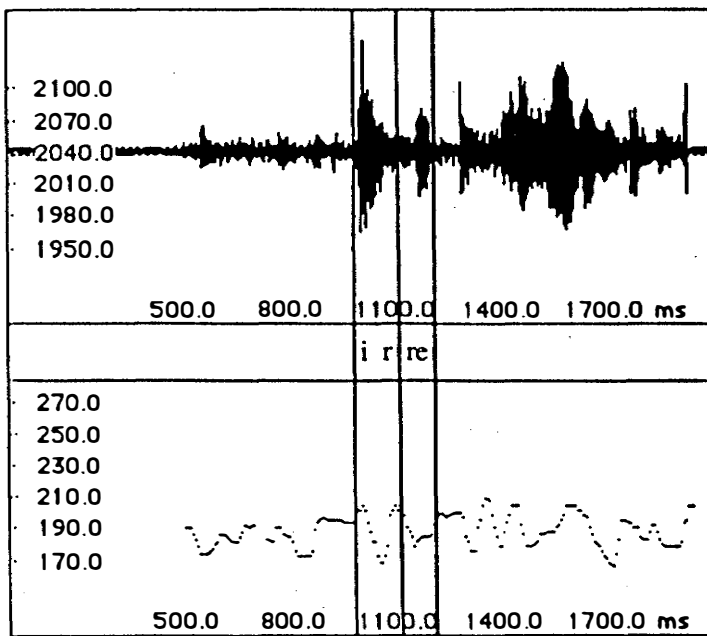
-> 02 T: ° 'irre | 'teuer °

03 I: | ° 'relativ | ja (0.5) relativ | teuer. °

04 T: | ° ja glaub ich auch ° |

Here, the adjective is realized in a prosodic make-up that corresponds to its lexicalized accent pattern, which shows the schwa-syllable *-re* without any metrical strengthening :

Figure II



Returning to function we have to ask what the beat clashes do in these turns? It seems as if the accentuation pattern of the relative compounds, in which one element intensifies the other, serves as a blueprint to « contextualize »<sup>7</sup> “intensity” or “emphasis” on words

<sup>7</sup> Cook-Gumperz & Gumperz (1978) as well as Gumperz (1984, 1992a, b) have introduced the notion of contextualization in order to subsume under a common heading procedures and techniques available to participants for the task of not only conveying meanings or propositions, but, at the same time, constructing contexts in which their utterances become interpretable. Cf. also Auer (1986, 1992).

which would be less emphatic or less strong assessments if they were realized without beat clashes. *Ir're 'heiß* is much hotter than *'irre 'heiß* and *jah're'lang* means not only a few years but a very long time. In example (8) iconicity may be involved, too, because accenting every syllable takes more time than accenting only one.

Emphasizing and intensifying assessment terms are the starting point in the exploitation of beat clash as a contextualization device<sup>8</sup>. But I want to propose a shift of perspective and look at the sequential organization of assessments realized with beat clashes and try to show that if assessment terms are packaged in such a way, they occur - compared to assessments which are not prosodically marked by a beat-clashing rhythm - in sequentially constrained contexts.

## 2. SEQUENTIAL CONSTRAINTS : BEAT CLASHES IN ASSESSMENT UTTERANCES

Assessment terms occur at different loci in conversation. Following the seminal work of Pomerantz (1975, 1984), which was adopted for German data in Auer & Uhmann (1982), we can distinguish between two different conversational activities and two different sequentiell positions : assessment terms occur (i) within assessment pairs - as first and second assessments; (ii) within stories, news or informings and in comments to these conversational objects - also as first and second assessments.

The production of a first or initial assessment (A1) by speaker X and a second assessment (A2) by speaker Y, the recipient of the first assessment, is called an *assessment sequence* or *assessment pair* if the referent in the second assessment is the same as in the first. From the sequential point of view first and second assessments are closely connected. Although Pomerantz avoids the term *adjacency pair*, she claims that « the initial assessment provides the relevance of the recipient's second assessment » (Pomerantz 1984 : 61). With respect to the initial assessment a recipient has two options : He may decide to *agree* with a prior assessment by proffering a congruent assessment

---

<sup>8</sup> Cf. Selting (1994) for detailed analysis of emphatic speech style in story-telling, van Os (1989) for intensifying in German and Müller (1991) for metrical emphasis and rhythmic scansion in Italian.

term or he may alternatively decide to *disagree* by proffering a non-congruent assessment term which is directly contrastive with the first assessment term. Detailed analysis of the sequential organization of assessment sequences has shown that these options are not equivalent, but constrained by multiple layers of preferences for second assessments, which depend on the activity type initiated by the first assessment<sup>9</sup>. But in the majority of assessment pairs the operative preference structure is : stated agreement preferred, stated disagreement dispreferred and « (...) across different situations, conversants orient to agreeing with one another as comfortable, supportive, reinforcing, perhaps as being sociable and as showing that they are like-minded » (Pomerantz 1984 : 77)<sup>10</sup>. On a finer semantic scale Pomerantz distinguishes in the class of congruent assessments between « upgraded » (11), « downgraded » (12) and « same » (13) second assessments<sup>11</sup> :

## (11) Hundertfünfzig 4

01 H : Wie alt,

02 X : Ja :: so :: sechsenzwanzig glaub=ich

A1 03 H : "Schö : :nes Alter

A2 04 X : Ja ne hehe (0.8) 'best(h)en 'Jah(h)re

## (12) Roro 410

A1 01 S : h der isch eine trübe Tasse 'meine G(h)üt(h)e

02 X : warum?

03 S : hhe wenn der da unten reinkommt (0.5) hehe (. (h) ..) (dann) gehts

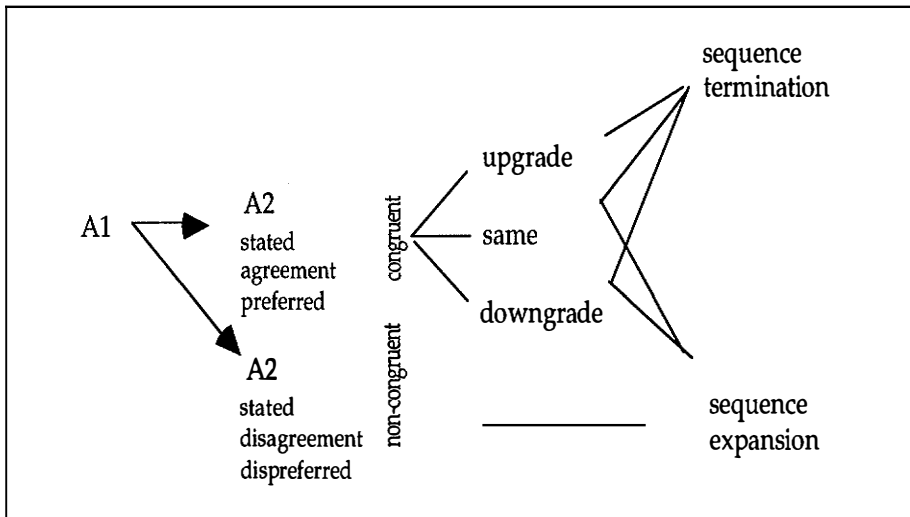
<sup>9</sup> Preferred: agreement, acceptance of compliments; dispreferred: disagreement, agreement = criticism by others after self-denigration, self-praise in compliment responses.

<sup>10</sup> « (...) the activity of performing assessments constitutes one of the key places where participants negotiate and display to each other a congruent view of the events that they encounter in their phenomenal world. It is thus a central locus for the study of the 'shared understandings' that lie at the heart of the anthropological analysis of culture » (Goodwin & Goodwin 1992: 182).

<sup>11</sup> It has been argued (cf. Auer & Uhmann 1982 and Uhmann to appear) that the concept of « same assessment » has to be broadened - at least for German data - such that semantically same evaluations as in example (13) like *mords Verhau* and *ganz grauenvoll* can be taken into account and don't have to be arbitrarily classified as either semantically upgraded or downgraded.

- 04 So : (dann) wenn=er=scho anfäng zu redn  
 05 S : aoah! | also i weiß °(net)° |  
 A2 06 X : | naja der hat so ne gewisse (Art) |  
 (13) Antiquitäten 1  
 01 N : also (.) mmh (.) dieser Antiquitätenladen da euch gegenüber,  
 A1 02 also der hat ja schon nen mords Verhau in sein Laden=  
 03 X : = wie, wo? ah=so  
 A2 04 ja da siehst schon oft ganz grauenvoll aus;

But from a sequential point of view this three-dimensional distinction is reduced to a two-dimensional distinction : some same and downgraded evaluations are either used as sequence terminizers (like upgrades) or they preface disagreements and the sequence is expanded until agreement is achieved. Due to this ambiguity of sames and downgraders only upgraded second assessments can be considered *clear agreements*<sup>12</sup> and should thus be the most preferred recipient's reaction :



It has been shown (cf. Pomerantz 1975, 1984, Auer & Uhmann 1982, Uhmann to appear) that assessment pairs are organized in such a way that stated agreements are maximized and stated disagreements are

<sup>12</sup> Cf. Pomerantz's (1984: 66ff) distinction between « strong agreements » and « weak agreements ».

minimized. This distribution does not follow automatically from a shared evaluation system, but has to be achieved by the participants. This is done in such a way that the dispreferred next action, i.e. the disagreement, is not stated upon completion of the first assessment : there may be a delay (silence or request for clarification) or a second assessment from the class of congruent assessments that is potentially interpretable as upcoming disagreement, i.e. a same or downgraded second assessment.

Although agreement is the preferred next action upon completion of a first assessment, there is a systematic bias between the position of first and second assessor. Proffering a first assessment has to be done on uncertain grounds. The first assessor can only assume - for example due to joint cultural norms - that his recipient will share his evaluation, but if the topic is being discussed for the first time, the first assessor has only limited knowledge about the opinion of his recipient. And even if he or she knows the recipient and his or her evaluation of the assessed referent due to a shared interactional history, the latter may have changed his or her mind meanwhile. First assessors therefore always face the risk that their recipient will not share their point of view. The position of the second assessor, by contrast, is much safer. Because the estimation of the first assessor is already known, a second assessor who wants to agree can do this as strongly as he wishes and without any delay as in example (11).

On the basis of the discussion so far we could expect that assessment terms that are further intensified by a beat clashing rhythm should be avoided by first assessors, because the risk of receiving an unpreferred next action, i.e. no second assessment upon completion of the first assessment or a second assessment interpretable as upcoming disagreement, is systematically enlarged by strengthening a first assessment with a beat-clashing rhythm. Of course first assessors may also fail to receive a clearly agreeing, congruent second assessment without underlining it with a beat-clashing rhythm. But first assessments that are further strengthened through beat clashes increase the risk of dispreferred next actions, because only recipients willing to state a position as strong as or even stronger than the first assessor will proffer an upgraded second assessment that would have to be realized with a beat-clashing rhythm, too. It seems to be an obvious conclusion to take the rare use of beat clashes in first assessments of assessment pairs in the data as an orientation of first assessors towards the formal preference for agreement.

But as I have shown elsewhere (for details cf. Uhmman to appear) beat clashes are also absent in second assessments of assessment pairs. This seems to be quite remarkable at first sight, because upgrading second assessments are preferred, and it could be expected that second assessors systematically make use of the possibility of further strengthening their assessment through beat clashes. But the avoidance of beat clashes in this position can be explained by the observation, that even congruent second assessments can become too strong so that participants negotiate agreement instead of terminating the assessment sequence. Recipients of first assessments would therefore unnecessarily risk the advantage of second assessor and disregard the orientation towards the preference for agreement.

It has been shown (for details cf. Uhmman to appear) that beat clashes regularly occur in the second context for assessment terms : clashes occur in extended first assessments like stories<sup>13</sup>, news or informings and in seconds to these conversational objects. Although there is a sequential similarity here between first assessments followed by second assessments upon completion in both conversational objects and a shared formal preference for agreement and display of congruent evaluation, first assessments in assessment pairs and stories, news or infomings on the one hand and second assessments in assessment pairs and second assessment following stories on the other hand also differ from each other.

What is the difference between first assessments in assessment pairs and stories, news or infomings? Assessing a person, an event or an experience is also - at least implicitly - done in the course of storytelling, but this aspect is not as focal as in assessment pairs. Stories, news and informings are also realized as multi-unit turns and tellers have to provide their recipients with information about the climax of the story and possible story completion points. First assessments in stories or news realized with a beat-clashing rhythm seem to be the ideal packaging which provide not only for the prosodic identification of the climax of a story but also for the speaker's affect display. Both aspects are relevant information for the recipient, the first for the placement of the second assessment upon completion, the second for the recognition of the speaker's attitude towards the assessable and a

---

<sup>13</sup> Cf. Pomerantz (1975: Chap. 2) and especially Jefferson (1978) for a detailed analysis of assessments in story-telling.

reciprocal affect display. Excerpt (14) shows an instance of implicit first assessment in line 03:

(14) China 25f

- 01 T : Ich hab | dir ne |
- 02 I : | aber irgendwie | ja
- > A1 03 T : ja. ne 'Karte von 'Ma"lay : 'sja mal | mitgebracht |  
((ehrfurchtsvoll))
- A2 04 I : | 'ts ahhh : | to :ll :  
((click))
- 05 | °ah-°
- 06 T : |° jetzt paß auf.°
- 07 \*und zwar ich hab\* son 'ganz 'tolles 'dickes 'Buch über  
Ma'layasia;

T informs I that she has brought a map of Malaysia. Instead of one main accent on the penultima<sup>14</sup> T pronounces the name with three clashing accents and a prolongation of the main stressed syllable. By this prosodic realization T displays that she does not want I to focus exclusively on the naming and identification of a referent, but that she wants to draw I's attention to the evaluative loading of the term, i.e. reverence. I co-participates in T's affect display. Instead of simply acknowledging receipt of T's information by producing a «continuer» *hmhm* (cf. Schegloff 1982), she joins T's prosodically delivered evaluation in «recognitional terminal overlap» (cf. Jefferson 1983) by starting her second assessment turn with a dental click followed by another non-lexical assessment sound *ahhh*:: and the assessment adjective *toll*.<sup>15</sup>Detailed analysis has shown (cf. Uhmann to appear) that beat clashes seem to be useful devices which provide for the

<sup>14</sup> Lexically, the word has the main stress on the antepenultima *Ma.'lay.sia*, but the last two syllables were fused by turning the syllable nucleus of the penultima into a glide.

<sup>15</sup> Comparing the sequential placement of I's response, it shows that the assessment in line 03 starts in overlap with T's talk as a « concurrent assessment » (cf. Goodwin 1986: 213): it is placed within T's current turn-constructional unit and brought to completion by T's attention focussing formulation *jetz paß auf* before she starts to talk about another referent, a book about Malaysia. The prototypical placement of a continuer would be at the boundaries of two turn-constructional units to « bridge » them (Goodwin 1986: 207f).

storyteller's affect display and secure an immediate subsequent second assessment. Although the risk of stating positions that cannot be agreed with is not totally abandoned in these conversational objects, the balance of costs and rewards might lead to a different result for storytellers or deliverers of news. Securing an immediate subsequent or «concurrent» (cf. fn. 15) second assessment might override the risk of stating a potentially unagreeable assessment.

The placement of assessments as second to informings is motivated because news, stories or informings can be interpreted as kinds of extended first assessments. But - like in example (14) - explicit assessment terms can be regularly absent if the teller of the informing can be sure that interpretation and evaluation are recoverable from the content itself, so that the content of the talk, its connotations and the evaluative loading provide the relevance of the recipient's second assessment. Example (15) shows another instance of a second assessment to an informing:

(15) China 34f

- 01 T : ehe=ansonsten von Kuallalumpur bis Cota Baro  
 02 sinds=so (0.2) 'sechs 'acht 'Stunden;  
 03 ° mim 'Bus; °  
 04 (0.6)  
 05 geht 'schon 'auch.  
 06 (0.9)  
 07 I : Ja aber das is doch ehm der 'Witz schlecht | hin, |  
 08 T : | jaja |  
 09 I : | erst bis hier erst nach |'da :  
 10 T : | jaja hmhm | hmhm  
 11 I : lund dann wieder zurück die ganze Strecke |  
 12 T : | das 'blöde ist halt hier inner | Mitte  
 13 (1.4)  
 A1 14 T : ist 'alles nur 'Dschungel.  
 15 da komms halt kaum | durch |  
 ->A2 16 I : | 'hhhha | "span | 'nend |  
 17 T : | hehehehe |



In extract (15) T and I are sitting over a map and T is helping I to plan her trip to Malaysia. In lines 07, 09 and I complains that she cannot take a direct route and T informs her in lines 10,12 and 14 about the reason for the complicated detour. But T's informing deserves a closer look. T starts her turn in recognitional terminal overlap in line 08 confirming I's first assessment *der Witz schlechthin*, and in extended overlap with I's complaint she co-participates in I's complaint with a second assessment *das blöde is halt*). Only when simultaneous talk is brought to completion does T pause in line 13 in the middle of a turn constructional unit for 1.4 seconds and provide the necessary information: what may look like a short distance on the map is in fact unpassable jungle. Due to the evaluative loading that accompanies the term *Dschungel* for Western-Europeans, T's talk is not treated simply as an informing, but as an affect-displaying assessable, i.e. a first assessment, that can be responded to. In line 16 I co-participates with a «reciprocal affect display» (cf. Goodwin & Goodwin 1992: 157): she responds with a non-lexical assessment signal, a deep and impressed inbreath *'hhhha*, followed by an assessment adjective *'spannend*. Lexically, this adjective has only one main stress on the first syllable, but here it is produced with two clashing accents *"span'nend* to intensify the second assessment and to provide a strong display of the assessor's emotional involvement. Second assessments in stories or informings prototypically exhibit a different format compared to seconds assessment pairs (for details cf. Uhmann to appear): seconds in assessment pairs consist of a pre-turn particle (like *ja* or *naja* in examples 11) to (13)) followed by an assessment term; in seconds to informings we find non-lexical assessment signals (like the dental click and the enraptured *ahhh::* in example (14) or the impressed inbreath *'hhhha*) instead of pre-turn particles and the assessment terms are regularly realized with beat-clashing rhythm. Comparing the absence of beat clashes on seconds in assessment pairs and their use on seconds to informings, it may be the expressiveness of the beat-clashing rhythm that might account for the different distribution. What might be “too much” as a second in an assessment pair with its main function of displaying a congruent assessment can be well-suited in an activity which beyond that has to display the understanding and appreciation of a story or an informing. The beat-clashing rhythm is well-suited to this reciprocal affect display and its expressiveness is further strengthened by the frequent use of non-lexical assessment sounds.

In brief the present data suggest that beat clashes in assessment utterances are very useful devices. The phonologically highly marked

beat clashes take the accentuation pattern of the relative compounds as a blueprint and contextualize emphasis and display emotional involvement. The expressiveness of the beat-clashing rhythm in second assessments is further strengthened by the frequent use of non-lexical assessment sounds and the packaging of the assessment turns in exclamatives. All these cues combine in the contextualization of intensifying the assessment term and the speaker's affect display. In first assessments in stories or news beat clashes seem to be the ideal packaging which provides not only for the speaker's affect display but also secures an immediate subsequent or concurrent second assessment.

The existence of these conversationally achieved beat clashes could corroborate the hypothesis, that grammatical rules are at least partly abandoned in favour of rules of conversational organization or by contextualization convention, because in analysing natural conversation we find linguistic forms which - at first sight - seem to go beyond the grammatically licensed variation.

### 3. GRAMMATICAL CONSTRAINTS

But what can be said about the conversationally achieved beat clashes from a grammatical point of view (for a detailed discussion cf. Uhmann 1994). Let us have a look at the examples (6) and (16) :

(6) China 52

01 I : für 'mich wär das ja auch ne 'irre 'Chance gleich dann (0.9)

02 in das 'volle 'Leben da ei(h)nzustei(h)gen hehehe

03 T : jaja jaja (.)

-> 04 I : s(h)o 'a(h)lles 'ganz 'haut'nah (0.5) 'mit 'zu'kriegern,

(16) China 19

12 I : der 'eine (0.5) war ma ver'droschen worden,

13 vonner 'ganzen (0.3) 'Horde chi'nesischer Kommili'ton; (0.3)

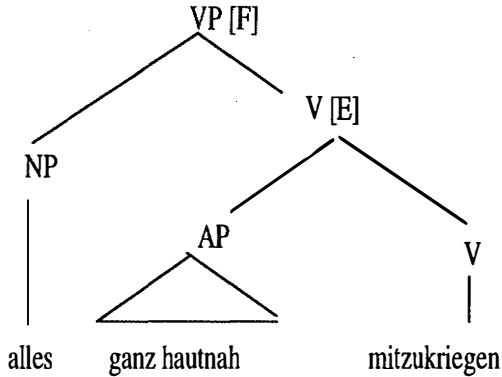
14 "weil 'er sich er'dreistet hatte,

-> 15 eine 'Chi'ne'sin 'zum "Tee einzuladen;=nachmittags

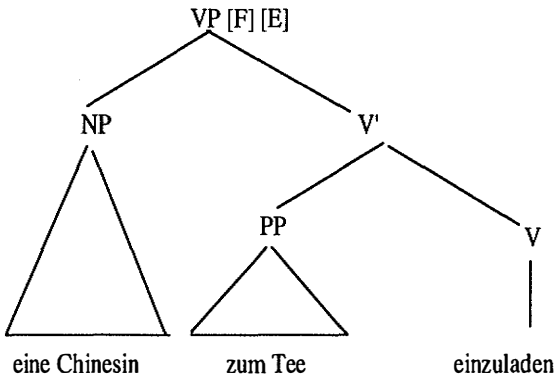
The crucial difference between these two examples is that in contrast to line 04 in extract (6) the beat clashing rhythm in line 15 of extract

(16) does not include the verb. To see how this difference can be accounted for, we have to look at the two syntactic structures :

(6a) syntactic structure



(16a) syntactic structure



The decisive difference can be found between the sister-constituents {*ganz hautnah, mitzukriegen*} and {*zum Tee, einzuladen*} : The prepositional object *zum Tee* is an argument of the head *einzuladen*, whereas the adjective phrase *ganz hautnah* is an adjunct of *mitzukriegen*. It has been shown by Jacobs (1991, 1993) that this difference has consequences for the prominence structures, because three prominence rules (*P-Regeln*), which are responsible for the metrical strength of the constituents, and a condition of integration (*BedI*) reflect the difference. If the conditions for integration are met, sister-constituents (SK) can be fused into semantically compact units, which do not function as separate informational units in the discourse. For the purpose of this article the most relevant conditions for integration (cf. Jacobs (1993 :71ff) are *BedI 1* and *BedI 2* :

- (BedI) Konstituente  $X_1$  ist nur dann in Konstituente  $X_2$  integriert, wenn 1. -  
 4. gelten :  
 1.  $X_1$  und  $X_2$  sind Tochterkonstituenten derselben Konstituente  $Y$  und  $X_2$  ist  
 Kopf von  $Y$ ;  
 2. a)  $X_1$  ist ein Argument von  $X_2$ ,  
 b)  $Y$  ist ein Wort und  $X_1$  ist eine nähere Bestimmung zu  $X_2$ ; (...)

The three prominence rules (P-Regeln) (cf. Jacobs 1993 : 84f), which are subject to the Proper Inclusion Principle, are responsible for the transformation of syntactic structures into prominence trees<sup>16</sup> :

(P-Regel 1)

Alle  $X$  e SK, die das Merkmal [F] enthalten, erhalten "+".

(P-Regel 2)

Wenn kein  $X$  e SK das Merkmal [F] enthält, erhalten alle neutral betonbaren  $X$  e SK "+".

(P-Regel 3)

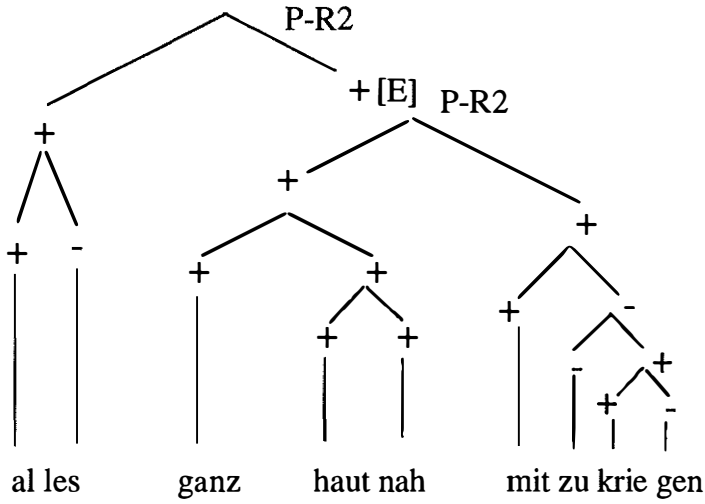
Wenn kein  $X$  e SK das Merkmal [F] enthält und die Elemente von SK im Verhältnis der Integration stehen, dann geht "+" an die integrierte Konstituente, wenn diese neutral betonbar ist, andernfalls an die Zielkonstituente.

In the domain of  $V'$  (example 16) P-Regel 3 has to be applied, which assigns a "+" to the neutrally stressable<sup>17</sup> argument but a "-" to the verb, because this structure meets the conditions for integration - especially BedI-2a. In the domain of  $V$  (example 6) P-Regel 2 has to be applied, which assigns a "+" to both neutrally stressable sister-constituents, because the adjunct *ganz hautnah* does not meet (BedI) 2a. So contrary to (6) there is no interaction in (16) :

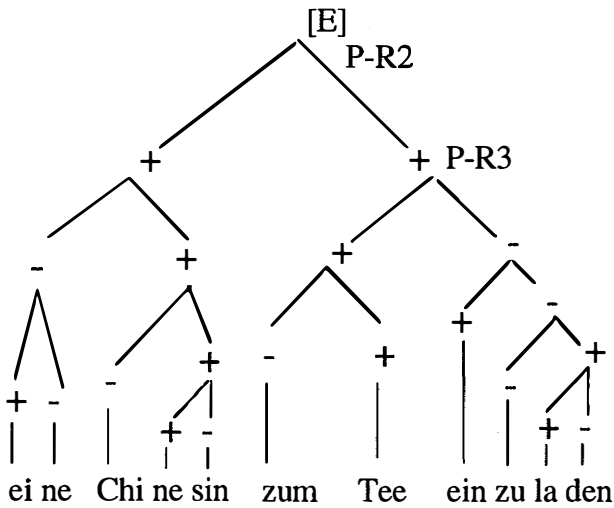
<sup>16</sup> The "+/-"-notation of the prominence trees is somewhat different from the "s/w"-notation in metrical phonology. The label "+" means more prominent than any "-"-sister but equal in prominence to any "+"-sister. It follows from this definition that branching "+"-sisters are well-formed (for details cf. Jacobs 1991, 1993).

<sup>17</sup> The set of constituents which are « not neutrally stressable » has to be defined 'ex negativo': The feature is assigned to constituents that cannot be prominent unless they are marked with the feature [F]. This applies to certain 'small words' (like non-demonstrative definite pronouns), functional elements (like articles, complementizers or auxiliary verbs) and larger constituents if their denotation is in some way contextually present. For details cf. Jacobs (1991, 1993) and Uhmann (1991).

(6b) prominence structure



(16b) prominence structure



After the application of the *R-Prinzip* (cf. Jacobs 1993 : 86)

(R-Prinzip)

1. Die designierten Silben jedes +-Elements von SK sind stärker als alle anderen Silben von SK.
2. Die designierten Silben aller +-Elemente von SK haben dieselbe Stärke.  
and a facultative rule of *Endakzentstärkung* (cf. Uhmann 1994 : 59)

## (Endakzentstärkung)

Von mehreren rhythmisch stärksten Silben innerhalb einer Intonationsphrase erhält die letzte ein zusätzliches “+”.

we receive the rhythmical structures (6c) and (16c). (Notice especially the lexically induced beat clashes on the elative compound *hautnah* in example (6) which cannot be resolved by Beat Deletion (cf. section 1) and the application of the Endakzentstärkung in example (16), which turns the constituent *Tee* into the most prominent syllable of the entire intonational phrase.):

## (6c) rhythmical structure

al les ganz haut nah mit zu krie gen  
 x x x x x x x x x x  
 x x x x x x x  
 x x x x x

## (16c) rhythmical structure

ei ne Chi ne sin zum Tee ein zu la den  
 x x x x x x x x x x  
 x x x x x x x  
 x x x x

(x)

(6c) and (16c) could be well-formed rhythmical structures which reflect the prominence relations induced by the placement of the F-feature and the conditions for integration. But the prominence structures also contain an E-feature. As the auditive impression tells us, in case of emphasis all syllables become more prominent than they would be with “normal”, lexical accentuation. In section 1.2 two extra metrical beats were added to every syllable dominated by the E-feature to make it phonologically apparent. But this rule of *Emphaseverstärkung* produces the correct result only for example (6) :

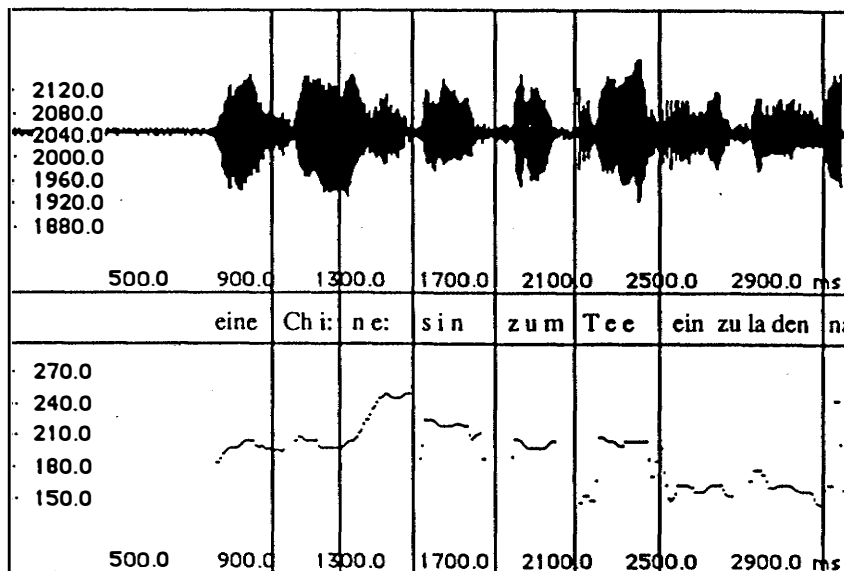
## (6d) rhythmical structure and emphatic strengthening

x x x	x	x x x	x	x x x
x x x	x	x x x	x	x x x
x x x	X	x x x	x	x x x
ganz hautnah		mitzukriegen =>		ganz hautnah mitzukriegen

Despite the reduction in volume following the pause after the elative compound (see the reduced swing in the speech waveform) the  $f_0$ -contour (figure III) shows clearly the beat clashes on the verb *mitzukriegen* :



Figure IV



Due to the application of Beat Deletion even the strongest syllable of the verb (*ein-*) receives no pitch accent. This leads to the effect that the  $f_0$ -contour (figure IV) has reached its  $f_0$ -minimum at the beginning of the syllable *ein-* and that it stays at this level until the end of the intonational phrase (which is in this case marked by a low boundary tone) is reached.

Thus, the exemple analysis of (6) and (16) has proved that the rule of *Emphaseverstärkung* (cf. Uhmann 1994 : 211) has to be modified, because not every syllables dominated by an E-feature is subject to Beat Addition. The rule has to exclude all syllables which belong to a constituent that has received a “-” by the application of P-Regel 3 :

(*Emphaseverstärkung*)

Alle von einem E-Merkmal dominierten Silben erhalten dann mindestens zwei zusätzliche “x”, wenn sie nicht zu Konstituenten gehören, denen die P-Regel 3 ein “-” zugewiesen hat.

Although conversationally achieved beat clashes are interactively highly relevant rhythmical patterns, the phonological analysis has proved that participants do not suspend the phonological rules for the



construction of well-formed intonational contours. On the contrary, even a rule such as the *Emphaseverstärkung* which - at first sight - looks like something which allows for maximal freedom is subject to grammatical restriction.

#### 4. CONCLUDING REMARKS : ON THE INTERPLAY BETWEEN GRAMMATICAL RULES AND CONVERSATIONAL STRUCTURE

We conclude that beat clashes represent a rhythmical phenomenon which is regarded as a highly marked or even deviant structure in metrical phonology because it disobeys the Principle of Rhythmic Alternation (cf. e.g. Selkirk 1984). In the case of a beat-clashing rhythm the unmarked alternation between prominent and non-prominent syllables is cancelled in favour of a succession of only prominent syllables. Due to this violation beat clashes are subject to Euphony Rules in metrical phonology. However, the analysis of elative compounds shows (cf. section 1.1) that the Principle of Rhythmic Alternation has to be revised so that it covers only a tendency to avoid successions of prominent or non-prominent syllables if the grammatically induced prominence rules (cf. section 3) allow an alternating rhythm.

The analysis of conversational data shows (cf. section 1.2) that beat clashes are also actively constructed by participants turning lexically non-prominent syllables into prominent ones. Regarding the function of these conversational beat clashes it seems as if the accentuation pattern of the elative compounds serves as a blueprint to contextualize "intensity" or "emphasis". This pattern is used systematically in assessment sequences. This general claim is stated more precisely in section 2 : beat clashes occur in elaborated first assessments like stories, news or informings and in seconds to these conversational objects, but they are absent in first and second assessments of assessment pairs. This distribution is claimed to be not accidental but systematic and is accounted for by the interplay between the contextualization function of beat clashes and the operative preference structure of assessments.

For an analysis based only on conversational data, such conversationally induced beat clashes could be used as prime examples for the assumption that grammatical rules can be - at least partly - abandoned in favour of rules of conversational organization or

contextualization conventions; and the reason is that we find linguistic forms in natural conversation which go beyond the grammatically licensed variation. As beat clashes are interactively highly relevant contextualization cues (cf. section 2) they could be used to corroborate Bolinger's (1986 : viii) claim that prosodic features are beyond language specific grammatical constraints and directly linked to "emotional" attitudes (understood in a wide sense) which they universally and iconically reflect.

But it is shown (cf. section 3) that although beat clashes are interactively highly relevant, they remain within the scope of variation as determined by the relevant sentence-phonological rules. If speakers produce beat clashes to contextualize emphasis, the prominence rules (P-Regeln) - which build up the metrical strength of constituents - and a very important condition for integration (BedI) have to be respected. As a result, even a rule such as *Emphaseverstärkung* which looks like a rule allowing for maximal freedom is subject to grammatical restriction. Thus, it is only the combination of conversational and grammatical perspectives that allows for an appropriate analysis of the highly complex phenomenon of beat-clashing rhythm.

© Susanne Uhmans 1995

## TRANSCRIPTION CONVENTIONS

Each line corresponds to an intonational phrase.

. ; , ?	Strong falling, falling, rising, strong rising intonation at the end of an intonational phrase.
!	Exclamative intonation.
China	Onset and offset of simultaneous talk.
toll	
=	Linking without any intervening pause or gap.
(1.5)	Length of a silence.
(.)	Micro-pause of less than 0.2 seconds.
'China	Primary accent on the following syllable. A syllable notated with a primary accent (') is phonetically realized with a pitch accent, which corresponds in grid notation to a beat of at least level-4.
˘China	Secondary accent on the following syllable. Prominences perceived as weaker as primary accents,

	but still above the level of lexical stress are noted as secondary stress (˘).
"China	Extra strong (emphatic) accent on the following syllable. Syllables provided with extra prominence (phonetically realized by means of increased pitch range which can also be accompanied by extra intensity and duration of the accented syllable).
° China °	Stretches of talk perceived as being spoken "quietly" with low volume.
°° China °°	Very low volume.
° China °°	Decreasing low volume.
°° China °	Increasing low volume.
Chi : :na	Stretching of sound of the preceding letter. The more colons the greater the degree of stretching.
schon	A sound is produced shorter than in the standard pronunciation of German.
n	Syllabic nasal.
?	Glottal stop.
Chi-	Cut-off of the prior sound or word.
(....)	Talk occurred but couldn't be transcribed.
( China )	Unsure-transcription.
(( Räuspern ))	Comments of the transcriber or non-verbal activities of the speaker.
˙hh	Audible inbreath.
˙ts	Dental click [ ɭ ].
hehe	Laughter.
Chi(h)na	A word spoken with laughter.

## BIBLIOGRAPHY

- AUER, P. (1986). «Kontextualisierung». *Studium Linguistik* 19, 22-47.
- AUER, P. (1992). «Introduction : John Gumperz' approach to contextualization». In : Auer, P. , DiLuzio, A. (eds.). *The contextualization of language*. Amsterdam : Benjamins, 1-37.
- AUER, P., UHMANN, S. (1982). « Aspekte der konversationellen Organisation von Bewertungen ». *Deutsche Sprache* 1, 1 - 32.
- AUER, P., UHMANN, S. (1988). «Silben- und akzentzählende Sprachen. Literaturüberblick und Diskussion». *Zeitschrift für Sprachwissenschaft* 7, 214-259.
- AUER, P., DI LUZIO, A. (eds.) (1992). *The contextualization of language*. Amsterdam : Benjamins.
- BOLINGER, D. (1986). *Intonation and its parts. Melody in spoken English*. London : Arnold
- COOK-GUMPERZ, J., GUMPERZ, J. (1978). «Context in children's speech». In : Waterson, N. , Snow, C. (eds.). *The development of communication*. Chichester : Wiley, 3-23.
- COUPER-KUHLEN, E. (1993). *English speech rhythm : form and function in everyday verbal interaction*. Amsterdam : Benjamins.
- DURANTI, A., GOODWIN, Ch. (eds.) (1992). *Rethinking context*. Cambridge : University Press.
- FLEISCHER, W., BARZ, I. (1992). *Wortbildung der deutschen Gegenwartssprache*. Tübingen : Niemeyer.
- GOODWIN, Ch. (1986). «Between and within : alternative sequential treatments of continuers and assessments». *Human Studies* 9, 205-217.
- GOODWIN, Ch., GOODWIN, M. (1992). «Assessments and the construction of context». in : Duranti, A. , Goodwin, Ch. (eds.). *Rethinking context*. Cambridge : University Press, 147-189.
- GUMPERZ, J. (1992a). «Contextualization and understanding». In : Duranti, A., Goodwin, Ch. (eds.). *Rethinking context*. Cambridge : University Press., 229-252.
- GUMPERZ, J. (1992b). «Contextualization revisited». In : Auer, P. , DiLuzio, A. (eds.). *The contextualization of language*. Amsterdam : Benjamins, 39-53.
- HAYES, B. (1984). «The phonology of rhythm in English». *Linguistic Inquiry* 15, 33-74.
- JACOBS, J. (1991). «Focus ambiguities». *Journal of Semantics* 8, 1-36.

- JACOBS, J. (1993). «Integration». In : Reis, M. (ed.). *Wortstellung und Informationsstruktur*. Tübingen : Niemeyer, 63-116.
- JEFFERSON, G. (1978). «Sequential aspects of storytelling in conversation». In : Schenkein, J. (ed.). *Studies in the organization of conversational interaction*. New York : Academic Press, 219-248.
- JEFFERSON, G. (1983). «Notes on some orderliness of overlap onset». In : D'Urso, D., Leonardi, P. (eds.). *Discourse analysis and natural rhetorics*. Padova : Cleup Editore, 11-38.
- KOHLER, K.J. (1977). *Einführung in die Phonetik des Deutschen*. Berlin : Erich Schmidt Verlag.
- LADD, D.R. (1984). «Declination : a review and some hypotheses». *Phonology Yearbook* 1, 53 - 74.
- LIBERMAN, M., PRINCE, A. (1977). «On stress and linguistic rhythm». *Linguistic Inquiry* 8, 249-336.
- MÜLLER, F. E. (1991). *Metrical emphasis : Rhythmic scansions in Italian conversation*. KontRI Arbeitspapier 14. Universität Konstanz.
- NESPOR, M., VOGEL, I. (1989). «On clashes and lapses». *Phonology* 6, 69-116.
- POMERANTZ, A. (1975). «Second assessments : Studies of some features of agreements/ disagreements». Ph.D. Diss., University of California.
- POMERANTZ, A. (1984). «Agreeing and disagreeing with assessments : some features of preferred/dispreferred turn shapes» In : J.M. Atkinson, Heritage, J. (eds.). *Structures of social action. Studies in conversational analysis*. Cambridge, 57-101.
- SACKS, H., SCHEGLOFF, E. A., JEFFERSON, G. (1974). «A simplest systematics for the organization of turn-taking for conversation». *Language* 50, 696-735.
- SELKIRK, E. (1984). *Phonology and syntax : The relation between sound and structure*. Cambridge. Mass. : MIT Press.
- SELTING, M. (1994). «Emphatic speech style - with special focus on the prosodic signalling of heightened emotive involvement in conversation». *Journal of Pragmatics* 22 : 375-408.
- SCHEGLOFF, E. (1982). «Discourse as an interactional achievement : Some uses of 'uh huh' and other things that come between sentences». In : Tannen, D. (ed.). *Analysing Discourse : text and talk*. GURT 1981. Washington, D.C. : Georgetown University Press, 71-91.
- UHMANN, S. (1989). «On some forms and functions of speech rate changes in everyday conversation». *KontRI Working Paper No. 7*. Universität Konstanz.
- UHMANN, S. (1991). *Fokusphonologie. Eine Analyse deutscher Intonationskonturen im Rahmen der nicht-linearen Phonologie*. Tübingen : Niemeyer.

- UHMANN, S. (1992). «Contextualizing relevance : On some forms and functions of speech rate changes in conversation». In : Auer, P. , DiLuzio, A. (eds.). *The contextualization of language*. Amsterdam : Benjamins, 297-336.
- UHMANN, S. (1993). «Das Mittelfeld im Gespräch». In : Reis, M. (ed.). *Wortstellung und Informationsstruktur*. Tübingen : Niemeyer, 313-354.
- UHMANN, S. (1994). *Grammatische Regeln und konversationelle Strukturen. Fallbeispiele aus Syntax und Phonologie*. Habilitationsschrift BUGH Wuppertal.
- UHMANN, S. (to appear). «On rhythm in everyday German conversation : beat clashes in assessment utterances». In : Couper-Kuhlen, E., Selting, M. (eds.). *Prosody in conversation : interactional studies*. Cambridge : University Press.
- VAN OS, Ch. (1989). *Aspekte der Intensivierung*. Tübingen : Gunter Narr.
- WURZEL, W.U. (1980). «Der deutsche Wortakzent : Fakten - Regeln - Prinzipien». *Zeitschrift für Germanistik* 1, 299-318.