

Intonational variation in Cologne German: An OT-account

Thu 12.00-12.30

While literature on regional variation of intonation in general has largely increased within the last decade (cf. e.g. Gilles & Peters 2004), descriptions of intonational variation within the framework of Optimality Theory are very scarce (cf. Gussenhoven 2004). Based on a study of internal variation of one intonation contour in Cologne German it will be argued that it is indeed “worth while to bring intonational data to bear on OT”, as Gussenhoven (2004:143) puts it. Cologne German intonation includes a nuclear rising-falling intonation contour, which is characterised by internal variation concerning its high peak: it may be realised as a high pointed peak, or as a high plateau, respectively. Analysis of 350 rise-falls in conversational Cologne German revealed that 1) the plateau occurs less often than the pointed peak with a relation of 1:5 approximately, 2) the alignment of the pointed peak is extraordinary regular, while no regularity could be detected for the left edge of the plateau, 3) the alignment of the right edge of the plateau equals the alignment of the pointed peak, and 4) the choice between the pointed peak and the plateau does not seem to be caused by linguistic or social factors. Thus, while the alignment of the pointed peak varies predictably, the alignment of the left edge of the plateau, as well as the occurrence of a plateau vs. a pointed peak have to be considered free variation (cf. Bergmann ms.). The presentation will demonstrate that the OT-account of the rise-fall is not only capable of describing the regular peak-alignment. But it will be demonstrated that the occurring variation, too, can be captured by one single constraint ranking, using the concept of “floating constraints” (cf. Nagy & Reynolds 1997). Furthermore, the constraint ranking is able to mirror the quantitative distribution of the two main alternatives, i.e. the pointed peak and the high plateau. All instances of the rise-fall can thus be traced back to one “underlying form”, at the same time predicting the quantitative facts of the occurrences of the contour.

References

- Bergmann, Pia (ms.): Regionalspezifische Intonationsverläufe im Kölnischen. Formale und funktionale Analysen steigend-fallender Konturen. PhD-Dissertation, University of Freiburg, May 2006.
- Gilles, Peter, Peters, Jörg (eds.) (2004): Regional variation in intonation: Tübingen: Max Niemeyer Verlag.
- Gussenhoven, Carlos (2004): The phonology of tone and intonation. Cambridge: Cambridge University Press.
- Nagy, Naomi, Reynolds, Bill (1997): Optimality theory and variable word-final deletion in Faetar. *Language Variation and Change* 9, 37-55.

Prosodic formats of relative clauses in spoken German

Fri 12.30-13.00

In the literature on German relative clauses it is a common view that restrictive and non-restrictive relative clauses differ in prosodic phrasing (Seiler 1960, Lehmann 1984, Zifonun et al. 1997, Eisenberg 1999 etc.). Restrictive relative clauses are supposed to be prosodically integrated into the matrix clause. Accordingly, the matrix clause and the relative clause form a single intonation phrase with a single primary accent in the relative clause. Non-restrictive relative clauses, on the other hand, are supposed to form a separate intonation phrase. The matrix clause and the non-restrictive relative clause each have their own primary accent. Empirical studies supporting this view, however, are largely missing. This paper presents a semantic and prosodic analysis of 830 relative clauses in conversational German (Birkner ms.). The results cast doubt on the view that restrictive and non-restrictive relative clauses systematically differ in prosodic phrasing. Most non-restrictive relative clauses form a separate intonation phrase but this is also true of many restrictive relative clauses. Thus, the correlation between the semantic feature of restrictiveness and the prosodic phrasing is not as close as traditionally suggested. Other factors relevant to prosodic phrasing are identified and the relevance of these findings to the relation between grammar and prosody is discussed.

References

- Birkner, Karin (ms.) Relativkonstruktionen im gesprochenen Deutsch, Habilschrift, Universität Freiburg.
- Eisenberg, Peter (1999) Grundriss der deutschen Grammatik, Band 2: Der Satz, Stuttgart/Weimar: Metzler.
- Lehmann, Christian (1984) Der Relativsatz: Typologie seiner Strukturen, Theorie seiner Funktionen, Kompendium seiner Grammatik, Tübingen: Narr.
- Seiler, Hansjakob (1960) Relativsatz, Attribut und Apposition: I. Teil, Relativsatz, Attribut und Apposition als Problem der allgemeinen Syntax, Wiesbaden: Otto Harrasowitz.
- Zifonun, Gisela/Hoffmann, Ludger/Strecker, Bruno (1997) Grammatik der deutschen Sprache (3 Bände), Berlin: De Gruyter.

Sandra Döring
University of Kent, United Kingdom

Prosody and grammaticography
The role of prosody as part of grammars

Thu 9.30-10.00

Annotations on prosody in grammars are not very current, even with the advances of prosodic theory in the last few decades. This seems to be true for all types of grammars. Prosodic information on language (esp. on stress and intonation) is particularly relevant in second language acquisition. It takes more than right grammar, an adequate use and a correct pronunciation to master a language. Prosodic aspects are crucial features of a language. Grammatical properties have consequences for the prosodic realisation (cf. realisation of different types of sentences). Furthermore, prosodic aspects influence grammatical behaviour (cf. the position of stress has effects on separable or non-separable verbs). Hence, this talk will focus on two aspects: on the representation of prosody in selected grammars and on – in my opinion – relevant prosodic information for the L2 learner of German.

In the first place, I will be looking at prosody and grammaticography, I will give a brief survey of presentations of prosody in some current popular grammars of German as foreign language. Special attention will be paid to *Deutsche Grammatik. Ein Handbuch für den Ausländerunterricht* (Helbig & Buscha 2001), to *Hammer's German Grammar and usage* (Durrell 2002) popular in Great Britain, to *Deutsche Grammatik. Eine kontrastive deutsch-niederländische Beschreibung für den Fremdspracherwerb* (ten Cate, Lodder & Kootte 2004), popular in The Netherlands, and to *Grammaire de l'allemand* (Schanen & Confais 2005), popular in France. In the second place, I am going to outline which prosodic information seems to be essential to learners of German as foreign language and how it could be presented in descriptive grammars.

References

- Durrell, M. (2002). *Hammer's German Grammar and usage*. 4th ed. London. Arnold.
Helbig, G. & J. Buscha (2001). *Deutsche Grammatik. Ein Handbuch für den Ausländerunterricht*. 17th ed. Leipzig. Langenscheidt.
Ten Cate, A., H.Lodder & A. Kootte (2004) *Deutsche Grammatik. Eine kontrastiv deutsch-niederländische Beschreibung für den Fremdspracherwerb*. 2nd ed. Bussum. Coutinho.
Schanen, F. & J.-P. Confais (2005). *Grammaire de l'allemand*. Paris. Armand Colin.

Caroline Féry
University of Potsdam

Prosody and grammar: A formal and empirical approach to Wide Focus Object Fronting in German

Fri 11.30-12.00

Sentences with Wide Focus Object Fronting, like those in (1) have a special prosody: only one accent is allowed, which is located on the fronted element, and only one prosodic phrase may be formed on the entire sentence. These sentences have a marked word order, but are perfect in a wide-focus (all-new) context (Fanselow 2004, Müller 2002).

- (1) a. {What did you do last evening?
[_P [Ein Bⁱer haben wir getrunken]_F] ‘We drank a bier’,
b. {Why was she away so long?’}
[_P [Das Kⁱnd hat sie ins Bett gebracht]_F]
‘She brought the child to bed.’

These sentences will be taken as a point of departure for the presentation of a model of syntax/prosody interactions. First, results of experiments on production and on perception of WFOF sentences will be summed up. One of them is as follows: When the sentences under consideration were presented in a written form, acceptability decreased significantly with longer sentences, proving the importance of providing a prosodic structure for a controlled elicitation of grammaticality judgments, and showing in general the importance of prosodic structure for grammar.

An analysis of the prosodic structure of German sentences will be developed, which assumes that the role played by syntax and the role played by information structure must be kept apart. Prosodic phrasing is the product of syntax, and pitch accents (as well as their scaling) are indicators of information structure. If the needs of prosody are not met by an unmarked word order, syntax may be changed, as in the case in WFOF. The analysis will be coached in an OT framework, following and developing Féry & Samek-Lodovici (2006).

References

- Fanselow, Gisbert 2004. Cyclic Phonology-Syntax-Interaction: Movement to First Position in German. In: Information Structures 1. ISIS. Working Papers of the SFB 632. Potsdam.1-42.
Féry, Caroline & Vieri Samek-Lodovici (2006) Focus projection and prosodic prominence in nested foci. *Language* 82.1. 131-150.
Müller, Stefan (2002) Complex Predicates: Verbal Complexes, Resultative Constructions, and Particle Verbs in German. *Studies in Constraint-Based Lexicalism* No 13. Stanford: CSLI Publications.

Peter Gilles
Université du Luxembourg

Aspects of Luxembourgish prosody

Thu 11.30 – 12.00

Due to several historical reasons, Luxembourgish ('Lëtzebuergesch') as the national language of Luxembourg is characterized by an intense contact situation: Within this trilingual situation, the small language Luxembourgish (approx. 400,000 speakers) is under constant influence of German and French. While the influence of German is decreasing, French is used more and more together with Luxembourgish in everyday life. With regard to the lexicon, this leads to heavy lexical borrowing from French into Luxembourgish.

In my talk I will explore possible options for linguistic contact on the prosodic level. Due to the pronounced influence of German and French, it seems feasible, on the one hand, that the prosodic system of the small language Luxembourgish is also influenced by these languages. On the other hand, however, it is possible that Luxembourgish is resisting the influences and maintains or develops its own distinct prosodic system. To track down these possible influences, examples are drawn from three prosodic domains: On the syllabic level I will discuss across-word resyllabification. On the word level, aspects of the word accent system will be presented. Finally, I will conclude with a glance at possible contact phenomena on the level of intonation.

Carlos Gussenhoven
Radboud University Nijmegen

Transcribing Standard Dutch Intonation using ToDI

Thu 9.00-9.30

The ToDI transcription system is a phonological analysis of Dutch intonation within the Autosegmental-Metrical model. A phonological analysis is motivated on the basis of phonetic as well as semantic and distributional considerations, and ideally makes predictions about these different aspects. In this presentation, the relation between the tonal representations and the phonetics will be laid out and transcriptions exemplified. These include the rightward displacement of pre-nuclear pitch accents, the occurrence of the pre-nuclear fall-rise, the morphological status and the phonological context of downstep, the (non-)existence of a three-way contrast $H^* \sim !H^* \sim L^*$, and the number of contrasts involving monosyllabic falling pitch contours.

A brief demonstration of the web-based ToDI course will be given, and in a number of cases, comparisons will be made with other systems for West Germanic languages, in particular the ToBI-system for American English.

Iskra Iskrova
Indiana University – Bloomington

Outline of some intonation patterns in Haitian Creole

Wed 17.00-17.30

This presentation reports the first steps in the investigation of the prosody-intonation system of Haitian Creole. Very little systematic research has been done on intonation systems in French-based creoles in general. Besides some insightful remarks in Hall (1953), a list of intonation patterns in Evans (1938) and a monograph by Ariza (1991), there is no survey of Haitian Creole intonation as a system of distinctive patterns. This study surveys intonation in Haitian Creole in declarative sentences, questions and statements with narrow focus. The verbal data was recorded from five native monolingual speakers from the area of Leogane in Southern Haiti. The analysis uses the autosegmental-metrical approach to intonational phonology as it has developed following Pierrehumbert and Beckman (1988).

The preliminary prosodic analysis indicates that freestanding words receive prominence on the penultimate syllable. This goes against the main – but not experimentally supported – claim, that Haitian Creole has a word final stress. Moreover, the prominent syllable may vary according to the intonational context, which suggests that effects at higher prosodic levels override lower prosodic effects at the word level. For instance, listed items receive a HL*-H marking, where the L* overrides the H tone on the penultimate syllable of the word in isolation.

The main characteristic of Wh-questions is downstepping. The Wh-word in the beginning of the utterance receives the highest tones, thus being marked above all other elements in the sentence. However, questions that bear focus tend to interrupt this downstepping trend, by assigning to the focused item a high tone which stands above the level of the preceding phrase. After the raising expressing focus the downstepping resumes and continues to the end of the sentence. Work is still under way in order to determine how the intonational phrase and the accentual phrase are marked in Haitian Creole.

Ken-Ichi Kadooka
Ryukoku University

A Note on Accent Systems in Japanese Dialects

Thu 10.30 – 11.00

The topic of this paper is to show the prosodic difference between two major dialects and one sub-dialect in Japanese.

It is well known that the Japanese lexical accent is based on pitch: either high or low, henceforth designated as H and L respectively. The current standard variation has been Tokyo dialect for these 140 years. Before that, especially the political center had moved from Kyoto to Edo (Tokyo had been called Edo until 1867) at the beginning of the 17th century, the Kyoto-Osaka (Keihan dialect henceforth) dialect had been regarded as standard. Notice that the pitch accent patterns are opposite in many words in these two dialects:

(1)	/ame/	Keihan:	LH	<i>rain</i>	HH	<i>candy</i>
		Tokyo:	HL	<i>rain</i>	LH	<i>candy</i>
(2)	/arai/	Keihan:	HHH	<i>washing</i>	HLL	<i>coarse</i>
		Tokyo:	LHH	<i>washing</i>	LHL	<i>coarse</i>

Though the data shown here are not enough, it should be pointed out that those words of two morae, such as the one in (1), have three type of accents: HH, LH (the following mora realized as H) and LH (the following mora L), the third one not listed in (1). With those words of three morae in (2), there are four patterns: HLL, LHL, LHH with the following mora H and LHH with the following mora L. In summary, for those words of n morae, there are $(n+1)$ patterns of accentuation. This is the case with most dialects of Japanese other than non-accent ones.

More interesting are sub-dialects which show minor difference from their major counterparts. Let us take an example from my own native dialect, the Banshu sub-dialect. Banshu is a name of a region some 70 kilometers west of Osaka, the center of the Keihan dialect. Though the Banshu sub-dialect basically belongs to Keihan dialect, I find some lexical difference between the two, such as follows:

(3)	electric train	/densya/	Banshu: HL	Keihan: LH	Tokyo: LH / HL
	map	/tidu/	Banshu: HL	Keihan: LH	Tokyo: HL
	battery	/denti/	Banshu: HLL	Keihan: LLH	Tokyo: HLL
	cat	/neko/	Banshu: LH	Keihan: HL	Tokyo: HL

It is amusing that the patterns in Banshu sub-dialect except /neko/ are consistent with those of Tokyo dialect, and opposite to Osaka dialect.

When we arrange the order in regard to the three dialects investigated up to now, the hierarchy of importance from the national range of viewpoint would be as follows:

- (4) Tokyo dialect > Osaka dialect > Banshu sub-dialect

Heterogeneous exponents of homogeneous prosodic categories
The case of dialectal variability of pitch contour synchronization with articulation

Wed 14.30-15.00

It has been well established by investigations into the production and perception of intonation patterns in German that with regard to rising-falling peak contours three phonologically distinct synchronizations with vocal tract dynamics have to be recognised: *early*, *medial*, and *late* peak positions in the framework of KIM – the Kiel Intonation Model. AM prosodic phonology uses the term *alignment* to refer to the *phonetic* variability in the association of pitch accents to syllables. The peak *synchronizations* in KIM are conceptualized as *phonological* distinctions between types of peak contours that have the time dimension in their phonological specifications. Moreover, the KIM peak patterns are associated with different functional categories: *finality* – *openness* – *unexpectedness*. These results were obtained from speakers of Standard German of a North German variety.

It can be shown that other varieties of German also distinguish the same functional oppositions, e.g., between *finality* and *openness*. But they realise these oppositions by different phonetic feature bundles, which may include varying peak synchronization along the scale from early to late, peak height, peak contour shape, and intensity. An extreme case is provided by Southwest German varieties where the openness category is signalled by a very late peak position with different contour shape and intensity patterns.

A plea is made for a research strategy that starts from two hypotheses:

- (1) All varieties of German differentiate three prosodic categories corresponding to the North German peak contour synchronizations, but use varying phonetic feature bundles.
- (2) All varieties of German express the functional categories of *finality* – *openness* – *unexpectedness* by these distinctive feature bundles, including different positions along the synchronization scale.

This leads to a comparative treatment of pitch peak patterns across varieties of German that produces an insightful account of the relation between phonological form, its phonetic realization and its communicative function.

This approach can also be extended to other languages. It has, for instance, been recently demonstrated by parallel perception experiments in Southern Standard English that the same relationships must be recognised for English as for German. It can, however, also be shown that other varieties of English behave differently, in a way similar to the deviation of Southwest from North German.

From this research perspective, the varieties of a language have a homogeneous form-function relationship with heterogeneous phonetic exponents. The description of national standards should make use of this phonology-phonetics complementarity.

Answering a question – does the answer depend on context and/or intonational tune?

Fri 12.00-12.30

It is generally assumed that a question intonationally is accompanied with a certain question tune, usually characterized by a final rise in pitch (e.g. Bolinger 1978). This rising question tune has been proved for Standard German and thus declared to be the question tune in numerous intonational descriptions. Conversational data however show that this one-to-one relation does not hold (e.g. Selting 1995). Falling question intonation has been recognized in different circumstances (e.g. Kügler 2003, 2004 and references therein). In Kügler (2003, 2004) falling intonation in yes-no-questions in two different German dialects has been related to an expectation of the speaker towards the answer, i.e. a falling intonation reduces an open set of alternative answers to the proposition of the answer itself. Rising question intonation on the other hand shows that the speaker asks for new information and that the set of possible answers is open. In other words, falling intonation signals that given information is under question while rising intonation appears to signal that new information is asked for. This dichotomy has been claimed on the basis of context analyses of naturally occurring conversational questions. Given this assumption on the question tune this paper is about to test this claim perceptually for German intonation. Do listeners rely on context and/or intonational tune to have an impression of an answer to a conversational question?

For this study, we constructed four yes-no-questions and two relating contexts per question on the basis of conversational data. One of the contexts discusses a particular information that will be asked for in the question (=given), the other context leads to a pure information seeking question (=new). To test a particular question in context systematically we chose to have the lexical material of the question identical in two different constructed contexts rather than relying on naturally occurring questions where both the context and the question varies. The stimuli were then cross-spliced to achieve a two times two design (a falling and a rising tune with a new and a given context, respectively), which results in 16 items (4 questions x 2 contexts x 2 question tunes).

The experimental task was performed in Praat using the *ExperimentMFC* algorithm. Twenty students at Potsdam university coming from the Berlin-Brandenburg region were asked to listen to the context and following question. They had to press one of four presented answers on the screen. Possible answers were "yes", "no", "I don't know" and "I had this before, but ...". The fourth answer was related to the previous conversational context and not an explicit *yes* or *no*, but a longer stretch of talk which may happen in conversation.

The results of this study are discussed with respect to the fact that intonational grammars appear to be based on prototypical cases excluding intonational variation. However this variation has an important impact on the conception of intonational usage and meaning, thus a grammatical concern.

- Bolinger, D. (1978) Intonation across languages. In: J. Greenberg (ed.) *Universals of Human Language*, Vol. 2, Phonology. Palo Alto: Stanford University Press, 471-524.
- Kügler, F. (2003) Do we know the answer? – Variation in yes-no-question intonation. *Experimental Studies in Linguistics (LIP)*, 21; 9-29.
- Kügler, F. (2004) Dialectal variation in question intonation in two German dialects: the case of Swabian and Upper Saxon. In: *Proceedings of ICLaVE-2*, Uppsala, Sweden, 227-240.
- Selting, M. (1995). *Prosodie im Gespräch*. Tübingen: Niemeyer.

Conxita Lleó, Ariadna Benet and Susana Cortés
 Universität Hamburg

Phrasing and boundaries in spoken Catalan under the pressure of Spanish

Wed 15.00-15.30

Catalan is an interesting testing ground to investigate the impact of standardization and normalization on several areas of phonology, including prosody. The language has undergone a process of standardization relatively recently (around 1930), and a process of normalization even later (after 1978), by which the population basis of speakers has been enormously enlarged, reaching native speakers of Spanish who have become proficient Catalan speakers through school. It is well known that Phonology, and especially Prosody, are elusive to the categorical decisions of standardization. And still, speakers are relatively able to identify typical Catalan phonological features and typical Catalan intonation. An interesting domain of inquiry lies in the present phonological evolution of the language under the influence of Spanish in a big city like Barcelona. In order to find out what impact the presence of Spanish has on the variety of Catalan spoken there, we have collected data in two districts of Barcelona, Gràcia and Nou Barris, differing in the degree of Spanish usage.

In Frota et al. (submitted) Standard Catalan has been described as tending to (SV)(O) phrasing together with (S)(VO), which is the preferred phrasing in Spanish. It has also been described as having pre-boundary lengthening, which in Spanish is much more seldom, and as hardly exhibiting pitch-resetting, whereas in Spanish pitch resetting after boundaries is extensively used. As a first step to describe the variety spoken in the two districts of Barcelona, we will analyze the intonation of declarative sentences in spontaneous Catalan speech, and will examine these three dimensions in two generations: G2 (age: ca. 20) and G3 (age: ca. 35).

On the basis of segmental phonological data collected in the two districts, we found out that, whereas G3 is relatively homogeneous in both districts, G2 shows large differences, in the sense that typical Catalan phonological traits are much better maintained in Gràcia than in Nou Barris. These findings point to an on-going loss of Catalan phonological features under the influence of Spanish, which is especially apparent in the district with massive presence of Spanish, whereas in Gràcia school and its concomitant normalization seems to have a beneficial effect, as Catalan phonological features are maintained (this is especially clear in G2). Our hypothesis is that intonation is more elusive to standard practices than segmental Phonology, and that in both districts G2 will exhibit properties tending to equate Catalan to Spanish, i.e., more (S)(VO), less pre-boundary lengthening and more pitch resetting, although the Spanish influence will be particularly obvious in Nou Barris.

References

Frota, S., M. D'Imperio, G. Elordieta, P. Prieto & M. Vigário (submitted). The phonetics and phonology of intonational phrasing in Romance. Submitted to *Laboratory Approaches to Romance Phonology*, ed. by P. Prieto, J. Mascaró, and M.-J. Solé. John Benjamins.

Prosodic variation in French: the case of melodic contours on stressed syllables

Thu 10.00-10.30

Phonosyntactic theoretical approaches to prosodic analysis reveal the existence of a prosodic structure in the sentence, structure which is essentially indicated by melodic contours located on effectively stressed syllables. These prosodic markers, correlated with syllable prominence, are, in many languages, linked to syllable lengthening and some pitch level or movement. In French, a melodic slope contrast to the right indicates the dependency of a given prosodic unit (a stress group) to a larger group ended with a melodic contour of opposite slope.

Regional realizations of vocalic systems belonging to the same linguistic system can phonetically vary while maintaining the same relation of contrast and opposition with other vocalic phonemes as the other phonetic variants. Vowels such as /a/ or /o/ for example are phonetically produced differently in various regions of France, but all these variants play the same linguistic role in the system. Similarly, rising and falling pitch movements encodes the sentence prosodic structure at the phonological level but can exhibit detailed variations in their melodic variations in function of time. These fine phonetic variations are assumed to be characteristic of regional variations of French.

The validation of this hypothesis requires 1) instrumental (acoustic) analysis of prosodic curves (fundamental frequency, intensity, duration) and 2) auditory (perceptive) validations, through experiments done on synthetically modified sentences by prosodic morphing. In this paper, the instrumental analysis was performed on semi-spontaneous sentences (recordings of broadcast speakers and listeners in open line shows), on various variants of French spoken in Paris, Marseille, Lausanne, Montreal, Guadeloupe, Mauritius and French Guyana. Raw prosodic data were obtained with the software analysis package WinPitchPro, and were exported to Excel® for statistical analysis.

Fine melodic variations observed experimentally on stressed syllables did validate the starting hypothesis: melodic slope contrasts are effectively maintained in most of the retained occurrences (even in non prepared speech), but detailed variations of pitch rises (more than pitch falls) showed characteristic differences (concavity or convexity of pitch curves at various points of time along the contour, often linked to the realization of stressed vowels as slight diphthongs). Rhythmic variations, intuitively perceived as characteristic of regional variations of French, were intentionally not taken into account at this point.

The fine variations retained for each regional variety were then mapped on sentences considered neutral (i.e. with straight melodic rises or falls) through prosodic morphing. Auditory tests were then made on a panel of 10 listeners. To avoid a possible large dispersion of results linked to a weak awareness of regional variants in their everyday language practice, panel subjects were asked first to classify the regional variety of each modified sentence as standard or regional, then in a second step to indicate the region identified.

Prosody and Deixis in English and German football commentary

Fri 13.00 – 13.30

Recent research has found that the description of non-linguistic events is influenced by the precise moment when reference is made to these events. In a study on radio football commentary, Müller (2006) revealed that the syntactic complexity of the commentators' utterances is dependent on the situational context of these utterances, and he distinguishes between three situational contexts: 1. utterances referring to extralinguistic events (i.e. on the pitch) that take place at the moment of speaking (*on-line* references), 2. utterances referring retrospectively to extralinguistic events (*off-line* references), and 3. utterances that do not make reference to activities on the pitch at all (*elaborations*, e.g. background information).

The research presented in this paper sought to determine whether a similar correlation could be established between these situational contexts and the *prosodic* structure of utterances. More specifically, *speech rate* was measured since on-line reference is made under greater time pressure than off-line reference and elaboration. It was thus hypothesised that commentators would have to increase their speech rate in order to 'keep up' with the extralinguistic events. In addition, *fundamental frequency* (F0) was measured. As strong emotions are typically signalled by an above average F0, we assumed that on-line and off-line reference, which relate to unpredictable events and are thus likely to evoke strong emotions, would have a higher mean F0 than elaborations. The latter, on the other hand, conveys information that can be prepared in advance.

The results for F0 in both English and German football commentary confirmed the hypothesis that F0 is significantly higher in on-line and off-line reference than elaborations, suggesting that this is due to emotional involvement. Furthermore, a qualitative assessment of the data revealed that high F0 values are associated with entire scenes of 'goal-scoring potential'. With respect to speech rate, the results are less clear-cut. On-line reference may be characterised by a high speech rate, caused by time pressure, if it coincides with syntactic complexity. If, however, commentators avoid syntactically complex structures, this will neutralise the adverse effects of time pressure and enable them to use a lower speech rate. The former strategy was utilised by the German commentators, while the English ones adopted the latter.

Challenging the prosodic word – the syntactic basis of the Standard German stress system

Wed 16.30-17.00

The prosodic word is generally considered the domain of basic foot formation for all languages (e.g. Nespor/Vogel 1986); thus descriptions of prosodic systems and also of the syntax-prosody interface are based on words. However, variation in Standard German stress placement suggests a syntactic motivation of both lexicalised main accents and non-lexicalised secondary accents (cf. Vennemann 1986, Noel Aziz Hanna 2003). NoLapse (*'xx_n>2'x) and NoClash (*'x'x) are not restricted to the domain of the word, but apply to well-formed feet on the sentence level. In Standard German, these constraints are met by quantity-insensitive trochees and dactyls.

Main accents:

- (1) ***Dromedar*** or ***Dromedar*** ['dromedary']
(isolated word/one-word sentence:
antepenultimate or ultimate stress)
- (2) *Zwei, nein, EIN ***Dromedar*** ist im Wohn-
zimmer.*
[Two, no, ONE dromedary is in the
living-room.']
(test item after a stressed syllable:
rhythmic well-formedness through
ultimate stress)
- (3) *Noch ein weiteres ***Dromedar*** ist im
Wohnzimmer.*
[One more dromedary is in the living-
room.']
(test item after two unstressed syllables:
rhythmic well-formedness through
antepenultimate stress)

Secondary accents:

- (1) ***Melancholie*** or ***Melancholie***
['melancholy']
(isolated word/one-word sentence:
secondary accent on the first or second
syllable)
- (2) *Herbst-***Melancholie****
['melancholy of autumn']
(test item after a stressed syllable:
rhythmic well-formedness through
secondary accent on the second syllable)
- (3) *Bei der Musik fallen sie immer in
Melancholie.*
[The music always makes them feel
melancholic.']
(test item after two unstressed syllables:
rhythmic well-formedness through
secondary accent on the first syllable)

The conditions for secondary accent placement were tested in production and perception experiments with subjects from the south, north and east of Germany. As a result, sentence rhythm proved to be an influencing factor in secondary accent distribution.

Sentence rhythm as a major motivation of the Standard German stress system leads to a new analysis of grammatical phenomena at the syntax-prosody interface, e.g. Wackernagel's Law (1892) and Jespersen's Cycle (1917). In contrast to traditional explanations, both words and sentence positions cannot be considered per se unstressed.

- Jespersen, Otto (1917), *Negation in English and other languages*. Copenhagen: Høst.
- Nespor, Marina and Irene Vogel (1986), *Prosodic Phonology*. Dordrecht: Foris.
- Noel Aziz Hanna, Patrizia (2003), *Sprachrhythmus in Metrik und Alltagssprache: Untersuchungen zur Funktion des neuhochdeutschen Nebenakzents*. Paderborn: Fink.
- Vennemann, Theo (1986), *Neuere Entwicklungen in der Phonologie*. Berlin: Mouton de Gruyter.
- Wackernagel, Jacob (1892), Über ein Gesetz der indogermanischen Wortstellung. *Indogermanische Forschungen* 1, 333–436.

Jonathan G. Secora Pearl
University of California, Santa Barbara

Varieties of Czech Prosody, a century ago and today

Fri 13.30-14.00

In 1897, the Czech composer and pedagogue Leoš Janáček (1854-1928) began a journey into the field of speech prosody, eventually spanning the final three decades of his life (Pearl 2006). His procedure involved detailed observation of natural phenomena, and a good deal of confidence in his own intuitions. For more than 30 years he eavesdropped, often clandestinely, on the conversations of those around him, recording their utterances in the system most familiar to him, musical notation. These efforts are remarkable for a variety of reasons: because they captured a great many nuances of natural speech, some of which are lost by contemporary transcription techniques; because they have been all but ignored over the ensuing century; because they represent some of the earliest and most extensive attempts to concurrently describe the melody and rhythm of speech prosody, permitting the possibility to explore matters of diachronic change.

Janáček worked mostly with the Czech language, but also Russian, Slovak, Croatian, German, English, Italian, and others. His transcriptions provide us a glimpse into the everyday speech of a century ago, which otherwise might be lost, due to a dearth of audio recordings, and the poor quality of what does exist. I will begin my talk with a presentation of some of Janáček's transcriptions of Czech, including discussion of the benefits and pitfalls of a music-based transcriptional system, then follow with presentation of modern-day recordings of spontaneous spoken Czech, along with the author's prosodic transcriptions of these selections, which build on Janáček's procedure, to describe melodic and rhythmic features of contemporary spoken Czech.

Pearl, J. (2006), "Eavesdropping with a Master: Leoš Janáček and the Music of Speech,"
Empirical Musicology Review Vol. 1, No. 3. (Available online at <http://emusicology.org/>).

Comparing prosody models of Swiss-German dialects

Thu 12.30-13.00

Swiss German dialects that are still spoken by all Swiss German residents are often said to be ear-catching concerning prosody. Even amongst these dialects differences are clear, as it already has been noticed by the early dialectological studies on Swiss-German dialects. The Swiss National Foundation project I will present has the goal to model these differences on the phonetic level of timing and intonation.

The basis for our project are spontaneous interviews with 20 subjects at four places in different dialect regions, grammar school students from the area, that were asked questions about their plans after school, their free time etc. These recordings were manually labeled to obtain the temporal information and analyzed with a Fujisaki-superposition model for intonation. These duration and Fujisaki-parameters are then correlated with the linguistic information, which leads to statistic information about the relevance of these parameters.

Pretests (Häsler, Hove, Siebenhaar 2005; Siebenhaar, Forst, Keller 2004;) have shown that the following factors are essentially determining the duration of the segments: intrinsic duration, focus, neighboring segments, position of the segment within the syllable and the phrase, grammatical status of the word containing the segment. For intonation the main aspects were the position of the phrase in the utterance, the position of the accent in the phrase, syllable type and grammatical status of the word.

Generally, it can be said that also in free speech the timing aspects are more stable between and within speakers of the same region than intonation aspects are. These seem to be much more determined by communicative, situative and individual factors. Nevertheless these parameters allow building models for both aspects. At the time I write this abstract first models for two regions – Berne in the western Midlands, and Brig, a western alpine region – are being build. For the conference I will be able to show the common features and the differences of the models of the two regions, and maybe it will already be possible to classify the speakers by other aspects than dialect area.

References

- Häsler, Katrin, Ingrid Hove und Beat Siebenhaar: Die Prosodie des Schweizerdeutschen – Erkenntnisse aus der sprachsynthetischen Modellierung von Dialekten. In: *Linguistik online* 24 (3/2005):. 187–224.
- Siebenhaar, Beat, Martin Forst, and Eric Keller: Prosody of Bernese and Zurich German. What the development of a dialectal speech synthesis system tells us about it. In: Gilles, Peter and Jörg Peters (eds.): *Regional Variation in Intonation*. Tübingen: Niemeyer Verlag (Linguistische Arbeiten 492): 219–238.

Variation in Indonesian Prosody: The role of accents

Wed 17.30-18.00

Indonesian is the official standard language of Indonesia. Earlier work on Indonesian (van Zanten, Goedemans, and Pacilly 2003) showed that there are at least two varieties as far as word prosody is concerned: Indonesian as spoken in North Sumatra, which has lexical stress, and the Indonesian of Java, which does not have stress.

The current study is concerned with Indonesian sentence prosody. In particular, we compare the realizations of sentence-final versus non-final accents in declarative sentences. We compare four varieties of Indonesian, as spoken in Jakarta, Banjarmasin, Kupang, and Manado. Two of these varieties (Kupang and Manado) have lexical stress, while the other two (Jakarta and Banjarmasin) do not have stress. We will show that while non-final accents have relatively large pitch excursions in all varieties, final accents are much smaller in the non-stress varieties than in the varieties with stress.

We explain this difference by relating sentence prosody to word prosody. In the [+stress] Indonesian of Kupang and Manado, accents are part of the grammar of the language. This includes their form: they must be associated with the stressed syllable of a word, and their function: they are used to mark focus.

In the [-stress] Indonesian of Jakarta and Banjarmasin, on the other hand, accents are not part of the grammar proper. Accents are not associated with a specific syllable, and there is no direct relation between focus and accent placement. Accents rather have a less-specific pragmatic function, including the marking of exceptional focus patterns. Non-final focus is such an exceptional pattern in Indonesian, which is therefore typically marked by a relatively large pitch accent, while final focus, which is very common, does not need any obvious prosodic marking.

The two types of accent realization thus reflect two types of sentence prosody in Indonesian. In varieties with word stress, form and placement of accents are determined by the grammar, while in varieties without stress, these are determined by pragmatic factors.

Reference:

van Zanten, E., R. Goedemans and J. Pacilly (2003). 'The status of word stress in Indonesian'. In J. van de Weijer, V.J. van Heuven and H. van der Hulst (eds.), *The Phonological Spectrum. Vol. 2: Suprasegmental Structure*, 151-175. Amsterdam: John Benjamins.

The intonation of colloquial and formal Egyptian Arabic

Wed 15.30-16.00

Comparison between standard and colloquial varieties of regional dialects of Arabic is a potentially revealing instance of standard vs. non-standard prosodic variation. Every Arabic dialect is spoken in the context of *diglossia*: a local colloquial variety is used by the whole speech community for most purposes, and a ‘standard’ variety used only in very restricted, formal communicative situations (such as public lectures and high-level broadcast interviews). Thus speakers in Cairo will use Formal Egyptian Arabic (FEA) only when required to do so in formal contexts, but Colloquial Egyptian Arabic (CEA) in all other contexts, and it is often assumed that the prosody of spoken Standard Arabic will have the intonational characteristics of the colloquial variety of the speaker (Mitchell, 1984). This paper presents evidence of differences between the intonation of CEA and FEA, but offers a unified sociolinguistic account of the observed variation.

Based on qualitative and/or quantitative analysis of two corpora of read/prepared and spontaneous speech (FEA: El Zarka, 1997; CEA: Hellmuth, 2006), we present evidence of differences in the following areas: i) *peak alignment in pre-nuclear bitonal pitch accents*: comparing within parallel syllable types (CV, CVC, CVV) the H peak often aligns earlier in FEA (within or even before the stressed vowel) than in CEA (early in the second mora of the stress foot); ii) *variation in excursion size of pre-nuclear bitonal pitch accents*: the scaling of the pitch valley or low tone (L) in bitonal accents is more readily sacrificed in CEA than in FEA, resulting in more ‘pronounced’ bitonal accents in FEA in general; iii) *secondary accents on non-primary metrical feet*: whilst in both varieties, an additional pitch accent may be placed on a non-primary metrical foot for emphatic purposes (so that the word bears two pitch accents), in FEA secondary accents routinely occur on multipedal words even in unemphatic contexts; iv) *differences in phrasing distribution*: although in both varieties there is a tendency to pronounce every word with a pitch accent, CEA displays long phrases of up to 7 or 8 prosodic words, whereas FEA displays short, rhythmic phrases, often containing only one or two prosodic words.

These distinctions can be seen as ‘realisational’ differences in the phonetic implementation of phonologically parallel categories in the two varieties (Ladd, 1996:119), and on the phonological level this is consistent with Mitchell’s (1984) claim. The overall impression created in FEA is of a very rhythmic articulation, almost like verse, and since the sociolinguistic prestige of the ‘high’ variety (FEA) arises in part from its historical links with classical verse within a strong tradition of oral recitation, we suggest that speakers use essentially the same phonological system in FEA as in CEA, but in a realisation which enhances rhythmic alternation.

References

- El Zarka, D. (1997) Prosodische Phonologie des Arabischen. PhD: Karl-Franzens-Universität Graz.
- Hellmuth, S. (2006) Intonational pitch accent distribution in Egyptian Arabic. PhD: SOAS.
- Ladd, D.R. (1996) *Intonational phonology*. CUP.
- Mitchell, T.F. (1984) Soziolinguistische und stilistische Aspekte des gesprochenen Arabisch der Gebildeten in Ägypten und der Levante. *Sitzungsberichte der Sächsischen Akad. d. Wissenschaften in Leipzig, Philolog.-hist. Klasse*, 123, 1-21.