

AG 12

Prosodic Typology: State of the art and future prospects

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Prosodic typology: State of the art and future prospects

24.02.2010, 14.00–14.30 Uhr, Raum 1.601

Linguistic typology addresses two key questions in linguistic theory: What do all languages have in common? To what extent can languages vary? In order to answer these questions, linguistic typology describes and systematizes the structural phenomena documented in the languages of the world. In a second step, it sets out to explore and explain correlations of structural features across languages. In the study of prosody, this research paradigm traditionally describes suprasegmental features such as stress, tone, intonation and quantity, systematizes their distribution over the languages of the world and examines their covariation with other structural traits.

Facing the growing number of structurally different languages nowadays compared in prosodic typology, one key issue concerns the descriptive frameworks available: Are they really capable of capturing the attested diversity in prosodic systems? E.g. does ToBI provide an adequate means for cross-linguistic comparison (cf. Jun 2005)? Should the quest for holistic language types such as 'tone language', 'stress language', etc., be abandoned, given the resistance of numerous prosodic systems to being classified in terms of these traditional word-prosodic notions?

More recently the scope of prosody has been expanded to include any phonological phenomenon sensitive to the domains of the prosodic hierarchy (ranging from the syllable to the utterance) and a number of theories have been developed which make strong claims about local or holistic correlations in prosodic systems. While their predictions are clear, the cross-linguistic evidence is often less so, raising questions like: Which phenomena should be subsumed under the term 'prosodic'? E.g. is it reasonable to treat stress domains on a par with segmental assimilation processes (cf. Bickel et al. 2009)? Are current phonological theories capable of handling real typological variation? E.g. can derivational approaches which assign metrical grids before intonational pitch-accent account for cases like Kuot (cf. Lindström & Remijsen 2005)?

This talk aims at situating the presentations of the workshop in the broader context of typological research in prosody, bridging the gaps between descriptive linguistics, traditional prosodic typology, phonological theory and the study of language contact.

Bickel, Balthasar, Kristine A. Hildebrandt & René Schiering (2009). The distribution of phonological word domains: A probabilistic typology. In *Phonological Domains. Universals and Deviations*, Janet Grijzenhout & Baris Kabak (eds.), 47-74. Berlin: Mouton de Gruyter.

Jun, Sun-Ah (ed.) (2005). *Prosodic Typology. The Phonology of Intonation and Phrasing*. Oxford: Oxford University Press.

Lindström, Eva and Bert Remijsen (2005). Aspects of the prosody of Kuot, a language where intonation ignores stress. *Linguistics* 43: 839-870.

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Syllables versus accents: From its manifestation to typology, and back

24.02.2010, 14.30–15.00 Uhr, Raum 1.601

In der neueren Typologieforschung werden im Grunde zwei sich nicht unwesentlich voneinander unterscheidende Begriffe von Typologie verwendet:

- einerseits zur Klassifikation von Erscheinungsformen von Kategorien (z.B. Silben-/Silbentypen, Akzent-/Fußtypen, Tonsysteme, Typen von Intonationseinheiten etc.), und zu deren Beschreibung und Sampling in den Sprachen der Welt (WALS, Hyman 2007);
- auf der anderen Seite steht ein traditioneller Begriff von Typologie im Sinne von Präferenzen der Strukturierung von Grammatik, als Grundlage von argumentierbaren Zusammenhängen bzw. von (möglichen) Kausalrelationen struktureller Elemente zueinander.

Der Beitrag wird zeigen, daß man zu einem systematischen Verständnis im phänomenologischen Ansatz nicht über eine immanente Klassifikation von Entitäten gelangt, sondern nur über die Einbettung in deren grammatisches Funktionieren. Diese allgemeinen Überlegungen werden anhand der Silbe bzw. der Rolle der Silbe in der prosodischen Typologie erläutert. Die Silbentypologie (Maddieson/WALS, Blevins 2006 etc.) beschäftigt sich mit einer Beschreibung und Klassifikation der (zugrundeliegenden oder oberflächlichen) Konkretisierungen von Silben und führt diese auf einige universalistische Prinzipien zurück (z.B. Präferenzen/Constraints über Eigenschaften des Nukleus, Präsenz/Absenz von Anlaut vs. Auslaut; Komplexität von Onset, Reim, Nukleus bzw. Auslaut, etc.). Seit den frühen 70er Jahren leugnet keine der relevanten Grammatiktheorien die Existenz von Silben.

Es reicht nicht aus (diesem Aspekt wird sich der Hauptteil des Vortrags widmen), diese silbenbildenden Prinzipien als Grundlage für die Phonologie bzw. Typologie der Silbe heranzuziehen. Allein die Phonologie des Deutschen zeigt, daß die Erscheinungsform 'Silbe' hier keineswegs den genannten und allgemein akzeptierten Silbenstrukturprinzipien entspricht. Es können letztlich alle Präferenzen/Constraints systematisch verletzt sein, und zwar nicht nur in Oberflächenformen, sondern auch in zugrundeliegenden Repräsentationen/Ausgangsformen. Trotz solcher empirisch abgesicherter Gegenevidenz kann man nicht behaupten, im Deutschen gäbe es keine Silben, oder im Deutschen gäbe es keine Silbenpräferenzen. Der Vortrag wird argumentieren, daß es bezüglich der zeitlichen Organisation von Phonologie zwei Grundtypen gibt, einen silben- und einen akzentbasierten. Doch je nach (relativer) Zugehörigkeit spielen Silben oder Akzentgruppen (Fuß, Maß) eine zentralere Rolle, während Strukturprinzipien des jeweils anderen untergeordnete Bedeutung haben, daher auch verletzt sein können. Dementsprechend sehen Phonologien unterschiedlich aus: silbenbasierte Phonologien haben eine stärkere Tendenz zu zentrifugalen, akzentbasierte zu zentripetalen Vokalprozessen/Constraints, akzentbasierte unterscheiden klar zwischen betontem und unbetontem Vokalismus, silbenbasierte tendenziell weniger etc. Der Vortrag wird die wesentlichen Unterschiede dieser Art auflisten und anhand verschiedener Sprachen (wenn gewünscht auch des Kuot) erläutern. Darüber hinaus wird gezeigt, daß ein solches

Muster einen wesentlichen diachron-typologischen Aspekt trägt, also Typologie und Diachronie auch in der Prosodieforschung keinesfalls einander gegenüberstehende methodische Ansätze sind: Apokopen schaffen Silbenkomplexität, Synkopen präferentiell nicht; es sind dies u.U. also innerhalb zweier unterschiedlicher prosodischer Typen beides Möglichkeiten der Reduktion von akzentueller Komplexität.

Der hier im Rahmen einer Natürlichen Phonologie präsentierte Ansatz, dessen Annahmen aber prinzipiell von der Korrespondenz methodischer Mittel (z.B. Präferenzen und Constraints) ausgehen, ist u.E. über den erreichten Explanationsgrad hinaus die einzige Theorie, in der sich scheinbar hierarchische Anordnungen nicht in einer unidirektionellen Denkungsart erschöpfen, sondern sowohl die Organisation kleinerer Elemente in größeren, als auch die größerer Einheiten in kleineren mitdenkt.

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Rhythm-typology revisited

24.02.2010, 15.00–15.30 Uhr, Raum 1.601

Behind most work on rhythm in language and speech is an echo of the original observation by Lloyd (1940, p. 25) about French having a “machine-gun rhythm” and English a “morse-code rhythm”, which was subsequently generalized into a language typological hypothesis by Pike (1946) on the dichotomy between syllable-timed and stress-timed languages, with the later addition of the mora-timed distinction by Bloch (1950), and Ladefoged (1975). These hypotheses claimed either foot-based, syllable-based or mora-based *isochrony*. Despite general acceptance of massive experimental evidence that a measurable isochrony does not exist the assumption of *some sort of regularity* at these different levels of structure still persists. A discussion of different ways in which a modified isochrony theory has been argued for can be found in Bertinetto (1989).

Recently, a change in the approach to speech and language rhythm research has become apparent. There has been a shift from the language classification paradigm back to the more fundamental question of what rhythm is and does. A number of new measures (Dellwo 2008, Bertinetto 2008, Wagner 2008) of increased sophistication to correct for perceived and criticised weaknesses have been suggested and applied. However, there has also been a move away from the purely temporal orientation, and a distinct increase in work that is concerned with the complex nature of speech rhythm as a relational property, namely the product of an acoustic speech signal and the receiver of that signal in a communicative situation (Cummins 2009, Wagner 2008, Arvaniti 2009, Barry et al. 2009).

The work described in this paper summarizes the achievements of the project “Cross-language and individual differences in the production and perception of syllabic prominence. Rhythm-typology revisited.” (http://www.coli.uni-saarland.de/groups/WB/Phonetics/Research/Projects/prominence_and_rhythm.php). It focuses on the analysis of the consequences of cross-language and inter-speaker phonetic differences in the prosodic structuring of words and utterances for

the realization of word stress and “information” accents (topic and focus) in the controlled production and perception of contextualised sentences and their reiterant equivalents. A number of languages, traditionally considered to be “stress-timed” (e.g. German, Russian), will be compared to “syllable-timed” languages (e.g., French) and languages which are not so readily categorized as either (e.g., Bulgarian, Norwegian) as well as to Japanese (as the representative of “mora-timed” languages).

Our investigation has two theoretically closely linked but experimentally separate goals. Firstly, to examine in the production and perception: (a) how different languages exploit the universal (= psycho-acoustically determined) means of modifying the prominence of words in an utterance; (b) whether the different word-phonological requirements of a language affect the degree to which the properties are exploited, and (c) whether differences between languages are greater than the differences between speakers of a language, and what are the implications for both traditional isochrony-based and more recent structure-based rhythm typology groupings.

- Arvaniti, A. (2009). Rhythm, timing and the timing of rhythm. *Phonetica* 66(1-2), 46-53.
- Barry, W., Andreeva, B. and Koreman, J. (2009). Do Rhythm Measures Reflect Perceived Rhythm? *Phonetica* 66, (1-2), 78-94.
- Bertinetto Pier Marco (1989). “Reflections on the dichotomy ‘stress’ vs. ‘syllable-timing’”, *Revue de Phonétique Appliquée*, 91-92-93, pp. 99-130.
- Bertinetto, P.M., Bertini, C. (2008). *On modeling the rhythm of natural languages. Proc. of the 4th Speech Prosody Conference*, Campinas
- Bloch, Bernard (1950). Studies in colloquial Japanese IV: Phonemics. *Language* 26, 86-125.
- Cummins, F. (2009). Rhythm as an affordance for the entrainment of movement. *Phonetica*. 66(1-2), 15-28.
- Dellwo, V. (2008). The Influence of Speech Rate on Speech Rhythm. Doctoral Dissertation, Bonn University.
- Ladefoged, P. (1975). *A Course in Phonetics*. New York: Harcourt Brace Jovanovich.
- Lloyd James, Arthur (1940). *Speech Signals in Telephony*. London: Sir I. Pitman & sons.
- Manrique and Signorini, 1983. Occasional Papers, 9, 1-36.
- Pike, Kenneth L. (1946). *The Intonation of American English*. Ann Arbor: University of Michigan Press.
- Wagner, P. S. (2008). *The Rhythm of Language and Speech. Constraining Factors*.

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Bora drum communication: What the study of emulated speech systems contributes to prosodic typology

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The Bora people of the North West Amazon traditionally use a drummed version of their language, locally called manguaré. Like similar drum communication systems practiced by several other rural populations around the world, this speech practice is an acoustic substitutive system for the spoken form of a language. It shares this particularity with whistled speech (see Sebeok & Umiker Sebeok 1976) and other less studied instrumental imitations of speech (xylophones, gongs, jaw harps, mouth arches, flutes, or even string instruments). The principal function of a drummed speech practice is to enable the speakers to adapt spoken public announces or sung lyrics to conditions of distant communication. Percussions are indeed among the

most efficient types of signals to cope with the acoustic degradation resulting from outdoor sound propagation, and they are also very efficient in noisy environments. Like other emulated speech system, Bora drum communication is not a fully autonomous communication system such as sign languages. To the contrary, it is strongly dependent on the spoken language, as it consists of emulating it into percussions. Each drummed occurrence transposes a spoken syllable with more or less detail, depending of the language concerned and the kind of played drum. The drummed signs and phrasing resemble prosodically their spoken equivalents and rely heavily on this iconic relationship for their interpretation.

Based on recently collected data (Seifart et al., eds., 2009) this paper provides an analysis of the Bora drummed language, describing the particular syntax of the formulaic structure of drummed messages, and the phonetic and prosodic elements that are transposed from spoken speech, including the representation of phonological tones and of syllable weight. Next it places Bora manguaré in a comparative perspective within the diversity of other drummed languages of the world and more generally within the diversity of other traditional practices used to emulate spoken speech, based on Meyer (2008). Finally, Bora manguaré will be used to open a new discussion on what these alternative and eminently prosodic forms of languages teach us about prosodic typology, elaborating on Meyer (2007).

Meyer, Julien. 2007. What does the typology of whistled forms of languages teach us about prosody? Paper presented at the 7th biennial meeting of the Association of Linguistic Typology, Paris.

Meyer, Julien. 2008. Acoustic Strategy and Typology of Whistled Languages; Phonetic Comparison and Perceptual Cues of Whistled Vowels. *Journal of the International Phonetic Association* 38 (1), 64-90.

Sebeok, Thomas A., and Donna Jean Umiker-Sebeok. 1976. *Speech Surrogates: Drum and Whistle Systems. Approaches to semiotics* 23. The Hague: Mouton.

Seifart, Frank, Doris Fagua, Jürg Gasché, and Juan Alvaro Echeverri, eds. 2009. A multimedia documentation of the languages of the People of the Center. Online publication of transcribed and translated Bora, Ocaina, Nonuya, Resígaro, and Witoto audio and video recordings with linguistic and ethnographic annotations and descriptions. Nijmegen: DOBES-MPI. http://corpus1.mpi.nl/qfs1/mediaarchive/dobes_data/Center/Info/WelcomeToCenterPeople.html.

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Against syllable universality: evidence from Japanese

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This research addresses the following question: are all the categories (levels) of the prosodic hierarchy (figure 1) obligatorily present in all languages?

Whereas the constituents of the Prosodic Hierarchy (Nespor & Vogel 1986, Selkirk 1978, 1983) upper to the Prosodic Word have been the object of a long standing debate with regard to their exact number, content and universality (see Ito & Mester, 2008, for a recent review of the issue), the nature and universal character of the lower levels units, the mora, the syllable and the foot, are generally not put into question.

Following the Strict Layering Hypothesis (Selkirk, 1984), the doxa of phonological theory holds that all the levels of the Prosodic Hierarchy are always instantiated in all languages. Although a model like OT allows for some flexibility, considering that the

Prosodic Hierarchy consists in fact in a group of violable constraints (Selkirk 1996), and that, as such, it represents a prosodic “ideal” rather than an obligatory requirement, the different domains of the Prosodic Hierarchy are still explicitly or implicitly considered as primitives of the Universal Grammar. However, to the best of my knowledge, no evidence has ever been produced that it is really so for the lower levels of the hierarchy.

In this paper, I want to challenge this view through detailed examination of the status of the syllable in Japanese. My claim is that Japanese is a syllable-less language (contra McCawley 1968 and subsequent studies) and that a proper account of the phonology and morpho-phonology of the language can be made through exclusive reference to the mora and the foot, thus bringing confirmation to Poser’s insight (1990) (citation in (2)). Incidentally, this syllable-free approach of Japanese is also in adequation with the rich native Japanese linguistic tradition, which has never felt the need for a distinction between mora and syllable for the description and analysis of the language, the mora (“haku”) being the only prosodic element seen as relevant.

In my talk, I will re-examine a number of Japanese phonological and morpho-phonological evidence such as the ones presented in Kubozono (1996, 1998, 1999, 2003) (see also Labrune 2006) which are generally presented in favour of the recognition of the syllable in that language, in order to show that a syllable-free analysis of Japanese is possible. I will further argue that the singular typological status of Japanese from the point of view of its prosodic characteristics is due of the fact that it is a syllable-less language.

At a more general level of phonological theory, the claim is that the syllable is not a universal constituent and that it may thus be absent in some languages, of which Japanese is an example. Among the rare studies which have challenged the dogma of the syllable universality, one can mention Hyman (2003 [1985]) on Gokana, and Bagemihl (1991) on Bella Coola. For a similar questioning concerning the universality of the prosodic word, see Schiering et al. (2007).

The conclusion I would like to defend through the particular case of Japanese is that the domains or levels of the Prosodic Hierarchy must not be thought as universal, but rather, that they represent options in the prosodic typology of the world’s languages. Thus, there exist languages which have both moras and syllables, like English, languages which have syllables but lack moras, like French, and languages which lack syllables but have moras, like Japanese.

(1) Prosodic Hierarchy (Selkirk 1978, 1995, Nesport & Vogel, 1986, etc.)

Utterance, Intonational Phrase, Phonological Phrase (/ Accentual Phrase / Minor Phrase), Prosodic Word, Foot, Syllable, Mora

(2) Citation in Poser (1990): “[T]he fact that the Japanese foot consists of morae rather than syllables points to the independence of the mora as a phonological constituent. It also poses a problem for advocates of the position that morae are subconstituents of syllables, since the boundaries of feet, composed of morae, need not coincide with syllable boundaries”.

BAGEMIHL, Bruce, 1991, ‘Syllable structure in Bella Coola’, *Linguistic Inquiry* 22: 589-646.

HYMAN, Larry, 2003 [1985], *A Theory of Phonological Weight*, Foris, Dordrecht.

ITÔ, Junko & MESTER, Armin (2008) ‘Rhythmic and interface categories in prosody’, paper presented at The 18th Japanese / Korean Linguistics Conference, November 13-15, CUNY.

KUBOZONO, Haruo, 1996, ‘Syllable and accent in Japanese : evidence from loanword accentuation’, *Onsei Kaihō* 211: 71-82.

KUBOZONO, Haruo, 1998, ‘Môra to onsetsu no huhensei [Universality of the mora and the syllable]’, *Onsei Kenkyū* 2-1: 5-15.

- KUBOZONO, Haruo, 1999, 'Mora and Syllable', in *The Handbook of Japanese Linguistics*, Tsujimura N. (ed), Blackwell, Oxford, 31-61.
- KUBOZONO, Haruo, 2003, 'The syllable as a unit of prosodic organisation in Japanese', in *The Syllable in Optimality Theory*, C. Féry & R. van de Vijver (eds), Cambridge Un. Press, Cambridge, 99-122.
- LABRUNE, Laurence, 2006, *La phonologie du japonais*, Société de Linguistique de Paris / Peeters, Leuven.
- MCCAWLEY, James (1968) *The Phonological Component of a Grammar of Japanese*, Mouton, La Haye.
- NESPOR, Marina & VOGEL, Irene, 1986, *Prosodic Phonology*, Foris, Dordrecht.
- POSER, William, 1990, 'Evidence for foot structure in Japanese', *Language* 66-1: 78-105.
- SCHIERING R., Kristine A. HILDEBRANDT & Balthasar BICKEL, 2008, 'The Prosodic Word is not Universal'. Ms.
- SELKIRK, Elisabeth, 1978, 'On prosodic structure and its relation to syntactic structure', in *Nordic Prosody II*, T. Fretheim (ed), Trondheim, TAPIR.
- SELKIRK, Elisabeth, 1984, *Phonology and Syntax, the Relation between Sound and Structure*, MIT Press:Cambridge.
- SELKIRK, Elisabeth, 1996, 'The prosodic structure of function words' words. In *Signal to Syntax*, eds. James L. Morgan and Katherine Demuth. Mahwah, NJ: Lawrence Erlbaum. 187-213

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Anchoring intonation in a language without word stress

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The ToBI framework describes intonation as a sequence of high and low tones anchored on and between an accented syllable and a boundary. While this works well for languages where the accented syllable and relevant boundaries are relatively easy to establish (e.g. English), the application of ToBI or a derivative thereof to languages where accented syllables and/or boundaries are difficult or impossible to establish is less straightforward. We exemplify this with Sri Lanka Malay, a language with no word stress and unclear phrasal boundaries, yet clearly recognizable pitch contours.

Sri Lanka Malay (SLM) has been shown to parse words into bimoraic feet, but contrary to many other languages, feet in SLM are always headless (Apoussidou & Nordhoff 2008). There are no cues of pitch, intensity, vowel quality or duration which would indicate which part of a foot (and a word) would be more prominent. This is not to say that SLM sounds completely monotonous. On the contrary, certain contours show salient pitch movements (Nordhoff 2009).

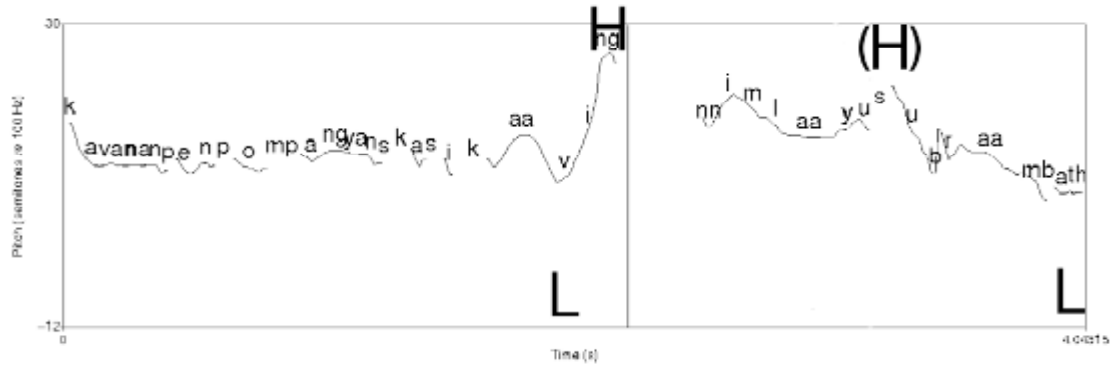
On a first approach, SLM contours can be divided into a number of progradient contours with a H tone on the right boundary preceded by an L (left side of figure 1) and an assertive contour with an L tone on the right boundary (right side of figure 1). One can argue that the L tone of the assertive contour is preceded by an H at the left edge of the word in focus, but this is dependent on analysis as we will show.

We will focus on the positions of the L in the LH contour and the position of the H in the HL contour and show that:

a) these two tones are not linked to the same targets. The L tone tends to follow the foot while the H tone tends to precede (Most words have only one foot). This is difficult to explain with word accent, whose position should not vary.

b) the H tone often is found on verbal prefixes, which, even if one assumed the existence of word stress in SLM, could not be argued to bear stress. It thus appears that word stress cannot be used to determine the positioning of these tones. We will discuss the possibility of using the edges of the phonological word and of the foot as an alternative anchor for the tones.

Figure 1



- (1) kavanan=pe pompang=yang as-kasi-kaaving, nni mlaayu su-braanmbath
 group=POSS girl=ACC CP-give-marry PROX Malay PAST-spread
 'Having given the girls of the group in marriage, these Malays spread (out).'

Apoussidou, D. & S. Nordhoff (2008). Feet in Sri Lanka Malay - no stress please. Paper presented at OCP 5 in Toulouse, January 2008.

Nordhoff, S. (2009). A Grammar of Upcountry Sri Lanka Malay. Doctoral dissertation. University of Amsterdam.

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Prosody and intonation in Tetserret, contacts and contrasts with Tamasheq

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Tetserret is one of the relatively few under-described Berber languages. Spoken in Niger, in the Azawagh valley, it is surrounded by another Berber language, Tamasheq, the dominant regional language, in which all Tetserret speakers are bilingual. Tetserret is thus also an endangered language. Nevertheless, it has preserved its own prosodic system, largely different from Tamasheq's.

From an acoustic point of view, Tetserret accent is linked to a F0 rise, but is often accompanied by an increase in duration or intensity too. This thus makes the choice between a stress or pitch-accent qualification a delicate matter. Accent has an important morphological role in Tetserret: combined with segmental morphological information, it systematically marks the distinction between nominal and verbal categories.

Furthermore, inside the nominal category itself, it contributes to establish the distinction between masculine and feminine. Indeed, to a very large extent, masculine nouns are accented on the ante-penultimate syllable, whereas feminine

nouns are accented on the penult. Of course, this distinction is neutralized for mono and bisyllables, as well as, less predictably, for loanwords.

This distinction is again neutralized when a clitic (possessor or unmarked demonstrative) is post-posed to the noun. In these cases, accent gets a fixed position in the word, the same one for feminine and masculine.

The verb category presents similar mechanisms. Accent is used to distinguish the different aspectual paradigms, and there is a kind of neutralization when verbal clitics are added (less regular than for the noun).

Furthermore, in addition to that morphological accent, there is an intonational dimension. In fact, in a way rather similar to English, word accent can disappear due to intonational facts or focalization contrasts. This last part is perhaps the most difficult to describe, and the ToBI framework can be useful to encode these different accent levels.

In this paper, we will present first a description of the Tetserrét prosodic and intonational system, compared to the one in Tamasheq. Second, we will present a brief overview of the possibilities offered by the ToBI framework to analyze the different accentual levels in Tetserrét.

- ATTAYOUB, K.A. 2001. La tetserrét des Aytawari Seslem : Identification socio-linguistique d'un parler berbère non documenté parmi les Touaregs de l'Azawagh (Niger), mémoire dirigé par S. Chaker. Paris, INALCO.
- FOX, A. 2000. Prosodic Features and Prosodic Structures. London : Oxford University Press.
- GUSSENHOVEN, C., BRUCE, G. 1999. Word prosody and intonation. In Word Prosodic Systems in the Languages of Europe. Van der Hulst, H. (ed.). Berlin: Mouton de Gruyter : 233–271
- GUSSENHOVEN, C. 2002. Intonation and interpretation: Phonetics and phonology. In Speech Prosody. Bel, B., Marlien, I. (eds.). CNRS and Université de Provence : Aix-en-Provence.
- GRICE, M., LADD, D.R., ARVANITI, A. 2000. On the place of phrase accents in intonational phonology. In Phonology, n°17 :143-185.
- HEATH, J. 2005. Grammar of Tamacheq (Touareg of Mali). The Hague : Mouton de Gruyter.
- JUN, S.-A. 2004. Prosodic Typology: The Phonology of Intonation and Phrasing. Oxford: Oxford University Press.
- KOSSMANN, M. 1999. Essai sur la phonologie du proto-berbère. Köln : Rüdiger Köppe Verlag.
- LOUALI, N. 2004. L'accent en berbère : Catégorie grammaticale et démarcation syntaxique. Nouvelles études Berbères, le verbe et autres articles ; Naït-Zerrad, K., Vossen, R., Ibrizimow, D. (éds). Köln : Rüdiger Köppe Verlag : 67-77
- LOUALI, N., PHILIPPSON, G. 2005. Deux systèmes accentuels berbères : le siwi et le touareg. Faits de langues, volume spécial, n°26 : 11-22.
- LUX, C., PHILIPPSON, G. A paraître. L'accent en Tetserrét et en Tamacheq : Contacts et contrastes. In Etudes Berbères IV (Actes 5. Bayreuth-Frankfurt-Leidener Kolloquium zur Berberologie 8-11 Octobre 2008), Stroemer, H. (ed.). Köln : Rüdiger Köppe Verlag
- METTOUCHI, A., SMAIL, H., LOUALI, N. 2004. Intonational Structures in Berber : The Non-Verbal Predicate d + XP in Tarifit and Taqbaylit. Nouvelles études Berbères, le verbe et autres articles ; Naït-Zerrad, K., Vossen, R., Ibrizimow, D. (éds). Köln : Rüdiger Köppe Verlag : 111-117.
- PRASSE, K.G. 1972-1973. Manuel de grammaire touarègue. Copenhagen.

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On the prosodic expression of prominence in typologically different languages

24.02.2010, 18.00–18.30 Uhr, Raum 1.601

Prominence may prosodically be expressed by means of changes in tonal scaling and duration. It is well-known that information structure such as focus tends to raise a high tone of a pitch accent in languages like English (Eady et al. 1986), or to raise the tonal range in tone languages like Mandarin Chinese (Xu 1999). A raising in pitch normally goes along with an increase in duration. A different tonal phenomenon, downstep, is often phonologically determined, yet interacts with prominence in a way that downstep may be interrupted (e.g. Féry & Kügler, 2008, for German, Ishihara, ms, for Japanese).

This paper investigates the interaction of tonal effects like tonal raising and downstep in relation to the prosodic realization of prominence comparing its realization in typologically different languages. A comparison of the prosodic realization of prominence between German (intonation language), Hindi (phrase language, Féry 2009), and Akan (tone language) will be presented. For German, H-tone raising is found to interrupt downstep (Féry & Kügler 2008), while in Hindi downstep dominates the prosodic realization in an intonation phrase independent of focus (Patil et al. 2008). In Akan, downstep is phonologically determined in a tonal sequence of underlying H L H (e.g. Dolphyne 1988). According to Boadi (1974), prominence results in tonal raising (both for L and H tones), yet the interaction of tonal raising and downstep remains unclear. In contrast to the literature our data on Akan suggest a tonal lowering of H tones due to focus. As regards downstep our data do not show a blocking of downstep due to focus.

Comparing the tonal effects across typologically different languages yields insights in the use and function of tonal effects. If related to the function of prosody this paper claims that demarcative prosodic systems like Hindi and grammatical function of tone like in Akan prevail downstep effects post-lexically independent of pragmatic factors such as focus. In Hindi, every prosodic word is marked by means of a L H phrase tone sequence which demarcates prosodic entities. In Akan downstep is realized independent of focus indicating its special grammatical role which cannot be blocked for pragmatic reasons. Other languages that use prosody to express pragmatic contrasts (e.g. German) show an interaction of tonal effects.

Boadi, L. A. (1974) Focus-marking in Akan. In: *Linguistics. An International Review*. The Hague/Paris: Mouton, 5–58.

Dolphyne, F. A. (1988) *The Akan (Twi-Fante) language: Its sound systems and tonal structure*. Accra: Ghana University Press.

Eady, S. J., Cooper, W. E., Kloouda, G. V., Mueller, P. R. & Lotts, D. W. (1986) Acoustical Characteristics of Sentential Focus: Narrow vs. Broad and Single vs. Dual Focus Environments. *Language and Speech*, 29(3), 233-251.

Féry, C. (2009). Indian languages as intonational phrase languages. To appear in a Festschrift.

Féry, C. & Kügler, F. (2008) Pitch accent scaling on given, new and focused constituents in German, *Journal of Phonetics* 36, 680 - 703.

Ishihara, S. (Ms) Japanese downstep revisited. Ms. Potsdam University.

Patil, U., Kentner G., Gollrad, A., Kügler, F., Féry, C., & Vasisht, S. (2008) Focus, word order, and intonation in Hindi. *Journal of South Asian Linguistics*, 1, 53-70.

Xu, Y. (1999) Effects of Tone and Focus on the Formation and Alignment of F0 Contours. *Journal of Phonetics* 27: 55-105.

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The perspicuity of the syntax-prosody interface

25.02.2010, 9.00–10.00 Uhr, Raum 1.601

The connection between syntax and intonation has been studied for decades, leading to a number of different conclusions. The range of positions begins, perhaps, with Pike who argued that phonology and syntax are separate 'grammatical hierarchies' that can go in and out of synch or match in different places. A more extreme position is that the prosody is 'read off' the syntax or even that it is part of the lexical selection/numeration. In this paper I will use data from Pirahã and other Amazonian languages to argue that intonation is neither a necessary nor a sufficient marker of sentential syntactic relationships but that it can indicate discursive constituents that are similar but not identical to sentential relationships. Intonation is thus more closely connected to pragmatics and secondarily to syntax. The relationship between prosody and sentence structure is thus far from perspicuous. "Data do not wear their analysis on their sleeves."

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The theory of intonational phrases, facts from analysis, and consequences for further research

25.02.2010, 10.00–10.30 Uhr, Raum 1.601

In this talk, I focus on three aspects of intonational phrasing: the theory of intonational phrases, facts from analyzing parenthetical constructions in modern German, and consequences for further (including typological) research. In the first part of this paper, I concentrate on the theory of intonational phrases. Claims that IPs correlate to certain syntactic phrases or a sentence (e.g. Nespor & Vogel 1986), or that IPs constitute sense units (e.g. Selkirk 1984) will be discussed along with the possibility (and, for theoretical clarity, the need) to define them as phonological units in the frame of prosodic phonology only, without extra-phonological criteria (cf. Ladd 1996/2008). In this context, it will be shown that neither syntactic phrases nor sense units do necessarily correlate with intonational phrases.

In the second part, I present results coming from the analysis of parenthetical constructions in modern German. In prior research, parentheticals have been claimed to have their intonational phrase on their own. This strong hypothesis has been tested on authentic spoken data (contemporary German language) extracted from 35 hours of debates held in the German House of Parliament (Deutscher Bundestag) in 2004, 2005, and 2006, and has to be rejected, even for prototypical V2-parenthetical constructions.

Finally, I point out consequences for further studies: if and only if a prosodic domain such as an intonational phrase turns out to be useful in linguistic theory, then we need to describe this domain on phonological criteria. In order to back up these phonological conclusions, we do need more phonetic investigations, more language- and variety-specific data analysis. We have to check especially within languages or varieties of languages before comparing different findings.

Dehé, N. (to appear). "Clausal parentheticals, intonational phrasing, and prosodic theory." *Journal of Linguistics* 45 (2009). 569-615.

Ladd, R. (1996/22008). *Intonational Phonology*. Cambridge University Press.

Nespor, M. & I. Vogel (1986/2007). *Prosodic Phonology*. Dordrecht. Foris.

Selkirk, E. (1984). *Phonology and syntax: the relation between sound and structure*. Cambridge. MIT.

Wiese, R. (1996/2008). *The Phonology of German*. Oxford University Press.

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Clitic domains and prosodic domains: Enclitics in Yucatec Maya

25.02.2010, 10.30–11.00 Uhr, Raum 1.601

This paper starts from the observation of domains that are determined by the occurrence of phrase-final enclitics and addresses the issue how these domains are aligned with purely phonological phenomena, namely stress domains, boundary tones and domains of tonal downstep. The presented evidence comes from Yucatec Maya.

It has been observed that a class of enclitics in Mayan languages occurs at the right edge of a phrasal entity which cannot be associated with a particular syntactic constituent, hence it is assumed to be “prosodic” (see Aissen 1992). This language displays a class of enclitics that obligatorily follow definite NPs and contrast for the encoding of different regions of spatial deixis: proximal, distal, and neutral (see Bohnemeyer 1998a, 1998b), see (1). Interestingly, these clitics are not always adjacent to the licensing head, but they often surface at the end of the clause, see (2) in which the enclitic -o’ is licensed by the definite object. Moreover, the unmarked member of the class (-e’) appears at the right boundary of a topic constituent (independently of a definite trigger, see first token in (3)), and at the right edge of a clause that is not final in the utterance, see second token in (3).

The phrase-final placement of the enclitics is accounted for through the fact that they are associated with a high target in the F0 contour. The empirical question of this talk is what is the status of the prosodic domains determined by the enclitics with respect to the prosodic constituency in this language.

The first part of this question is whether there are prosodic constituents below the clitic domain and above the prosodic word. The critical phenomenon is the observation that the leftmost lexical accent within a phrasal unit is realized with particular prominence. Crucially, clitics cannot be placed between the V and its NP/PP complement, hence it is clear that accentual prominence refers to a layer that is embedded to the clitic domain. It is also clear that this layer is above the prosodic word which is empirically determined by further phenomena, e.g., glottalization of open syllables.

The second part of this question is whether there are prosodic constituents above the clitic domain. The collected data shows that the tonal target that is associated with the second enclitic is consistently downstepped with respect to the tonal target of the first enclitic. This data provides evidence that downstep domains refer to prosodic constituents above the clitic domain.

In sum, the empirical phenomena at issue show that at least three layers of prosodic constituency have to be distinguished in this language above the prosodic word. The lowest level (evinced through the prominence of the leftmost lexical accent) corresponds to the major projection of lexical categories, e.g., NP or PP and can be dealt with as a MaP (major phrase, in terms of Selkirk 2005). The challenging fact is the evidence for two layers above the MaP. The enclitics and the associated boundary tones determine a layer of IntP (intonation phrase) under the condition that this is a non-maximal prosodic entity. The Yucatec Maya data requires a higher prosodic projection, namely an UtteranceP.

- (1) *táan u wen-el le xibpal*(-á/-o’-e’)*
 PROG.A.3 sleep-INCMPPL DEF man:child-D1/D2/D3
 ‘The boy (here/ there/ afore mentioned) is sleeping.’
- (2) *k-u xíimbat-ik le h-mèen hun-túul h-k’iin-o’.*
 IPFV-A.3 visit-INCMPPL DEF M-shaman one-CL.AN M-priest-D2
 ‘A priest visits the shaman.’
- (3) *Pèedróoh-e’ k-u ya’k=e’ k-u xíimbat-ik tak kàariyo’ puèerto’*
 Pedro-D3 IPFV-A.3 say:CMPL-D3 IPFV-A.3 walk-INCMPPL up.to Carrillo Puerto
 ‘Pedro says that he is walking up to Carrillo Puerto.’

Aissen, J. 1992, Topic and Focus in Mayan. *Language* 68.1, 43-80.
 Bohnemeyer, J. 1998a: Time relations in discourse: Evidence from a comparative approach to Yucatek Maya. Ph. D. Dissertation, Katholieke Universiteit Brabant.
 Bohnemeyer, J. 1998b: Sententiale Topics im Yukatekischen, in: Zaefferer, Dietmar (ed.), *Deskriptive Grammatik und allgemeiner Sprachvergleich*. Tübingen: Niemeyer, 55-85.
 Selkirk, Elisabeth 2005, Comments on intonational phrasing in English. In Sonia Frota, Marina Vigario, Maria Joao Freitas (eds.), *Prosodies*. Berlin: Mouton De Gruyter.

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A cross-linguistic study on the perception of L2 English word stress

25.02.2010, 11.30–12.00 Uhr, Raum 1.601

This study investigates word stress perception by EFL learners with different first language backgrounds. Native speakers of tone languages tend to interpret English word stress as pitch differences in the code-switching context. For instance, Cheng (1968) reports that the English unstressed syllable is interpreted as a tone carrying the [-high] feature and further triggers the 3rd tone sandhi in the Chinese-English code-switching context (e.g., hao3 professor → hao2 professor ‘good professor’). Ou (2009) further reports that in L2 acquisition when the cue of high pitch in an English stressed syllable is manipulated to be low, Taiwanese EFL learners exhibit great difficulty in using other phonetic cues of stress such as different F0 contour shapes and duration ratio changes to identify stress. Two questions about Ou’s findings then arise: (a) Is the reliance on pitch in identifying stress an effect of the tonal system of

Chinese? Can it not be a general feature of L2 stress perception? (b) Will native speakers of a pitch-accent system (e.g., Japanese) which also uses pitch as a primary cue to contrast lexical meanings also show similar tendency in L2 English stress perception?

To answer these two questions, this study duplicated Ou's (2009) experiment using another two EFL groups: L1 stress language speakers (i.e., Spanish) and L1 pitch-accent language speakers (i.e., Japanese). The task was for subjects to perceive the English stress minimal pairs (e.g., fércépt vs. fercépt) read in falling intonation, in which stressed syllables have high F0, and in rising intonation, in which stressed syllables have low F0. If both groups relied on the cue of high pitch in perceiving stressed syllables, this may suggest Taiwanese EFL learners' reliance on pitch show a general tendency of L2 word stress perception. If only the Japanese group showed difficulty in identifying English word stress in the rising intonation, this would suggest the Taiwanese pattern come from the effect of L1 tonal system. Twenty Spanish and twenty Japanese speakers were recruited to participate in two forced choice perceptual experiments, in which they were asked to identify the stress position of disyllabic non-words with a stress contrast when the non-words (e.g., fércépt vs. fercépt) were embedded in the rising or falling intonation pattern. The results show that while both Japanese and Spanish groups had little difficulty in identifying word stress in the falling intonation, only Japanese participants had great difficulty in doing so in the rising intonation. The result suggests that the reliance on pitch in identifying stress be an effect of the language-specific phonological use of pitch at the lexical level.

Cheng, C. C. (1968). English stresses and Chinese tones in Chinese sentences. *Phonetica*, 18: 77-88.
 Ou, S. C. (2009). Taiwanese EFL Learners' Perception of English Word Stress. Poster presented at the 17th Manchester Phonology Meeting. Manchester, UK.

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Accentuation and phrasing in Romance: Occitan and French
 25.02.2010, 12.00–12.30 Uhr, Raum 1.601

Romance languages all derive from Latin, but in spite of their common origin they display a fair amount of variation in their prosodic systems: while Southern Romance languages such as Catalan or Italian have distinctive stress that hits one of the last three syllables of the lexical word, Occitan, a highly endangered language spoken in the Southern third of France, has kept only the last two syllables as potential stress positions, and French has lost any such distinction developing what is usually characterized as a phrase final stress or accent. Occitan and French, which have been in close contact for centuries, also differ from the other Romance languages in as far as they often present pitch movements on syllables that are not metrically strong. Originally used to signal emphasis, these rises, which occur mainly on the first syllables of content words, seem to be quite generalized today.

Although Romance constitutes one of the better-known European language groups, the scientific community working within the Autosegmental-Metrical (AM) framework is far from agreeing on the way to account for the different prosodic structures within

the group. One of the main problems consists in determining the relevant units of the prosodic hierarchy. As far as French is concerned, the attempts to define the accentual and/or phonological phrase (AP/PP) range from purely syntactic to basically prosodic approaches (Post 2000, Di Cristo 1998, Jun/Fougeron 2002, Welby 2006, Miller 2007). The possible extension and delimitation of this entity claimed to be an essential unit in the prosodic architecture of French are far from clear, and so is its relation to other units such as IP, ip, foot, etc. And while there is substantial agreement on the presence of a final accent and eventually an initial rise in this phrase, there is little consensus neither on any further accents that might occur within it nor on potential boundary tones at its edges. As for the prosody of Occitan, it is only starting to be explored (Hualde 2003, *Atlàs interactiu de l'intonacion de l'occitan*: <http://prosodia.uab.cat/atlasintonacion/>, Sichel-Bazin 2009).

As a result from intensive contact with Occitan, Southern French differs from the Northern standard in many aspects. The project our team is working on focuses on the consequences this contact has had on the prosodic systems of both languages, investigating in detail the Occitan and French prosody of bilingual speakers in a limited area (the Monts de Lacaune) and contrasting it systematically with near-standard Northern varieties of French. One of our aims is to establish the modifications needed within the AM model in order to account for both French and Occitan in a broad Romance perspective.

While the surveys have just started, data from pilot recordings show that Southern French displays a higher amount of accented syllables, what leads us to hypothesizing reminiscences of the Occitan word accent in this variety. Moreover we observed independent tonal movements on the frequent post-accentual schwa syllables of Southern French, suggesting that the right edges of certain prosodic constituents might be marked by specific boundary tones. Our contribution will discuss the nature, structure and functions of these additional prosodic events and their possible relation with phrasing concentrating on the following questions: Are there more APs/PPs in Southern French, grouped into ips, or are there more accents within each AP/PP, these grouping directly into IPs? Do feet play a role in assigning accents to syllables for eurhythmic reasons? In which way do semantics and pragmatics constrain accentuation and phrasing in this variety? The answers will shed light on the prosodic structure of Southern French and clarify its position between Occitan and the Northern standard.

Di Cristo, Albert (1998): Intonation in French. - In: Hirst, Daniel & Di Cristo, Albert (eds.): *Intonation Systems*. - Cambridge: CUP, 195-218.

Hualde, José Ignacio (2003): Remarks on the diachronic reconstruction of intonational patterns in Romance with special attention to Occitan as a bridge language. - In: *Catalan Journal of Linguistics* 2, 181-205.

Jun, Sun-Ah / Fougeron, Cécile (2002): Realizations of Accentual Phrase in French Intonation. - In: *Probus* 14, 147-172.

Miller, Jessica Sertling (2007): *Swiss French Prosody: Intonation, Rate, and Speaking Style in the Vaud canton*. - Ph.D. Dissertation, Department of Linguistics, University of Illinois at Urbana-Champaign, Urbana.

Post, Brechtje (2000): *Tonal and phrasal structures in French intonation*. The Hague: Thesus.

Sichel-Bazin, Rafèu (2009): *Leading tone alignment in Occitan disapproval statements*. Master thesis, Universitat Autònoma de Barcelona.

Welby, Pauline (2006): French intonational structure: Evidence from tonal alignment. - In: *Journal of Phonetics* 34, 343-371.

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Prosodic phrasing and language contact: Evidence from two varieties of Argentinean Spanish

25.02.2010, 12.30–13.00 Uhr, Raum 1.601

It is well-known that language contact can yield changes in the prosodic systems of the languages involved. Evidence comes, among others, from Peruvian Spanish, whose prosodic characteristics can partly be traced back to the contact with Quechua (O'Rourke 2004), as well as from recent migration-induced contact situations such as the one between German and Turkish in Germany (Queen 2001). The present talk, however, focuses on two languages which are typologically closely related, namely Spanish and Italian, and examines 'traces' of their (historical) contact situation in the prosodic system of contemporary Argentinean Spanish. Interestingly, the variety spoken in Buenos Aires is similar to Southern Italian dialects with respect to the following prosodic features:

1. Early peak alignment of pre-nuclear pitch accents (Colantoni/Gurlekian 2004)
2. Falling final contour of neutral declaratives (Kaisse 2001, D'Imperio 2002)
3. Phrasing decisions and realization of intermediate phrasal boundaries (Gabriel et al. 2010)

It seems natural to attribute such similarities to the migration-induced contact between Spanish and Italian in the cultural 'melting pot' of Buenos Aires between the 1860ies and the beginning of the 20th century, when Italian immigrants made up to 60% of the population in some neighborhoods. In other parts of Argentina, such as the sparsely populated regions of Patagonia, Italian influence was less important, Italians constituting only a small group of immigrants on a par with Welsh or German settlers. Based on recordings made with 50 speakers during a data collecting trip to Argentina in November/December 2008, we focus on the patterns of prosodic phrasing in the varieties of Buenos Aires and Neuquén (Patagonia), thereby addressing tonal as well as durational boundary cues. Interestingly, it turns out that the differences between the two dialects concerning the placement of boundaries and the use of certain surface cues are less significant than one could expect at first sight: Regardless of the presence or absence of an intense contact with Italian in the past, they both exhibit 'Italian' phrasing patterns, even though to a different degree. This, in turn, may be explained by the fact that Buenos Aires is more and more established as an Argentinean standard variety which constantly spreads across other dialect regions.

A further goal of the talk consists in evaluating the present versions of the transcription system Sp_ToBI regarding its ability to account for subtle differences such as the different tonal and durational cues that signal intermediate phrasal (ip) boundaries in the varieties investigated in the present contribution. It is argued that an additional phonological tier is needed in order to carefully distinguish between underlying ip boundary tones such as H- (according to ToBI break index 3) and the various surface realizations encountered in the data.

- Colantoni, L. / Gurlekian, J. (2004): "Convergence and intonation. Historical evidence from Buenos Aires Spanish." In: *Bilingualism: Language and Cognition* 7, p. 107-119.
- D'Imperio, M. (2002): "Italian intonation: An overview and some questions." In: *Probus* 14, 37-69.
- Gabriel, C. / Feldhausen, I. / Pešková, A. / Colantoni, L. / Lee-Ko, S. / Labastía, L. (2009): "Argentinean Spanish." IV. Workshop on Sp_ToBI, PaPI 2009, Las Palmas de Gran Canaria, June 19th.
- Gabriel, C. / Feldhausen, I. / Pešková, A. (2010): "Prosodic phrasing in porteño Spanish." To appear in: Gabriel, C. / Lleó, C. (eds.): *Intonational Phrasing in Romance and Germanic*. Amsterdam: Benjamins.
- Kaisse, E. (2001): "The long fall: An intonational melody of Argentinean Spanish." In: Herschensohn, J. et al. (eds.): *Features and Interfaces in Romance*. Amsterdam: Benjamins, 148-160.
- O'Rourke, E. (2003): "Peak placement in two regional varieties of Peruvian Intonation." In: Auger, J. et al. (eds.): *Contemporary Approaches to Romance Linguistics*, Amsterdam: Benjamins, 321-341.
- Queen, R. M. (2001): "Bilingual intonation patterns: Evidence of language change from Turkish-German bilingual children." In: *Language in Society* 30, 55-80.

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Meter and prosody: comparing accentual and caesura restrictions in French and Spanish verse

26.02.2010, 11.30–12.00 Uhr, Raum 1.601

According to the received view in prosodic typology, the rhythmic properties that set Romance languages apart from Germanic can successfully be characterized by an appropriate notion of syllable-timing or syllable-based rhythm. Since the evidence for a tendency towards syllabic isochrony is equivocal at best, the original phonetic intuition has either been recast as a perceptual or interactional preference or relegated to the domain of phonology. In phonological terms, syllable-based rhythm is modeled as a conspiracy, whereby a variety of factors contributes towards making syllables the most salient prosodic unit. By contrast, the rhythmic organization of languages with strong stress accents may be expected to rely primarily on accentually defined categories such as feet. Spanish has traditionally been regarded as a classic example of syllable-based rhythm. In a similar vein, the rhythmic signature of French has also been described as syllable-based, even if the regular succession of syllables appears to be disturbed somewhat by independent phonetic factors such as pre-boundary lengthening.

In seeking to adduce empirical support for these rhythmic prototypes in linguistic typology, prosodists have repeatedly emphasized the value of comparative studies of verseform. Most importantly, it turns out that only a limited number of options are available for metrical verse templates. In languages that lack prosodic contrasts established by tone or quantity, meters may either be defined with reference to the sequence of syllables alone, exclusively on the basis of accentual prominences, or by a combination of syllabic and accentual mapping rules (Fabb & Halle 2008). At least in popular traditions of versification, which are less likely to be influenced by foreign literary models, syllable-based and accent-based rhythm should be reflected in syllabic and accentual meters, respectively.

This talk analyzes samples of French and Spanish verse from different time periods and argues that not all metrical differences in poetic productions can be dismissed as being due to literary conventions. In our view, some of the most obvious metrical differences and changes in metrical form constitute faithful reflections of cross-

linguistic differences and language-specific prosodic changes. In particular, we would like to highlight the relevance of two observations to the prosodic typology of Romance: (i) In Medieval French octosyllabic versification, accentual regularity decreases over time (Noyer 2002), whereas no such long-term evolution can be found in the rich body of Spanish octosyllabic verse (Cano 1931, Myers 1967). (ii) In longer meters such as the alexandrine, the position of the caesura becomes an integral component of metrical form in French, while Spanish poets seem to pay more attention to the distribution of accents. By way of conclusion, we suggest that observations such as these should inspire phonologists to develop more precise notions of syllable-based rhythmic organization.

Cano, Juan. 1931. La importancia relativa del acento y de la sílaba en la versificación española. *Romanic Review* 22: 223–233.

Fabb, Nigel & Morris Halle. 2008. *Meter in Poetry: A New Theory*. Cambridge: Cambridge University Press.

Myers, Oliver T. 1967. Syntactic and formal correlates with rhythm in the Spanish octosyllable. *Romance Philology* 20(4): 478–488.

Noyer, Rolf. 2002. Generative metrics and French octosyllabic verse. *Language Variation and Change* 14(2):119–171.

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Lexical and morphosyntactic intonational effects in Dogon languages

26.02.2010, 12.00–12.30 Uhr, Raum 1.601

In several northern Dogon languages (Mali, West Africa), the "syntax" (including relative-clause structure) is dominated by several categorially controlled word-level tone-contour overlays, variably {L}, {HL}, {LH}, or {HH}, which override lexical tones. Movement and head- or dependent-marking morphology play only minor roles. The syntactic control of pitch rhythms leaves little room for English-style phrasal intonation, except for clause-final pitch/duration modulation expressing finality or nonfinality (even here, several clause-final Emphatic and chaining particles do much of the work). Instead, "intonational" effects occur in the lexicon and in basic NP/pronominal morphosyntax.

One effect is final prolongation with pitch held level (symbol \Rightarrow), which is distinguished from segmental phonological length by its highly variable (but sometimes quite exaggerated) duration, by its applicability to C-final as well as V-final stems, and by its defeasibility (e.g. under reduplication). \Rightarrow is typical of an important class of expressive adverbials, which include not only the colorful imagistic particles commonly known as ideophones, but also adjectival intensifiers and numerous basic lexical and quantificational terms like 'straight', 'apart', and 'all/entirely'. These elements may be syntactically adverbial (i.e. loosely connected with a predicate), or they may be made predicative by adding a copula. They occur in positions where externally (i.e. syntactically) controlled tone-contour overlays do not apply. They are not subject to ordinary derivational or inflectional affixation. Some, however, may be reduplicated, in which case \Rightarrow disappears (is defeated): Jamsay dém \Rightarrow 'straight', reduplicated dém-dém.

The second effect is dying-quail intonation (symbol $∴$), which combines final prolongation with slow pitch decline. It resembles ordinary vowel length on a

falling-toned syllable, but differs by its phonetic variability, its frequently exaggerated duration and pitch range, and its applicability to C-final as well as V-final stems. There are a few expressive adverbials with \therefore , though (since there are no related forms without \therefore) one could argue that they are analysable as \Rightarrow combined with phonological falling tone. More importantly, \therefore has basic morphosyntactic functions in some of the languages. In Jamsay, \therefore is the regular conjunctive marker: X \therefore Y \therefore 'X and Y', where X and Y are any NPs or pronouns. In Beni, \therefore added to a singular pronoun, or to a predicate with singular pronominal-subject suffix, creates the plural counterpart (for 1st, 2nd, and Logophoric persons), as in 1Sg pronoun *í* versus 1Pl *í \therefore* , and predicative *yá bú-´y* 'I am (here)' versus *yá bú-´y \therefore* 'we are (here)', where -y is the 1Sg suffix.

The syntactically controlled tone-contour overlays mentioned above can conflict with each other or with \therefore . In some cases, tone contours are fixed at a relatively low phrasal level (e.g. possessor plus core possessed NP) and then behave as tonological islands, resistant to higher-level tone-contour effects (e.g. in relative clauses). Likewise, \therefore generally trumps higher-level tone-contour effects, constituting intonational islands. For example, when Jamsay X \therefore Y \therefore 'X and Y' functions as relative-clause head, the usual tone-dropping to {L} either does not apply, or applies in an inconsistent manner to the end of the second coordinand only.

Takeaways: intonational effects can penetrate deeply into the lexicon and low-level phrasal morphosyntax, even in full-fledged tonal languages; when this happens, any conflicts with higher-level prosodic processes must be specified.

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Stress in a tone language: a case study with Kurtöp

26.02.2010, 12.30–13.00 Uhr, Raum 1.601

Linguists often assume that languages have either tone prosody or stress prosody. Hyman (2006), for example, proposes that languages may be broadly divided into two prototypical systems: tone and stress. Kurtöp, an endangered Tibeto-Burman language of Bhutan, challenges this notion. This paper presents data from an acoustic study showing that Kurtöp, already established as tonal, also possesses word-level stress.

Previous research on Kurtöp (Hyslop 2009) has shown that Kurtöp is undergoing tonogenesis. Tone is contrastive on the first syllable of words following sonorants; tone may be high or low (e.g. *ná* 'nose' vs. *nà* 'ear'). Amongst the obstruents, tone is predictably high following voiceless obstruents and predictably low when following voiced. In addition, voiced obstruents are now devoicing (e.g. *tá* 'horse' vs. *dà* ~ *tà* 'now').

In order to test intuitions that Kurtöp words are also stressed, the following experimental study was designed. One hundred disyllabic words (equally distributed between nouns and verbs) were recorded from three native speakers (one female, two males) of Kurtöp. The words were uttered three times in isolation and a fourth time in a carrier phrase. Because of tonal contrasts present in the initial syllable of a

word, the words were controlled for the tone value of the initial. That is, we had 25 disyllabic nouns beginning with high-toned initial syllables, 25 disyllabic nouns beginning with low-toned first syllables, 25 disyllabic verb beginning with high-toned initials and 25 disyllabic verbs beginning with low-toned initials. Further, the study was controlled for syllable shape, so that an equal number of CVCCVC, CCVCCVC, CVCCV, CVCVC, CVCV shaped words were recorded for each category. Only words from the carrier phrase were used in the study, and thus we had 100 words for each speaker, for a total of 300 tokens.

The Kurtöp data were measured for the acoustic correlates typically associated with stress: vowel length, F0 and intensity in dB (e.g. Beckman 1986). Preliminary results show that Kurtöp initial syllables are slightly longer (approximately 10 ms), higher in intensity (approximately 3 dB) and, surprisingly, also F0 (approximately 2 Hz). This finding is true for both nouns and verbs, regardless of the tone of the initial syllable or word shape. These findings indicate that Kurtöp disyllabic words have first syllable stress.

The production experiment presented in this paper provides evidence that Kurtöp, also tonal, possesses word-level stress. These findings challenge the notion that the prosodic systems of tone and stress are mutually exclusive. Hyman (2006) himself acknowledges that languages may fall into intermediate categories between stress and tone. However, it is not clear that Kurtöp is intermediate in this sense. Rather, in Kurtöp, tone can be conceived of as a phonological feature, while stress is a word-level phenomenon.

Beckman, M. E. 1986. *Stress and Non-stress Accent*. Dordrecht: Foris.

Hyman, L. Word-prosodic typology. *Phonology* 23: 225-257.

Hyslop, G. Kurtöp tone: a tonogenetic case study. *Lingua* 112:827-845.

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**Historical comparative acoustics and prosodic re-analysis: the case of
Tibetan**

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In this talk I will draw on data from three dialects of Tibetan to illustrate how the prosodic features of a language can be traced backward and forward in time. I use the term “historical comparative acoustics” to refer to a methodology in which the acoustic patterns of two languages known to be related are compared in order to reconstruct the acoustic patterns of their common parent. And I use the term “prosodic re-analysis” to refer to a change, over time, in how a particular acoustic pattern is interpreted prosodically. Tibetan provides an ideal medium for exploration of these phenomena.

The term “Tibetan” is often used quite loosely, as if referring to a monolithic language spoken in the vicinity of Lhasa, capital of the Tibetan Autonomous Region of China. In fact, though, Tibetan exhibits tremendous diversity, and is spoken across the vast expanse of the ancient Tibetan empire, an area that today spans parts of five countries: Pakistan, India, Nepal, China, and Bhutan. According to recent estimates, there are over 200 varieties of Tibetan, which can be classed into about 25 distinct – i.e., mutually unintelligible – groups (Tournadre 2005, 2008).

Based on their phonology, these “Tibetic” languages (Tournadre 2008) are traditionally divided into two categories (Jaeschke 1871, cited in Bielmeier 1988; Rona-Tas 1966). The “Archaic” varieties are characterized by complex syllable-initial and -final consonant clusters; tone is not phonemically contrastive. These languages – spoken at the eastern and western extremes of the Tibetan linguistic area – are regarded as preserving features of Old Tibetan as it was spoken in the 7th century and captured in the writing system developed at that time. The “Innovative” varieties – spoken across the vast central region – are characterized by reduced consonant clusters, simplified syllable structure, and the concomitant innovation of contrastive tone to preserve lexical distinctions.

Roughly speaking, then, stress is the dominant prosodic feature in the Archaic varieties, while tone is the dominant prosodic feature in the Innovative varieties. By comparing the stress patterns in two Archaic varieties – Balti Tibetan (spoken in northern Pakistan) and Rebkon Amdo Tibetan (spoken in Qinghai Province, China) – a pattern of σ_2 stress can be reconstructed for disyllabic nouns in Proto-Tibetan. Through the method of historical comparative acoustics, fundamental frequency can then be reconstructed as the primary acoustic correlate of this proto stress pattern.

Consideration of Tokpe Gola Tibetan, a tonal variety of the language spoken in northeastern Nepal, illustrates how this prosodic pattern has been re-analyzed over time. Here – as in many of the geographically central Innovative languages – disyllabic nouns exhibit only LH and HH tone patterns; it is never possible to have a low tone on σ_2 . This pattern can be accounted for diachronically: the prominent fundamental frequency corresponding to the high tone on σ_2 is a relict – a reflex – of the prominent fundamental frequency reconstructed as a correlate of stress in Proto-Tibetan.

- Bielmeier, Roland. 1988. On tone in Tibetan. In Helga Uebach and Jampa L. Panglung (eds.), *Tibetan Studies: Proceedings of the 4th Seminar of the International Association for Tibetan Studies*. Munich: Kommission für Zentralasiatische Studien, Bayerische Akademie der Wissenschaften.
- Jaeschke, Hermann A. 1871. *Handwörterbuch der tibetischen Sprache*. Gnadau: Universitätsbuchhandlung.
- Róna-Tas, Andras. 1966. *Tibeto-Mongolica: The Tibetan loanwords of Monguor and the development of the Archaic Tibetan Dialects*. [Indo-Iranian Monographs VII.] The Hague: Mouton.
- Tournadre, Nicolas. 2005. *L'aire linguistique tibétaine et ses divers dialectes*. *Lalies* n°25. Presse de l'école normale supérieure.
- Tournadre, Nicolas. 2008. Arguments against the concept ‘Conjunct’ / ‘Disjunct’ in Tibetan. In Brigitte Huber, Marianne Volkart and Paul Widmer (eds.), *Chomolangma, Demawend und Kasbek: Festschrift für Roland Bielmeier zu seinem 65. Geburtstag*. Band I: Chomolangma, pp. 281-308. Halle (Saale): International Institute for Tibetan and Buddhist Studies (IITBS) GmbH.

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The role of domain in the lexical tone system
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While domain is taken as a decisive factor in prosodic studies of intonation and tone sandhi (Gussenhoven 2004; Chen 2000), its role in the lexical tone system has largely been neglected. Since the early investigation of tone languages the domain of lexical tones has been assumed to be the syllable (cf. Chao 1930; Pike 1948). However, in recent decades research on African tone languages has revealed that

the word, instead of the syllable, may serve as the basic domain in the lexical tone system (Odden 1995; Hyman 2001; inter alia). Nonetheless, as the syllable and the word are well-recognized concepts in linguistics and the syllable-versus-word bifurcation coincides with the geographical division between China and Africa, the attested difference in the domain of lexical tones is often informally referred to as if some sort of areal features between African tone languages and Chinese/SEA tone languages (e.g. Hyman 2007).

This paper argues that the domain plays a crucial role in the lexical tone system and can be assigned with the binary features of $[\pm\sigma]$ and $[\pm\omega]$ to generate three distinct kinds of tone systems. The domain features vary in accordance with the specific tone system: (a) $[\pm\sigma]$ and $[-\omega]$ in the syllable-tone system, e.g. Mandarin, (b) $[-\sigma]$ and $[\pm\omega]$ in the word-tone system, e.g. Mende, and $[-\sigma]$ and $[-\omega]$ in the melody-tone system, e.g. Japanese. Since the distinction between the first two types of system is quite straightforward, the paper will concentrate on the least-known type: the melody-tone system. A detailed comparison between the final two types will be made, drawing data from African languages such as Mende and Etung and from those of East Asia: Japanese (six dialects), Prinmi and Qiang.

Chao, Yuen-Ren. 1930. A system of tone-letters. *Le Maître Phonétique* 45: 24–27.

Chen, Matthew. 2000. *Tone Sandhi: Patterns across Chinese Dialects*. Cambridge: Cambridge University Press.

Gussenhoven, Carols. 2004. *The Phonology of Tone and Intonation*. Cambridge: Cambridge University Press.

Hyman, Larry. 2001. Tone systems. In Martin Haspelmath et al (eds.), *Language Typology and Language Universals: An International Handbook*. Vol. 2. Berlin: de Gruyter. 1367–1380.

Hyman, Larry. 2007. *Kuki-Thaadow: An African tone system in Southeast Asia*. Berkeley, USA: UC Berkeley Phonology Lab Annual Report.

Odden, David. 1995. Tone: African Languages. In J. Goldsmith (ed.) *The Handbook of Phonological Theory*, 444–475. Oxford: Blackwell.

Pike, Kenneth. 1948. *Tone Languages: A technique for determining the number and type of pitch contrasts in a language, with studies in tonemic substitution and fusion*. Ann Arbor: University of Michigan Press.