

Introduction*

Laura J. Downing

ZAS, Berlin

Annie Rialland

LPP, Paris

Cédric Patin

STL, Université Lille 3

Kristina Riedel

ZAS, Berlin

1 The Bantu PSYN project

The papers in this volume were originally presented at the Bantu Relative Clause workshop held in Paris on 8-9 January 2010, which was organized by the French-German cooperative project on the Phonology/Syntax Interface in Bantu Languages (BANTU PSYN). This project, which is funded by the ANR and the DFG, comprises three research teams, based in Berlin, Paris and Lyon. The Berlin team, at the ZAS, is: Laura Downing (project leader) and Kristina Riedel (post-doc). The Paris team, at the Laboratoire de phonétique et phonologie (LPP; UMR 7018), is: Annie Rialland (project leader), Cédric Patin (Maître de Conférences, STL, Université Lille 3), Jean-Marc Beltzung (post-doc), Martial Embanga Aborobongui (doctoral student). The Lyon team, at the Dynamique du Langage (UMR 5596) is: Gérard Philippson (project leader) and Sophie Manus (Maître de Conférences, Université Lyon 2). These three research teams bring together the range of theoretical expertise necessary to investigate the phonology-syntax interface: intonation (Patin, Rialland), tonal phonology (Aborobongui, Downing, Manus, Patin, Philippson, Rialland), phonology-syntax interface (Downing, Patin) and formal syntax (Riedel). They also bring together a range of Bantu language expertise: Western Bantu (Aborobongui, Rialland),

* We would like to thank Jean-Marc Beltzung and Sophie Manus for help reviewing papers for the volume. We are grateful to Jean-Marc Beltzung and Olena Gainulina for indispensable formatting assistance.

Eastern Bantu (Manus, Patin, Philippson, Riedel), and Southern Bantu (Downing).

This range of expertise is essential to realizing the goals of our project. Because Bantu languages have a rich phrasal phonology, they have played a central role in the development of theories of the phonology-syntax interface ever since the seminal work from the 1970s on Chimwiini (Kisseberth & Abasheikh 1974) and Haya (Byarushengo et al. 1976). Indeed, half the papers in Inkelas & Zec's (1990) collection of papers on the phonology-syntax interface deal with Bantu languages. They have naturally played an important role in current debates comparing indirect and direct reference theories of the phonology-syntax interface. Indirect reference theories (e.g., Nespor & Vogel 1986; Selkirk 1986, 1995, 2000, 2009; Kanerva 1990; Truckenbrodt 1995, 1999, 2005, 2007) propose that phonology is not directly conditioned by syntactic information. Rather, the interface is mediated by phrasal prosodic constituents like Phonological Phrase and Intonation Phrase, which need not match any syntactic constituent. In contrast, direct reference theories (e.g., Kaisse 1985; Odden 1995, 1996; Pak 2008; Seidl 2001) argue that phrasal prosodic constituents are superfluous, as phonology can – indeed, must – refer directly to syntactic structure.

In spite of this long history, most work to date on the phonology-syntax interface in Bantu languages suffers from limitations, due to the range of expertise required: intonation, phonology, syntax. Quite generally, intonational studies on African languages are extremely rare. Most of the existing data has not been the subject of careful phonetic analysis, whether of the prosody of neutral sentences or of questions or other focus structures. There are important gaps in our knowledge of Bantu syntax which in turn limit our understanding of the phonology-syntax interface. Recent developments in syntactic theory have provided a new way of thinking about the type of syntactic information that phonology can refer to and have raised new questions: Do only syntactic constituent edges condition prosodic phrasing? Do larger domains such as syntactic phases, or even other factors, like argument and adjunct distinctions, play a role? Further, earlier studies looked at a limited range of syntactic constructions. Little research exists on the phonology of focus or of sentences with non-canonical word order in Bantu languages. Both the prosody and the syntax of complex sentences, questions and dislocations are understudied for Bantu languages. Our project aims to remedy these gaps in our knowledge by bringing together a research team with all the necessary expertise. Further, by undertaking the intonational, phonological and syntactic analysis of several languages we can investigate whether there is any correlation among differences in morphosyntactic and prosodic properties that might also explain differences in phrasing and intonation. It will also allow us to investigate whether there are

cross-linguistically common prosodic patterns for particular morpho-syntactic structures. As we show in the next section, the papers in this volume do reveal common prosodic patterns for non-restrictive relative clauses and clefts, while restrictive relative clauses have much more variation in their prosody.

To pursue these goals in a systematic way, each year we concentrate on one syntactic construction. We have chosen the following constructions where previous work has shown that both syntactic and non-syntactic factors play a complex role in conditioning the prosody: relative clauses (comparing restrictive relatives, non restrictive relatives and clefts), question types and dislocations. Each year we have a similar plan of work. In the spring, we have a general meeting in Berlin to develop a common elicitation questionnaire for that year's syntactic construction.¹ The summer is devoted to data gathering in the field (Downing in Malawi; Riedel, Manus in Tanzania; etc.), in Paris (Rialland) and in Lille (Patin), partly in collaboration with colleagues at African universities. In the winter, we have a workshop on the annual theme. This volume presents papers from the workshop on the first year's annual theme. The relative clause elicitation questionnaire, which was used by most project members to collect data presented in their papers, forms the Appendix to this volume.

2 Issues in the phonology and syntax of Bantu relative clauses

All of the papers in the volume except one (Kaji) take up some aspect of relative clause construction in some Bantu language. Kaji's paper aims to account for how Tooro (J12; western Uganda) lost phonological tone through a comparative study of the tone systems of other western Uganda Bantu languages. The other papers examine a range of ways of forming relative clauses, often including non-restrictive relatives and clefts, in a wide range of languages representing a variety of prosodic systems.

In Bantu languages, relative constructions can be formed using several different morpho-syntactic strategies. For instance, they can involve a relative conjugation, as in Chewa, Shingazidja, Símákonde; a relativizer, as in Chewa, Luganda, Shingazidja, Tswana; a relative subject marker as in Zulu; a connective marker, as in Chimwiini, Mbochi or a demonstrative marker as in Bàsàa, among others. A variety of means to indicate prosodic phrases is also illustrated in this volume: penultimate lengthening as in Chewa, Símákonde, Zulu, "abstract" penultimate stress (manifested by an absence of vowel length

¹ The questionnaire is intended for use in a traditional elicitation interview context, where the language consultant is asked to translate and read the questionnaire sentence by sentence. The sentences elicited using this method are expected to have a form consistent with broad or neutral focus.

reduction) as in Chimwiini or tone rules (spreading rules in Luganda and Shingazidja, probably H tone retraction in Tswana, a tonal association rule in Bàsàa).

The papers illustrate interesting cross-Bantu patterns of similarity and variation in the prosody-syntax interface of relative clauses, with restrictive relatives showing the most variation. For example, we find no prosodic break between the head and the relative in Chewa (Downing & Mtenje), Zulu (Cheng & Downing), Bàsàa (Makasso), Shingazidja (Patin) and Luganda (Hyman & Katamba). We find an optional prosodic break in Chimwiini (Kisseberth) and Mbochi (Beltzung et al.), and an obligatory prosodic break in Símákonde (Manus) and, apparently, in Tswana (Zerbian). Other kinds of prosodic variation were found in specific languages and in specific restrictive relative constructions. For example, there is a prosodic break after the head of a locative relative in Zulu (Cheng & Downing), but not after the head of other types of restrictive relatives. There is a prosodic break after the subject of an object relative in Chimwiini (Kisseberth) that is not found in the other languages. There is a prosodic break after a head in object position in Shingazidja (Patin). In contrast, the prosodic patterns for non-restrictive relatives and clefts are identical in the languages discussed. For non-restrictive relatives, one finds an obligatory prosodic break between the head and the relative (vs. the pattern in restrictive relative clauses, where no break is found in these languages) in Chewa (Downing & Mtenje), Zulu (Cheng & Downing) and Shingazidja (Patin). Similarly, in cleft relatives, an obligatory prosodic break occurs between the head and the relative in Chewa (Downing & Mtenje), Zulu (Cheng & Downing), Luganda (Hyman & Katamba), Chimwiini (Kisseberth) and Shingazidja (Patin).

Many of the papers make a theoretical contribution, as well as adding to our descriptive knowledge of cross-Bantu relative clause structures and phrasing patterns. In the area of the phonology-syntax interface, Downing & Mtenje argue for a specific Edge-based approach to the phrasing of relative clauses. Beltzung et al. provide an innovative study of the tone–intonation interface, proposing “superimposed” boundary tones. This paper also provides an analysis of phrasally-conditioned segmental alternations. Hyman & Katamba’s and Zerbian’s papers demonstrate the role of tonal alternations in motivating prosodic phrasing. Innovative syntactic analyses of relative clause constructions are developed in the papers by Cheng & Downing and by Riedel. Both papers deal with the issue of resumptive elements in Bantu relative clauses. Cheng & Downing examine it with regard to the syntactic analysis of relative clauses in Zulu, while Riedel compares the morphosyntactic behaviour of a range of pronominal elements in Haya relative clauses.

We believe that the new data and analyses on Bantu relative clauses found in the papers in this volume provide a useful contribution, both to Bantu and to

general linguistics. We hope they also provide an impetus to engage in further research on this rich and complex topic.

3 References

- Byarushengo, E. R., Larry M. Hyman & Sarah Tenenbaum (1976). Tone, accent, and assertion in Haya. In: Hyman, L.M. (Ed.), *Studies in Bantu Tonology, SCOPIL 3*, 185-205.
- Inkelas, Sharon & Draga Zec, (eds.). (1990). *The Phonology-Syntax Connection*. Chicago: CSLI.
- Kaisse, Ellen (1985). *Connected Speech: the Interaction of Syntax and Phonology*. Orlando: Academic Press.
- Kanerva, Jonni M. (1990). *Focus and Phrasing in Chichewa Phonology*. New York: Garland.
- Kisseberth, Charles W. & Mohammad I. Abasheikh (1974). Vowel length in Chi-mwi:ni – a case study of the role of grammar in phonology. In: M. W. La Galy, R. A. Fox & A. Bruck, (eds.) *CLS, Papers from the Parasession on Natural Phonology*, 193-209.
- Nespor, Marina & Irene Vogel (1986). *Prosodic Phonology*. Dordrecht: Foris.
- Odden, David (1995). Phonology at the phrasal level in Bantu. In: Francis X. Katamba, (ed.), *Bantu Phonology and Morphology*. Munich: Lincom Europa, 40-68.
- Odden, David (1996). *The Phonology and Morphology of Kimatuumbi*. Oxford: Oxford University Press.
- Pak, Marjorie (2008). The postsyntactic derivation and its phonological reflexes. Ph.D. dissertation, University of Pennsylvania.
- Seidl, Amanda (2001). *Minimal Indirect Reference: A Theory of the Syntax-Phonology Interface*. London: Routledge.
- Selkirk, Elisabeth O. (1986). On derived domains in sentence phonology. *Phonology Yearbook 3*, 371-405.
- Selkirk, Elisabeth O. (1995). The prosodic structure of function words. *UMOP 18: Papers in Optimality Theory*, 439-470.
- Selkirk, Elisabeth O. (2000). The interaction of constraints on prosodic phrasing. In: Merle Horne (ed.), *Prosody: Theory and Experiment*. Dordrecht: Kluwer Academic Publishing, 231-262.
- Selkirk, Elisabeth O. (2009). On clause and intonational phrase in Japanese: the syntactic grounding of prosodic constituent structure. *Gengo Kenkyu 136*, 35-74.
- Truckenbrodt, Hubert (1995). Phonological Phrases: their relation to syntax, focus and prominence. PhD dissertation, MIT.
- Truckenbrodt, Hubert (1999). On the relation between syntactic phrases and phonological phrases. *Linguistic Inquiry 30*, 219-255.

Truckenbrodt, Hubert (2005). A short report on Intonation Phrase boundaries in German. *Linguistische Berichte* 203, 273-296.

Truckenbrodt, Hubert (2007). The syntax-phonology interface. In: Paul de Lacy, (ed.), *The Cambridge Handbook of Phonology*. Cambridge: Cambridge University Press, 435-456.