Downstep in Ikaan

Sophie Salfner, School of Oriental and African Studies, University of London, ss123@soas.ac.uk
CUNY Conference on the Phonology of Endangered Languages, 13th January 2011

1 IKAAN
- Niger-Congo > Benue-Congo > Ukaan > Ikaan; place within BC to be determined
- SW Nigeria > Ondo/Edo States > Ikakumo villages (NE frontier of Yoruba area)
- highly multilingual region, lingua franca Yoruba, a number of undocumented
  and undescribed languages that are genetically not necessarily related

2 DOWNSTEP IN IKAAN — OVERVIEW
- two tones (H, L) plus downstep, mora as tone-bearing unit
- presence of non-automatic downstep but absence of automatic downstep
- contrast between H and ʰH after pause
- three different locations of downstep
  - after, on and before the mora providing the downstep-triggering L
  - high-tone anticipation in the latter two locations
  - locations correlate with syntactic and semantic properties

3 AUTOMATIC/NON-AUTOMATIC DOWNSTEP

3.1 Data
- no lowering of H after overt L, i.e. no automatic downstep, as shown in (1)²

(1) ọzọ-ọgá ọzọ ọgá ọgá ọgá ọgá ọgá ọgá → [ọzọ-ọgá ọzọ ọgá ọgá ọgá ọgá ọgá ọgá]
1SG-cook soup beans - - - - - -
I made bean soup.

1 Thanks are due to the people of Ikakumo, in particular to Mr Fred Adekanye and Mr Festus O. Obade, for enabling me to learn their language, for their patience with me and for their company while I was living in their village. I am grateful to the Endangered Languages Documentation Programme and the Gesellschaft für bedrohte Sprachen, who have generously funded my fieldwork and part of the research for this project, and to the School and Oriental and African Studies and the Arts and Humanities Research Council, who have provided funding for my PhD research.

2 Phrase-final L are lowered to extra-low tones, this is not discussed further here, see Salfner (2010) for a discussion.
- partial lowering of H after floating L, i.e. automatic downstep, as shown in (2)
  - mora deletion sets H afloat, floated H relinks to the following mora
thereby setting L afloat, floating L then triggers downstep

(2) $dʒə-hɔ \text{ inú } \rightarrow [dʒəhɔˈnú]$
1SG-hack palm.fruit
I hacked palm fruit.
3.2 Why is this interesting?

- against a dichotomy of discrete level vs. terracing languages: discrete levels that remain constant for overt L but terracing for floating L
- cross-linguistically rare, attested with slightly different patterns in
  o Kikuyu, total downstep (Clements and Ford, 1981)
  o Dschang-Bamileke, downstep of L and double downstep (Hyman and Tadjadjeu, 1976, Pulleyblank, 1986)
  o Mac, double downstep (Ahland and Pearce, in prep)
- phonetic implementation models of downstep cannot account for it
  o Odden (1986a), Pulleyblank (1986) build metrical structures from the tone tier: a new foot at every H, lowering the register for each foot — generates both automatic and non-automatic downstep
  o Gussenhoven (2004) suggests that only floating L activate phonetic implementation — does not explain how implementation is sensitive to the presence/absence of association lines rather than the feature itself
- phonological implementation of downstep cannot/can only partly account for it
  o Hyman (2007) proposes phonologicalisation of phonetic tendencies — but there are no phonetic tendencies such as contour simplification in Ikaan
  o Register Tier Theory (Snider, 1999) can account for the absence/presence for non-automatic/automatic downstep in some constructions, but only with unusual tonal underspecification features and unusual default insertion, and so far predicts downstep where there isn’t any

4 DOWNSTEP AFTER PAUSE

- lexically in nouns
  o all-\textsuperscript{4}H vs. L-initial vs. H-initial forms (focus/predicative constructions)
  o behaviour not yet fully understood, differences between nouns and within nouns in different constructions (see Salffner (2010a) for more details)

(3) a. all-\textsuperscript{4}H \textsuperscript{í}úmú \textsuperscript{í}ójú \textsuperscript{í}ú\textsuperscript{í}\textsuperscript{í}bath \textsuperscript{í}ú\textsuperscript{í}\textsuperscript{í}\textsuperscript{í}\textsuperscript{í}\textsuperscript{í}\textsuperscript{í}issue, matter
4.1 Why is this interesting?

- rare, Dschang-Bamileke analysed as 4H after pause (e.g., Pulleyblank, 1986)
- more work needs to be done to work out the details and the causes for the 4H beginnings of the nouns and the enumeratives
5 LOCATION OF DOWNSTEP

5.1 Data

Downstep after the mora that provides L
  - vowel deletion, H relinking, L delinking

(8) ɗəbiŋ ɗiŋ → [ɗəbiŋ̥diŋ̥]
   1SG-hack palm. fruit ___
   I hacked palm fruit.

Downstep on the mora that provides L
  - vowel assimilation, L delinking, H spreading leftwards (High tone anticipation)

(9) ṭejo ɗiŋ → [tɛjɔdɪŋ]
   yam people ___
   the people’s yam
  - downstep only if L is linked to only one TBU between the H tones

(10) ɗtə ɗəjoŋ → [ɗtɔɗəjoŋ]
   lamp woman ___
   the woman’s lamp

(11) ɗjimɔ ɗiŋ → [ɗjimɔdɪŋ]
   aubergine person ___
   the person’s aubergine

No downstep
  - vowel assimilation but not tonal changes, HL remains

(12) ɗtə ɗʒawɔ → [ɗtɔɗʒawɔ]
   lamp new ___
   the new lamp

Downstep on the first surface L of a multiply linked L
  - L delinking, H spreading leftwards (High tone anticipation)

(13) ɗɔgɗimɔŋ → [ɗɔɗgɗimɔŋ]
   PRED.papaya ___
   It’s a papaya.

(14) ɗjana ɗbɛgeh tɔ → [ɗjɔnɔɓɛgeh ɗɔ]
   3s-buy plantain EMPH
   She bought plantain o!
5.2 Why is it interesting?

- not frequent, Kipare has similar processes but different causes (Odden, 1986b)
- downstream locations in (8) - (12) may reveal morphosyntactic organisation of the language (complements vs. specifier vs. predicate, see Salffner (2010b))
- leftward shift of downstream result of L delinking and H spreading leftward to fill the "vacuum" – a case High Tone Anticipation (HTA)? Hyman (2007):
  - process whereby H is realised earlier than on the TBU it originates from
  - against natural phonetic tendency of tones to spread to the right
  - initiated by right-edge factors, attraction to a prominent (stressed, unstressed) position, some other typical features
  - none of these apply to Ikaan, so is Ikaan a new example of HTA?

6 SUMMARY

- Ikaan downstream shows a range of cross-linguistically unusual features
- even within this small set of languages with typologically unusual features Ikaan differs from other languages
- theory of downstream has yet to model absence of automatic/presence of non-automatic downstream, Ikaan provides a case study here
- at the phonology-grammar interface, there is complex interaction between phonology, morphology, syntax and semantics (though I did not go into detail here)
- studying Ikaan tones gives us more insight into less typical downstream patterns

References

Ahland, Michael, and Pearce, Mary. in prep. Tonal behaviour in the Northern Mao possessive construction: Downstep and double downstream. Ms.


Salffner, Sophie. 2010a. Tone in the phonology, lexicon and grammar of Ikaan, Department of Linguistics, School of Oriental and African Studies, University of London.

