## African specialities: from morphosyntactic tone to negative lengthening

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Some "exotic phonetic features" – relative to European languages – of African languages are rather well-known, in the sense that they figure as examples in introductions to phonetics and linguistics, even if they figure much more rarely in the research literature. An example in prosody is tone, especially phonemic (lexical) tone, automatic and lexical downstep, which together have exerted a major influence on the development of linguistic theory (Firth's prosodies, and the Autosegmental Phonology of Leben, Goldsmith, Clements, and others). In segmental phonology, implosives and ejectives as well as clicks have also been documented (by Connell, Ladefoged, Maddieson, Roux and others), though they are not fully understood. But the functionality of some of these features and their interfacing with other linguistic ponents of to is less well described. Some prosodic examples:

– Final lengthening in Ega is not simply an automatic function of prosodic patterning, but has a grammatical function: negation. This raises interesting questions about discreteness and gradience of lengthening.

– Tone also has morphosyntactic functions, such as conveying tense, aspect and modality, and marking phrasal templates. The question arises of how to integrate this non-concatenative information formally into existing concatenative approaches.

– In addition to downtrends, there is "upsweep" in some languages, with the issue of whether it has any functionality except just being there.

– Lexical tonal realisation has grammatical domains such as Noun Phrases, which affect terracing, downstep and upsweep.

– In languages with more than two tones, there is a tendency for terracing to give way to discrete levels, yielding an overall pitch pattern with no or little downtrend, contrary to much current wisdom about the universality of downtrends.

These "exotic prosodic issues" can be modelled by means of straightforward Finite State grammars, devices which are central to computational linguistics but not too well known in

descriptive linguistic circles. These will be discussed with reference to the languages Ega and Ibibio (Lower Cross, Nigeria).