

Word (and sentence) prosody in Turkic languages: considerations on the Prosodic Hierarchy, syntax, and language acquisition

It is commonly assumed that the Foot is a universal constituent of the Prosodic Hierarchy (see e.g. Selkirk 1995, Vogel 2009). In this talk, I argue, along with Özçelik (2014, 2017), that the presence/absence of the Foot is parametric; whereas some languages, such as English, require every prosodic word (PWd) to have at least one foot, other languages, such as Turkish, Uyghur and Chuvash, are footless.

The assumption that the Foot is a universal constituent of the Prosodic Hierarchy is held despite the fact that children's first utterances do not contain any evidence of foot structure, even when learning languages that require foot structure. Children's initial outputs are not in the form of binary feet; they are, in fact, monosyllabic (Jakobson 1941/68), and critically monomoraic, utterances (see e.g. Fikkert 1994, Demuth 1995, Goad 1997). If the Foot came as part of the Prosodic Hierarchy, and thus UG, and if children receive positive evidence containing foot structure from the beginning of the acquisition process, it is not clear why they would not start with the unmarked form of prosodic words (PWds), words composed of binary feet. If, however, the presence/absence of the Foot was parametric, and if the Foot was available only in some languages, children could start with footless utterances, and can then construct the Foot based on positive evidence, that is, if the target language has foot structure, such as English. This would solve the problem posed by language acquisition research, but would require the existence of footless languages, i.e. languages whose *grammar* cannot assign feet.

In this paper, I argue that such languages do exist. For example, having both regular and exceptional stress, Turkish and Uyghur present *formal* (as well as acoustic) evidence of lack of foot structure. We will limit ourselves to Turkish in this abstract: Regular stress in Turkish falls on the final syllable of words, with no secondary stress; as (1) illustrates, “stress” is word-final, and each time a suffix is added, stress moves to the right. There are, however, several exceptions to this. The most well-known cases involve words with (i) *pre-stressing* suffixes (see (2)), and (ii) *stressed* suffixes (see (3)).

I propose a single grammar for the two types of exceptional stress, as well as the regular final stress: Given that monosyllabic exceptional suffixes are always pre-stressing (i.e. never stressed or post-stressing) (see (2)), and that stressed exceptional suffixes are always bisyllabic and always stressed on their first syllable (i.e. never on the second) (see (3)), I argue that these suffixes are footed in the input (e.g. /*(me)Ft*/, /*(ince)Ft*/, etc.), and given certain high ranking prosodic faithfulness constraints, they are footed in the output, too (more specifically ANCHOR-RIGHT >> ANCHOR-LEFT to capture the pre-stressing nature of (2)): The grammar, then, assigns TROCHAIC stress, and foot binarity is ensured with a high-ranking FT-BIN. Regular suffixes, on the other hand, come into the computation without underlying foot structure, and given a low ranking PARSE- σ (i.e. as the grammar cannot assign foot structure), they are not footed in the output, either, and TROCHAIC and FT-BIN are vacuously satisfied. Turkish final prominence, then, is ‘intonational prominence’, falling on the last syllable of PWds, and is not foot-based ‘stress’. This is supported by the fact that whereas exceptional stress is cued by both a sharp F0 rise and greater intensity (typical of true foot-based stress), final prominence is, at best, only a slight rise in F0 (Levi 2005, Pycha 2006), and, sometimes, a plateau with no acoustic correlates (Konrot 1981, 1987, Levi 2005). The same facts hold for Uyghur, too, as will be discussed in the talk, but not for Kazakh; final stress in Kazakh is also accompanied by greater duration and intensity in addition, as with true iambic languages. Finally, the fact that there are no monosyllabic stressed exceptional suffixes in Turkish (stressed despite more suffixes being added), and that stressed exceptional suffixes are always bisyllabic, and are always stressed on their first syllable follow directly from the current account. Such gaps in the data cannot be captured on any other pre-specification account (and pre-specification is necessary to capture exceptional cases), unless one assumes Turkish grammar to be trochaic but at the same time footless (unless underlying feet are present).

This proposal finds further evidence from higher-level prosody in some Turkic languages and its interaction with exceptional stress: For example, phrasal prominence in Turkish falls on the leftmost PWd in a phonological phrase (PPh) (Kabak & Vogel 2001), and on the rightmost PPh in an intonational phrase (I) (Özçelik & Nagai 2011). In sentences such as (4a), where the indefinite subject *adam* “a man”

stays in SpecVP in syntax (i.e. under the same VP projection as the verb), there is only one PPh, and *adam*, the first PwD in the PPh, bears PPh-level prominence (bolded); since this is the only PPh within I (and thus the rightmost one), this word also receives I-level prominence (underlined). In a sentence like (4b), on the other hand, there are two PPhs, since the definite subject, *adam* here, moves out of vP/VP up to SpecTP. Out of the two PPhs, the latter bears I-level prominence, for it is rightmost in I. Crucially, however, when an exceptional suffix is present in the second word, as in (5), the dichotomy observed between (4a) and (4b) is lost, and the only footed word available, i.e. (*gél.me*)*di*, gets stressed, irrespective of whether the subject is definite or indefinite. That is, when a foot is available, it attracts PPh- and I-level prominence (heading both the PPh and I), which is not crosslinguistically unusual (see e.g. Gussenhoven 2007). Note that if there *was* indeed foot structure on *adam*, we would expect, under the indefinite reading of (5), this word to get PPh- and I-level prominence, as in (5a’).

All things considered, there is evidence that the projection of the Foot constituent by the grammar is parametric. Turkish and Uyghur present strikingly similar evidence for this, and show acoustic properties for final prominence that are different from (apparently) truly iambic (and thus footed) languages such as Kazakh. Default-to-Opposite Edge stress languages such as Chuvash, as well as languages with the so-called “unbounded” feet (including various Turkic languages, as well as others such as French) present further evidence, as will be covered in the talk. In conclusion, it is high time that phonological theory accepted that the Foot is not a universal constituent of the Prosodic Hierarchy, and there is good evidence for this from several Turkic languages.

Examples:

- (1) eṣék eṣek-lér eṣek-ler-ím eṣek-ler-im-dé eṣek-ler-im-de-kí
 donkey donkey-Pl donkey-Pl-my donkey-Pl-my-Loc donkeys-Pl-my-on-one
 ‘donkey’ ‘donkeys’ ‘my donkeys’ ‘on my donkeys’ ‘one on my donkeys’

- (2) a. dinle-dí b. dinle-dí-de c. dinlé-me-di d. dinlé-me-di-de
 listen-PAST listen-PAST-too listen-NEG-PAST listen-NEG-PAST-also
 ‘He listened.’ ‘He listened, too.’ ‘He didn’t listen.’ ‘He didn’t listen, either.’

- (3) a. gel-ince b. gel-érek c. gel-iyor d. gel-iyor-du-lar
 come-when come-by come-PRES.CONT. come-P.C-PAST-Pl
 “when he/she comes” “by coming” “He/she is coming.” “They were coming.”

- (4) a. [[**Adám** gel-dí]_{PPh}]_I b. [[**Adám**]_{PPh} [**gel-dí**]_{PPh}]_I
 man arrive-PAST man arrive-PAST
 “A man arrived.” “The man arrived.”

- (5) a. Adám **gél-me-di**
 man arrive-NEG-PAST
 “A man didn’t arrive.”
 a’. ***Adám** gél-me-di
- b. Adám **gél-me-di**
 man arrive-NEG-PAST
 “The man didn’t arrive.”

Selected references:

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