

## Prosody and Bare Nouns in Mongolian

**Nutshell:** We examine the prosody of bare nouns in Mongolian and propose different structures for pseudo incorporated objects (PNI) and otherwise bare objects based on prosodic differences. We analyze these two types of bare nouns under the framework of Match Theory (Selkirk, 2009; Elfner, 2015) and propose a modification to Match Theory as follows. The prosodic categories of intonational phrase,  $\iota$ , phonological phrase,  $\phi$ , and phonological word,  $\omega$  match exclusively to phases (Chomsky, 2001, *inter alia*), extending the proposal of Compton and Pittman (2010), in which the phase maps to  $\omega$ .

**Background:** In differential object marking (DOM), case marking on the noun varies with respect to a variety of properties. It is cross-linguistically associated with humanness, animacy, specificity, and definiteness (Bossong, 1991; Fábregas, 2013; López, 2012, *inter alia*). DOM in Mongolian has been studied most extensively by Guntsetseg (2016). She shows that animacy, definiteness, and specificity play a strong role in DOM in Mongolian. The following examples illustrate a portion of the variation found (Guntsetseg, 2016, p.78).

- (1) (a) *Bi ene oxin-\*(yg) xar-san*  
I this girl-ACC see-PST  
'I saw this girl.'
- (b) *Bi neg oxin-(yg) xar-san*  
I a girl-ACC see-PST  
'I saw a girl.'
- (c) *Bi oxin-(\*yg) xar-san*  
I girl-ACC see-PST  
'I saw a girl.'

In PNI a noun (typically the object) is bare or has reduced morphology (Massam, 2001; Dayal, 2011). Additionally, it has a number of semantic properties that resemble canonical noun incorporation (Mithun, 1984). Guntsetseg (2016) gives the following example of PNI in Mongolian.

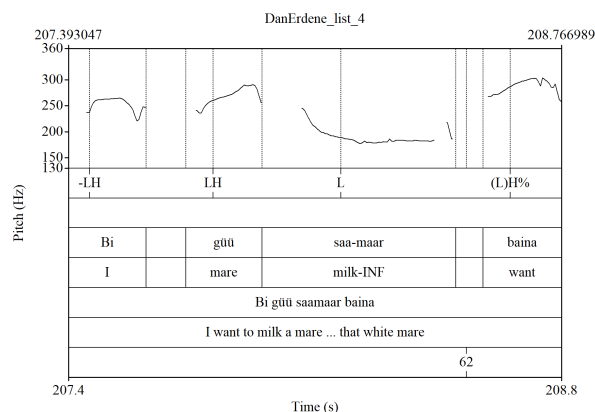
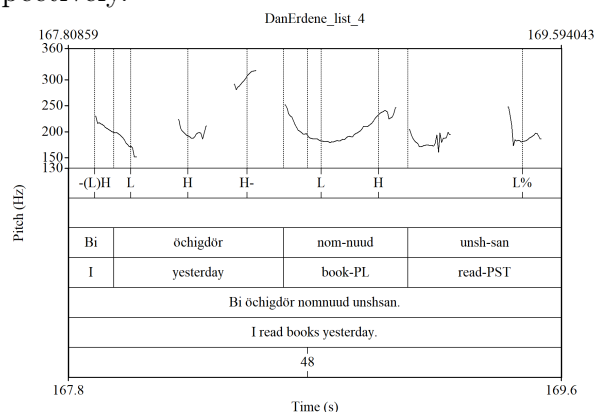
- (2) *Bi öčigdor nom unš-san*  
I yesterday book read-PST  
'Yesterday, I did book-reading.'

Given that both PNI nouns and nouns that lack DOM are identical morphologically, Guntsetseg offers some syntactic criteria to distinguish them. We report on a prosodic difference here.

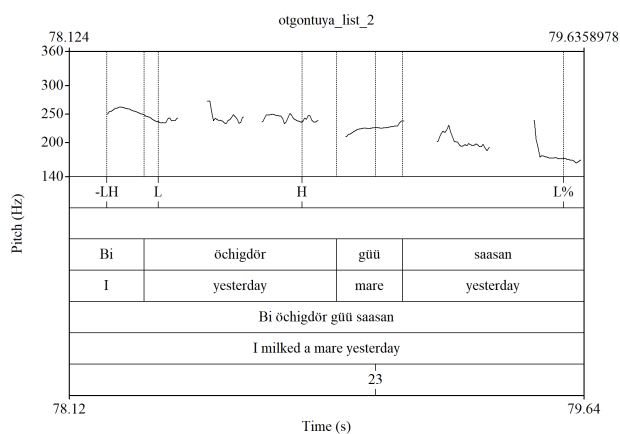
**Experiment:** Four native speakers of Mongolian from Ulaanbaatar living in Seoul were given a list of sentences to record, including PNI, DOM and a number of filler sentences. The pitch contours of these sentences were analyzed on Praat (Boersma and Weenink, 2018) and compared to known intonational correlates of prosodic categories in Mongolian (Karlsson, 2014). Of importance here is that the phonological word in Mongolian exhibits a LH contour, where the tone bearing unit is the mora.

**Results:** Objects with plural marking or case marking (or both) clearly showed the LH contour typical of  $\omega$ s. PNI nouns (shown by low scope) in nearly all cases lack this contour. Bare nouns with high scope (i.e., not PNI, but lacking DOM) typically do

bear the LH contour. These are shown in the following three pitch contour diagrams, respectively.



**Discussion:** Phonological words in Mongolian typically bear an initial LH contour (Karlsson, 2014). As mentioned in the results section, this contour was found on full noun phrases (including noun phrases with overt number or case morphology) and on morphologically bare nouns with high scope. Morphologically bare nouns with low scope did not bear this contour. Since low scope is a prototypical property of PNI (Dayal, 2011), we assume the bare nouns with low scope have been pseudo incorporated while the bare nouns with high scope are full DPs that lack DOM and just happen to be singular (i.e., no number marking). Unlike morphological incorporation (in the sense of Baker, 1988), in which a head is incorporated, PNI involves the incorporation of a phrase. Under Match Theory, all XPs map to  $\phi$ . Thus, we expect no difference between a full DP and an NP. Adapting the proposals of Compton and Pittman (2010), we propose that the DP phase maps to  $\omega$ . The PNI NP is not a phase, so does not map to  $\omega$ .



**Conclusion:** We have shown that there is a difference between morphologically bare PNI and non-PNI nouns in Mongolian. Bare non-PNI nouns have an initial LH contour, typical of  $\omega$ s in the language. Bare PNI nouns lack this contour, suggesting it is smaller than a  $\omega$ . We argued that non-PNI bare nouns are full DPs (hence phases) and that PNI nouns are NPs (hence not phases). We suggested, following Compton and Pittman that phases are  $\omega$ s, and thus PNI nouns, not being a full phase, do not map to  $\omega$  under Match Theory.

**Selected References:** Bossong, G. (1991). ‘Differential Object Marking in Romance and Beyond’, in ‘New Analyses in Romance Linguistics’ 143–170, Amst: John Ben. Dayal, V. (2011) ‘Hindi PNI’, *NLLT* 29(1):123–167. Fábregas, A. (2013) ‘DOM in Spanish: state of the art’ *Borealis. Int. J. Hisp. Linguist.* 2:1–80. Karlsson, A. (2014) ‘The intonational phonology of Mongolian’, in Jun S.A. (ed.) ‘Prosodic Typology II’, 187–215, Oxford: OUP.