Prosody and Nominal Structure in Uzbek

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1   Introduction

This paper seeks to shed light upon prosody and nominal structure in Uzbek. In this section, I will introduce the gist of the research, with the next section focusing on the background literature to discuss the core concepts and the precursors of my research on Mongolian. The third section of "Procedures" will cover how the experiments were conducted, the fourth "Results" the actual results of the experiments, and finally the last section of "Discussion" fleshing out the significance of this proceeding, limitations and how further research seeks to amend the lacking parts.

The goal of the study is to study the prosody of bare nouns in Uzbek by comparing accusative-marked objects and caseless objects. The collected data are then analyzed under Match Theory as a continuation of argument for a different mapping between syntactic and phonological structure. The conclusion drawn from the study is that LH contours were found on full KP constructions of Uzbek nouns while caseless bare objects with low scope reading instead showcased HL or dropping contour. Therefore, based on these observations, a proposal on reduced nominal structure in caseless objects in Uzbek is made and thus prosodic evidence are offered for the distinction between case-marked objects and caseless objects. And hope to use this to further enforce the term of Match Theory and the correlation we found in Mongolian PNI of prosody and syntactical structure.

2   Literatures

2.1   *Match Theory*   Match Theory proposes a direct relationship between syntactic structure and prosodic structure, where a set of violable constraints were proposed by Prince and Smolensky in 1993 and 1995. The constraints were that the CP layer maps to intonational phrases dealing with sentential intonations, the XP phase maps to phonological phrases, and X heads map to phonological word. However, despite this suggested correlation between prosodic category and syntactic phases, there were no consensus on how phases may match prosodic categories. Some recent research conducted on Mongolian PNI provides a more solid ground for this and proposes the following mapping of CP layer to intonational phrase, KP and *v*P to phonological phrase, and *n*P rather than X head being mapped to phonological word, as in the following:

(1)   CP - ι
(2)   KP, vP – φ
(3)   nP - ω

2.2   *DOM / PNI*   The reason for suggesting *n*P as mapping to phonological word lies in the upcoming two concepts of DOM and PNI. DOM, abbreviation for differential object marking, is a case marking on nouns that varies with respect to a variety of properties, with such properties include humanness, animacy, specificity and definiteness as proposed by Bossong, Fabregas and Lopez. Pseudo-Noun Incorporation or PNI, on the other hand, is when nouns, typically the object, has reduced morphology as argued by Massam 2001. Mithun claims the semantics properties are said to resemble canonical noun incorporation.

(4)   Encontréun problema
           I.found a problem
           ′I found a problem'

(5)   Encontréa un superviviente
           I.foundK a survivor
           ′I found a person'

Spanish is one of the languages showcasing DOM distinction and thus the example (4) and (5) above

illustrates the case in point; the two sentences have similar structure and meaning of finding something, but, for the example (4), the direct object has no visible case marker while the example (5), has visible case marking *a*. The only difference between the two is that the second sentence has a human object while the object of sentence A is not. As such, the DOM is said to be triggered by animateness in Spanish.

(6)   Kua   fakahu   he   ekekafo   e   tohi.
        PVF   send   ERG   doctor   ABS   letter
        'The doctor sent the letter'

(7)   Kua   fakahu   tohi   e   ekekafo
        PVF   send   letter   ABS   doctor
        'The doctor sent the letter.'

Nieuan, on the other hand, is known to have a PNI construction, and the examples above support this perspective; the given example sentences both mean the doctor sent a letter, but when the actual underlying syntactic construction is taken into consideration, example (6), the regular transitive construction, has case marking on both the subject and object—Nieuan embodies an ERG-ABS case system, thus the subject "doctor" gets the ergative case and the object letter the absolute case. Contrastively, example (7), the sentence with PNI construction, case marking is missing on the supposed object "letter" and subject receives ABS case signifying that the "object" fails to receive a Case at all, implying a reduction in structure.

The above examples from two languages with distinct manifestations of PNI and DOM exemplify how, in terms of superficial similarity, the two phenomena may be similar in that both cases result in the lack of apparent Case markings on them. Methods of distinguishing them as suggested by scholars is that PNI is often seen adjacent to the verb, and that the DOM is associated with a larger structure than PNI while a PNI construction lacks higher functional morphology altogether such as D head.

The solution suggestible by Match Theory is that PNI and DOM's structural difference manifests itself in the utterance, thus the supposed focus on the DOM and PNI in Mongolian. DOM and PNI in Mongolian has been studied extensively by Guntsetseg, her claims being that the animateness, definiteness and specificity plays a strong role in Mongolian PNI. The PNI characteristics suggested by her studies is as follows:

(8)   a) Generally adjacent to the verb
        b) No determiners or demonstratives
        c) No postpositions or case markers
        d) Can be modified by an adjective
        e) No plural marking
        f) Narrow scope
        g) Low discourse transparency
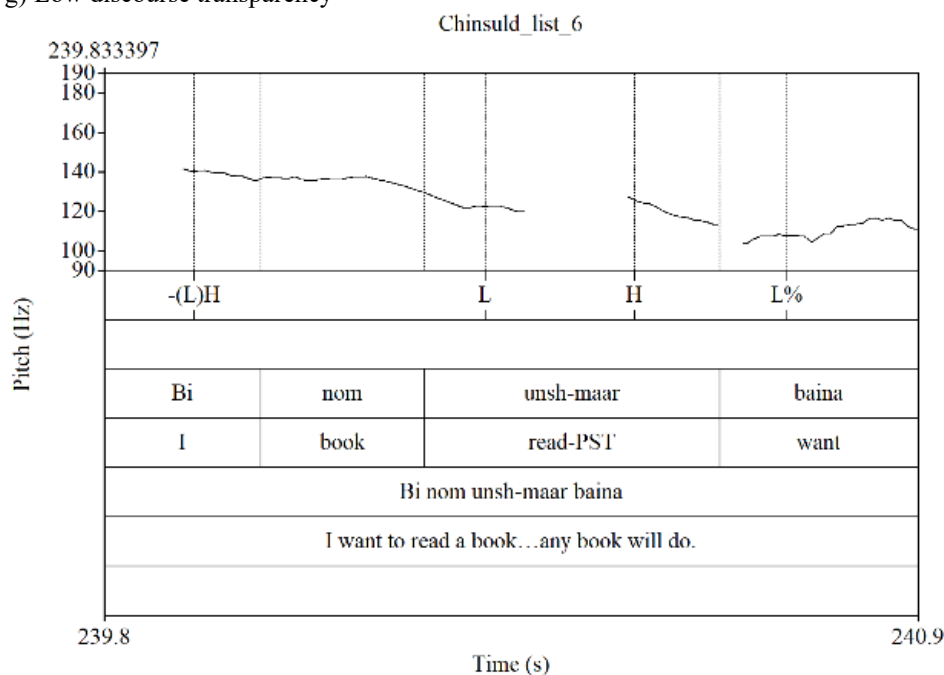
Figure 1: Example of narrow scope reading
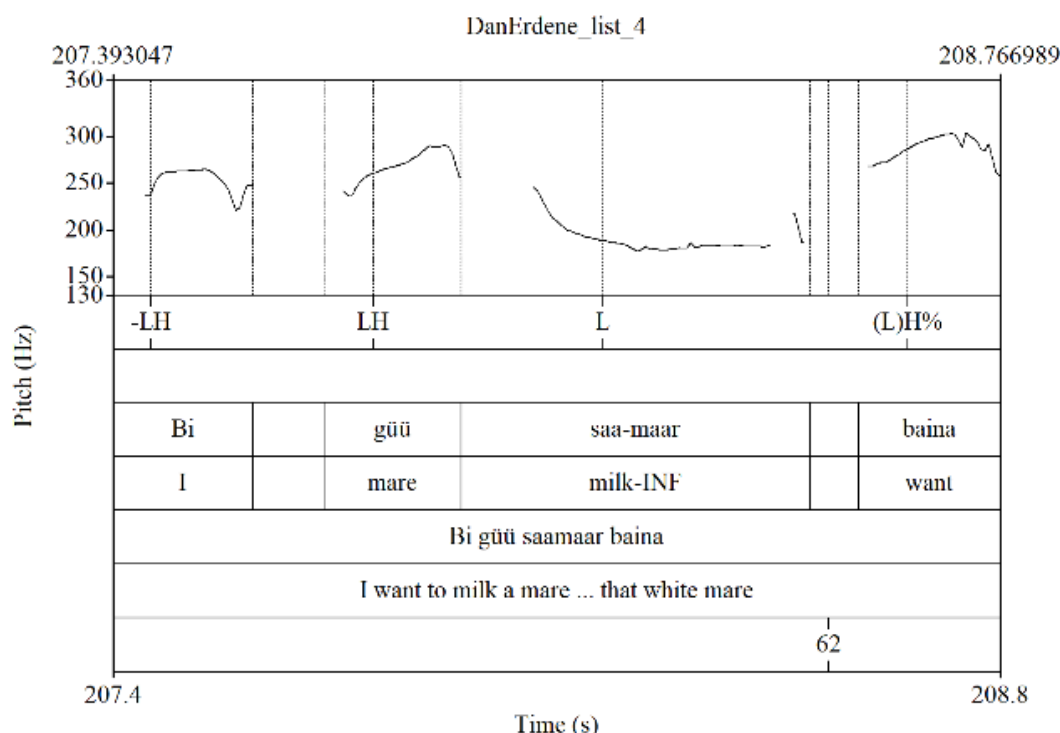
Figure 2: Example of wide scope reading

The result of prior researches conducted on this subject proved quite interesting. Through conducting experiments on Mongolian intonational contours, the difference in the syntactic structure was identifiable in the utterance, specifically in the contour patterns. For the Mongolian samples given above, note how Figure 1 has an object "nom" with a narrow scope reading and Figure 2 "guu" has a wide scope. From the analyzed samples, including the examples above, the following pattern could be proposed: "nom," a PNI construction, does not have any characteristics contours of itself, while the DOM construction of Figure 2 does have a distinctive LH contour that is argued as the default intonational phrase contour in Mongolian. From this, the proposal was reached that the reduced phrasal structure in PNI is correlated directly to the difference in the phonological speech itself.

3   Procedure

With such background knowledge in place, experiments on Uzbek were conducted to see if such distinction also applies in Uzbek as well. For procedures, 20 native Uzbek speakers living in the Suncheon of Jeollanamdo recorded the data, with the first participant checked the legitimacy and naturalness of our prepared sentences. The experiments were comprised of 38 test sentences in total with three target sentences included. In addition to the said samples, five additional sentences mostly comprised of non-obstruents were recorded by all participants to obtain a more accurate understanding of the general intonation contour of Uzbek speech; unlike Mongolian which already had previous studies about the general intonational contour of the language, Uzbek lacked such solid evidence, thus necessitating this additional process. The participants were asked to repeat the sentences twice to ensure accurate understanding of the context. Each participant received 50,000 won for the participation in the experiment.
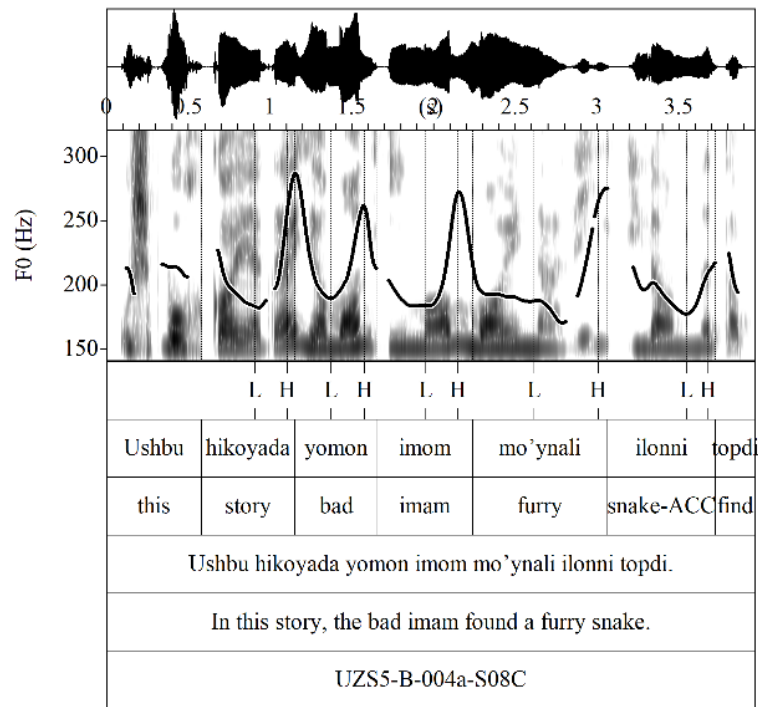
The following criteria were tested:

a) Whether the absence or presence of accusative case marking has any effect on the actual contour

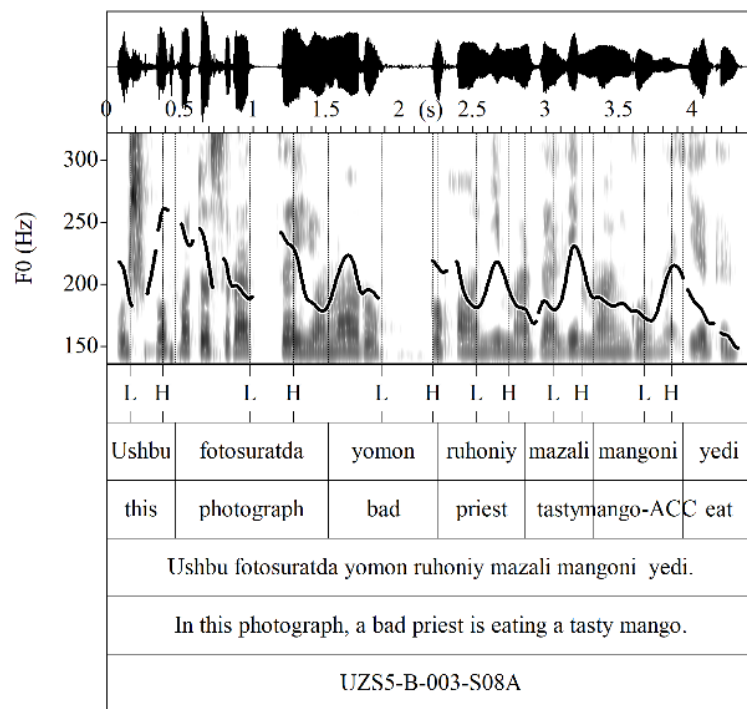b) Whether wide or narrow scope has any effect on them either.

Finally, Praat was used as the analysis tool for the collected data and was used to parse and visualize the data.

4   Results

4.1   *General intonational contour of Uzbek*   The result for the five extra sentences collected for figuring out the default international contour in Uzbek will be handled first to set a ground for interpreting the actual experiment results. When sonorant-dominant sentences were examined, they exhibited a phrase-final raising intonation in general.

Ushbu	hikoyada	yomon	imom	mo'ynali	ilonni	topdi
this	story	bad	imam	furry	snake-ACC	find

Ushbu hikoyada yomon imom mo'ynali ilonni topdi.

In this story, the bad imam found a furry snake.

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Figure 3: An example of the Uzbek contour

Ushbu	fotosuratda	yomon	ruhoniy	mazali	mangoni	yedi
this	photograph	bad	priest	tasty	mango-ACC	eat

Ushbu fotosuratda yomon ruhoniy mazali mangoni yedi.

In this photograph, a bad priest is eating a tasty mango.

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Figure 4: Another example of the intonational contour of Uzbek

The examples of Figure 3 and Figure 4 are the excerpts from the analysis where the parsed phrases embody a recurring LH contour. Based on these observations, the paper presumes that a full KP, or a phonological phrase in Uzbek has a LH contour as its default.

4.2 *Contours of Caseless Uzbek Objects*   Moving onto target sentences. the participants' interviews after the initial data collecting ascertained that Uzbek does not allow for narrow scope reading of accusative object. Therefore, one category of case-marked narrow reading was crossed out, reducing the variables to be tested out to two cases of the wide reading of case-marked object and narrow reading of caseless objects. The experiment

result suggested both of them having a very distinctive distribution in their contours. With the wide scope reading, the distribution of data was 27 cases of LH contour readings and only one case of HL contour reading. For the narrow scope reading of objects with no accusative casing, the results showcased three cases of LH contour and 53 cases of HL contour.

The two excerpted examples prove this point well; Figure 5 is the caseless object construction, Figure 6 the case-marked object construction. The book 'kitob' shows a very sharp falling intonation; when this is compared to the case-marked book 'kitob,' of Figure 6 a much more conventional pattern in the data examined prior is observable. This result suggests a strong correlation between accusative marking and word-final rising intonation, where the lack of Case leads to the lack of the said contour.
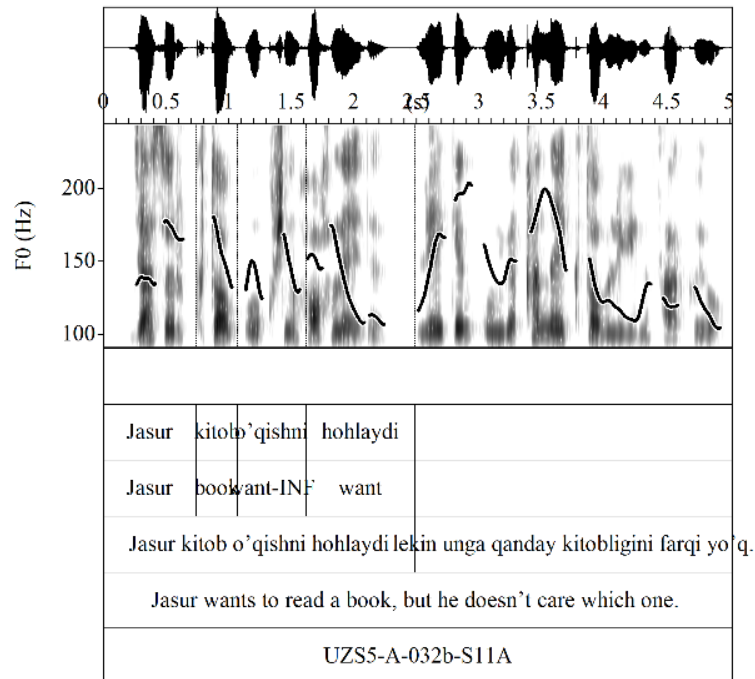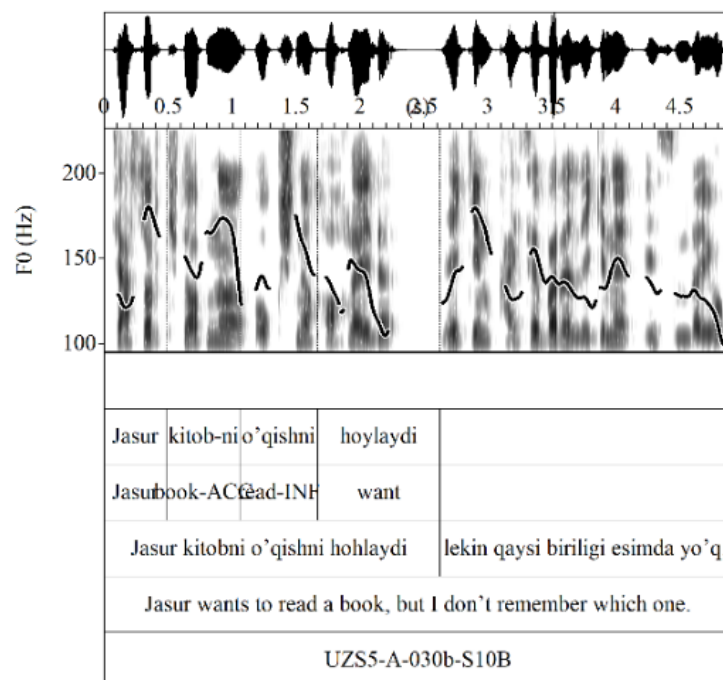

Figure 5: Caseless "kitob" in Uzbek

Figure 6: Case-marked "kitob"

The difference between first and second reading was also visualized into a graph below in case there being a difference in distribution in relation to the number of times the target word had been read. Though a small margin, the second reading had a sharper distinction between the two types of types in that the minor readings in both cases all happened on the first readings and that the second readings almost dichotomic separation in the pattern.

Only first readings		Narrow	Wide
With ACC	H-final	X	14
	L-final		1
Without ACC	H-final	3	
	L-final	27	
Only second readings		Narrow	Wide
With ACC	H-final	X	13
	L-final		0
Without ACC	H-final	0	
	L-final	26	

Table 1: Difference between the first and second readings

5   Discussion

The significance of this paper is in its explication of how Uzbek caseless bare nouns share various similarities with Mongolian PNI characteristics as proposed by Guntsegtseg:

a. generally adjacent to the verb
b. no determiners or demonstratives
c. no postpositions or case markers
d. can be modified by an adjective
e. no plural marking
f. narrow scope
g. low discourse transparency

This experiment confirms additionally to the features above the contrastive distribution between case-marked objects and caseless bare nouns in Uzbek, and this strongly suggests caseless Uzbek objects having a reduced nominal structure similar to Mongolian PNI. As Uzbek participants did not have a specific number reading in caseless bare nouns, the structure upto Num head may be missing in narrow scope reading of caseless bare objects in Uzbek. This is further reinforced by the observation that when the caseless object was preceded by a visible number marker (three, four…) the reading usually showcased a default LH contour.

As a final remark on continuing this research, some problems encountered during and after the experiments and analysis will be addressed. The first regards the physical limitation of the target word "kitob" is that there may have been some influence of the target word's physical characteristic, of it being only a two-syllable word. If further researches are to be conducted on this subject, the possible impact of syllables on the contour would have to be clarified. However, another possible problem lies with another word "rasm," a word for picture in Uzbek. In the collected data, the samples including "rasm" often showcased LH contour regardless of the presence of the accusative case marker. As such, data involving "rasm" was considered perplexing; however, this problem may be due to how the test sentences utilized the word itself, as it was commented as a defunct or antique way of saying the term "picture" by many participants.

6   References

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