

### **Prosodic marking of information structure in Alaskan Athabascan texts**

The goal of this preliminary study is to establish the information status and prosodic properties of noun phrases in four Alaskan Athabascan languages: Dena'ina, Ahtna, Lower Tanana, and Upper Tanana using data taken from narrative discourse. In the literature on cross-linguistic prosody, Athabascan languages are so far underrepresented. Much of the recent empirical literature on information structure in a variety of languages uses elicited speech or semi-spontaneous speech (see e.g. (Breen et al. 2010; Féry, Skopeteas, and Hörnig 2010; Katz and Selkirk 2011; Clopper and Tonhauser 2013; Burdin et al. 2013), among many others). Our focus on narrative data makes it more difficult to compare our findings to those of others, but it makes data collection feasible.

Previous study of 801 story units (roughly, utterances) in texts showed that frequency of full noun phrases (as opposed to bound pronominals) was low, with the ratio of NPs to story units .87 overall. In all syntactic positions, noun phrases represented discourse-new material almost half the time. Prosodic cues to story unit boundaries are final lowering, final lengthening and pause (Lovick and Tuttle 2012). Possible confounds exist in syntactic and lexical areas. The two Tanana languages have low tone from historical vowel constriction. In addition, all four languages have discourse markers that can be used to indicate information structure.

In this study, we examine the prosodic properties of noun phrases, looking for cues to information status. Specifically, we wish to discover whether contrastive topic and new-discourse focus are differentiated by prosody or whether this is done solely by syntactic means.

Eight texts in four languages, narrated by eight speakers, were examined for instances of discourse-new, non-new, and contrastive topic noun phrases. Ten story units per text were surveyed, yielding a total of 1038 syllable observations. The pitch range for each story unit was measured, and the ratio of the peak F0 for each noun phrase to the peak F0 of its story unit was calculated. Analysis of variance, run separately for each text, showed that for three out of the four languages (Ahtna, Dena'ina, and Lower Tanana), discourse-new noun phrases and contrastive topics showed significantly higher mean F0 than other phrases relative to their story unit. Upper Tanana, however, showed a different pattern, with contrastive topics significantly lower than other categories in one text, and slightly lower in the other.

This preliminary study suggests that information structure categories in Alaskan Athabascan narratives do track with prosodic patterns. Our study also shows that the examination of narrative, though time-consuming, provides insights similar to those found in the study of semi-spontaneous speech. However, greater refinement in both information and prosodic categories will be required to complete the picture.

### **References**

- Breen, Mara, Evelina Fedorenko, Michael Wagner, and Edward Gibson. 2010. "Acoustic correlates of information structure." *Language and Cognitive Processes* 25 (7-9):1044-1098.
- Burdin, Rachel, Cynthia Clopper, Phillips-Bourass, Judith Tonhauser, and Murat Yasavul. 2013. "Variation in the prosody of contrastive focus in head- and edge-marking languages." Paper at the 2013 DGfS.
- Clopper, Cynthia, and Judith Tonhauser. 2013. "The prosody of focus in Paraguayan Guaraní." *International Journal of American Linguistics* 79 (2):219-251.
- Féry, Caroline, Stavros Skopeteas, and Robin Hörnig. 2010. "Cross-linguistic comparison of prosody, syntax, and information structure in a production experiment on localising expressions." *Transactions of the Philological Society* 108 (3):329-351.
- Katz, Jonah, and Elizabeth Selkirk. 2011. "Contrastive focus vs. discourse-new: Evidence from phonetic prominence in English." *Language* 87 (4):771-816.
- Lovick, Olga, and Siri G. Tuttle. 2012. "The prosody of Dena'ina narrative discourse." *International Journal of American Linguistics* 78 (3):293-334.