The Department of Linguistics
is pleased to present

Laura McPherson

Dartmouth College
speaking on

Tonal adaptation across musical modality: A comparison of Sambla vocal music and speech surrogates

Friday, April 26, 2019
1:20 PM
Location: HUM 1 - Room 210

Abstract:
This talk presents a first systematic comparison of tonal textsetting across two musical modalities—vocal music and instrumental surrogate speech—for a single language. The language in question, Seenku, is spoken by about 15,000 ethnically Sambla people in southwestern Burkina Faso. The complex tone system boasts four level tones, which can combine to create multiple contour tones lexically, grammatically, and postlexically. This tonal density is exploited to create a musical surrogate language (Stern 1957, Sebeok and Sebeok 1976) on the balafon, a kind of resonator xylophone; by encoding the tones and rhythm of the language on the notes of the pentatonic scale, musicians can communicate with each other and the audience without ever "uttering" a word. Mapping of tones to notes depends upon the mode of the song, with the highest tone level (super-high) typically anchored to the tonal center of the mode.

Tone is also implicated in the melodies of vocal music, with Sambla songs obeying cross-linguistic principles of tone-tune association (Schellenberg 2012, McPherson and Ryan 2018, Kirby and Ladd in press, etc.). Specifically, parallel movement between tones and melody is maximized while minimizing direct opposition, e.g. where tone goes up but the melody goes down. Given the large tonal inventory, Seenku presents a rich testing ground for studying tone-tune association, including effects of interval size and treatment of contour tones.

Comparison between modalities reveals a divide in how tone is musically adapted: the balafon surrogate language encodes lexical and morphological tone, but not the output of postlexical tone rules such as tonal absorption or downstep, whereas vocal music appears to take as its input a surface level of tone. I suggest that these differences follow from the communicational constraints and function of each system. Specifically, surrogate speech uses no segmental information, and so content-ful tone (lexical and grammatical) must be easily recoverable, leading to strict mapping between tones and notes and an avoidance of phonological processes that would obscure meaning. Sung lyrics, on the other hand, use all regular linguistic material (tones, consonants, vowels), allowing tone to be realized more freely. Further, sung melodies are inherently musical and aesthetically-driven, whereas surrogate speech draws on musical elements but is primarily a system of communication. I draw on cross-linguistic studies of both surrogate speech and tonal textsetting and argue that these are universal tendencies inherent to the modalities in question.

Finally, I show how the two systems are brought together in balafon renditions of sung music, yielding “surrogate song” where the balafon encodes sung tonal melodies, thus incorporating looser tonal encodings and the application of postlexical tone into “instrumental sung language”.