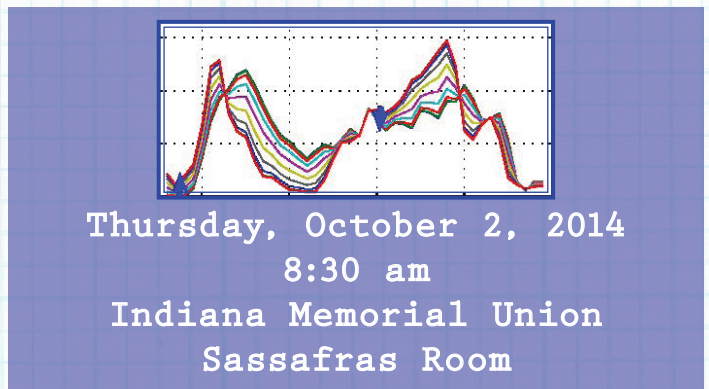


**Contrast and Markedness Among Nasal(ized) Vowels:  
A Phonetic-Phonological Study of French and Vimeu Picard**

**Dissertation Defense: Michael Dow**

Because of their similarity with French, the Northern varieties of Gallo-Romance have long suffered a perception as corrupted dialects of French rather than full-fledged languages, a belief which has contributed to their current endangerment. In this dissertation, I use the phonetics and phonology of nasal vowel phenomena to compare French with one such language, Picard, as spoken in Vimeu (Somme). Despite their identical vowel inventories, these languages demonstrate divergent processes of regressive nasalization (where an oral vowel becomes nasal before a nasal consonant). From numerous instrumental studies, we can infer that this process applies only to high vowels in French, while the documentation of Vimeu Picard informs us that it applies only to low and mid vowels in this language.

In order to investigate these trends, I conducted a phonetic study of Picard bilinguals and French monolinguals using a nasometer, a split-channel microphone system which records nasal and oral signals separately but simultaneously. Not only were Picard bilinguals found to maintain two distinct grammars, but also their French data mirrored those of the monolinguals. A statistical analysis confirmed a highly significant interaction between language and vowel height on nasality. Based on these



data, I construct comparative phonological analyses, which show that French allows for regressive nasalization only where it is not neutralizing (high vowels), while Picard nasalizes vowels of all heights, which engenders a delicate balance between nasal contrast and height contrast.

As an empirical result, this dissertation documents both surface-level and deep differences between French and Picard. It also makes three major theoretical contributions. First, it proposes the Differential Energy Ratio, a new acoustic measurement of nasality argued to model nasality more intuitively than current acoustic measurements. Second, this dissertation proposes the Nasal Vowel Markedness Hierarchy, a formal, grammatical relationship among nasal vowels, which makes strong but testable typological claims. Finally, my analyses employ a recent framework called Preservation of Contrast theory, where contrast plays an active role in grammar. This dissertation shows the necessity of such an approach for French, and elucidates the structural insights which this approach reveals concerning both languages as discrete systems.

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