## 学位論文の要旨

## 論文題目 Phonetic and Phonological Changes in Obsolescing Languages: A Case Study of the Khorasani Variety of Kurmanji Language

(危機言語の音声・音韻変化-ホラーサーンのクルマンジー語の事例的研究-)

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論文の要旨

Most studies on obsolescing language situations deal with gradual change, the loss of language in language-contact situations. Such situations have an intermediate stage of bilingualism in which the dominant language is employed by an increasing number of individuals and characterized by the robust factor, age. As younger generations in a subordinate community shift to the dominant language, fewer children learn the minority language, and often those who do so learn it imperfectly, resulting in semi-speakers, people who have learned the language to some degree but are not fully fluent. This is the situation of the gradual shift of a minority language, with a greater frequency of variation, to a majority language. The literature on sound change in obsolescing languages has focused on whether the changes are internally or externally motivated which result in either convergence with or divergence from the dominant language. This distinction has left differences between the categorical phonological shift, which can eliminate phonological distinctions, and gradient phonetic effects, which may minimally impact on the native structure of the language. It is worth noting that these types of changes may coexist within the same community of minority languages in contact with the dominant language. The theoretical framework for this research is described in chapter 1. This research makes contributions to our understanding of phonetic and phonological change in endangered language contexts from phonetic and phonological as well as sociophonetic perspectives.

Large-scale investigations on sound change in obsolescing languages are notably lacking for some languages, in particular the Iranian group. This dissertation therefore targets one of the languages of the Iranian group, one of the geographically most isolated from its origin, namely the Khorasani variety of Kurmanji (Northern Kurdish) language in the northeast of Iran which is introduced in chapter 2. Following recent investigations of obsolescing languages, I present a study of phonetic and phonological changes in the Khorasani variety of Kurmanji based upon recordings of two generations of speakers. This dissertation focuses on the realization of two different sound changes to investigate whether these changes are gradual shifts or categorical changes. Firstly, I analyze the phonological contrasts of initial voiceless consonants in chapter 3 in order to find the differences of voice onset time as a phonetic correlate of a voicing distinction to investigate the process of language change regarding interference from the strong dominant language, Persian. VOT has been defined as the time interval between the onset of release burst and the onset of periodicity that reflects laryngeal vibration. Three contrastive categories were defined regarding VOT values: Fully voiced stops (Voicing Lead); voiceless unaspirated stops (Short Lag) and voiceless aspirated stops (Long Lag). Kurmanji has contrastive aspirated/unaspirated stops and affricate consonants, rarely found in other Iranian Languages, especially Persian. Acoustic analysis of the VOT value of Kurmanji initial stops show that VOT values in Kurmanji exhibited the expected pattern of drift from short lag to long lag VOT with a significant increase occurring between Generation1 (55 - 65 years old) and Geneartion2 (30 - 35 years old). Later generations appear to have returned to patterns found in the speech of earlier members of the community and long lag VOT has clearly established itself a salient social and regional marker today. This is likely because Generation2 Kurmanji speakers do not form a cohesive Kurmanji community compared to Generation1 and therefore have no opportunity to talk casually outside the home, thus, they merge into the dominant Persian and the VOT value of Generation2 speakers is rapidly pulled through the VOT value of the dominant Persian.

The second investigation of sound change in Kurmanji which is described in chapter 4 is consonant cluster reduction, namely the deletion of /w/ in the cluster /xw-/, which the younger generations tend to simplify. An example representing the cluster onsets is the reflexive pronoun "xwe". This case study evaluates the effects of a dominant Persian on the complex onset in the phonological system of bilingual Kurmanji-Persian speakers. Fricative + glide sequences whose structural status as a complex onset is debated in the Kurmanji phonology literature, patterned differently from Persian phonology in which the consonant cluster cannot occur in the onset. The syllable structure of Persian is CV(C)(C), while the syllable structure in Kurmanji is (C)CV(C)(C). Specific findings are viewed in light of relative markedness of consonant clusters in syllable-initial position in terms of their relationship to singletons which comprise a simple onset, meaning that only a single segment occupies the prevocalic position and is considered unmarked as compared to those more complex consonant clusters. Formant transitions proved useful in discriminating between the fricative+glide clusters (xw-) and the fricative (x-) alone, and in distinguishing degrees of rounding after the consonant clusters in Generation1 and Generation2. Formant transitions in Generation2 do not associate with lowering the second formant (F2) values of the adjacent vowel. Thus the consonant cluster /xw-/ substituted with the singleton /x-/, a more likely path to the change, involves transfer where /x-/ was incorporated into speakers' Kurmanji system during a period of heavy Persian use or during their concurrent acquisition of the two languages as a child.

It is clear that categorical changes, loss of allophones, and sub-phonemic variation are all characteristics of sound change in obsolescing languages. The extent to which sound changes have occurred in the Khorasani Kurmanji language is considered through instrumental phonetic investigation in this dissertation. Acoustic correlates of the voicing distinction show that the younger generation maintains the phonological patterns of the older generation, but the categories are less distinct. The narrowing of the aspirated/unaspirated contrast in younger generations of Kurmanji speakers suggest that Generation2 of speakers of Kurmanji language may not necessarily lose contrasts, but may exhibit increased subphonemic variation, causing the category boundaries to become less discrete. Unlike the findings from voicing distinctions which suggest the approximation of the gestures for the long lag VOTs, the formant analysis of the vowel following the consonant cluster displayed no trace of /w/ in the younger generation of Kurmanji speakers. This result shows the reduction of /xw-/ to /x-/ in the onset of Kurmanji syllables and indicates the categorical shift to the Persian category in which consonant clusters in the onset are not employed.

Considering the fact that speakers of an obsolescing language are expected to make fewer phonological distinctions, yet maintain distinctions in the endangered language that also exist in the dominant language, and phonological distinctions with a low functional load are to be lost prior to those with a high functional load offers two feasible approaches to the investigation of sound change in the present study. This point of view emphasizes the effect of the phonological structure of the Persian dominant as the causal factor in the loss of oppositions in Kurmanji (external motivation); the markedness view, on the other hand, suggest that the marked nature (unnaturalness due to the difficulty of pronunciation) may contribute to its merger with the unmarked feature. Thus the lack of aspirated/unaspirated distinctions and the phonotactic constraints of the consonant clusters in the onset of syllable structure in dominant Persian and the tendency to reduce markedness conceivably could have worked in concert, jointly leading to the loss in Kurmanji and the convergence with Persian. These findings support the assertion made in Campbell and Muntzel (1989) in which the authors predict that the variability in production increases as a function of the level of language obsolescence.

After investigating the two experiments of sound change in Khorasani variety of Kurmanji, I suggest a new perspective in chapter 5, which investigates the relationship between social factors and phonetic variation, i.e. sociophonetics, in examining variation in sound change. A key element in accounting for the sociophonetic properties of speech is to factor in an understanding of how individuals construct their social world and how they use language (phonological patterning in particular) to position themselves within it.

Assuming that children learn language via input from more than one individual, it follows that all tokens of all words will inherently contain reference to individual speakers. They thus form a foundation for learning more arbitrary relationships between linguistic forms and social factors. These will include variable forms particular to a given dialect or community. A child growing up in a Kurmanji community in Khorasan, for example, needs to learn the various forms of voicing distinctions in initial stops i.e. [D:T:T<sup>h</sup>] or initial consonant cluster variation /xwa/vs./xa/vs./xo/, all of which are social differentiated but which have no transparent grounding in biological differences, are not used by all individuals in these groups, and are more restricted in their frequency of occurrence.

Reviewing evidence from studies of contact-induced language change from the sociophonetic perspective and unlike the anthropologists' viewpoint claiming that individuals' behavior in the lab need not reflect their behavior in day-to-day life, in chapter 6 after concluding the dissertation I suggest that it is the combination of detailed phonetic analysis and ethnographic and social approaches which holds the key to an integrated understanding of how social factors such as intergenerational differences and the dominant language can have an effect on phonetic variations in an obsolescing language. I suggest that researchers can take steps to ensure that the experimental context resembles to some degree the tasks that individuals might reasonably conduct in a daily basis. In this respect, if participants in the experiments are also participants in the field ethnographies, we will be able to conduct experiments that specifically probe individuals' encoding of particular linguistic and social universes in which they participate on a daily basis.