Title: Several Common Lenition and Fortition Processes in Language Varieties of Mazandaran Province: Generative Approach

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1. Introduction

The present article examines several lenitions and fortitions processes that are commonly used in different Dialects of Mazandaran Province based on Generative Phonology. Lenition is a term in phonetics and phonology to refer to the reduction in the intensity of the production of a sound, and includes the change from a plosive to a fricative, a fricative to an approximant, a voiceless to a voiced, or the deletion of a sound. According to Jensen (2004: 65), the most common lenition occurs between two vowels and can be considered a process of assimilation. In the Crystal Dictionary (1993: 143), it is written about this process that in "lenition" the muscular force and the strength of the air flow are weakened, such as the change of voiceless sounds into voiced ones. The two processes of lenition and fortition are observed in phonetic changes both diachronically and synchronically. The study of these processes in several dialects and the comparison of different contexts in which these processes appear have attracted the attention of researchers. The Mazandarani Dialect is typologically classified as an Iranian Northwestern Language group, therefore some of its phonological processes are different from those of the Iranian Southwestern Language group. The purpose of this research is to answer two questions: 1) What are the common processes of lenition in the language varieties of Mazandaran Province? 2) What are the common processes of fortition in the linguistic varieties of Mazandaran Province?

2. Research Methodology

Most of the data in this study were collected, categorized, described, and analyzed through interviews, recordings, and speech recordings of 30 speakers from 15 cities in Mazandaran Province, including "Sari, Babol, Babolsar, Amol, Ghaemshahr, Savadkouh, Noor, Nowshahr, Chalus, Abbasabad, Mahmoudabad, Fereydounkenar, Behshahr, Tonekabon, and Kelardasht." To do this, a targeted questionnaire containing the necessary information, including high-frequency words, phrases, and standard sentences selected in the study of dialects, was examined as basic data. The sources used as a guide for collecting dialects are: Samarin (1967), Natel Khanlari (1994), Fathi (2001). Two native male and female speakers of Mazandaran from each language, a total of 30 informants, were interviewed in this study. In addition, some data were collected from written sources about the Mazandarani Dialect, such as thesis, articles, and books written in this field, and then all the research data were analyzed within the framework of Generative Phonology.

3. Data Analysis

This study examined the processes of common lenition and fortition in 15 dialects of Mazandaran Province. The types of weakening processes discussed in this study, are deletion including glide deletion /j/, voiceless stop deletion /t/, and voice stop deletion /d/; centralization; voicing; and changes of stop or fricative consonants to approximant ones. Fortition processes also insertion of a segment and stopping.

3-1. Lenition Processes

3-1-1. Deletion of the glide /j/

According to Baerquest (2001: 169), deletion is one of the processes that changes the structure of a syllable to obtain an acceptable syllabic pattern in the phonology of a language. The deletion process is frequent in the language varieties of Mazandaran Province. Deletion is manifested in various forms, such as the deletion of the glottal consonants /ʔ/ and /h/ at the end of a syllable or at the end of a word, the deletion of medial consonants, and the deletion of syllables. One type of deletion that is observed in all language varieties of Mazandaran Province is the deletion of a medial consonant at the end of a syllable after a vowel (Table 1).

3-1-2. Deletion of the Stops /t/ and /d/

In Iranian Dialects, the use of CVC syllable is much more common than CVCC. To convert CVCC into CVC, sometimes the process of deleting the final consonant from a two-consonant cluster is used. Examples of this deletion, which is seen in all language varieties of Mazandaran province, are the deletion of the voiceless coronal stop /t/ at the end of the two-consonant clusters /-st/, /ʃt/, /-xt/, and /-ft/ in a morpheme or at the boundary of two morphemes, deletion of /d/ in the consonant clusters /-nd/ and /-zd/ (Tables 2 and 3).

3-1-3. Centralization of the vowels /a, e, o/ to schwa [ə]

Centralization is a type of weakening process. Central vowels are located between front and back vowels in the vowel table. Centralization is the process of moving a non-central vowel towards a central one (Crystal, 2008: 71). Centralization is the process by which, in speech, the main vowels move towards the center of the vowel table and change the back or front articulation of that vowel to a middle or central position. For example, one of the most common of these vowels is the vowel schwa /ə/. This vowel is usually used for unstressed vowels. This vowel is pronounced in English words and phrases such as, "back again", "sofa" (Catford, 2001: 151). Schwa, or the neutral mid vowel, is an independent vowel or phoneme in the Mazandarani Dialect (Tables 4, 5, and 6).

3-1-4. Conversion of /d/ to [j] between two vowels

A stop consonant has a complete closure in the manner of articulation; so that the passage of the air flow through the closure is completely blocked when it is produced. In other

words, a stop is a term used to classify sounds based on their manner of articulation. That is, whenever a complete closure is created in the speech apparatus to produce a sound, that sound is a plosive, such as the stop consonants /p/, /b/, /d/ (Crystal, 1993: 369; Crystal, 2008: 433-434). On the other hand, glide consonants have a more open articulatory closure than fricative ones, so that the passage of the air flow through the articulatory closure is free and without noise. The suffixes that end in [-dan] in standard Persian are produced as [-jan] in the language varieties of Mazandaran Province (Table 7).

3-1-5. Voicing

The vibration of vowels because of air passing through them is called voicing (Crystal, 1993: 416). In this process, voiceless consonants are changed into their voiced counterparts at the end of a word or a syllable environment following the vowel. In some languages, this context is considered the voicing environment of a voiced consonant. In Mazandaran Province, this process of a voiced consonant has been observed (Table 9).

3-2. Fortition processes

Fortition can be considered a change from a glide consonant to a fricative, a fricative to a stop, a voiced to a voiceless consonant; it can also be considered the insertion of a segment. According to Baerquest (2001: 168), strong consonants tend to be in a stronger position in a syllable; in other words, they prefer to be at the beginning of a syllable. Hyman (1975: 165) considers this process to be equivalent to the strengthening of a sound. He considers the vowel environment to be the best context for the weakening process and the syllable-initial environment to be the most suitable for the strengthening process to occur. Types of fortition processes according to Kul (2007: 160) include insertion, stopping, gemination, devoicing of obstruent consonants, and vowel lengthening.

3-2-1. Insertion of a segment

The insertion process is considered the most frequent process of fortition in the language varieties of Mazandaran Province. In phonology, a segment is inserted into a word, which is called "epenthesis". In this process, a consonant is inserted between two vowels to prevent "hiatus", or a vowel is inserted between two consonants to break the consonant cluster (Kambuziya, 2006: 274) (Table 10).

3-2-2. Stopping

Among the language varieties of Mazandaran Province, the changes of fricative consonants into stops are observed at the beginning of a syllable and a word (Table 11).

4. Conclusion

In the language varieties of Mazandaran Province:

1 -The medial glide /j/ is deleted in the coda of the syllable after the vowel and before a consonant.

2 -The final stop /t/ is deleted from the four consonant clusters /xt, ʃt, st, ft/. The first consonants of these groups are fricative, and the second one is the stop /t/.

3 -The voiced stop /d/ is deleted from the consonant clusters /-nd/ and /-zd/ at the end of the word or before a consonant in compound words.

4 -Centralization is a very common process. In these varieties, mainly the vowels /a, e, o/ go towards the central vowel [ə], which is a kind of vowel reduction in these varieties.

5 -The voiced stop /d/ is changed into a glide [j] between two vowels.

6 -The glottal stop [ʔ] is inserted in the initial position of a word which has no onset.

7 -The fricative consonants /f, v/ are changed into a stop [b] at the beginning of a syllable or at the beginning of a word.

8- The voiceless stop /t/ is changed into [d] at the end of a syllable or a word after a vowel.