

In the Name of God



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**The Investigation of Phonology and Phonetics in Kiskani
Accent**

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To everyone I love

My family

My mother

My husband

And my children

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Abstract

The purpose of this study was, investigating some phonological rules and vowel reduction in Kiskani accent. The process of vowel reduction occurs in unstressed syllables. In vowel reduction the vowels change to other vowels and centripetal or centrifugal vowel reduction happens (Harris, 2005). In order to investigate vowel reduction in Kiskani accent 29 speakers were participating: 12 female and 5 male Kiskani speakers plus 6 female and 6 male standard Persian speakers. The data included 6 words which were uttered by speakers and were recorded by a Shur microphone and Praat software in a calm situation. Then duration, intensity, COG (center of gravity), F0 (fundamental frequency), F1 (first formant) and F2 (second formant) of the three target vowels [u, o, a] were measured. The results showed that duration, intensity, F1 and F0 of mentioned vowels were more in standard Persian, but F2 and COG were more in Kiskani accent. Also the results proved that these vowels tended to corners in Kiskani accent. So the type of vowel reduction in Kiskani accent is centrifugal. Also phonologically some phonological rules like assimilation and insertion were found in Kiskani accent.

Keywords: Vowel reduction, Accent, Fundamental frequency, Formant, Duration, Intensity, Center of gravity

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List of abbreviations

COG: Center of gravity

F0: Fundamental frequency

F1: First formant

F2: Second formant

DB: decibel

Hz: Hertz

Min: Minimum

Max: Maximum

Seg: Segment

MS: Milli second

Chapter One

Introduction

1.1. Introduction

This initial chapter provides an overview to this study: statement of the problem, the purpose and the significance of the research, the theoretical framework, the questions of the study followed by hypothesis, and the definition of key words.

1.2. Overview

Vowel reduction is a phonological process that happens in almost all languages. Many linguists have worked on this subject for many years. This part tries to provide a brief review on previous studies on vowel reduction. In phonetics, vowel reduction is a slow and steady procedure which leads to a shrunken vowel space (Lindblom, 1963). Vowel reduction is an ever present phenomenon influencing pronunciation of words. It makes short syllables that are not produced in written or even standard speech. Sometimes the effect is so much, that it is hard to recognize the word (Zimmerer, 2009 and Pickett, & Pollack, 1963).

The reduction in energy's level in unstressed syllables that leads the front and back vowels into the center (schwa) is neutralization, a consequence of vowel reduction (Burzio, 2007).

Trask (1996) said reduction is the removal of some or all of the phonetic characteristics that distinguish one vowel from another. Reduction can go as far as total loss of the vowel. One of the elements in vowel changing is stress. The additional energy involved in stressing a syllable may cause its vowel to become longer, tenser, more peripheral, sometimes even higher. In contrast, an unstressed vowel may become shorter and more central. Most of the unstressed vowels in English lose the distinctive phonetic

characteristics which they have when stressed and just appear as the distinct central vowel schwa [ə].

In conversational speech in French, final position vowels are not reduced, but there is reduction in duration and formant values in the syllable before the last. Also one syllable function word is more reduced than one syllable content word. So vowel reduction depends on different factors (Meunier & Espesser, 2011). Harris (2005) introduced two aspects in vowel reduction. They affect on weak prosodic and morphologic positions in words. They reduce, even neutralize distinctions and make shrunken versions of vowels.

He also talked about the changing of vowel space (centripetal and centrifugal pattern).

1.3. Statement of the Problem

Many linguists are interested in vowel reduction, because it is universal and almost all languages have it. Furthermore it occurs in spoken language and since spoken language is the center of attention in linguistics, investigating related phenomena to speech is significant too.

Due to the importance of phonetics and vowel reduction this research tries to investigate this process in one of Persian dialects “Kiskani”, in an area named Kiskan. This small village is near Baft, a city in Kerman province, south east of Iran. Most of the previous studies show vowel reduction in many languages changes vowels to schwa, as Burzio (2007) said in English because of the reduction in energy, the distinctions between vowels were neutralized and shifted to schwa. Although according to Zimmerer and Reetz (2011) it is not the same in German. But in Kiskani accent the process of reduction is more interesting and various. Analyzing the data will show Kiskani

accent has two types of reduction, based on Harris's view point: centripetal and centrifugal.

1.4. The Purpose of the Study

The aim of this research is to compare Kiskani accent with the standard Persian and to show how these two types of accents are different in the measure of F1, F2, duration, intensity and COG. Is there any type of vowel reduction in this accent, and if there is, which type is the type of vowel reduction in Kiskani accent. Also if there are some phonological rules, we try to find them.

1.5. The Significance of the Study

Working on accents, especially those are endangered, because of speakers' tendency to use standard accent, is a must. The study of accents makes the speakers think about their native accent. They become aware of the importance of their accent and try to keep it by use it. Also such studies introduce the diversity of accents in Persian, both in Iran and abroad.

Sadeghi (2007) has declared it is essential to investigate and record different accents and dialects in Persian, because it makes the history of our language clear. In addition it is helpful to clarify some vague points in historical linguistics, and to understand the meaning of some words in old Persian. Then the result is reconstruction of old languages.

Taghizadeh (1962) in an essay that he wrote in English, for the first time showed the word /sono/ in Avesta was a very small insect that today we call it /sen/. The reduction of vowel [u] to [i], has changed the word to /sin/. Then the reduction of vowel [i] to schwa makes the word /sen/.