

Numeral System of a Number of Iranian and Non-Iranian Languages, in and out of Iran

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Abstract

In this research, the numerical system of a number of languages spoken inside and outside Iran has been studied. Methodologically, this research is both inductive and deductive; and its data have been studied descriptively-analytically and comparatively. The focus of the research is to identify and explain the characteristics of the numerical system of the languages in question. The languages whose data have been analyzed in this study are of two categories: a number of Turkic languages spoken in Iran, and a number of Iranian languages spoken inside and outside Iran. As needed, in the analysis of the article, the numerical system of other languages has also been discussed too. This study shows that in the numerical system of Turkic languages spoken in Iran, and Iranian languages spoken inside and outside Iran, there is a significant variety; and Iranian and non-Iranian languages, at the level of the numerical system, have had many influences from each other. It has also been argued that some similarities between Iranian and non-Iranian languages are the result of long-term linguistic contact.

Keywords: numeral system, decimal system, vigesimal system, Iranian languages, Turkic languages.

Extended Abstract

1. Introduction

Numbers play a big role in human life. Until a few decades ago, sometimes on the walls of some rural houses or shops, several bunches of vertical lines were seen, on some of which a line were drawn horizontally. These lines were used to record the purchase and sale of milk and other rural goods. Each line represents a certain amount of something that was given to someone, and when a horizontal line was drawn on a bunch of these lines, this meant that the borrower later paid off his debt. This method has been used more by illiterate people; and it can be said that its efficiency has been limited to small amounts

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and simple and uncomplicated exchanges; since, for example, drawing tens of thousands of lines on a wall to show that someone has bought that amount of milk from another in practice was impossible, let alone the fact that in small communities we cannot see these kinds of large exchanges, in the past and even now. Given the linguistic diversity of Iran and the vast geographical area in which Iranian languages are used, a study of the numerals of the languages spoken today in Iran and Iranian languages outside of Iran's political geography, can be informative. Therefore, in this study, the numerals of a number of Iranian and non-Iranian languages inside and outside Iran is examined to answer two questions: a. "What are the characteristics of the numeral systems of the languages in question?" b. "What explanation can be given for the specific features of the numeral system of these languages?"

2. Theoretical Framework

Examination of different languages shows that most of them are based on the number "ten", i.e. the number of fingers on both hands, although in many of them the effect of numerical systems based on a number other than ten can also be seen. The numeral system of some languages also has features that cannot be easily explained by numeral systems based on "ten" and "twenty". For example, it is said that "the Sumerians and the Babylonians, for unknown reasons, based the number 60 on their system of counting. If today we divide the clock into sixty minutes of sixty seconds, it originates in the same system of Babylonian Sumerian counting, dividing the circle into 360 degrees, and dividing each minute into 60 seconds". Despite these variations and differences, the historical study of the subject shows that the systems of counting in languages of the world have gradually moved towards convergence with the two more common systems based on the number "ten" and the number "twenty".

3. Methodology

In this study, data from several Iranian and non-Iranian languages inside and outside Iran have been studied and analyzed, and based on this, conclusions and generalizations have been obtained. The numeral system of languages has been discussed in a comprehensive way. Hence, this research, methodologically, is both inductive and deductive; and in terms of method, it is descriptive, analytical and comparative. Research data have also been collected in several ways: part of the data is the result of field participation in the linguistic communities of the languages in question; part of the data was collected through having conversation with speakers of the languages and asking them purposeful questions; part of the data is the result of searches in channels, groups, pages, web sites and blogs in cyberspace and internet, and part of the data is derived from the researches done previously about the language varieties studied in this research.

4. Results & Discussions

Milajerd Turkish is based on “fifty” in a part of its numeral system, and in part of it on “hundred”. There are some similarities between the numeral system of this Turkish variety and Harzani Tati. This shows that these two language varieties, one Turkic and the other Iranian, behave similarly in certain parts of their counting system. This may be due to the languages being influenced by each other; but the long geographical distance between places where these two languages are used put such a hypothesis under question, unless it is said that the effect is at another time when these languages could have come into contact with each other. In examining the Sarikoli numeral system, as an Iranian language, we saw that a number of its numbers are derived from Turkic languages. We also saw the Iranian language of Tati being influenced by Turkish in construction of ordinal numbers. Some Turkic languages are also influenced by Iranian languages in the category of numbers. The features of the numeral system of Sanglechi, Sarikoli, Shughni and Wakhi languages are also noteworthy. In some of these languages, the operation of vigesimal system is seen; and in some parts of their numeral system we can see impacts of Turkic languages.

5. Conclusions & Suggestions

Based on the investigations and analyzes of this research, it can be said that in studying numeral systems, paying attention to each category of numbers is particularly important. For example, in order to know the numeral system of a language, we need to examine the numbers "twenty" to "hundred". Also, according to the findings of this research and previous researches, it can be said that in examining the numeral system of languages, pay attention to the numbers "five", "ten", "twenty", "thirty" and "fifty" is important, because numeral systems of most of the world's languages are mainly based on these numbers.

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How to cite:

Amini, R. 2022. "Numeral System of a Number of Iranian and Non-Iranian Languages, in and out of Iran". *Zaban Farsi va Guyeshhay Irani*, 1(13): 25-50. DOI:10.22124/plid.2022.22465.1606

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