**A PRELIMINARY CLASSIFICATION OF
SAUZINI
Meral BULUT**

**Yüksek Lisans Tezi
İngiliz Dili ve Edebiyatı Anabilim Dalı
Danışman Doç. Dr. Sonel Bosnalı**

2019

T.C.
TEKİRDAĞ NAMIK KEMAL ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
İNGİLİZ DİLİ VE EDEBİYATI
ANABİLİM DALI
YÜKSEK LİSANS TEZİ

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TEKİRDAĞ-2019

ACKNOWLEDGEMENTS

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ABBREVIATIONS

S/Sau.:	Sauzini
B/Bak.:	Baktiari
K/Kur.:	Kurmanji
P/Per.:	Persian
Z/Zaz:	Zazaki
E/Eng.:	English
SWI:	Soth West Iranian
NWI:	North West Iranian
1P. Sing.:	First Person Plural
2P. Sing.:	Second Person Singular
3P Sing.:	Third Person Singular
1P. pl:	First Person Plural
2.P.pl.:	Second Person Plural
3.P.pl.:	Third Person Plural
Def.:	Definite
Dem.:	Demonstrative
Pers.:	Person
P.prog.:	Present Progress
Sing.:	Singular
Pl.:	Plural
Fem.:	Feminen
Msc.:	Masculen
Obl.:	Oblique
Nom.:	Nominative
Inf.:	Infinitive
Adj:	Adjective
S.:	Subject

O:	Object
V:	Verb
NP:	Noun Phrase
VP:	Verb Phrase
Pron:	Pronoun
Aux:	Auxilary
PE:	Phonetic Equivalance

ABSTRACT

Institution, Institute	: Tekirdağ Namık Kemal University, Institute of Social Sciences
Department	: English Language and Literature
Title	: A Preliminary Classification of Sauzini
Author	: Meral Bulut
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Type of Thesis, Year	: MA Thesis, 2019
Total Number of Pages	: 177

Sauzini which is spoken by approximately 1000 inhabitants in the Yesilova town in Kastamonu is a spoken language which has not been studied up to now. The existence of this language which has no any written materials or sources can be explained by having a closed society and their pereference of living as an isolated society that is far away from other cultures. Nevertheless having a closed society also makes to be informed about their language difficult. In this study, by making a preliminary classification of Sauzini, its placement in linguistics study and making a record about this language are aimed at. In this study, it is purposed to question the place of Sauzini by comparing it with Indo-European languages by revealing that Sauzini is an Indo-European language and make an overall linguistic outline which also includes typological classification of Sauzini. In this thesis glottostatistic and glottochronologic methods are adopted and Sauzini is compared with English which is the member of Gernmanic Laguages of Indo-European Language family, and four Iranian languages which two of them are from Northwestern and the other two are from Southwestern based on Swadesh word list. The results obtained show that Sauzini has close relation with these languages acoording to the common words furthermore it also has numerous different features according to the phonetic equvalances. It is allaged that Sauzini is a part of independent language group which sperated from West-Iranian languages in a date after Zazaki and Kurmanji but before Persian and Baḵtiāri.

Key Words: Sauzini, Iranian Languages, Indo-European Language Family, Comparative Linguistics, Glottochronology, Phonetic Equvalences.

ÖZET

Kastamonu'nun Yeşilova beldesinde, yaklaşık 1000 kişilik bir nüfus tarafından konuşulan Sauzini, bugüne kadar hakkında hiçbir çalışma yapılmamış bir konuşma dilidir. Yazılı herhangi bir kaynağın, materyalin bulunmadığı bu dilin varlığını sürdürmesi, Sauzini dil topluluğunun kapalı bir toplum yapısına sahip olması, diğer toplulukların kültürleriyle etkileşiminin sınırlı kaldığı izole bir ortamda yaşaymayı tercih etmiş olmasıyla açıklanabilir. Ancak kapalı bir toplum yapısına sahip olmaları, dillerinden haberdar olmayı da zorlaştırmıştır. Bu çalışma da Sauzini'nin basit bir sınıflandırması ile dilsel konumunun saptanması ve kayıt altına alınması hedeflenmiştir. Sauzini dilinin genel tipolojik yapısı dahil olmak üzere, temel dilbilimsel özelliklerinin ana hatlarının belirlendiği çalışmada, bu dilin Hint-Avrupa dil ailesinin İran Dilleri kolunun bir parçası olduğu ortaya konarak, bu diller arasındaki konumu sorgulanmaktadır. Karşılaştırmalı dilbilimin "glottostatistik" ve "glottokronoloji" yöntemlerinin benimsendiği bu çalışmada, Hint-Avrupa dil ailesinden Germen Dillerine mensup İngilizce ve İran Dillerinin Batı-İran dillerine mensup, ikisi Kuzey-Batı, ikisi Güney-Batı olmak üzere dört dil ile Sauzizi dili, Swadesh Listesi temelinde karşılaştırılmıştır. Elde edilen bulgular, Sauzini dilinin bu dillerle ortak sözcük bakımdan yakın bir ilişki içinde olduğunu, bununla birlikte ses denklikleri bakımından onlardan ayrışan önemli sayıda özelliklerin bulunduğunu göstermektedir. Zazaca ve Kurmançiden daha sonra ama Farsça ve Bahtiyari dilinden daha önce bir tarihte Batı-İran dillerinden ayrılmış olan bu dilin, bağımsız bir dil grubunun mensubu olduğu ileri sürülmektedir.

Anahtar Kelimler: Sauzini, İran dilleri, Hint-Avrupa Dil Ailesi, Karşılaştırmalı Dilbilim, Glottokronoloji, Fonetik Denklikler.

INTRODUCTION

Sauzini is a language which is mainly spoken in the northwest of Turkey in some small villages of Kastamonu, Karabuk, Sinop but they separately live many other cities as small tribal communities. They also live in Istanbul and other cities but what is worth to be mentioned here is wherever they live they prefer to live with their own community. It is really difficult to give a number of their population because of migration to the big cities but if a rough calculation is done according to the population census which is taken from *Yerelnet* in 2012 about 750 people spoke this language in Yesilova.

This study just covers Sauzini language which is spoken in Yesilova village in Kastamonu. Yesilova is a small village in the west part of Kastamonu and according to the *Yerelnet* population censes in 2012, 384 female, 366 male live there. In addition to this calculation it is important not to forget that most of the native speakers live in Istanbul.

Originally, they are nomadic people and it is not clear when and where exactly they come from. So their ethnicity is another subject to be discussed, but a brief information about their ethnicity will be given in the following sections. Mainly these people are called Kurdish but there is no concrete information about their ethnicity and it is not our concern in this study either. Most of them who live in small villages were shepherds and worked in building trade. The rate of literacy was really low in the past but after compulsory education they started to go to schools but still they are not favour of education except few of them. This may be a reason of how they keep their language alive. However, new born Sauzinians who live in big cities understand Sauzini but cannot produce language accurately. This can be a hint that this language is among endangered languages.

Being an illiterate community has both negative and positive effects on Sauzini language and community. Sauzinians have no job opportunity because of their low level of education, most of them, especially, who live in villages have really low income and they work in service sector. Through the years, like all societies, their way of life has been changed. It seems that they pass through stages gradually from

livestock to agriculture and currently urbanisation. Detailed information about Sauzinians will be given in the following chapters.

Once the affinity of Sauzini is established with an Iranian language; it is thus an Indo-European language. When a preliminary classification of Sauzini has been done, the primary objective which is to record this language for the sake of recording one of the endangered languages will be achieved. Sauzini has two myth about where they came from, one of them is that they came from Iran dring Yavuz Sultan Selim perion, in the 15th century which was known as split date of midlle Persian. Start from this point, it is presupposed that Sauzini is an Indo-European language. There seems to be a similarity in terms of typology. These similarities are given in the first chapter.

To implement these objectives comparative linguistic method will be used by looking at the number of shared items of basic vocabulary. The Swadesh word list, developed by the linguist Morris Swadesh, will be used in our investigation. Although there are some other lists such as "Leipzig-Jakarta list which include 100 items (Haspelmath and Tadmor, 2009), here the swadesh word list which includes 207 items has been chosen for its larger scale. Sauzini has no written material because as we mentioned before it is an oral language. Because of this reason phonological transcription and IPA symbols will be used for transcription of Sauzini and phonological transcription of Persian, Baḵtiāri, Zazaki and Kurmanji to make an accurate comparison.The stages of this thesis are as follows.

In the first section, sociolinguistic and ethnic framework of Sauzini will be discussed by looking at its geography, population, history, religion, ethnologic; and socio-linguistic aspects. Furthermore, the overall description of Sauzini will be brought into discussion. Geographical areas where Sauzini is spoken will be also brought into discussion and then sociolinguistic condition of Sauzini will be handled.

In the section which is entitled as Sociolinguistic features, the statue and the norm of Sauzini will be handled. Brief information about its historical development and ethnologic dimension will be also given. Afterwards linguistic features of Sauzini and the place of Sauzini in Indo-European language will bring into discussion in the

fallowing parts. Also Kurdish origin and Persian origin of Sauzinians will be discussed in the first chapter.

In the second chapter, comperative linguistics and classification of languages such as typological classification, genetic and historical classification will be reviewed in terms of linguistic methodology.

In the third chapter, the main question of the thesis whether Sauzini is an Iranian language or not and if it is so, which language is the closest relative of Sauzini among English, Baḵtiāri, Zazaki, Persian and Kurmanji will be asked. This chapter will be mainly devoted to the classification of Sauzini according to glottochronology and also to the phonetic equivalence between those languages. The place of Sauzini in the Northwestern Iranian Languages and Southwestern Iranian Laguages will be discussed. Finally this thesis will be completed by the conclusion section.

CHAPTER 1

SAUZINI: AN INDO-EUROPIAN LANGUAGE IN ANATOLIA

This chapter is devoted to introduce Sauzini language and to determine the border of this study. As there are not any written materials or sources, the range of this study mainly depends on the information which is gathered from informant, Bilal Gergen who is 57 years old male native speaker grown up and lived in Yesilova for thirty years. Although I am a speaker of Sauzini too, I grown up in Istanbul. Thus I prefer working with someone who grown up in Yesilova for the sake of accuracy. Ethnic and sociolinguistic frameworks of Sauzini will be brought into discussion. Its geography and population will be determined and historical dimention of Sauzini will be discussed. Aspecially Kurdish and Persian origins of Sauzinians which is strongly believed by the Sauzini community will be discussed. Sociolinguistic and Linguistic features of Sauzini will be discussed in the following sections. Finally our supposal about the origin of Sauzini will be revealed.

1.1. Ethnic and Sociolinguistic Features

There has been a long heated debate about languages which are spoken under a dominant state language. Language is one of the most important sore points that open to manipulation. There are many languages spoken in Turkey such as Kurmanji, Zazakî, Lazuri and many others whether they are studied or not.

Since the Ottoman Empire, there are many languages which are spoken on these lands. When the wideness of Ottoman Empire has been thought it is not so surprising to see so many languages interblended. Arabic and Persian languages are also dominant languages together with Ottoman Turkish. When examining languages which are spoken in today's Turkey it is essential to investigate the Kurdish language as it is the largest non-Turkic language spoken in the country.

Turkish scholar Prof. Dr M. Fahrettin Kirzioglu who was born in Kars in Turkey was an historian and published a lot of works about Kurdish. He hacked Kars province inch by inch by his horse and collected information about folklore and folk-

literature. He was published *The origins of Kurdish (Kürtler'in kökü -1)* in Ankara in 1963 and in 1964 *Kurdish who are Turkish in all respects,* (Her Bakımdan Türk Olan Kürtler) and in 1968 the Turkishness of Kurdish (Kürtlerin Türklüğü). Prof. Dr. Kirzioğlu prefers to start his work by looking at the word 'Kurdish' and its origin. In his work Turkishness of Kurdish, he harshly criticized scholars who categorize them as a part of Indo-Eropeans. In his work he also claimed that Kurdish people are Turkish. As a historian he gave detailed information about the origins of these people. He claims that Zazaki and Kurmanji people are Turkish in origin. He supports his hypothesis with documents about history, ethnography, anthropology, folklore and language.

In *Kürtlerin Kökü* Kirzioglu states that according to *The Serefname* and '-*Dede Korkut Oğuznameleri'* the origins of Kurdish are told to came from Bogduzile and Becen tribes of Oghuzs. This works depends on investigation of history, national epics and general customs. He also claims that Kurdish of the same race from five different areas and Kurdish of Dicle are not Iranian in origin but Saka-Cenli- Oghuzs. (Kirzioglu, 1963).

Although there are different points of views and there is not agreement about the classification of Kurdish, Kurdish is mostly classified as an Indo-Europian language.

Another important issue is linguistic geography whose main concern is determining boundaries of dialects which enables to approach expansion boundaries of linguistic features by focusing on the areas and borders.

Melek Erdem in her research called *Research of Turkish Dialects in Iran: It's Consideration in Research about Geography of Turkish Dialects* states that Iranian zone is the transition zone of many dialects when all the Oghuz area is taken into consideration (Erdem, 2016, p.7).

It is a common perception that transition dialects formation acquire naturally between two different dialects under favourable circumstances. Transition dialects convey the aspects of two different languages at the same time so it is hard to define them and put them into one category. (Erdem, 2016, p.7).

Furthermore, as Erdem states in her research, it is really natural to see the aspects of two different dialects at the same time and it is hard to define them. In the circumstances this transition can be adopted to the languages as the second level of the transition.

Ethnicity is another issue that we have to touch while categorizing a language when we look at the definition of ethnicity in Cambridge Academic Contend Dictionary. It is defined as "a large group of people who have the same national, racial, or cultural origins or the state of belonging to such a group" (Cambridge University Press, 2018). In this definition there is no reference to sharing the same language. According to this definition a group of people can share the same race and nation but may not share the same language.

The problematic of ethnicity has been discussed by many scholars. Erol Kurubas in his work argues that after The Cold War the underlying reason of the many conflicts that threats international balance is ethnic identity whose root lies in the depth of history. Today ethnic movements have gained importance. According to Kurubas these movements are a global matter of fact which is seen from less developed countries such as Sri Lanka (Tamil), Nigeria (Yoruba, Hausa, Ibo), Malaysia (Chinese), Georcia (Abaza/Acar), Iraq (Kurdish) to developed countries such as Canada (Quebec), Belgium (Flaman/Valon), Spain (Catalan/Basque), England (Scotish/North Ireland). He also talks about the conflict between ethnic groups and nation state. There are many reasons behind this conflict but one of the main reasons is seen to gain power.

When we came to ethnicity of Sauzinians, we are not going to make any definition because of the uncertainty and being a sore issue the information here depends on how Sauzinians see themselves. Sauzinians live in the north west of black sea region. They live as small groups in small villages in Karabuk, Kastamonu, Sinop, and some saying Amasya. There is little information about their origins but generally accepted view by the Sauzinians is that they were brought to Anatolia by Sultan Yavuz Sultan Selim during the Caldiran War with Shah İsmail. According to the hearsay ,viziers comes together and advise that a tribe who moved to Haymana /Ankara were living under the tyrant Shah Ismail, and they were oppressed by him so, they know the

territory very well and it is possible to win the war by the help of a tripe who they are thought the acestors of Sauzinians. Then they are offered to join this war voluntary and they did so. Yavuz Sultan Selim announces a prescript for Sauzinians that they can live wherever they choose peacefully. As they are migrant settler and earn their life with livestock they choose to live in the black sea region but they did not settled down until the foundation of the new republic. This information is what a few people think or believe so there is no source for this information and this information is taken from our Sauzini informant. When we look at the detailed information about Caldiran War we can see that in many sources like Idris-i Bitlisî, some tribes has a role in Caldiran War. But there is no any concrete information about the ethnicity and identity of these tribes. Furthermore this information does not go any further than an opinion.

Another hearsay which is taken from our Sauzini informant Bilal Gergen about their ethnicity is that they are from Horasan/Iran but again there is no any concrete information about it.

Associate professor Sonel Bosnali in his work on *Iranian Azerbaijani Turkish* claims that some different communities in Iran protect idiosyncrasies through the history due to the geographic, sosyologic, political aspects, besides tribal life, nomadism, weakness of host system. Thus, Kurdish and Balluci continue their existence besides communities who has Persian origin such as Tati, Taleshi, Gilaki, Lori, Bahtiyari (Bosnalı, 2007, p.19).

What is known about Sauzinians is that they are migrant settler and they called themselves Sauzini. They live peacefully in their territory. They are patriotic and it is known that they have many martyr in the Turkish War of Independence and Dardanelles War. They live without causing any problem. One cannot see any differences between Turkish and Sauzinians except their languages. They are deferential people and there hasn't been any murder event in their tribe or out. Although there are dissolutions with other tribes which live in Sinop or Karabuk or other villages, there haven't been seen many problems with Turks.

The reason behind this peaceful atmosphere is not only because of their close relationship outside but because of their perspective to the Turkish people. For

whatever reason they moved to the north part of Turkey, they prefer to live close to Turkish people rather than Kurdish or Persian or Arabic. That explains their peaceful atmosphere with government and community.

Approximately 1300-1500 people live in Yesilova together with Sauzinians who moved to Istanbul. It is not wrong to give the number of migrants because these people have never lost their connection to their villages since 1990s. Many people were dealing with livestock and farming and also some of them work in building. But in 1990s they started to move Istanbul to earn their bread now many of them still live in the same neighbourhood. As we said before they never lose their connection.

Looking at their marriage customs and rites, Sauzinians have a really strong family ties. Endogamy is frequently seen. They rarely get married to kin who lives in Karabuk, Sinop etc. Although they are not favour of long distance marriage, there are marriages between their kin who lives other cities. The reason is that they do not want to lose connection. Their weddings take two days on the first day of the wedding they offer food and they sacrifice an animal for God and they service it and though the end of the same day they apply henna to the bride. Girls dance whole night and that is called engagement. The difference between Kurmanji and Zazaki is also seen in their folk dance.[1]Dancer boy is more common and mainly girls dance in the wedding ceremonies. On the second day they play music and the Groom and his family goes to Bride's house to get the bride and the guests present their gift. Then in the afternoon they make a convoy and after two-or three drive they return to their home. The first day of the marriage neighbours visit the bride and the bride never entertain a guest during this visit and it was done by the help of groom's family. That is because of the superstition which is believed that if the bride entertains guests, she never rests in her life.

Bride and groom lives with the groom's family if he is the only son, they live them until they die. If they have two sons, the elder one can move to his own home.

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[1] Although *halay* is the main dance in Kurmanji and Zazaki, Sauzinians never dance the halay in their weddings or family occasions.

Sauzinians who live in Yesilova along with Sauzinians who live in Istanbul use Sauzini in daily life while communicating with each other. But recently especially the new born Sauzinians who was born in Istanbul also use Turkish at home. So, and the number of Sauzinians who get married to someone outside of the Sauzini tripe increases day by day.

Sauzinians are Sunni Muslims from Halveti branch of Hanafi sect. They are really religious people and they are not get on well with their kin who is not a good Muslim. Every Thursday they come together in a Mosque and they practice mention. It is not obligatory to get into the Halveti sect but if they join the sect they have to mention the names of the Allah or some words in the Kur'an for a definite number and they gradually change the number and they practice it after mid-afternoon pray and evening pray.

Tribalism is another issue to talk about. Tribalism is still practiced within many tirbes in the East part of Turkey. But when we look at the Sauzinians we are confronted with more liberal structure. Agha tration is not seen in their social structure. The investigation which is done by Mehmet Devrim Topses in Canakkale On Sekiz Mart University claims that "As a results of the study, observed that blood feed is not only due to ignorance or legal loophole; but also due to determinants that coming from social structure." (Topses, 2012, p. 189). As he claims blood feed is the tradition which is derived from social structure. Accordingly, Blood feed which derives rom social structre is beside the point in Sauzini tradition. As a resault it can be said that social structure of Sauzinians, Kurmanji and Zazaki are different from each other.

1.1.1. Geographic Framework and Population

According to Sauzini informant Bilal Gergen there are approximately 150 household in Istanbul/Avcilar and about 50 or 60 households in Gultepe and 350 household in Yesilova village and average size of household is 3. It is known that Sauzini is spoken in some small villages of Katamonu and some other cities in the west and central parts of black sea region namely Yesilova and Arac in Kastamonu, Cumayani and Safranbolu in Karabuk, Amasya, Samsun and Boyabat in Sinop province, and recently as a small number in Istanbul. They mainly live in the west part and central of black sea region but this study just covers information about Sauzinians

who lives in Yesilova village and about their relatives who recently live in Istanbul and their language.

As it is given in the former section these tribes knows each other but their connection is very limited. The existence of Sauzinians who lives in Amasya have been learned coincidentally by the informant. Sauzinians spread over the west part of the Black sea Region. According to our investigation the spread of Sauzinians is as follows.

Figure 1: The Spread of Sauzinians

Sorce: http://cografya.sitesi.web.tr/haritalar/bos-haritalar/bos-turkiye-haritasi-5.

Yesilova locates in the west part of Kastamonu near Karabuk. According to the information which is taken from *Yerelnet*, it is 75km far way to the province and 30km far away to the sub-province. There are 384 male, 366 female and totally 750 people who lives there. According to the informant the number of Yesilova Sauzinians is roughly between1300-1500.

Figure 2. The Map of Sauzinians in Yesilova /Kastamonu

Source: Origin of speaker who provided date is indicated: http://www.turkey-visit.com/map/Turkey/Kastamonu-Map.asp

1.1.2. Historical and Ethnologic Dimensions

1.1.2.1. Iranian Origin of Sauzini

The origin of Sauzinians is not clear but according to the conjecture of many villagers, they came from Iran / Khorasan. When we look at the Languages spoken in Khorasan we can see language diversity. "Khorasan Region is a geographical area where some ethnic and religious groups lived together. The region had contained within itself many ethnic and religious groups since it was a junction point towards China, India, and Russia." (Arifoglu, 2017: 2). As Arifoglu and many other scholars indicate Khorasan has a strategic importance for many ethnic languages, it is a kind of transition area.

Figure 3: The Map of Main Ethnic Languages in Iran
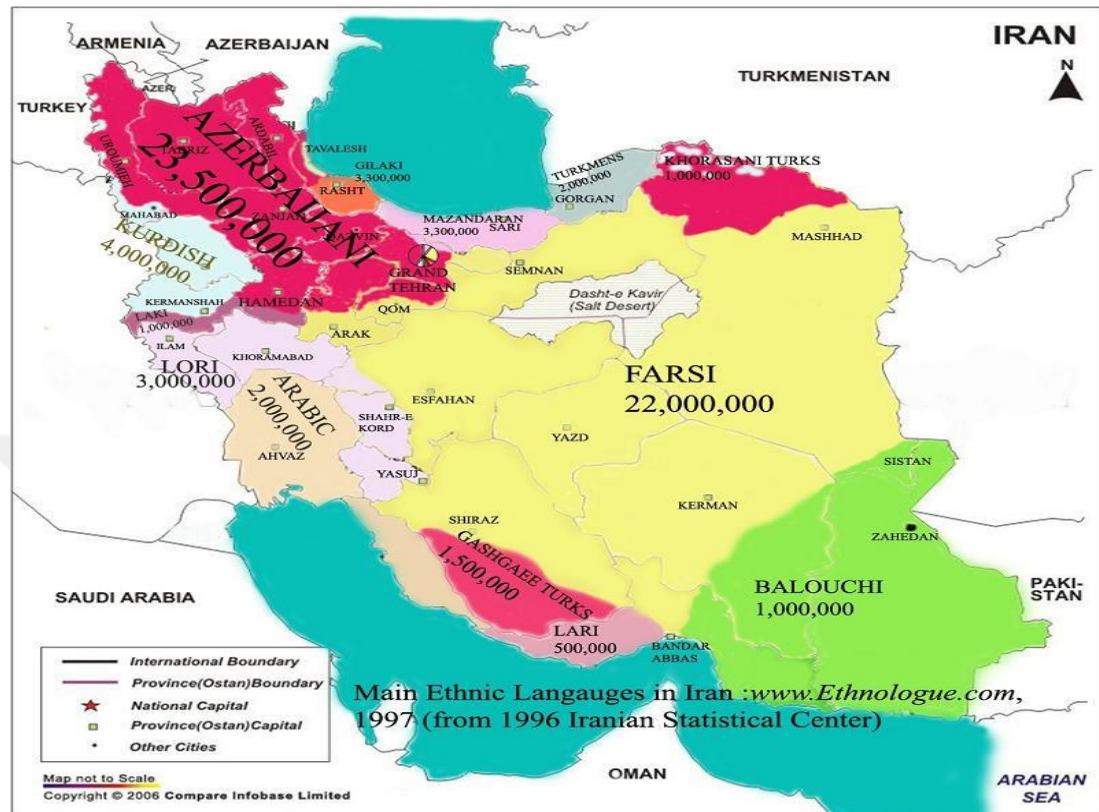
This map shows us there are a lot of ethnic languages spoken in Khorasan such as, Persian, Baḵtiāri, Arabic, Kurdish, Balouchi, Lori, Lari, Azerbayjani, Turkmen, Talesh and others. It was acclaimed that a great majority of population consisted of Persian and then there were a lot of Turkish tribes in this area. The arrival of Turkish tribes dates back to the 7th and 8th century. These Turkish tribes consist of nomads of Oghuz and Kypchak tribes in ethnic origin. These people were speaking Turkish but they were influenced by Persian language a lot (Arifoglu, 1963, p.638). It is also mentioned by Arifoglu that after Turkish people, Arabic people came to this territory. There were also Gypsies who were mainly deals with coppersmith and carpentry.

Another point that sould be mentioned here is the archeological studies have showed that there are archaeological findins about Persian existence in Amasra. According to the results of this studies, Sevket Donmez highlights that there is trail

from Persian in the black sea region in Amasya /Oluz Hoyuk. There have been founded a Persian Palace in Oluz Hoyuk in Amasra. (Dönmez, 2012, p.140-145). This coincidence also strengthens our hypothesis about Persian origin of Sauzinians.

It is also important to highlight the similarity between the Sasanians and Sauzinians names in the first sight. When we look at the Sasanians history, Sasanians are known as the name of second big emire of Persia. This empire survived between 224-651 AC. The borders of the empire overspreaded through Iran, Iraq, Azebaijcan, Armenia, Afghanistan, east part of Turkey, Syria,Pakistan, Kaucasus and some parts of Middle Aysia and Arbia. (Fridin, 2018).

As it seen from our research, the assumption about coming from Khorasan is not a distance idea because Sauzini language includes many words from Arabic and Persian and Turkish.

1.1.2.2. Kurdish Origin of Sauzini

Another idea about their ethnicity is being Kurdish. However, due to the problematic views about ethnicity of these people it is not seen as a reasonable implication to put them under that title. Furthermore when we ask how Sauzinians call themselves, their answer is 'Sauzini'. When we ask a Kurmanch speaker they also call people who speak this language as Kurmanji. In fact, those people don't call themselves Kurdish.

The other informant who speaks Zazaki Language calls themselves as Zaza. These tribes have their own name and they feel no belonging to other tribes. So according to their choice we call them Kurmanji and Zazaki and Persian and Arabic.

In this perspective the assumption about Khorasan where Sauzinians think that they came from is a dominant assumption. But their ethnicity must be discussed and researched in detail. However our investigation shows that there are important differences between Zazaki, Kurmanji and Sauzini in their customs such as wedding and folk dancing and the issues such as feud, agha and tribalism which are practised by many Kurdish families in the east are not seen in Sauzini tradition and social structure.

According to our Kurmanji informant Havva Koc, feud is still practised by Kurmanji people. Agha figure is a strong figure for many of them. In the case of Sauzini there hasn't been any recorded feud crime as our informant Bilal Gergen states. In this study all possibilities will be handled to make a clear classification.

1.1.3. Sociolinguistics Aspects

Social life of Sauzinians is determined by Islamic and moral of their culture. Monogamy and prearranged marriage rule over the community. They get engaged very young at the age of 14-15 and dating is not allowed between fiancée and fiancé. Girls' dowry consists of women's scarf with needle point, towels, kitchen staff and lacework. During their free time they always deal with needle point. To have a great number of needlepoint is a kind of pride and joy. To give a lot of gold to bride is also pride and joy for groom's family. Generally they respect women and in the family the one who is stronger is woman.

As it is said that in the first section of this thesis Sauzinians, who live in Yesilova, practice Halveti sect. And Thursdays nights are given importance and that night most of them go to the mosque of the village. They count one's beads during the night. If there is a problem about someone in their community, they try to find solution. If they need money they collect money for the family or person who needs it. Helping each other is really important because they think that there is nobody else can help them out of this society.

The word of Sauzini probably derives from the word 'sauz' which means 'green'. Interestingly the name of the village is 'Yesilova' which means 'green plain'.

Most of the linguistics compromised that the number of the languages around the world is about 6500. However the number of the independent countries is 190. It means that in almost all countries there is more than one language spoken. In this circumstance the status of these languages in these countries become a matter of debate. In some countries governments implement a policy to protect and improve them while others implement a policy to assimilate them. These policies take part in country's constitution. Furthermore governments determine which language will be or not official language or the place of these languages in press and education.

Sauzini lives under the dominance of Turkish language. Other languages like Kurmanji, Zazaki, Laz and many others are just spoken by a tribe and they just use their languages in their daily life. They use Turkish in their education and they use Turkish very well along with Sauzini in their daily life. Especially Sauzinians who moved to Istanbul 1990s speak standard Turkish without the accent of their native tongue. Sauzini is mostly spoken at home as a daily language. But this situation is different in the big cities mainly in Istanbul. They use it at home within their families but they also use Turkish in their families. The situation is more unusual within newborns of this community. Firstly they speak a bit lately because they are imposed both language at the same time. Secondly they understood but cannot produce Sauzini language with full form. Finally they frequently switch the language during the conversation.

> It is widely known that sociolinguistics studies the relationship between society and language, language variation and attitudes about language. No two speakers of a language speak exactly the same way for example between group variation = intergroup variation. No individual speaker speaks the same way all the time for example within-speaker variation = intraspeaker variation (Washington edu. 2017).

Another point to be mentioned is that Sauzini spoken in distinct areas has some slight difference in accent (varieties that differ just in terms of pronunciation) for example Yesilova's Sauzinians spoke strictly while Karabuk's Sauzinians pull out the pronunciation of words.

Yesilova which takes place in Kastamonu and Cumayani which takes place in Karabuk have also slight difference in the way of life. As we have already said that most of people who live in Yesilova village are highly religious. They are Hanafi and Sunni. Most of them have a practice of glorifying God every day for a specific number. Although Sauzinians who live in Karabuk (most of them there are a few exceptions) are Hanafi and Sunni they are not as religious as Sauzinians in Yesilova.

Another point of discussion is that there are many common words among Arabic, Persian, Turkish, Kurmanji and Zazaki. It is really hard to define the originality of these words. However, it is clear that there is a connection between these languages

somehow. These communities affect one another and these languages were lost their originality.

1.1.4. Linguistics Features

Linguistic features of a language are sources to understand a language. Each language has its own linguistic features to understand and model it. G.G. Corbett (2006, p.193) in his work *Linguistic Features* explains the importance of linguistics with fallowing sentences:

> "Features show consistency across entities, and to some extent across languages. They have proved invaluable for analysis and description, and have a major role in contemporary linguistics, from the most abstract theorizing to the most applied computational work."

Linguistic features is a broad term that include many features as Corbett (2006, p.193).states:

> "Linguistic features can be morphosyntactic features, phonological (specifying, for example, the height or backness of a vowel), morphological (specifying the inflectional class of an item), syntactic (for syntactic categories such as V or N) or semantic (such as ANIMACY)."

Linguistic features of Sauzini will help us to understand and analyse this language clearly. To determine certain linguistics and typologic aspects of this language will help us to find out that which language family or language group Sauzini belongs to. Therefore, phonetic, morphologic, syntactic features of it will be mentioned by *looking at present input.*

1.1.4.1. Phonetic Features

Gernot L.Windfuhr and Ann Arbor (1989, p.251) talk about characteristics of phonology in *New west Iranian. "*Vocalic systems as a rule do not exceed eight phonemic distinctions. Most have three lax vowels, which tend to be centralized (e and ɨ) and three to five tense vowels. For example NW Kurdish has a, i, u and â, î, ê, û, ô SW Luri has a, i, u and â, î, ı, û, u (ı and u are tense mid-high)."

As staded earlier Sauzini is an oral language with no written material. Thus in our investigation the phonological features of Sauzini has utmost importance. As

Sauzini is a language which is spoken in Anatolia, Latin alphabet is modified to record this language.Sauzini data transcribed using IPA symbols.[2]

Phonology of Sauznini is given below[3]:

Vowels:

i i: y   ɯ/ɤ   u

e e: ø/œ œ: ə   o

                          ʌ /a   a:

Front vowels:

[i] : pil 'shoulder', piʃt 'waist', diriʃ 'long' , ijandɯn 'i.to give, ii.to find', iki 'one'

[y] : pys 'nose', hyznaq 'bone', gyʃt 'meat', ny(w) 'yeni'

[e] : mewan 'guest',

[e:] : te:qa 'minute',

[ø] : sør 'red', døt 'girl' , gø 'ear' , kø 'mountain'

[ø:] : gø:ra 'ear ring' ,

Back vowels:

[ɯ] : ʒɯn 'woman' , dɯł 'heart', bɯzɯn 'sheep',

[u] : murg 'chicken', tu 'you', dʒydʒu 'bird' , xux 'quince'

[o] : tʃok 'knee' , ortepiʃt 'back (of a person)',

[ə] : ɑsəł 'honey' , vessəm 'ugly', ha:məɹi 'friend', kəmtʃɤk 'spoon' , tʃəŋga 'chin'

[a] : siwa 'apple', maŋg 'month', ran 'hips'

[a:] za:ru(w) 'child' , ma:si 'fish', a:xur 'roof', ha:zɯr 'ready' , Ga:pi 'door'

Diphthongs: eʊ tʃeʊ: 'room, eye',

---

aʊ baʊ : 'father' , saʊs 'green', laʊ 'lips' ,

oʊ ?.

Consonants

p   t   k   q

b   d   g   G

                  tʃ

                  dʒ

m   n   ŋ

f   s   ʃ   x   h

v   z   ʒ

            l   ɬ

            r

                  j   w

Stops:

[p] : pys 'nose' , pʰa:tyl 'pot'

[b] : brang 'brother' , sibist 'sixty (three-twenty)',

[t] : pʰa:tyl 'pot', piʃt 'waist',

[d] : dijɑn 'ten', dɯst 'hand',

[k] : kilik 'finger', hwaʃɯk 'sister' , gynɑsk 'elbow'

[g] : gyʃt 'meat' , dɯŋgɯz 'sea'

[q] : qaʃabyr 'eye brow', hyznɑq 'bone'

[G] :Gəɹtʃ 'leg' , Ga:pi : door

[tʃ] : tʃəɹmə 'white' , baxtʃa 'garden', Gəɹtʃ 'leg'

[dʒ] : dʒydʒu 'bird', bɯndʒɯk 'shrub' kavak: qavax

[m] : myre 'ant', nɯzm 'low'

[n] : nɑn 'bread', buɫunt 'high'

[ŋ] : duɯŋgɯz 'sea' , mɑŋg 'month'

Friactives:

[f] :fɯʃtɯn 'to kill'

[v] :vɯtɯn 'to say'

[s] :sɯr 'head'

[z] : zɯk 'stomach'

[ʃ] : ʃir 'milk'

[ʒ] : ʒɯn 'woman'

[x] : xak 'soil'

[h]: hast 'there exists'

Liquids:

[l]: ʃlu 'flu'

[ɫ]: guɫ 'arm'

[r]: rɯnd 'nice'

Glides:

[j] : xjer 'cucumber'

[w] : wore 'take (imp.)', xwǝr 'sun'

Consonants sound changes and similarities in most northern and central Kurdish, and Gurani are shown by Gernot L.Windfuhr (1989, p.252):

Clusters are used a lot, and it is tend to be end of the word or in the middle of the word. Consonant clusters are mainly seen as coda in Sauzini

For example:

Final C-clusters: -rC#   -sC#   -ʃC# -NC#

Sauzini	leg /gə.ɪtʃ/	hair /pɤ.ɪtʃ/	hand/dɤst/	meat /gyʃt /	month /mɑŋg/

Consonant clusters are another similarity between English and Sauzini. Consonant clusters (cc) can take place at the beginning of a word (onset) or at the end of a word (coda). The most common consonant cluster 'st' is also seen in Sauzini.

Initial C-clusters: #fC-   # ʃC-   #bC- #gC-   #xC

Sauzini	boy /fra/	flue/ ʃlu/	brother /brang/	grin /glance/	Sun /xwər/

1.1.4.2. Morphological Features

Morphology is a branch of linguistics which examines the internal structure of words. Many words can be subdivided into smaller meaningful units called morphemes. Gernot L.winduhr in his work about New west Iranian Languages claims that "As a rule, 1st, 2nd, and 3rd person distinguished in singular and plural by distinct endings. However, the distinctions in plural have been lost in a number of dialects, e. g., partially in Gilaki (īm, īd, īd) and most Dimili (Zazaki) dialects and Mukri (allin)."(Windfuhr, 1989, p.255). He also notices that all persons have a great variety in endings at issue languages.

Table 1. Personal Pronouns in English, Sauzini, Persian, Zazaki, Kurmanji, Baḵtiāri

English	Sauzini	Persian	Baḵtiāri	Zazaki	Kurmanji
I go	**muun** ɯtʃ-ɯm	**man** mirɑv-am	**mo** erom	**ez** ʃin-a	**ez** dw tʃ-ɯm
You (sg.) go	**tu** ɯtʃ-e	**to** mirɑv-î	**to** eri	/**tî**/	**du** dw tʃ-î
He, she goes	**awa** utʃ-u	**u/iʃɑn** mirɑv-ad	**ho** ere	/**we**/A ʃ-i	**ew** dw tʃ-e
We go	**ima** ɯtʃ-ın	**mɑ** mirɑv-im	**ima** erim	/**ma**/	**em** dw tʃ-ın
You (pl.) go	**üja** ɯtʃ-ın	**ʃoma** mirɑv-îd	**isa** erin	/**ʃima**/	**hun** dw tʃ-ın
They go	**awa:na** ɯtʃ-ın	**ɑnhɑ** mirɑv-and	**ono** eren	/**ʃima**/	**wana** dw tʃ-ın

All dialects with the exception of most of the central, and the Perside, Lāristan, and Baškardi dialects, distinguish between dir. and obl. Case in sing. and

plural., both msc. and fem. sing. where gender. The obl. case functions to express specific dir. Object in the present and both as agent in the past of trans. verbs, and as complement of certain pre- or postposition. Several dialects, such as Dimili and gurani, have an inflectional locative (Windfuhr, 1989, p.258)

Table two shows the personal pronouns in the nominative and oblique cases in Kurmanci. Similarly in Zazaki the personal pronouns differ in the nominative and oblique cases. However Sauzini in that sense differs. The personal pronouns in the nominative and oblique cases do not change.

Table 2. The personal pronouns in the nominative and oblique cases of Sauzini

SINGULAR		PLURAL	
NOM.	OBL.	NOM.	OBL.
mɯn	mɯn (I)	ima	ima (we)
tu	tu (you)	üja	üja (you plr.)
awa	awa (he/she/it)	awa:na	awa:na (they)

As it seen from the table above there isn't any difference in the personal pronouns in the nominative and obligue case in Sauzini. To see the difference between Kurmnaji and Sauzini, table three, the personal pronouns in the nominative and oblique cases of Kurmanji is given below.

Table 3. The personal pronouns in the nominative and oblique cases of Kurmanji

SINGULAR			PLURAL		
NOM.	OBL.		NOM.	OBL.	
ez	mı	I	em	me	we
tu	te	you (sing.)	hun	we	you (pl.)
ew	wî (m)	he/it/ that	ew	wan	they/those
	wê (f)	she/it/that			

Source: https://iranian-languages.arizona.edu/node/.

Is is known that there are some differs in Kurmanji dialects.This thesis just covers Kurmanji dialects which is spoken in Ardahan.[4]

Sauzini has many bound morphemes. For instance:

Table 4. Types of Affixes in Sauzini

English	Sauzını
Hat-**s**	/ Fistan-gəł/ Dress-PL "Dresses"
Pre-date	/**Bi**-nan/ Less- Bread "Breadless"
Com-**ing**	/Hat-**un**/ Come-ing "Coming"

1.1.4.2.1. Verbal Morphology

Infinitive:

The suffix -andɯn is used for constituting to infinitive form of the verbs. Examine the fallowing examples:

xord-**andɯn** eat **INF** "to eat"	bɯr-**andɯn** cut **INF** "to cut"	bɯrd-**andɯn** take **INF** "to take"	tʃɯ-**andɯn** go **INF** "to go"

In kurmanji infinitive forms are done by adding '-kırın 'to the end of the verb.
For example:
Meze- **kırın**
look   -   **INF**

---

[4] According to the informant Miyase koç, 59, who is a female native speaker in Kurmanji grown up in Ardahan, ew (He/ she/it/that) only becames male pronoun when a woman talks about her husband in the presence of the old relatives that is because they respect to their parents. They use the pronoun 'Ew' "He" for their husband because they do not want to give his name.

Gerund:

Gerunds in English are the verbs which are used as a noun by adding –ing at the end of a verb. In Sauzini it is done by adding –in, - ɯn, and their variations according to the last sound of the verb:

Gɯr-in look- ing "looking"	kaft-ɯn (Sauzini) fall- ing "Falling"

Kurmanji add "-dın" to the infinitive form of the verbs to make gerunds.

For example:

meze -kırın-dın(kurmanji)

look-   -INF-   ing

"Falling"

1.1.4.2.2. Nominal Morphology

Plural appendix in Sauzini is made by the joint – əł or – gəł (if it ends with a consonant the plural appendix appears in the form of - gʌl and vice versa, if it ends with a vowel sound the plural appendix appears in the form of – əł.

Table 5. Plural ending in Sauzini

Mewan-**gəł**	Sał-**gəł**	Murg-**gəł**	tʃitʃa-**əł**
Guest- PL	year-PL	Chicken-PL	Flower-PL
"Guests"	"Years"	"Chickens"	"Flowers"

Regular plural appendix in English is '-s', '-es', or '–ies' and there are also irregular plural words. Unlike English, there are no irregular plural in Sauzini.

Hat-s, Watch-es, Dictionary-ies, Tooth - teeth

In Kurmanji plural form is done by adding '–ana' to the word.

Mewan-ana (Guests)

Sal-ana (Years)

Mırişg-ana (Chickens)

1.1.4.2.3. Making Questions in Sauzini

There are two ways to make interrogative:

Yes-no questions: /j/~/i/ suffix is added to the end of the last word:

Tu iya**y-i**? "Are you coming?"

 "Nan xardej?", "Have you had dinner?"

Nan na-xard-e-**j** "Haven't you had diner yet? / Didn't you have dinner?"

Unlike Kurmanji and similar to Turkish, interrogative particle comes at the end of the sentence but differently from Turkish /j/~/i/ is connected to the last word.

In Kurmanji interrogative sentences is done by intonation. There is no such suffix or auxiliary to make interrogative sentence, for example:

Te nan xar. "You eat your meal"

Te ʧɪ waxtî nan xar? (Wh question.) "When did you eat your meal?

Wana ʧɪ wɑxtî nan xarɪ?. "When did they eat their meal?"

Em ʧɪ wɑxtî nan xarɪn? When did we eat our meal?

Ez ʧɪ waxtî nan xarɪm? When did I eat my meal?

Ez nan xarɪm . Both means that "I ate my meal." And "Did I eat my meal? "

1.1.4.3. Syntactical Features

1.1.4.3.1 Noun Phrases

Demonstrative Adj in Sauzini cames before noun. It is shown in the falowing examples:

{i/aj} za:ru-ʌ "This   child"
Dem.1 child -Def.

aw za:ru-ʌ   "that child"
Dem child -Def.

 aj   za:ru-əɫ "these children"
Dem   child   -Pl.

aw   za:ru-əɫ "those children"
Dem   child –Pl

Adjectives in Sauzini come after nouns:

   za:ru -ʌ   rɪnd   -a
   child - Def.   beautiful - Def.

"The beautiful child"

While Demonstrative adjectives came before nouns, descriptive adjectives come after nouns in Sauzini.

When the syntax, which is the study of the rules for the formation of grammatical sentences, in a language is analysed, we can see the order as SOV in Sauzini. Tree diagrams of Sauzini, English, Kurmanji, Zazaki, Persian and Baḵtiāri are given below.

the man saw the woman. (English). "The man saw the women"

   S   V   O

a:m-a ʒɯn-a i. (Sauzini)
man   woman   saw

 S   O   V

merik ʒınık -i   dit. (Kurmanji)
man   woman   saw

  S   O   V

 dʒomerd   dʒini di (Zazaki)
 man   woman saw

 S   O   V

 mard zan-ra did   (Persian)
 man   woman saw

 S   O   V

piɑ zine-ne did   (Baḵtiāri)
man   woman saw

 S   O   V

If we change the place of subject and object as the fallowing sentences, it is seen that there is no change in the form of subject and object and we understand who the agent is and what/who the theme from their places is:

[ʒɯna] [a:ma] i   [a:ma] [ʒɯna] i
Agent theme   Agent   theme

S (Sauzini)

NP — VP

N Def   NP V

N Def

a:m -a ʒɯn -a i

S (English)

NP   VP

Def N   V NP

Def N

The man saw the woman

S (Kurmanji)

NP VP

N   NP V

N Def

Merik ʒınık -i dit

S (Zazaki)

NP VP

N   N V

dʒomerd dʒini di

S (Persian)

NP VP

N   NP V

N Def

mard zan -ra did

S (Baktiāri)

NP VP

N   NP V

N Def

piɑ zine -ne did
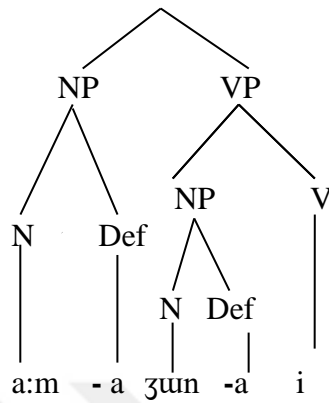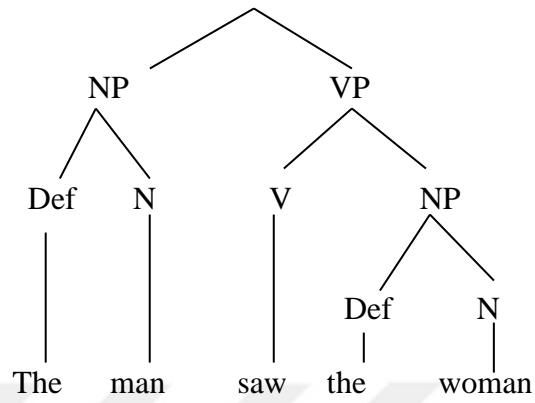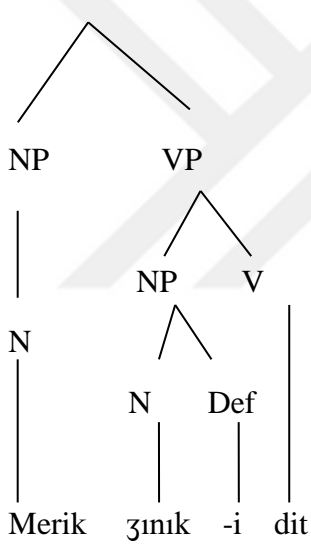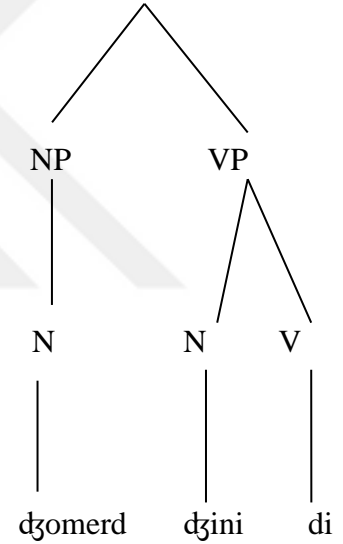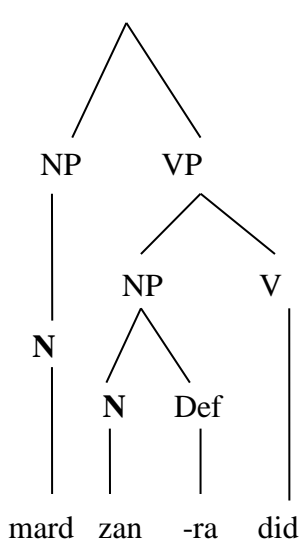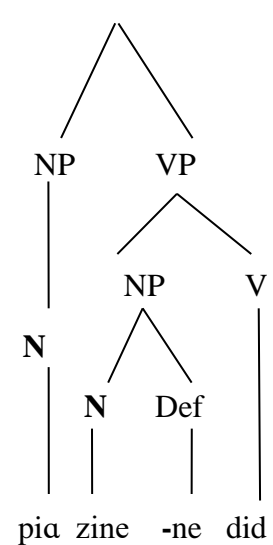
As it seen from the examples the place of words are important because the meaning changes according to their place in the sentence. So, if the places of words are changed, the meaning also changes. In the case of Sauzini especially the place of subject is important to understand who the agent is. English, Sauzini, Zazaki, Kurmanji, Persian and Baḵtiāri have a strict word order.

Passive voice is done by the word "hata" in Sazuzini. It is the root of the verb 'hatandɯnn'. 'done' and -ɯn suffix is always added to the verb but the meaning is passive.

Mal-a   xɯst- ɯn
house The demolished- 6.p.

"They demolished the house."

Mal-a   hata   xɯst - ɯn
house- the was done demolish-   6.p.

"House -the done demolished-they"

"The house was demolished the situation is similar in Kurmanji. But they use "Hat" for passive voice.

Gernot L. Windfuhr (1989, p.257) in his work touch the passive forms as in the following lines:

> The inflectional 'passive' marked by inherited *-i-, has been preserved in the majority of languages, including many of the Central Western Iranian languages amd otherwise much reduced languages such as Mazanderani, or has been morphologically innovated as in central Kurdish dialects(-r-; note Pashto –ž-).

Verb inflections of Sauzini show similarity with English, Kurmanji, Persian and Baḵtiāri as there is internal change in past simple form. Fallowing examples shows this change.

Past Simple:

Sauzini:

pɯndʒar-a   kɯr-d-ɯm-e/awa
window   -def.   open -past- 1P   open

"I opened the window"

Kurmanji:

Mı d͡ʒam vekır
I   window opened-1P.

"I opened the window"

Zazaki:

Mı d͡ʒom   ak-en
I   window opened-1P.

"I opened the window"

Bak̲tiāri :

Pand͡ʒere-ne vɑz kerd-om
window -Def.   open do-1P.

"I opened the window"

Persian:

pand͡ʒere-ra bɑz   kard-am
window -Def. open   do   1p.

"I opened the window"

Another aspect of Indo-European languages is that these languages add an auxiary in future and present progressive forms. Sauzini adds /ha:/ before the main verb in present progressive form and adds /haw/ in future form.

Present Progressive:

Sauzini:

pʊnd͡ʒar-a   ha:- kar-a/ɯm -e/awa[5]
window   Def.   P.prog. do   -1P   -?

"I am openning the window."

Kurmanji:

d͡ʒam -i   ve   -dık -ım
window Def.   P.prog. open   -1P.

"I am openning the window."

Zazaki:

er   ınke   d͡ʒom aker-dact -ım
I   now(p.prog.)   window open -do -1P.

"I am openning the window."

Bak̲tiāri:

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[5] The function of /-ewa/ in Sauzini is not clear yet.

dar -om   pandʒere-ne vɑz ekon -om
P.prog -1P.   window – Def.   open   do   -1P.

"I am openning the window."

Persian :

dar-am   pandʒere-ra bɑz   mi- kon -am
P.prog -1P.   window – Def.   open   1P.   do   -1P.

"I am openning the window."

Future Simple:

puandʒar-a haw kar-a/ɯm-e/awa
window   -Def. will   open-1P.S.

"I will open the window"

Kurmanji:

dʒam -i dıkım vek -ım (dıkım –will)
window -DET will   open -1P.

"I will open the window"

Zazaki:

er d͡ʒom awken
I   window   will open-1P. (both present con.and future s.)

"I will open the window"

Baḵtiāri:

pandʒere-ne vɑz ekon-om
window-DET   open   do -1P. (both present con. and Future)

"I will open the window"

Persian

pandʒere-ra xax-am bɑz   kard
window-DET   will -1P. open   do

"I will open the window"

These examples shows us that Sauzini shows the aspects of *Indo-European Language Family.* Verb changes its form (root) in past simple form. In this respect quite convenient to say that Sauzini shows similarity with Indo-European languages.

When gender issue Sauzini, Sauzini does not specify pronouns **he/she** both are symbolised with the pronoun /**awa/.** There is oly a single form in Sauzini.

But in the case of Zazaki and Kurmanji gender is specified. Roşan Lezgin (2015, p.86). in his essay states that in Zazakî if we add inflectional suffix "-ya

(feminen)" to the verb root "şî" or if we add inflectional suffix "-yo (masqulen)" we get verb "şîya (she went) (feminen)" or "şîyo (masqulen) he went" furthermore, when we look at the inflectional suffix "-ya", we understand that the subject is singular and feminen and , when we look at the inflectional suffix "-yo", we understand that the subject is singular and masqulen

Lezgîn (2015, p.85) also claims that there are key structural differences between Kurdish and Persian. The most important of these is that while Kurdish is ergative Persian is not. Also in Kurdish nouns have masculinity and feminity but in Persian there is no such distinction.

Many linguistics including Roşan Lezgin and Wheeler M. Thackston (2015, p.85) states that Kurdish is a semi-ergative language (past simple). In accusative languages the verb inflection is done according to the subject. While ergative languages the verb inflection is done according to the object.

1.1.5. Language Classification

Languages are classified according to the different criterias like typological or language origin.

Linguistic typology studies and classifies languages in terms of their formal properties that is phonology, morphology, syntactic from. Some features can be found all over the world in unrelated languages. The mere fact that two languages share a feature does not imply that they are genetically related.

One of the most common ways of classifying languages is by looking at typical order of the subject (S), verb (V) and object (O) in sentences such as "The cat eats the mouse":

SVO ("The cat eats the mouse"),
SOV ("The cat the mouse eats"),
VSO ("Eats the cat the mouse"),
OSV ("The mouse the cat eats"),
OVS ("The mouse eats the cat"),
VOS ("Eats the mouse the cat").

Sauzini languange produce this sentence as:

Pisij-a müʃ -a xard. SOV (Sauzini)"The cat ate the mouse."
Cat -the mouse –the ate

Pisık mıʃk xard. SOV (Kırmanji) "The cat ate the mouse."
Cat   mouse   ate

Although in some sentences the word order of the sentence can change as in the fallowing sentence:

Mın ha-jama mal. SVO (Sauzini) "I am coming home"
  I   P.prog-come home

1.1.5.1. Tones and Stress

Some languages use tone to distinguish word meaning such as Mandarin Chinese has four tones. For example, sī (with a high tone) means "thought", sì (with a falling tone) means "four" and sǐ (with a low falling and rising tone) means "death". Tone languages are common in East Asia (other Chinese languages, Burmese, Thai and Vietnamese among others) but are also found in Africa (Yoruba) and the Americas (Navajo). (Language of the world.p.32.)

If a language does not have tones usually has stress (a syllable pronounced more strongly than the others). It is known that in some languages, the stress always falls on the same syllable (the first in Hungarian, the last in French), but in other languages stress is important and is used to distinguish words. English and Russian are such languages: "**i**ncrease" is a noun while "incr**ea**se" is a verb, and in Russian, "muk**a**" means "flour" while "m**u**ka" means "torture".

In this respect if we look at the Sauzini we can say that Sauzini is not a tone language. But it is also not a stress language. There is stress in questions to make it clear but this stress does not change the meaning or grammatical functions of words. However the stress has also importance role in understanding of the language:

Ha:jam : "I am coming"

Ha**t**ım : "I came"

This two sentences show us that in present continuous the stress is on the **ha-** while the stress is on the **–tı-** in past simple.

1.1.5.2. Isolating and Synthetic Languages

The way languages mark grammatical functions is another way of classification. In isolating languages such as Chinese, words usually consist of one morpheme (a linguistic unit that carries meaning), while in synthetic languages, they can consist of several morphemes. English is mildly synthetic (it has inflections such as the plural suffix in book**s**), while languages such as Latin have many inflections. Some languages such as Inuktitut (spoken by the Inuit) are sometimes called polysynthetic because they use many inflectional affixes that is one word in such languages can correspond to an entire sentence in other languages.(Language Classification, typology p.1).

According to these categories Sauzini takes its part in synthetic languages because words can consist of several morpheme. For example:

/kitawgalım/ kitaw-gal-ım
　　　　　　　book　-s　my
"My books"

As it seen from the examples Sauzini is a synthetic language that the word *kitjgalım* consists of three morphemes. Synthetic languages can be divided into fusional and agglutinative languages. In agglutinating languages, each morpheme usually has a single function and words can consist of many morphemes. Turkish is a good example of an agglutinative language. The word *ağaçlarımda* means "in my trees" and consists of the following morphemes: ağaç (tree), -lar (plural), -ım (my) and -da (in).

In Sauzini this word is formed as /ha dargalım/ and it consists of following morphemes ha (in) dar (tree), -gal (plural),-ım (my). The position of /ha/ seems as a preposition for example the of "Where is your mother ?"is answered as" ha mal" "at home", "ha nawa xana" "it is in the bed" but in many other cases /ha/ is also used to say "there or there (is/are)".

In fusional languages, affixes can combine functions. In the Spanish word habló ("he spoke"), -ó simultaneously indicates both the past tense and a third person singular subject. In Sauzini the word "hat" (he/she came), -t indicates both past tense a third person singular subject as in the Spanish. In this respect

Sauzini fits both fusional and agglutinating languages. There are no clear-cut boundaries between these categories however and languages rarely fall perfectly into one category. According to these categories it is easy to put Sauzini into one of them however it should not be forgotten that there are many aspects that should be discussed about Sauzini. Our aim is not put Sauzini into one existing category but to define this language at all points. But if we put into one category it fix into Indo-European language family because of the features explained above.

1.2. Origin of Sauzini and Its Genetic Classification

The fallowing schema shows this relationship. As it is seen in the schema these languages such as English and Romanian are cognate languages because Latin and Proto-German drive from the same language that is Proto-Indo-European Language:

> "The Indo-European languages have a large number of branches: Anatolian, Indo-Iranian, Greek, Italic, Celtic, Germanic, Armenian, Tocharian, Balto-Slavic and Albanian" (Violatti, 2014).

Table 6. The Indo-European Family

Indo-European Family								
Proto-Indo-European *(5000 B.C.)*								
Balto-slavic	Albanian	Germanic	Roman	Celtic	Greek	Armenian	Indo-Iranien	
Russian Ukrainian Polish Czech Bulgarian Lithuanian		English Duch German Swedish Norwegian Danish	French Spanish Italian Portuguese Romanian Catalan	Welsh Breton Cornish Gaelic			Indic Hindi Urdu Bengali Marathi	Iranien Persian Pashto Kurdish Tajik

Source:https://www.quora.com/Are-the-Slavic-and-Uralic-languages-considered-to-be-Indo-European

Indo-Iranian branch included Indic and Iranian languages. It is known that these languages are spoken in India, Pakistan, Iran and some areas in western Chine. The Earliest and widely studied language of this group is Sanskrit. The records about this language are preserved in the hymns and other religious texts of ancient India.

According to information which is taken from Ancient Aistory Eyncyclopedia Avestan is the oldest language which forms Indian Branches and another important language in Iranian branch is the Old Persian which is found in royal inscriptions of the Achaemenid dynasty, starting in the late 6th century BCE. The earliest datable evidence of this branch dates back to about 1300 BCE.

The reason for grouping them is the shared items of basic vocabulary. According to the table :7 which is shared in Enycyclopaedia Britanica by Jay H. Jasanoff, Warren Cowgill the similarity between noun and verb inflection here it is:

Table 7. Indo-European verb inflection

I go	pai-mi	é-mi	eĩ-mi	e-ō	ei-mì
You (sing.) go	pai-ši	é-si	eĩ	ī-s	ei-sì
He, she goes	pai-zzi	é -ti	é-si	i-t	eĩ -ti
We go	pai-wani	i-más	í-men	ī-mus	ei-mè
You (pl.) go	pai-tteni	i-thá	í-te	ī-tis	ei-tè
They go	pa-anzi	y-ánti	í-āsi	e-unt	

Source: https://www.britannica.com/topic/Indo-European-languages.

When the verb inflection in Sauzini analyse, it is seen that verb inflection of Sauzini shares similarity with Indo-European language family:

Table 8. The verb inflection in Sauzini

English	Sauzini	Persian
I go	ɯtʃ-ɯm	mirav-am
You(sg.) go	ɯtʃ-e	mirav-î
He,she goes	ɯtʃ-u	mirav-ad
We go	ɯtʃ-ın	mirav-îm
You (pl.) go	ɯtʃ-ın	mirav-îd
They go	ɯtʃ-ın	mirav-and

It shows a distance similarity in terms of verb inflection with European languages thus when we look at the Iranian languages it shows great similarity.

Another example which shows the relations between Iranian languages families are shown in Encyclopǣdia Iranica. These words which belong to Iranian languages show also similarity with Sauzıni.

Kin tersm between two main dialects of Dari language; Kermani, Elābādi Yazdi, Qāsemābādi Yazdi, are Iranian languages. the similarity between these two main dialects of Persian and Persian and Sauzini is given in the table nine. The similarity between them is clear.

Table 9. Kin Relationship Terms in Elābādi Yazdi, Qāsemābādi Yazdi and Kermani

	Yazdi		Kermani	Persian	Sauzini
	Elābādi	Qāsemābādi			
"son"	pōr	pōr	pōrer	pesar	fɹɑ
"daughter"	dōt	dot	doter	doxtar	døt
"bridegroom"	đůmůđ, đůmůz	zůmůz	zumād	dāmād	zɑ:wɑ
"father"	peđar	pezar	pedar	pedar	bɑʋɯk
"mother"	můdar	můzar	mār	mādar	daluɯk
"brother"	bđůđar	bezůzar	berār	barādar	bɯɹɑŋg
"sister"	xůar	xār	xor	xāhar	xoʃuɯk

Source: http://www.iranicaonline.org/articles/zoroastrians-in-iran-06.

It is widely known that Iranian languages go through stages from old to new one. As it stated in Britanica modern Persian grammar has been simplified in many aspects while goes through this stages especially in its inflectional system (Britanica, 2018):

> Modern Persian has no system of case inflections. Possession is shown by addition of a special suffix (called the *ezāfeh*) to the possessed noun. Verbs retain a set of personal endings related to those of other Indo-European languages, but a series of prefixes and infixes (word elements inserted within a word), as well as auxiliary verbs, are used instead of a single complex inflectional system in order to mark tense, mood, voice, and the negative. (Britanica, 2018).

Baḵtiāri and Sauzini show structural and typological similarity. Southwest Iranian dialects incude Persian, Baḵtiāri[6], Tati and Tajiki. Consonants show some of the typical "Southwest" Iranian changes from Old to New Iranian (Lorimer, 1922):

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[6] The consonant changes of Baḵtiāri is given in the examples abowe.

1. initial *w > b, *waita > bēd "willow";

2. initial *wi/*wṛ > gu: *wi-raica > gurūs "flee", *wṛka > gurg "wolf;"

3. initial *y > j, *yāmaka > jūwa "shirt, suit";

4. initial *dw > d: *dwar > der "door";

5. *k > h: *akaina > āhan "iron";

6. *g > d: *gāmātar > dūwā "son-in-law";

7. *kw > s: *gau kwanta > gusind "sheep";

8. *gw > z: *gwan- > zuūn/zōn "tongue" ;

9. *θr > s: *āθrya-āp- > āsiāu "mill".

The changes in phonology from Old to New are which Baḵtiāri based upon is shown by Ensylopedia Iranica, for instance initial changes:

*wi/*wṛ > gu: *wṛka > gurg (s) "wolf;"

*g > d: *gāmātar > duwa(s) "son-in-law;"

*gw > z:*gwan > zuūn/zan "tongue;"

*θr > s, *āθrya-āp- > āsiaw(s) "mill.".

Among the main later changes, two are typically Baḵtīāri: 1. intervocalic *m > w, e.g., dāmād > dūwā. Other changes are: Initial x > h, xār > hār "thorn," Arabic xabar > hawar "message." (Lorimer, 1922).

Sauẕini and Baḵtīāri are similar to each other in many other aspects as it mentioned earlier. Thus consonant changes of Sauẕini should be also examined to see the relation.

> The causative suffix is n/ūn, sūz-n "burn (something)," pīc-ūn "twist (something)." The intransitive past ending is ist, buhr-isd "it broke" vs. bur-īd "broke it," xam-isd-e "it is (has) bent over." (Pseudo-)passive is expressed by the perfect participle ending in -é + (wā-) b "become," beste bīd-um "I was tied." Modal verbs (all followed by the subjunctive) are: tar/tarisd "can," ke tare z-es berūhe "Who can go away from her?;" wä/wāstī "must," amšou wä duhdar-a bedīn bi mu "Tonight you must give your daughter to me;" xā(h)/xāst "want," īxōm ruvum bi šahr "I want to go to the city." (Lorimer, 1922).

The causative suffix in Sauzini is similar to Ba<u>k</u>tiāri –an/ɯn: /süz-ɯn/ ("burn"). Passive expressed by the perfect particple ending in –a similar to Ba<u>k</u>tiāri /süz-and ɯn/ ("it was burned") or it is also done by /hata/ ("done"): /mal-a hata süz-andɯn/ ("The house was burned").

Grammar aspects of Persian and Ba<u>k</u>tiāri which we gathered from our Bakhtiyari informant are as fallows. The present continuous tense in English is constructed by the auxiliary "be"+ing verb. In Ba<u>k</u>tiāri just like Persian, the present continuous tense is made by the auxiliary "have"+ simple present tense verb.

"to have" in Persian & Ba<u>k</u>tiāri:

  /open/ = /bɑz/

  /to open/ = /bɑz kardan/ (compound verb)

The prefix for simple present tense in Persian is /mi-/, which is added to the lemma of the verb: kon+suffixes of person:

    mi-kon-am   mi-kon-im

    mi-kon-i   mi-kon-id

    mi-kon-ad   mi-kon-and

The prefix for simple present tense in Ba<u>k</u>tiāri is "e-", which is added to the lemma of the verb: kon+suffixes of the person:

    e-kon-om   e-kon-im

    e-kon-i   e-kon-in

    e-kon-e   e-kon-en

Persian: /dɑr-am pandʒere-rɑ   bɑz   mi-kon-am/
           Aux. -1P window-   def.   open   Pres. -do -1P

"I am opening the window"

/-rɑ/ used always after the direct object complement creats the accusative function.

Ba<u>k</u>tiāri: /dɑr-om pandʒere-ne   vɑz   e-kon-om/
            Aux -1P window-   def.   open   Pres -do -1P

"I am opening the window"

Ba<u>k</u>tiāri: /dɑr-i pandʒere-ne   vɑz   e-kon-i
            Aux -2P window-   def.   open   Pres -do -2P

"you are opening the window"

/-ne/ used always after the direct object complement creats the accusative function.

But in the present continous tense, the auxiliary (dɑram, dɑri, dɑrad, dɑrim, dɑrid, dɑrand) comes at the begining of the sentence. In these examples, the verbs with it's first, second, and third person, singular and plural nominative pronouns are attached to the end of the auxilary. So in the sentence /dɑrom pandʒerene vɑz ekonom/, /dɑrom/ is an auxiliary for making the present continuous tense, /pandʒere/ is the object, and /-ne/ involves the accusative function of /pandʒere/, and /vɑz ekonom/ is the verb. Personal affixes are shown both on auxilary verb and on verb in Persian and Baḵtiāri.

1.2.1. Hypothesis on the Origin of Sauzini Language

In the introduction part of this study we have already talked about the insufficient information about Sauzini. In this study overall information is taken from 56 years old, male, literate informant, Bilal Gergen, who is a native speaker of Sauzini. Sauzini is a spoken language which has no any recorded material. The studies about this language are hardly ever.

No studies have been done on this language up to now. Although we know that Sauzini is mainly spoken in the north part of Turkey, Gernot L Windfuhr (1989) in his writing about all dialects of Western Iranian dialects do not mention Sauzini. He talks about Northern, Central, southern Kurdish, Dimili (Zazaki), Gurani, Iran and Bajilan dialects, Talisi,Tati, West Azarbayjan and many other except Sauzini.

So the main purpose of this study is to make not only a true classification of Sauzini but also to introduce this language and made a record of it. Sauzini as a vernacular language is spoken by Sauzinians. They learn this language from their families from their childhood. Sauzini has their own main vocabulary but when we first analyze this language we can see some missing vocabulary such as sofa, glasses, window, door, roof, wall and so on. This is a really strong hint that they are nomads originally. Similarly Turkish language borrowed these words from Persian. Sauzini, Turkish, Persian, Kurmanji, Zazaki share these words. Turkish, don't have such vocabulary that used in settled life. Lack of vocabulary about settled life explains also the reason why they cannot show any place for their origin. All they know is they

would come from Iran/ Khorasan. However it cannot go beyond rumour because of lacking of information.

Another question appears here, what if these people are originally Persian and these words are not borrowed and this community is just migrated from Iran for various reasons. These questions can be solved when the classification is correctly done. Typological classification is the first step in the classification of Sauzini.

Sauzini shows similarity between Indo-European language family by its morphological system, affixation system and verb inflections are another similarity which detailed information is given above sections. Although there are many issues which has not handled yet, because of wide range of topics, for the first step Sauzini takes its part in Indo-European language family clearly. But especially Sauzini show similarity with Iranian languages in terms of verb inflection and kinship terms. These similarities demonstrate that Sauzini is one of the language in Indo-European language family and more specifically it is nearer to the Iranian Languages.

It is a known fact that Iranian languages are divided into two grups as east and west Iranian languages. The west group includes Persian, Kurdish, Zazaki, Gorani, Sorani, Gilaki, and Baloci. The east group includes Tajiki, Sogd, and Ossetic. These two groups are divided into sub-groups as northwest and southwest. Northwest group includes Gorani, Baloci, Zazaki, Kurmanji, Gilaki, and Taleshi. Southwest group includes Persian, Tajiki, Laki, Tati and other Persian dialects.

Figure 4. New Iranian Languages[7]

New Iranian Lanuages

```
                    New Iranian Lanuages
                   /                    \
               West                      East
              /      \                  /     \
     Northwest  Southwest      Northeast   Southeast
```

Northwest	**Southwest**	**Northeast**	**Southeast**
Kurdish (Kurmanji)	**Persian**	Ossetisch	Waxi
Zazaki	**Baḵtiāri**	Sogd	Yazgulami
Beloci	Tati		Sugni
Sangisari	Tajik		Pashto
Gorani/Sorani	Laki		

?
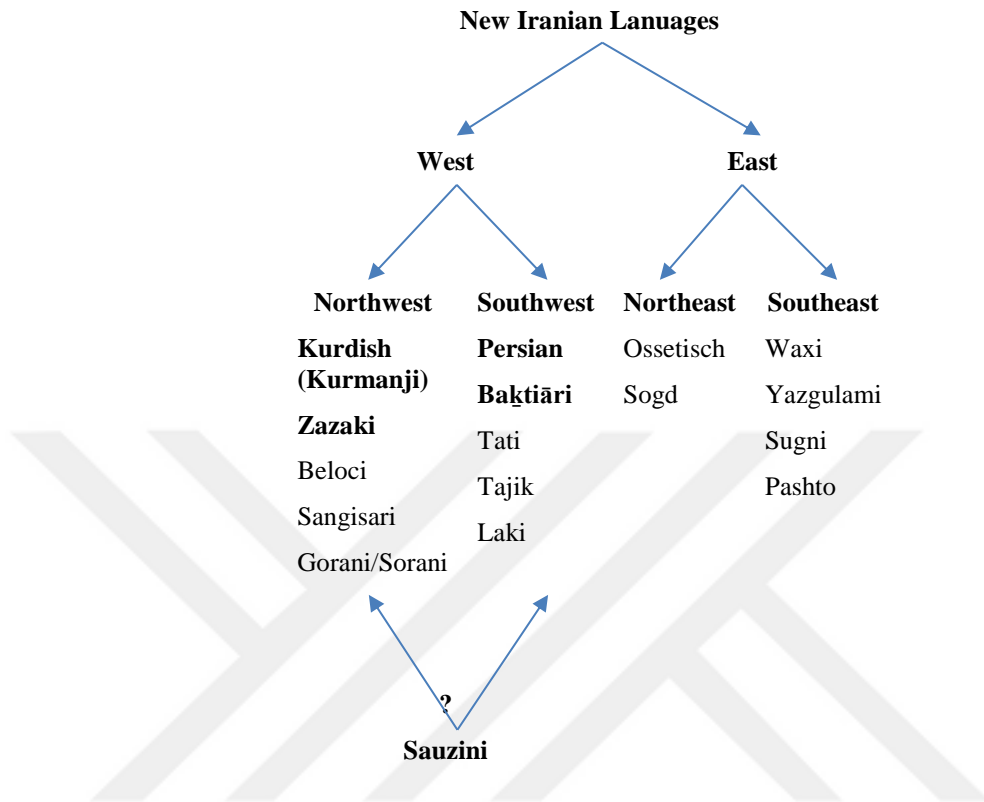
Sauzini

As the foregoing diagram shows that two of the languages under the investigation are chosen from the northwest group and the other two are chosen from the southwest group. Sauzini does not take place into these groups as it is ungrouped before thus where exactly Sauzini should take its place in these groups. It is clear that this language belongs to Iranian languages and it quite likely belongs to the Western-Iranian group. If it belongs to Western group, it can take place in the Northwestern or Southwestern groups. In addition it could be equidistantly to this two groups and it won't be ignored that it may create another group.

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[7] Thanks to personal communication with Sonel Bosnalı Figure four is created.

CHAPTER 2

COMPARATIVE LINGUISTICS AND CLASSICATION OF LANGUAGES

There are many approaches to compare languages such as "contrastive grammar", "typological classification" but in this thesis "comperative linguistics" approach will be used. These approaches should not be confused with each other thus, these approaches will be defined briefly in the following sections. A brief introduction of "contrastive grammar", "typological classification" and "genetic and historical classification" and also information about "historical linguistics" and "glottostatistic" and "glottochronology" will be given in the following sections.

2.1. Contrastive Grammar

Contrastive grammar or contrastive linguistics is one of differents comparative approachs in linguistics. This approach is created to make language learning more efficient by projecting language distinctions, variances and contrasts. After the Second World War, the attention to learn a language gives way to linguistics studies. American structuralist and precursor of contrastive grammar, Fries, leads with the idea that describing target language scientifically, and comparing it with the native language and the data which is gained in the light of this analysis are the most effective tools. Thus he is the first person who applied linguistics principles to English teaching.

Volker Gast in his article gives place to narrow and broad definitions of contranstive linguistics. According to Gast "the term 'contrastive linguistics' ... does not require a socio-cultural link between the languages investigated. On this view, contrastive linguistics is a special case of linguistic typology and is distinguished from other types of typological approaches by a small sample size and a high degree of granularity."(Gast, 2012). According to Gast contrastive linguistics is different from other approaches mini yet mighty practicality.

Another linguistics Ekkehard König tries to put contrastive linguistics in a place by comparing them with other approaches such as historical comparative linguistics, language typology, microvariation and intercultural communication.

[...] relative to other comparative approaches to linguistic analysis: historical comparative linguistics, language typology, microvariation (comparative dialectology) and intercultural communication. This is the issue addressed in this paper. It will be shown that only by relating contrastive linguistics to and by delimiting it from other subfields of comparative linguistics will we obtain a clear picture of it agenda, its potential and its limits. What contrastive linguistics shares with these other approaches is its focus variation between languages and within a language, but it clearly has its own agenda, even if it partly overlaps with these other approaches in certain respects. (König, 2011, p.1)

He argues that contrastive linguistics is in the intersection point of other approaches.Thus in language comparison the place of contrastive is required but not adequate al all.

2.2. Typological Classification

The history of typology does not give a concrete date about the beginning but it dates back earlier than 1800s. German linguistics Friedrich von Schlegel and Wilhelm von Humboldt are two important premises whose woks marks the starting point of typological investigation. The purpose of typology is to identify universal and to establish the potential range of variation among languages. Unlike contemporary Typologist these two pioneers very much focused on the morphology. But some of the terminologies are still used by contemporary Typologist.

Sapir is the first person who creates the first connection between anthropology and language and he is also one of the creators of *Sapir-Worf hypothesis*. In his essay which is titled as "Types of linguistic structure" in 1921, Sapir (1921, p.127) explains the differences and similarities between languages with a powerful metaphor in the fallowing lines:

When we pass from Latin to Russian, we feel that it is approximately the same horizon that bounds our view, even though the near, familiar landmarks have changed. When we come to English, we seem to notice that the hills have dipped down a little, yet we recognize the general lay of the land. And when

we have arrived at Chinese, it is an utterly different sky that is looking down upon us.

In an essay which is titled as *A brief History of Typology*: Language Typology: Whaley, L. J. says that research of Schlegel, Humboldt and their contemporaries was very important for the growth and development of typology. They see the language as ***an abstract organic unity*** that is the formal aspects of language that is sounds, morphemes, grammar etc. aspects of languages (Whaley, 1997).

But this point of view gained a new perspective that is like any organic form Language also develops and changes. These changes are shaped by *the inner character of the people* and the differences in their culture. Joseph Greenberg another important pioneer who made a great contribution to the typology. Until Greenberg typology was highly subjective and Greenberg approach it more scientifically by adding qualitative and quantitative basis of typology. "That is no languages correctly fit into discreet morphological types" (Croft, 1990). The basic distinction of typological classification was agglutinating, fusional (flexive or inflectional) and isolating.

Isolating languages are really rare and there is no root of affixes to carry out grammar points. There is no outward description of grammar on structural level. Isolating languages exhibit no formal paradigms. It has only one element of basic meaning per word and in such cases they are mono morphemic. For example, when, as, since, from, etc. and their grammatical status and class-membership is determined by their syntactic relations with the rest of the sentence in which they occur. In English invariable words such as prepositions, conjunctions and many adverbs are isolating in types. Chinese, several other Southeast Asian languages-Vietnamese are examples of such types. In them the bound morphemes are rare and words containing more than one morpheme are not thereby grammatically different. Words in such languages are assigned to word-classes on the basis of different syntactic functions:

wǒmen chī jī (Chinese)
Pro. (1P.pl.) eat chicken
"We eat chicken"

If there are several meaningful elements, but are in some way fused together or are modified in different contexts, the language will be inflectional. In it words having several grammatical forms in which it is difficult to assign each category to a specific and serially identifiable morphemic section. Classical languages such as Latin, Ancient Greek, Sanskrit are the most obvious examples of such type. For example, Latin 'amo' (I love) is morphemically divisible into two morphemes; root /am-/and suffix /-o/; but this suffix, though morphemically not further divisible, marks five separate categories, each syntactically relevant in different ways to other words in sentences in which the form may occur: singular number, first person, present tense, indicative mood and active voice. English nouns such as men, geese, mice, women are inflectional. Inflectional languages were held to represent the highest stage of evolution and the most perfect form of human communication. In inflectional languages, the verbs root change it forms and responsibility is on root to carry out grammar points. But this kind of language has also affixes and these affixes have also inflection:

They came. (English)
Pron.(3P. pl.)   Verb (Past tense)

"They came"

If there is more than one element of basic meaning, but these were kept apart from one another and undergo no modification, the language is agglutinative. Morphologically complex words in which individual grammatical categories may be easily assigned to morphemes stung together serially in the structure of the word-form exemplify the process of agglutination. Turkish, Sudanese and Japanese are examples of such type with the Turkish as the perfect one. Languages of these types are alike of necessity in respect of word structure. Grammars of these languages are very different in other respects. In agglutinating languages, simply in these types of languages the root never changes its form the whole responsibility the affixes:

Gel- ecek- ler (Turkish)
Root (come) Tense (future) 3P.pl.)

"They will come"

2.3. Genetic and Historical Classification

Genetic classification is another type of classification in linguistics. Classification aims at categorising languages according to their relationship which is similar to relationship within a family. Languages are classified according to their similarities in terms of morphologic, lexical, syntactic, phonological aspect and if they share substantially similarities, there are regarded coming from the same language family. Therefore they aim at constructing, founding the proto-language which is not spoken anymore.

As it is well known, linguistics divided world languages into groups by looking at their relations according to the investigations mainly on their origins as a result they found some languages close to each other than other languages and they put them under the same family tree. The idea that languages evolve like a living organisms come to the conclusion of "proto language". If languages come from same ancestors, they are accepted as the member of the same family. *Proto-* means "old" in Greek. Although the primordial language is not known, comparative method makes to discover many features of it possible. Comparative method can show family status of many languages. Comparative linguistics, as the name implies, compares languages so as to establish their historical relatedness. This can be provided by comparing their phonology, grammar and vocabulary, even if there are no written materials of their ancestors.

2.3.1. Comparative Linguistics

Comparative linguistics is defined in Encyclopaedia Britanica as "study of the relationships or correspondences between two or more languages and the techniques used to discover whether the languages have a common ancestor." (Encyclopaedia Britanica, ed.20.1998). When the theories about languages come to mind, the emergence of comparative literature is not surprising. They try to find out the relationship between languages and whether they have a common ancestor or not.

As Vikner (2006, p.1) explains in his lecture on "*Theoretical and comparative linguistics*"should not only discover the differences but also the existing variation between languages:

Comparative linguistics tries to discover differences between various languages. This may of course be useful in itself, but I think that it should be taken one step further. In my opinion, comparative linguistics should strive to find out both which kinds of variation exist between languages, and also which kinds do not exist. In this way, it contributes to our knowledge about the powers and limitations of the human brain. An explicitly comparative angle also brings out more sharply the specific characteristics of each language than when each language is treated in isolation.

Noegrammarian principle is an important assumption for comparative linguistics as it is defined in Encyclopaedia Britanica that is "... the laws governing sound change are regular and have no exceptions that cannot be accounted for by some other regular phenomenon of language." (Encyclopaedia Britanica, 1998, p.1). For example, English and Italian are similar to each other in a way that words have similar meaning but have not borrowed are compared as fallowing:

Piede and "foot," padre and "father," pesce and "fish." The initial sounds, although different, correspond regularly according to the pattern discovered by Jacob Grimm and named Grimm's law after him; the other differences can be explained by other regular sound changes. Because regular correspondences between English and Italian are far too numerous to be coincidental, it becomes apparent that English and Italian stem from the same parent language (Encyclopaedia Britanica, 1998, 1).

This similarity was seen through the initial consonants "f " and "p " correspond to the each other in both language and this correspondence is not accidental at all. This method depends upon a regular sound change and can be applied any languages. It is seen that comparative method proves its success and it has been used to discover language families and therefore prototype of languages.

Most languages belong to language families. A language family is a group of related languages that developed from a common historic ancestor, referred to as protolanguage. (Thompson, 2015, p.1). 'Proto-language' is simply a resconstructed hypothetical language. For instance Bengali, Hindi, Marathi, and Urdu are some languages of the Indian subcontinent and Sanskrit is known as the mother language of these languages. Furthermore if you further back in time we confront with proto-indo-

European as the ancestor of Sanskrit. Although they are put under the same family tree, it is difficult to determine their genetic relationship.

As Baskan (2003, p.43-45) also highlighted that after Geographical discoveries language diversity is seen in many written grammars. Scaliger is accepted by Baskan as the pioneer who compares languages by looking at their similarities and grouping them. Leibniz is another linguist who sees similarities between languages except European languages and he sees similarity between some languages such as Turkish, Japanese, Mongolian, Estonian etc. Leibniz also recognizes that Basque, which is spoken in Pyrenees, is different from all languages which is spoken in Europe. More over Leibniz claims that if the past forms of the languages are compared with the current forms, the historical development of a language can be found (Baskan, 2003, p.43-45). Thus Leibniz brings a new perspective that Languages derives from one family and many languages may belongs to this family. . Sir William Jones in 1786 found that Sanskrit was related to Latin Greek and German, this discovery became a stepping stone for comparative literature. So, the idea of Language families appears especially when linguistics found out that Sanskritic which spoken in India has similar features with European languages. Baskan gives the example of 'night' he claims that this word derives from the Indo-European proto language /nokts/ and it has different forms in some indo-European languages such as Latin /noktis/, Itailan /note/, German /naht/ and Sanskritic /naktis/. Schlegel also notes that the grammar of European languages and Sanskritic should be compared to find out the connection between these languages. As Schlegel use the comparative grammar term for the first time, it has an important place in Linguistic method (Baskan, 2003, p.50).

2.3.1.1. Historical Linguistics

Proverbially, comparative method in historical linguistics basically tries to reconstruct the earliestform of the mother language by comparing of cognate words and expressions in different languages or dialects. The establishment of regular sound change lies behind this method.

Firstly comparative method was applied to reconstruct Proto Indo-European in 19th century and August Schleicher, German linguist, introduced the model of the "*family tree*" into comparative linguistics.

Another important Linguist, Grim shows the tonal parallels in those Indo-European languages in a broad sense. Schleicher brings comparative method and historical method together and goes forward in proto language. He not only classifies Indo-European languages but also world languages according to their word structure. He divided all languages into 3 according to the roots and the affixes which connect them to the other words. Isolating languages which was seen as the primitive languages such as Chinese and agglutinative languages as the mature languages such as Turkish and fusional languages as the perfect languages such as Sanskritic. (Baskan, 2003, p.58-59).

As Baskan explains in his book there are two ways of dating in different science. First one is *typologic* way. In this way, it is contented with giving information is just which event comes first and which one comes afterwards. So in linguistic area they found out the way of the phonetic change. For example /k/ comes at first in phonetic aspect and /s/ comes afterwards, so it can be said that phonetic change is in the way /k-s/.

Baskan goes on with the second method called *metric*. In this method time lag between two events is given as number. In many languages there is not written materials so it is not known when these languages diverge or when all of them diverge from the proto language according to the chronology. Thus this method enables us to find out metric chronology of these languages approximately. This method was introduced by American anthropologist Swadesh who find out this method by inspiring from Karbon-14 method in Physics (Baskan, 2003, p.176-180).

Greenberg (1966, p.147) defines comparative method in his work "*Some Methods of Dynamic Comparison in Linguistics*" as in the fallowing paragraph:

> The comparative method, or more accurately, comperative methods, since a multiplicity of them exist, have a fundamental place in the disciplines, in contrast with the physical and biological sciences, never encounter ,in pure form of phenomena concerning which they seek for understanding and the formulation of regularities. Such entities as culture, society, religion, or language are always encountered in the concrete form of particular, historically conditioned cultures, societies, religions, languages, and so on.

He sees comparative method as the basic approach. We know that there are two main methods in comparison, the '*genetic*' and the '*typological*' classification. Greenberg continues to define these methods. "Both of these are associated with language classification, but the classification may be considered essentially a by-product of the application of fundamentally different criteria of resemblance." (Greenberg, 1966, p.147).

We have alredy talked about typological classification above sections. As for genetic classification it is better to start discussion by recognizing Greenberg again "... genetic investigation is determined by some theory of process that is a theory regarding the classes of possible changes." He thinks that the outcomes of genetic classification have fundamental importance in historical linguistics (Greenberg, 1966, p.148):

> ... the genetically accounted for resemblance involves items that are highly similar so that they could be classified together in some acceptable static scheme, but this is merely a consequence, although in practice a highly important one, of the fact that the outcomes of historical processes are on the basis of static resemblance, similar to their antecedents.

In the application of comparative method the first step is to find sets of cognate forms in underresearched languages or dialects. In *Britanica* sound changes are exemplify as:

> The reconstructed Proto-Indo-European word for "ten" is *dekm*. From this form the Latin word can be derived by means of a single sound change, *m* changes to *em* (usually symbolized as *m > em*); the Greek by means of the sound change *m > a* (i.e., vocalization of the syllabic nasal and loss of nasality); the Sanskrit by means of the palatalizing sound law, *k > ś* and the sound change *m > a* (whether this is assumed to be independent of the law operative in Greek or not); and the Gothic by means of Grimm's law (*d > t, *k > h*) and the sound change *m > un* (Britanica, 2018,1)

2.3.1.2. Glottostatistic (Lexicostatistic) and Glottochronology

Glottostatistic method does not require affinity between languages. This method counts common words between languages by looking at the basic vocabulary and there could be also barrowed words within the basic vocabulary with no kinship.

The terms "lexicostatistic "and "glottochronology" are defined by Hymes (1960, p.3) below:

> Glottochronology is the study of rate of change in language, and the use of the rate for historical inference, especially for the estimation of time depth and the use of such time depths to provide a pattern of internal relationship within a language family.Lexicostatics is the study of vocabulary statistically for historical inference. The contribution that has given rise to both terms is a glottochronologic method which is also Lexicostatistic.

Hymes defines lexicoststistic as the study of vocabulary which helps historical deduction by investigating words and it helps to apply glottochronologic method. He also touches a discrepancy between these two methods. " It is true that "lexicostatistics" might properly name any statistical study of vocabulary, rather than specifically historical studies, and one could speak of "historical lexicostatistics" if need be . However, the term lexicostatistics has already a specialized association with historical studies. ...Glottochronology deals with the rate of change only for basic vocabulary ..." (Hymes, 1960, p.4).

Hymes (1960, p.32) also gives detailed information about the strategy of lexicostatistic:

> Lexicostatists is not a short-cut; it does not replace other methods and information, but must be incorporated with them into a consistent body of knowledge. That it is a valuable addition, and that it will increase in value, can, ı believe scarcely be doubted. The use of lexicostatics in long- range comparison is important, but the anthropological value of lexicostatistic results will be widest at resent in those cases.

According to Lees (1953) Swadesh is one of the pioneers of glottochronology. He thinks that the validity of it depends on the data and mathemathical derivation:

> "It was in this connection that Swadesh first suggested in his article on Salishinternal relationships the particular statistical method which has since been elaborated under the name "glottochronology". The validity of the glottochronologic technique rests at present on the data and the mathematical derivation to be set forth in this paper." (Lees, 1953, p.113).

As for basic vocabulary, it has been a log discussion in the field of linguistics. It is mainly accepted that some of lexical items are influenced by neighbouring languages but some others sustain and are not open to be influenced. These lexical items become the potent symbol of a language. Core vocabulary in a language such as body parts, some verbs are hard to be replaced. The American linguist Morris Swadesh, gives 200 items of such vocabulary and later reduced to 100 items (the "Swadesh List", cf. Swadesh 1955). Vocabulary has been revised many times and finally 200 items which include both the diagnostic and supplementary lists are used. This list has been widely used in historical linguistics studies specifically in glottochronology which is a technique to find out time span which two related languages start to develop their own identity.

The application of glottochronology is also explained by Hymes "The problems of application are implicit in formulas of the type t= log C/ log r, and the instruction, solve for t. Such formulas are used to determine divergence time, when two related languages are compared."(Hymes, 1963, p.14).

When it comes to "*Reliability of test-list equivalants",* Hymes states that "The perfect reliability in filling out the test list would imply that each and every investigator of a language would optain the same single, simple, clear equivalent for each test items." (Hymes, 1963, p.19).

Glottochronology is criticised for two reason and they are explained in Encyclopædia Britannica like that "the difficulty of compiling a culturally unbiased basic vocabulary list and the belief that the rate of linguistic change is not the same for all languages and is not constant for any single language."(Encyclopædia Britannica, 2017, p.1). Although it is criticised, it is still a useful technique to understand at least approximately the historical distance between related languages or dialects. Furthermore as he says, if we want to make the test reliable, we have to gain simple, clear equivalent for each items.

In this thesis glottostatistics is used to determine cognate words between English, Persian, Baḵtiāri, Sauzini, Zazaki and Kurmanji. The choice of languages depends on the studies that we done on geography, ethnicity, history, sociologic and linguistics

aspects of Sauzini. This study helps us to raise the hypothesis that Sauzini should be placed into the west Indo-European languages so, two languages (kurmanji and zazaki) are chosen from the north and two of them (Persian and Baḵtiāri) are chosen from the south. English is also chosen to show that Sauzini differs from European languages. Statistical accounts show the number of common words between those languages; determining morphological and phonological similarities is the first and the most significant phase of historical linguistics.Thus *glottostatistic* method is one of the comparative facts in this work.

CHAPTER 3

CLASSICATION OF SAUZINI LANGUAGE

This chapter, raises the question of whether Sauzini is an Iranian Language or not and if so, which language is the closest relative of Sauzini among English, Baḵtiāri, Zazaki, Persian and Kurmanji. This chapter will be mainly devoted to the classification of Sauzini according to glottochronology and also to the phonetic equivalence between those languages. Each languages will be compared with one onether and glottostatistics and glottochronologic data will be optained. The place of Sauzini between Northwestern Iranian Languages and Southwestern Iranian Laguages will be discussed.

3.1. Method

As Sauzini is not a studied language before, glottochronology, which is method that counts words in two different languages to find out family relations between them or to find out when they diverge from each other or when the both of languages diverge from the proto language will be use.

The reason behind selection of these languages is simply because of our assumption that Sauzini is an indo European language. Sauzini speakers don't understand Kurmanji, Zazaki or Persian.

There are different ways of classifying a language but the interest in this thesis is genetic classification. Thus, glottochronology has been chosen to find out family relations of Sauzini.

3.1.1. The Method of Analysis

Glottostatistic and *glottochronology* methods are used in our investigation. It is known that glottochronology depends on statistical comparison of the basic vocabulary shared by two or more related languages. The method which glottochronology lies on is explained by Lees in the "The Basis of Glottochronology" below:

> If the morpheme inventory of a language,or a definable portion of it,is observed over a span of time,and if the individual members of the inventory at a given time are identified as cognates of members at some previous time,and if some statable regularity can be found in the time rate at which members disappear from the inventory to be replaced by new items, then the number of items in a certain subset which are present at any one timecan be used as a measure of time elapsed since some previous time-point for which a similar count is available (Lees,1953, p.113).

Glottochronologic method lies on the carbon 14 test in chemistry. Lees explains this idea simply "The analysis of decay products in mineral samples permits the calgulation of the age of the earth's crust. Similarly, analyses of morpheme decay products should provide an absolute chronology for lexical history." (Lees, 1953, p.113). That is if you analye degeneration on the vocabulary, you can calgulate the voyage time which a language or dialect had passed. Swadesh is the first linguist who applied Carbon 14 method in linguistics. This formula depends on the idea that if the rate of disappearance is examined, the time depth of languages might be measured.

This method is derived from the method, which was used to date archaeological find, Carbon -14 method/ test by Morris Swadesh. Robert Lees improved this method and reached the following formula:

$t = \log c / 2 \log r$

t: time depth (in years) is

log c: the percentage of cognates shared between the two languages in question

log r: the assumed retention rate (percentage, %81)

The formula which is used in glottochronologic method is given in the same work of Lees and he gives the example of English and German time depth:

> When we compare the word lists for modern german and modern English, we find 124 cognates (58.5%) in a total of 212 words. By means of Eg.9 we can calculate the time depth:
>
> $$t = \frac{\text{Log}.585}{2.\log 805} = 1.236 \text{ millenia}$$
>
> Counting 1.236 years back from 1952 we would predict that German and English began to diverge in basic –rooth-morpheme inventory about 716 A.D. but since the Germanic invasion of Britain began about 449 (though there was probably considerable traffic and intercommunication up to the year 600), our estimate would seem to be too late: the Middle German dialects which were the main source of Modern German must have seperated from the northern dialects which were transplanted to Britain several centuries at least before our date (Lees, 1953, p.119).

According to this calculation they found 716 A.D. They found the Germanic invasion is about 449 so there seem to be 267 years difference between them. If it is thought that they continue the communication up to 600 years. Lees explains this deviation by the following sentence "Before we ascribe this daviation to lack of independence between the two dialects, we must assess the limits of error in our answer to see if the allowable range does not perhaps include the historical date." (Lees, 1953, p.119).

3.1.2. Data Gathering Method

The word lists are created according to several criteria. There are several recommended word lists. Most commonly used a 100 or 200 word list which includes most commonly used words such as pronouns, body parts, animals etc. Most known lists are The Leipzig/Jakarta list which includes 100 items and Swadesh word list which include 207 items. At this stage let's reacquaint Lees words:

"The basic root-morpheme sample for each language tasted was optained by translating each of 215 English words into the most common colloquial term of that language. The first studies of this kind were made with the list used by Swadesh to measure the rate-constant of English." (Lees, 1953, p.118).

We use Swadesh word list which includes 207 basic vocabulary and plus the word /navel/ as we found it basic for all languages. We also add the word "navel" which we think that is one of the words that people have to communicate about from their birth. Thus totally we have 208 words in our research.

Our data has been gathered from native speakers. Bilal Gergen is 57, male informant of Sauzini. He was born and grewn up in Yesilova village but he has recently, been living in Istanbul. Miyase Koc, 58, and Havva Koç, 33, female informants of Kurmanji in Ardahan. They also live in Istanbul for years. But Miyase Koc was grewn up in Ardahan. Emine Kaya is, 36, female informant of Zazaki from Elazig which is the province of Turkey. She lives in Adana recently. She was also grewn up in Elazig. Another Iranian dialect Baḵtiāri was also put under the investigation and our data has been gathered from Ahmed Kayedi who is 52, a male native speaker of Baḵtiāri dialect. Our informants Bilal Gergen, Miyase Koc and Emine Kaya have a primary school education level. Ahmed Kayedi is a post graduate student in French Linguistic department.

3.1.3. The Transcription Method

As Sauzini does not have any recorded material, oral or wrotten, we transcribed the lexical items in English, Persian, Sauzini, Kurmanji, Zazaki and Baḵtiāri using IPA symbols. The transcription of Sauzini was done with the aid Prof. Eser Taylan; who is a linguist in Bogazici University, and Filiz Mutlu her assistant-then. Transcription of Sauzini, Zazaki and Kurmanji were made with personal communication with informants. Transcirition of Persian were made by Sonel Bosnalı and finally transcription of Baḵtiāri were done by Ahmed Kayedi.

IPA Symbols

Short vowels:

IPA Symbol	Word examples
e	Went, intend, send, letter.
æ	Cat, hand, nap, flat, have.
ʌ	Fun, love, money, one, London, come.
ʊ	Put, look, should, cook, book, look.
ɒ	Rob, top, watch, squat, sausage.
ə	Alive, again, mother.

Long Vowels:

IPA Symbol	Word examples
i:	Need, beat, team.
ɝ:	Nurse, heard, third, turn.
ɔ:	Talk, law, bored, yawn, jaw.
u:	Few, boot, lose, gloomy, fruit, chew.
ɑ:	Fast, car, hard, bath.

Diphthong Vowels:

PA Symbol	Word examples
ɪə	Near, ear, clear, tear, beer, fear
eə	Hair, there, care, stairs, pear
eɪ	Face, space, rain , case, eight
ɔɪ	Joy, employ, toy, coil, oyster.
aɪ	My, sight, pride, kind, flight
əʊ	No, don't, stones, alone, hole
aʊ	Mouth, house, brown, cow, out

Consonants Sounds: Fricatives:

PA Symbol	Word examples
f	Full, Friday, fish, knife.
v	Vest, village, view, cave.
θ	Thought, Think, Bath.
ð	There, those, brothers, others.
z	Zoo, crazy, lazy, zigzag, nose.
ʃ	Shirt, rush, shop, cash.
ʒ	Television, delusion, casual
h	High, help, hello.

Consonants Sounds: Plosives:

IPA Symbol	Word examples
p	Pin, cap, purpose, pause.
b	Bag, bubble, build, robe.
t	Time, train, tow, late.
d	Door, day, drive, down, feed.
k	Cash, quick, cricket, sock.
g	Girl, green, grass, flag.

Consonants Sounds: Affricates

IPA Symbol	Word examples
tʃ	Choose, cheese, church, watch.
dʒ	Joy, juggle, juice, stage.

Consonants Sounds: Nasals

IPA Symbol	Word examples
m	Room, mother, mad, more.
n	Now, nobody, knew, turn.
ŋ	King, thing, song, swimming.

Consonants Sounds: Approximants

IPA Symbol	Word examples
r	Road, roses, river, ring, ride.
j	Yellow, usual, tune, yesterday, yard.
w	Wall, walk, wine, world.
l	Law, lots, leap, long, pill, cold, chill, melt.
ł	Feel, call.
q	/qul/ (Sauzini) (voiceless uvularfircative)
x	/xaq/ (sauzini) (voiceless velar fircative)

3.2. ANALYSIS

At this point languages under the investigation will be compared with each other step by step. On the one hand glottostatistic will help us to determine the common words between languages on the other hand glottochronologic analysis detect the separation time between these languages; the separation time of these languages will be shown with a chronologic figure. At the final stage phonetic equivalances among these languages will be determined.

For this purpose, to detect the place of Iranian languages in Indo-European language family, each of these languages which are undertaken will be compared with English. In the second part, Iranian languages will be compared with one another and when their belonging to the west-Iranian languages group are determined, the case of grouping these languages as North-west and South-west will be examined. Finally, Sauzini language which is our argument in this study will be compared with these two groups one by one and the preliminary classification of Sau zini will be done.The numbers and percentages of cognate words we determined among the languages compared are given below:

Table 10. Numbers and Percentage of Similarity between languages

Glottostatistic	Sauzini		Persian		Baḵtiāri		Kurmanji		Zazaki		English	
	n	%	n	%	n	%	n	%	n	%	n	%
Sauzini			120	57.6	132	63.4	107	51.4	92	44.2	20	09.6
Persian	*	*			179	86.0	85	40.8	83	39.9	17	08.1
Baḵtiāri	*	*	*	*			88	42.3	86	41.3	22	10.5
Kurmanji	*	*	*	*	*	*			87	41.8	17	08,1
Zazaki	*	*	*	*	*	*	*	*			18	08.6
English	*	*	*	*	*	*	*	*	*	*		

The table above shows glottostatistic results among these languages. According to this data Sauzini has the closest relation with Baḵtiāri. The degree of affinity is % 63.4. The most distant relation is between Zazaki and Sauzini with %44.2.

3.2.1. English and Iranian Languages

To compare English and Iranian languages, it will be abided by the results of glottochronologic analysis of the common words and phonetic equvalances of these words.

The glottostatistic data about English and Iranian languages as follows:

Table 11. Glottostatistic of English

English	Sauzini		Persian		Baḵtiāri		Kurmanji		Zazaki	
	n	%	n	%	n	%	n	%	n	%
	20	09.6	17	08.1	22	10.5	17	08,1	18	08.6

3.2.1.1. English and Sauzini

The 20 of 208 words shows similarity between Sauzini and English. Our glottochronologic analysis is as follows:

$$t= \frac{\log (0{,}096)}{2 \log (0{,}81)} = \frac{-1{,}01772}{-0{,}18302} = 5{,}560$$

2018 – 5560= -3542

According to this formula %09.6 percentage of similarity shows that English and Sauzini are separated from each other about 5.560 years ago in 3542 BC.

There are also some variation as it is in 'two' /tu:/ ~ /du/ and 'tree' /tri:/ ~ /dar/ variaion [t] ~ [d]. Variaon in [p] ~ [f] which is seen between Persian and English is also seen between Sauzini and English. "foot" /fʊt/ ~ /pa/   [f] ~ []p, but it should not be forgetten that /pa/ is one of the common words between Persian and Sauzini.

Table 12. PE of English and Sauzini

	English	Sauzini
	[j] ~ [t]	
you	/juː/	/tu/
	[t] ~ [d]	
two	/tuː/	/duan/du/
tree	/triː/	/dar/
	[g] ~ [k]	
egg	/eg/	/hak/
	[f] ~ [p]	
foot	/fʊt/	/pa/
	[d] ~ [k]	
dull	/dʌl/	/kul/
	[v] ~ [ʊ]	
navel	/ˈneɪvəl/	/naʼʊk/

3.2.1.2. English and Persian

There are 17 common words between Persian and English and that makes %8.1 percentage of similarity:

$$t= \frac{\log (0,081)}{2 \log (0,81)} = \frac{1,09151}{-0,18302} = 5963$$

According to this formula 8.1 percentage of similarity shows that English and Persian would seem that differentiated from each other roughly about 5.963 years ago at 3.945 BC (2018 - 5963= -3.945).

When English compared with Persian the resaults are not surprising [t] ~ [d] variation as in the "two" /tuː/ ~ /do/ and [f] ~ [p] variation as in the "father" /ˈfɑːðəʳ/ ~ /pedɑr/ and "foot" /fʊt/~ /pa/.

Table 13. PE between Persian and English.

	English	Persian
[t] ~ [d]		
two	/tu:/	/do/
[:ʳ] ~ [r]		
four	/fɔːʳ/	/ʧɑhɑr/
[f] ~ [p]		
father	/ˈfɑːðəʳ/	/pedɑr
foot	/fʊt/	/pa/
[v] ~ [f]		
navel	/ˈneɪvəl/	/nāf/

3.2.1.3. English and Baḵtiāri

There are 22 comman words which make %10.5 of similarity between English and Baḵtiāri.The date of separation is as follows:

$$t = \frac{\log (0,105)}{2 \log (0,81)} = \frac{-0,97881}{-0,18302} = 5,348$$

According to glottochronology Baḵtiāri and English started to differentiate roughly around 3330 BC (2018 - 5348= -3330). This date is highlighted the truth that they have a distant relation.

When the phonetic equvalances are taken into consideration, it seems that correspondences of sounds are really diffuse. [j], [t], [f], [z] ,[w], [d] ,[v] sounds in English seemes to correspond to [t],[d], [ʧ], [t], [b/g], [k], [f**],** sound in Baḵtiāri .The following table shows this changes.

Table 14. PE between English and Baḵtiāri

	English	**Baḵtiāri**
[j] ~ [t]		
you	/juː/	/to/
[t] ~ [d]		
two	/tuː/	/do/
tree	/triː/	/dɑːr//deraxt/
[f] ~ [ʧ]		
four	/fɔːʳ/	/ʧɑr/
[z] ~ [t]		
nose	/nəʊz/	/noft/
tongue	/tʌŋ/	/z(av)un/
[f] ~ [p]		
foot	/fʊt/	/pɑ/
[w] ~ [b/g]		
wind	/wɪnd/	/bɑːd/
warm	/wɔːm/	/garm/
[d] ~ [k]		
dull	/dʌl/	/kol/
[v] ~ [f]		
navel	/ˈneɪvəl/	/nɑːf/

3.2.1.4. English and Kurmanji

Our investigatigation shows that there are 17 common words between English and Kurmanji (Ardahan Province) in other words there are 8.1% of similarity:

$$t= \frac{\log (0,081)}{2 \log (0,81)} = \frac{-1,09151}{-0,18302} = 5,963$$

2018 - 5963= -3.945

According to this formula, English and Kurmanji start to change from each other about 5.000 years ago in -3.945BC

Similarly [t] ~ [d] variation as in the word 'two' /tuː/ ~ /du/ and also the words which is similar between forementioned languages manifest itself here.

Table 15. PE between English and Kurmanji

	English	Kurmanji
	[j] ~ [t/d]	
you	/juː/	/tu/ /du/
two	/tuː/	/du/dɪdu
	[f] ~ [ʧ]	
four	/fɔːʳ/	/ʧɑr/
	[ː] ~ [r]	
worm	/wɜːm/	/kurm/
	[g] ~ [k]	
egg	/eg/	/hêk/
to cut	/kʌt/	/gut-kɪrɪn/
	[s] ~ [ʃt]	
to sit	/sɪt/	/runuʃt/

3.2.1.5. English and Zazaki

The common words are 18 out of 208 between Zazaki and English. That makes 8.6 persantage of similarity:

$$t= \frac{\log (0,086)}{2 \log (0,81)} = \frac{-1,06550}{-0,18302} = 5,821$$

According to this formula 8.6 percentage of similarity shows that English and Zazaki started to differ from each other roughly about 5.821 years ago at 3.803 BC (2018 - 5821= -3.803).

It is possible to see the phonetic equivalence between English and Zazakiin tbale 16. Similar to Sauzini we can see [t] ~ [d] variation in the same word in Zazaki: "two" /tuː/ /di/   and [d] ~ [k] variation in "dull" /dʌl/ ~ /kôl/.

Table 16. PE between English and Zazaki

PE	English	Zazaki
	[j] ~ [t]	
you	/ju:/	/ tî/
	[t] ~ [d]	
two	/tu:/	/di/ t/d
	[g] ~ [k]	
egg	/eg/	/hak/ g/k
	[l] ~ [r]	
to fly	/flaɪ/	/fıra/

In brief, languages have phonetic equivalences although there are some exeptions. [v] ~ [b], [t] ~ [d], [ʒ] ~ [z] ~ [ʤ] and [f] ~ [p] are the most common sound correspondences among these languanes. English has the exception role as a distant related language among these. It should not be forgetten that there are also some other phonetic equivalences between these two languages such as [m] ~ [n], [k] ~ [g] ~ [q], etc.

3.2.1.6. Classification of Iranian Languages

It is understood that there is a-relation between English and the undertaken five Iranian languages. It is seen that the Proto-Indo-Iranian language which is the mother language of these five languages, diverged from Proto-Germanic Language, which English is a member, about the years between 3945-3330 BC. The most distant relation is with Persian and Kurmanji and the closest relation is with Baḵtiāri.

Figure 5. Glottochronology of Iranian Languages.
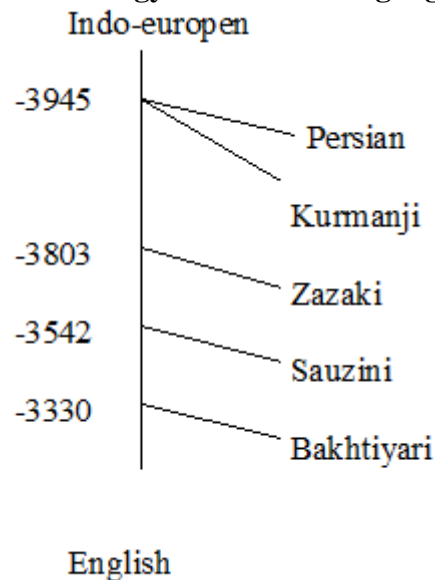
The figure above shows the results obtained but to avoid having a wrong perception, it is important to interpret the figure 5 properly. The results obtained by Glottostatistic and Glottochronologic should not be interpreted as it shows the definite date of separation among these languages. It should not be forgotten that the results obtained just gives us a hint that these languages drives from the same family but from different groups. The result also shows that these languages started to emerge as separate dialects which drive from the same root roughly about 3945-3330 BC.

Furthermore, when the phonetic equivalances are examined, it is seen that these Iranian languages have also phonetic equivalances. In all phonetic equvalances but especially in t/d and f/p equvalances, Iranian languages started to diverge from Germanic lanuages with the same sound change sistematically and this is a sign to show that these languages belongs to the same language group.

Accordingly, it would seem that these languages belong to Indo-European language family and they are from a different branch of the same language group in this language family. At this stage, the issue that has to be handled is whether these languages belong to the same group or different groups in Iranian languages. For this reason the next stages of this thesis will be devoted to the relation of these languages according to their glottostatistic, glottochronologic and phonetic equvalances and also the place of languages at the point in the Iranian languages will be analysed.

3.2.2. Western Iranian Languages

Generally Iranian languages are categorised as Western languages and Eastern languages. It is widely known that west Iranian languages are also classified into two groups as North-west and South-west groups. Thus to place Sauzini which is our investigation point, primarily the relation of these languages among themselves and their relation with Sauzini and the main aspects of Sauzini language must be determined.

For that purpose, Iranian languages are evaluated according to glottostatistic, glottochronologic and phonetic equivalances. With reference to Swedesh word list, the following data which is a basis for glottostatistic and glottochronologic analysis has been optained.

Table 17. Western Iranian Languages glottostatistic

WI	Baḵtiāri		Kurmanji		Zazaki	
	n	%	n	%	n	%
Persian	179	86.0	85	40.8	83	39.9
Baḵtiāri			88	42.3	86	41.3
Kurmanji					87	41.8

The number and percentage of common words between these four languages are that: the number of the common words between Persian and Baḵtiāri is 179 and that makes %86.0 which is a quite great similarity. The number of the common words between Persian and Kurmanji is 85 and that makes %40.8 of similarity. Persian and Zazaki have 83 common words. The number of the common words between Baḵtiāri and Kurmanji is 88 and closely the number of the common words between Baḵtiāri and Zazaki is 86. Kurmanji and Zazaki have 87 common words and these reaults shows that Persian and Baḵtiāri have a closer relation. Zazaki and Kurmanji have almost the same distance to Baḵtiāri and Persian.

3.2.2.1. Persian in Western Iranian languages

The following data has been gathered about basic vocabulary between Persian and the other Iranian lahnguages.

Table 18. Glottostatistic of Persian

Persian	Baḵtiāri		Kurmanji		Zazaki	
	n	%	n	%	n	%
	179	86.0	85	40.8	83	39.9

3.2.2.1.1. Persian and Baḵtiāri

In terms of Glottostatistic, Persian and Baḵtiāri show great similarity with 179 comman words. That makes % 86 of similarity. The number of shared items show that these two dialects very closely related dialects which is spoken in Iran territory.

In terms of Glottochronology; it seems that the date of separation is not so far away:

$$t = \frac{\log(0{,}860)}{2\log(0{,}81)} = \frac{-0{,}06550}{-0{,}18302} = 0{,}357$$

According to this formula, it appears that Persian and Baḵtiāri star to differ from each other about 357 years ago at 1661 AC (2018 - 357= 1661).

By considering phonetic equivalances, Persian and Baḵtiāri do not have many consonant sound variations. They are correspondences in 179 words. The table above shows that [b] sound in Persian corresponds to [w] sound in Baḵtiāri and [g] sound in Persian corresponds to [j] sound in Baḵtiāri. It seems that main changes are in vowel sounds that is [a] sound in Persian mainly correspond [e] in Baḵtiāri.

Table 19. PE of Persian and Baḵtiāri

PE	Persian	Baḵtiāri
[b] ~ [w]	**[b]**	**[w]**
cloud	/a**b**r/	/a**w**r/
green	se**b**z/	/sa**w**z/
night	/ʃa**b**/	/ʃa**w**/
to sleep	/xa**b**idan/	/xa(o)**w**siden/
[b] ~ [v]	**[b]**	**[v]**
tongue	/ze**b**ɑ(u)n/	/z(a**v**)un/
to turn	/**b**ar gaʃtan/	/**v**er gaʃten/
[g] ~ [j]	**[g]**	**[j]**
other	/di**g**ar/	/di**j**ar/
dog	/sa**g**/	/sa**j**/
to live	/zende**g**i kardan/	/zende**j**i kerden/
if	/a**g**ar/	/a**j**ar/

3.2.2.1.2. Persian and Kurmanji

There are 85 common words between Persian and Kurmanji and 40.8 percentage of similarity:

$$t = \frac{\log(0{,}408)}{2\log(0{,}81)} = \frac{-0{,}38933}{-0{,}18302} = 2{,}127$$

According to this formula 40.8 percentage of similarity shows that Persian and Kurmanji start to differ from each other about 2.127 years ago at 109 BC (2018 - 2127= -109).

Persian [t] sound corresponds to [d] sound in kurmanji and [b] sound in Persian corresponds to [v] sound in Kurmanji. Following table shows these sound correspondences between Persian and Kurmanji.

Table 20. PE of Persian and Kurmanji

PE	Persian	Kurmanji	PE	Persian	Kurmanji
[t]~[d]	**[t]**	**[d]**	**[b]~[v]**	**[b]**	**[v]**
sharp	/**t**iz/	/**d**ûʒ/	to sleep	/xa**b**idan/	/xa**v**/xa**v**n/
narrow	/**t**eng/	/**d**enk/	water	/ɑ**b**/	/a**v**/
to see	/di**d**an/	/di**t**in/	cloud	/a**b**r/	/a**u**r/
to fear	/**t**arsidan/	/**d**îrs/	night	/ʃa**b**/	/ʃe**v**/
[z]~[ʒ]	**[z]**	**[ʒ]**	**[f]~[p]/[v]**	**[f]**	**[p] / [v]**
long	/derɑ**z**/	/dire**ʒ** /	white	/se**f**id/	/sı**p**i/
woman	/**z**an/	/**ʒ**in//**ʒ**ınık/	half	/nes**f**/	/nî**v**/
wife	/**z**an/	/**ʒ**{ə/ɤ}n/	navel	/nā**f**/	/na**v**ik/
day	/ru**z**/	/ro**ʒ**/	**[p] ~ [b]**	**[p]**	**[b]**
sharp	/ti**z**/	/dû**ʒ**/	five	/**p**endʒ/	/ **b**endʒ/

There are also [z]~[ʒ], [f]~[p]/[v] and [p] ~ [b] sounds variation between them.

3.2.2.1.3. Persian and Zazaki

Our investigation shows that there are 83 common words between Persian and Zazaki which makes % 39.9 percentage of similarity:

$$t= \frac{\log (0,399)}{2 \log (0,81)} = \frac{-0,39902}{-0,18302} = 2,180$$

According to this formula %39.9 percentage of similarity shows that Persian and Zazaki start to differ from each other about 2.180 years ago at 162 BC (2018 - 2180= -162).

When Zazaki is compared with Persian we confronted with the same sound correspondences as in between Sauzini and Persian. [b] sound in Persian corresponds [p] [w] [v] sounds in Zazaki.

Table 21. PE of Persian and Zazaki

PE	Persian	Zazaki
[b] ~ [p]	**[b]**	**[p]**
leaf	/**b**arg/	/**p**ell/
wing	/**b**ɑl/	/**p**el/
[b] ~ [w]	**[b]**	**[w]**
water	/ɑ**b**/	/a**w**k/
cloud	/a**b**r/	/ho**w**r/
[b] ~ [v]	**[b]**	**[v]**
snow	/**b**arf/	/**v**or/
[z] ~ [ʒ]	**[z]**	**[ʒ]**
day	/ru**z**/	/ru**ʒ**/
sharp	/ti**z**/	/ti**ʒ**/
[p] ~ [f]	**[p]**	**[f]**
to fly	/**p**aridan/	/**f**ıra/

We also see that [z] ~ [ʒ] variation between them examples. [z] sound in Persian corresponds to [ʒ] in Zazaki. [p] ~ [f] sound correspondence is also another one.

3.2.2.1.4. Persian is a SWI Language

These datas shows us that the nearest relation between Persian and Baḵtiāri is found quite close. The data gives us information that these languages started to emerge as different dialects roughly around 162 BC. Kurmnaji and Zazaki which are the two other languages separated from West-Iranian languages in order of 109 BC and 162 BC. This shows that these four languages has relation but relatively Zazaki and Kurmanji seems far from Persian and Baḵtiāri. Thus these languages could take place in two different groups as Persian and Baḵtiāri are together in a group, Zazaki and Kurmanji are together in another group.

Figure 6. Glottochronology of Persian.
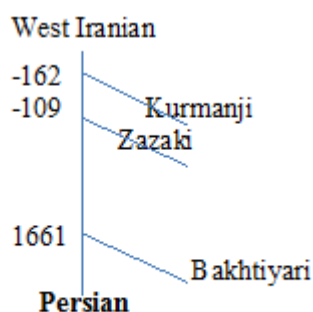
When phonetic equivalances are examined, it is seen that Persian [b] [z] [t] [f]variations correspond to [w]/[v] [ʒ] [d] [p]/[v] sounds in Kurmanji, Persian [b] [g] sounds correspond to [w]/[v] [j] in Baḵtiāri, Persian [b] corresponds to [p] sound in Zazaki .Table 22 shows this variations.

Table 22. PE of Persian

[b] ~ [w]/[v]	Persian	Kurmanji	[b] ~ [w]/[v]	Persian	Baḵtiāri
	[b]	**[w]/[v]**		**[b]**	**[w]/[v]**
water	/ɑb/	/awk/	cloud	/abr/	/awr/
cloud	/abr/	/howr/	green	sebz/	/sawz/
snow	/barf/	/vor/	night	/ʃab/	/ʃaw/
to sleep	/xabidan/	/xav/xavn/	to sleep	/xabidan/	/xa(o)wsiden/
water	/ɑb/	/av/	tongue	/zebɑ(u)n/	/z(av)un/
cloud	/abr/	/aur/	to turn	/bar gaʃtan/	/ver gaʃten/
night	/ʃab/	/ʃev/	**[g] ~ [j]**	**[g]**	**[j]**
[z]~[ʒ]	**[z]**	**[ʒ]**	other	/digar/	/dijar/
long	/derɑz/	/direʒ /	dog	/sag/	/saj/
woman	/zan/	/ʒin//ʒınık/	to live	/zendegi kardan/	/zendeji kerden/
wife	/zan/	/ʒ{ə/ɤ}n/	if	/agar/	/ajar/
day	/ruz/	/roʒ/	**[b] ~ [p]**	**Persian**	**Zazaki**
sharp	/tiz/	/dûʒ/		**[b]**	**[p]**
[t]~[d]	**[t]**	**[d]**	leaf	/barg/	/pell/
sharp	/tiz/	/dûʒ/	wing	/bɑl/	/pel/
narrow	/teng/	/denk/		**Persian**	**Kurmanji**
to see	/didan/	/ditin/		**[p]**	**[b]**
to fear	/tarsidan/	/dîrs/	five	/pendʒ/	/ bendʒ/
[f]~[p]/[v]	**[f]**	**[p] / [v]**			

white	/sefid/	/sıpi/
half	/nes**f**/	/nî**v**/
navel	/n**ā**f/	/na**v**ik/

The most distinctive aspects of Persian which difers it from others is the [b] sound, Persian can be characterised as a [b] language.

When we look at the historical back ground, we see the domination of Safavid dynasty on Iran with conquering Tabriz. This date also states the domination of Shia in Iran. It is also the beginning of political, strategic and ideologic struggle between Ottoman and Savafi states until the *Caldıran War* in 1514 and the *Kasr-ı Sirin* treaty in 1639 after ongoing many other wars.

3.2.2.2. Ba<u>k</u>tiāri in Western Iranian languages:

The common words between Persian and The other Iranian languages are given below.

Table 23. Glottostatistic of Ba<u>k</u>tiāri

	Persian		Kurmanji		Zazaki	
Ba<u>k</u>tiāri	n	%	n	%	n	%
	179	86.0	88	42.3	86	41.3

The common words between Ba<u>k</u>tiāri and Persian has been given above in the section 3.2.2.1.1. Persian and Ba<u>k</u>tiāri so it won't be given here again.

3.2.2.2.1. Ba<u>k</u>tiāri and Kurmanji

There are 88 comman words between Ba<u>k</u>tiāri and Kurmanji which make % 42.3 of similarity:

$$t = \frac{\log (0,423)}{2 \log (0,81)} = \frac{-0,3736}{-0,1830} = 2,041$$

Our calgulation shows that Ba<u>k</u>tiāri and Kurmanji sarted to separate from each other 2041 years ago. Glottochronology gives us the date 23 BC which is a distant separation date (2018 - 2041= -23 BC).

There are 88 common words between Kurmanji and Ba<u>k</u>tiāri. There are also sound correspondences between Kurmanji and Ba<u>k</u>tiāri these sound changes as

follows. Sounds which are common between Kurmanji and Baḵtiāri are b/v/w sound correspondences: Table 24 shows these variations.

Table 24. PE of Kurmanji and Baḵtiāri

	Kurmanji	Baḵtiāri
[t] ~ [d]	**[d]**	**[t]**
you	/**d**u/	/**t**o/
narrow	/**d**enk/	/**t**eng/
to fear	/**d**îrs/	/**t**arsiden/
sharp	/**d**ûʒ/	/**t**iz/
to see	/di**t**in/	/di**d**en/
[f] ~ [b] ~ [p]	**[f], [b]**	**[p]**
to fly	/**f**ırja/	/**p**ariden/
five	/**b**endʒ/	/**p**andʒ/
father	/bav/bawo/	/bau/
full	/ʃepellî/	/por/
[ʒ] ~ [z]	**[ʒ]**	**[z]**
sharp (as a knife)	/dû**ʒ**/	/ti**z**/
long	/dire**ʒ** /	/derɑ**z**/
woman	/**ʒ**in//**ʒ**ınık/	/**z**i:ne/
wife	/**ʒ**{ə/ɤ}n/	/**z**i:ne/
day	/ro**ʒ**/	/ru**z**/

3.2.2.2.2. Baḵtiāri and Zazaki

There are 86 comman words which makes % 41.3 of similarity between Bakhtiyari and Zazaki.

$$t = \frac{\log (0{,}413)}{2 \log (0{,}81)} = \frac{-0{,}38404}{-0{,}18302} = 2{,}098$$

The number of the common words gives us the date 2098 that is these two languages started to differ from eachother around 80 BC (2018 - 2098= -80).

When we look at the phonetic equivalances between Zazaki and Baḵtiāri we can see that [ʒ]/[ʤ] sounds in Zaaki appears as [z] sound in Baḵtiāri .The sound correspondences between Zazaki and Baḵtiāri are given in table 25..

Table 25. PE of Zazaki and Baḵtiāri

PE	Zazaki	Baḵtiāri
[ʒ]/[ʤ]~[z]	[ʒ]/[ʤ]	[z]
sharp	/tiʒ/	/tiz/
long	/derg/	/derɑz/
woman	/ʤini/	/zi:ne/
wife	/ʤini/	/zi:ne/
day	/ruʒ/	/ruz/

3.2.2.2.3. Baḵtiāri is a SWI Language

When the relations of languages are evaluated in terms of Baḵtiāri, it is seen that the nearest relative of Baḵtiāri is Persian which is separated in 1661. Kurmanji and Zazaki which are two other languages belong to west-Iranian languages start to differ from Baḵtiāri around 23 BC and 80 BC. As it is confirmed above, this could refer to Kurmanji and Zazaki can take place in another group, Persian and Baḵtiāri can take place another group.

Figure 7. Glottochronology of Baḵtiāri
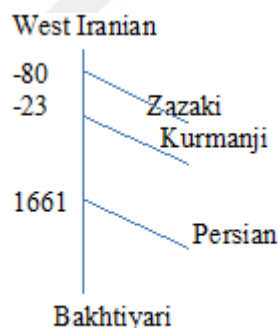
According to the phonetic equivalences like Persian, Baḵtiāri uses z/p/t/ sounds so it differs from other languages in that respect. Thus it can be said that Baḵtiāri is z/p/t/ language.

3.2.2.3. Kurmanji in Western Iranian Languages:

The data about common words between Kurmanji and other Iranian languages are given in table 26.

Table 26. Glottostatistic of Kurmanji

	Persian		Baḵtiāri		Zazaki	
	n	%	n	%	n	%
Kurmanji	85	40.8	88	42.3	87	41.8

Kurmanji and Persian are analysed in the section "3.2.2.1.2. Persian and Kurmanji", Baḵtiāri and Kurmanji are analysed in the section "3.2.2.2. Baḵtiāri and Kurmanji" so, these analyses won't be given here again.

3.2.2.3.1. Kurmanji and Zazaki

Kurmanji and Zazaki share 87 common words in other words % 41.8 percentage of similarity. If we apply glottochronology we find out the following result.

$$t = \frac{\log(0{,}418)}{2\log(0{,}81)} = \frac{-0{,}37882}{-0{,}1830} = 2{,}069$$

According to this formula % 41.8 of similarity shows that Kurmanji and Zazaki started to emerge as different dialects about 2.069 years ago around 51 BC (2018 - 2069= -51).

If we look at the sound changes between them we can see that (t/d) variations are also seen between them.

Table 27. PE between Kurmanji and Zazaki

PE	Kurmanji	Zazaki
[t]~[d]	**[d]**	**[t]**
you	/tu/ /**d**u/	/**t**î/
to fear	/**d**îrs/	/**t**ersen/
to say	/beʒa**d**ʊn/	/va**t**en/
sharp	/**d**ûʒ/	/**t**iʒ /
narrow	/**d**enk/	/**t**eng/
[b]~[p]	**[b]**	**[p]**
five	/**b**endʒ/	/**p**ondʒ/
leaf	/**b**elg/	/**p**ell/
[b]~[v]	**[b]**	**[v]**
to say	/**b**eʒadʊn/	/**v**aten/
snow	/**b**erf/	/**v**or/
[m]~[n]	**[n]**	**[m]**
not	/**n**a/	/**m**a-**m**e/
[k]~[g]/[q]	**[k]**	**[g]/[q]**
narrow	/den**k**/	/ten**g**/
sand	/**k**um/	/**q**um/

There is also variation in [b]~[p] sounds.That is [b] sound in Kurmanji turns into [p] sound in Zazaki. [m]~[n] variations also exist between them. The sound [m] in Kurmanji corresponds to [n] sound in Zazaki. [k]~[g]/[q] variation appears also between Kurmanji and Zazaki. We see that [k] sound in Kurmanji corresponds to [g]/[q] sounds in Zazaki.

3.2.2.3.2. Kurmanji is a NWI Language

When the states of languages are examined in terms of Kurmanji, it is revealed that the nearest relative of Kurmanji is Zazaki which started to emerge as a separate dialect around 51 BC. It seems that the other two languages, Persian and Ba<u>k</u>tiāri, start to differ from Kurmanji around 23 BC and 109 BC. Once more, it has been observed that Kurmanji positions with Zazaki in a group while Persian and Ba<u>k</u>tiāri positions in another group.

Figure 8. Glottochronology of WI Languages.
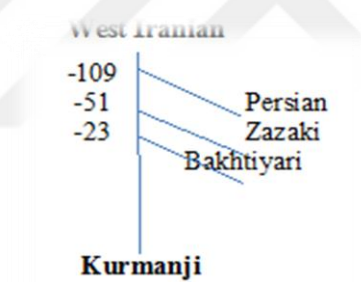
In terms of phonetic equivalances Kurmanji differs from others by its preference of [d], [ʒ], [v] sounds while others choose [t], [z], [b] sounds. Especially Kurmanji differs from others in preference of [d] sound while Zazaki, Persian and Ba<u>k</u>tiāri perefers [t] sound. [ʒ], [v] sounds in Kurmanji correspond to Zazaki and differs from Persian and Ba<u>k</u>tiāri. Table 28 shows these variations.

Table 28. PE of Kurmanji

PE	Kurmanji	Zazaki	PE	Kurmanji	Persian
[t]~[d]	[d]	[t]	**[z]~[ʒ]**	**[ʒ]**	**[z]**
you	/tu/ /**d**u/	/**t**î/	long	/dire**ʒ** /	/dera**z**/
to fear	/**d**îrs/	/**t**ersen/	woman	/**ʒ**in//**ʒ**ınık/	/**z**an/
to say	/beʒa**d**ʉn/	/va**t**en/	wife	/**ʒ**{ə/ɣ}n/	/**z**an/
sharp	/**d**û**ʒ**/	/**t**i**ʒ** /	day	/ro**ʒ**/	/ru**z**/
[b]~[p]	[b]	[p]	sharp	/**d**û**ʒ**/	/ti**z**/
five	/**b**endʒ/	/**p**ondʒ/		**Kurmanji**	**Baḵtiāri**
leaf	/**b**elg/	/**p**ell/	sharp	/**d**û**ʒ**/	/ti**z**/
	Kurmanji	**Persian**	long	/dire**ʒ** /	/dera**z**/
sharp	/**d**û**ʒ**/	/**t**iz/	woman	/**ʒ**in//**ʒ**ınık/	/**z**i:ne/
narrow	/**d**enk/	/**t**eng/	wife	/**ʒ**{ə/ɣ}n/	/**z**i:ne/
to see	/di**t**in/	/di**d**an/	day	/ro**ʒ**/	/ru**z**/
to fear	/**d**îrs/	/**t**arsidan/	**[f] ~ [b] ~ [p]**	**[f], [b]**	**[p]**
	Kurmanji	**Baḵtiāri**	to fly	/**f**ırja/	/**p**ariden/
you	/**d**u/	/**t**o/	five	/**b**endʒ/	/**p**andʒ/
narrow	/**d**enk/	/**t**eng/	*father*	*/bav/bawo/*	*/bau/*
to fear	/**d**îrs/	/**t**arsiden/	*full*	*/ʃepellî/*	*/por/*
sharp	/**d**û**ʒ**/	/**t**iz/	PE	**Kurmanji**	**Zazaki**
to see	*/di**t**in/*	*/di**d**en/*	[b]~[v]	[b]	[v]
PE	**Kurmanji**	**Persian**	to say	/**b**eʒadʉn/	/**v**aten/
[b]~[v]	**[v]**	**[b]**	snow	/**b**erf/	/**v**or/
to sleep	/xa**v**/xa**v**n/	/xa**b**idan/			
water	/a**v**/	/ɑ**b**/			
cloud	/a**u**r/	/a**b**r/			
night	/ʃe**v**/	/ʃa**b**/			
[f]~[p]/[v]	**[p] / [v]**	**[f]**			
white	/sıpi/	/sefid/			
half	/nî**v**/	/nes**f**/			
navel	/na**v**ik/	/nā**f**/			
[p] ~ [b]	**[b]**	**[p]**			
five	/ **b**endʒ/	/**p**endʒ/			

These datas enables us to describe Kurmanji as [d], [ʒ], [v] language.

3.2.2.3. Zazaki in Western Iranian languages

Zazaki and the other Iranian languages has been compared above. According to the results optained, it is examined that Zazaki consists of common words approximately at equal rate with other three languages.

Table 29. Glottostatistic of Zazaki

	Persian		Baḵtiāri		Kurmanji	
Zazaki	n	%	n	%	n	%
	83	39.9	86	41.3	87	41.8

Besides the glottochronologic coparison which Zazaki is based on, It is clearly examined that Zazaki is quite close to these other three languages. The closest relationis between Zazaki and Kurmanji that these two languages started to emerge as different dialects about 51 BC, And Zazaki started to differ from Baḵtiāri around 80 BC and from Persian around 162 BC. These relations are given in figure 9.

Figure 9. Glottochronology of Zazaki.
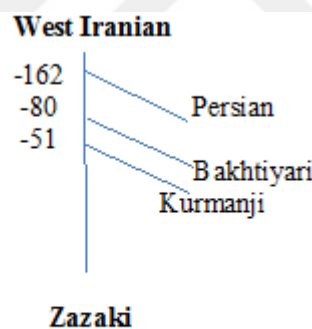
In terms of phonetic equivalances Zazaki differs from other languages with the following aspects. [b] ,[d], [n], [k] sounds in Kurmanji correspond to [v]/ [p], [t], [m], [g]/[q] sounds in Zazaki, [ʒ]/[ʤ] sound in Zazaki corresponds to [z] sound in Baktiari, [p] sound in Zazaki corresponds to [b] sound in Persian.

Table 30. PE of Zazaki

[b]~[v]	Zazaki	Kurmanji	[t]~[d]	Zazaki	Kurmanji
	[v]	**[b]**		**[t]**	**[d]**
to say	/**v**aten/	/**b**eʒadɯn/	you	/**t**î/	/tu/ /**d**u/
snow	/**v**or/	/**b**erf/	to fear	/**t**ersen/	/**d**îrs/
[m]~[n]	**[m]**	**[n]**	to say	/va**t**en/	/beʒa**d**ɯn/
not	/**m**a-**m**e/	/**n**a/	sharp	/**t**iʒ /	/**d**ûʒ/
[k]~[g]/[q]	**[g]/[q]**	**[k]**	narrow	/**t**eng/	/**d**enk/
narrow	/ten**g**/	/den**k**/	**[b]~[p]**	**[p]**	**[b]**
sand	/**q**um/	/**k**um/	five	/**p**ondʒ/	/**b**endʒ/
[ʒ]/[dʒ]~[z]	**Zazaki**	**Baḵtiāri**	leaf	/**p**ell/	/**b**elg/
	[ʒ]/[dʒ]	**[z]**		**Zazaki**	**Persian**
sharp	/ti**ʒ**/	/ti**z**/	leaf	/**p**ell/	/**b**arg/
long	/der**g**/	/derɑ**z**/	wing	/**p**el/	/**b**ɑl/
woman	/**dʒ**ini/	/**z**i:ne/			
wife	/**dʒ**ini/	/**z**i:ne/			
day	/ru**ʒ**/	/ru**z**/			

Zazaki differs from other languages as being [dʒ], [ʒ], [t] and [v] language. It is also a significance data that Zazaki differs from Kurmanji with [t]~[d], [b]~[v] and [b]~[p] equivalances.

3.2.2.5. Conclusion: SWI and NWI Languages

The data which is gathered, Supports the idea that the west Iranian languages divided into two sub groups. It is understood that Baḵtiāri and Persian which are traditionally grouped in South-western Iranian languages are quite close to each other in terms of phonetic equivalances and glottochronology. The phonetic variations between these two languages, which started to separate from each other about middle of the 17th century, are limited with [b] ~ [w]/[v] ve [g] ~ [j] sounds. Furthermore, starting point of separation of these languages are quite older than other two languages in this study. The results show that Persian and Zazaki started to emerge as different dialects about 162 BC, Persian and Kurmanji started to emerge as different dialects around 109 BC. For Baḵtiāri the dates are closer. It is understood that Baḵtiāri started to differ from Zazaki around 80 BC, as for Kurmanji in 23 BC.

Although there are numerous different views, it is possible to say the similar things for Zazaki and Kurmanji which are categorised in the Nort-Western Iranian language group. Indeed, the date 51 BC is found as the starting point of separation for these two languages. It means that these two languages started to emerge as different dialects in almost the same date with their separation from Sout-West Iranian group. Some of the linguists do not categorize Zazaki in the Kurdish languages, this idea over laps with our results. When the phonetic equivalances are examined, it is seen that these two languages have significant differences. While Zazaki is seemed as [ʤ], [ʒ], [t] and [v] language, Kurmanji is appeared as [ʒ], [d], [v] and [b] language. As these two languages differ in [t]~[d], [b]~[v] and [b]~[p] equivalances, it rises the doubts about their belonging to the same group.

At this stage, the most important question in regard to this study is what is the relation of these languages with Sauzini, and whether it belongs to any of these groups or not. If so, which one of them it belongs to. Therefore analysis to determine Sauzini will continue below sections. Firstly Sauzini will be compared with Nort-Western Iranian languages and later it will be compared with South-west Iranian languages and finally we will try to come to a conclution about its belonging.

3.2.3. Sauzini in Northwestern Iranian Languages

This section is devoted to examine the place of Sauzini in the North-west Iranian languages. Thus Sauzini will be compared with Kurmanji and Zazaki separately. Firstly at the basis of common word roots, the proximity of Sauzini to the North-Western Iranian languages will be determined with glottochronologic method. Afterwards the details about relation of these languages with Sauzini will be determined by appealing the phonetic equivalances.

3.2.3.1. Sauzini and Kurmanji

Sauzini and Kurmanji are another strong couple of language which show similarity. There are 107 common words which makes %51.4 percentage.

$$t = \frac{\log(0{,}514)}{2\log(0{,}81)} = \frac{-0{,}28903}{-0{,}18302} = 1{,}579$$

According to this formula %51.4 percentage of similarity shows that Sauzini and Kurmanji start to differ from each other about 1.579 years ago, around 439 AC (2018 - 1579= 439).

Our analysis on Sauzini and Kurmanji shows that there are 107 common words and when we examined the phonetic equivalances, we see that there are also some phonetic equvalance between Sauzini and kurmanji words. It is seen that [t] sound in Sauzini corresponds to [d] sound in Kurmanji, [p] sound in Sauzni corresponds to [b] sound in Kurmanji and [v] sound in Sauzini corresponds to [b] sound in Kurmanji. Table 31, 32, 33 are given to show sound correspondences between Sauzini and Kurmanji.

Table 31. [t] ~[d] PE between Sauzini and Kurmanji.

PE	Sauzini	Kurmanji
[t] ~[d]	[t]	[d]
you	/tu/	/du/
narrow	/t{ə/ʌ}ŋk/	/denk/ nazaln/
to fear	/tɪrsandɯn/	/dîrs/
smoke	/tuman /dü/	/dûman/
sharp	/tiʒ/	/dûʒ/

Table 32. [p]~ [b] PE between Sauzini and Kurmanji.

PE	Sauzini	Kurmanji
[p]~ [b]	[p]	[b]
five	/pʌndʒʌn/	/bendʒ/
nose	/ pyz/	/boz/fırnık/

Table 33. [v]~ [b] PE between Sauzini and Kurmanji.

PE	Sauzini	Kurmanji
[v]~ [b]	[v]	[b]
leaf	/vʌlg/	/belg/
wind	/vɑ:ɹəwɑ/ va/	/ba/
snow	/vəɹf/	/berf/

It is possible to say that Sauzini is [t], [p], [v] language while Kurmanji is [d], [b], and [b] language.

3.2.3.2. Sauzini and Zazaki

Our investigation on Sauzini and Zazaki shows that sound correspondence between Sauzini and Zazaki is striking. Although the number of common words between Sauzini and Zazaki less than the number between Sauzini and Kurmanji one-to-one correspondence is higher. There are 92 common words and % 44.2 percentage of similarity between them.

$$t = \frac{\log (0,442)}{2 \log (0,81)} = \frac{-0,35457}{-0,18302} = 1,937$$

According to this formula 44.2 percentage of similarity shows that Sauzini and Zazaki are separated from each other about 1.937 years ago, around 81 AC (2018 - 1937= 81 AC).

When we look at phonetic eqvvalances between Sauzini and Zazaki, we see that [ʒ] sound in Sauzini corresponds to the [dʒ] sound in Zazaki as in the example /ʒ{ə/ɤ}n/ ~ /dʒini/ ("woman"), [s] sound in Sauzini correspond to the [ʃ] sound in Zazaki, [ʊ] sound in Sauzini correspond to the [w] sound in Zazaki. Tables 34, 35, 36 show these variations.

Table 34. [ʒ]~[dʒ]PE between Sauzini and Zazaki

PE	Sauzini	Zazaki
[ʒ]~[dʒ]	[ʒ]	[dʒ]
woman	/ʒ{ə/ɤ}n/	/dʒini/

Table 35. [s] ~ [ʃ] PE between Sauzini and Zazaki

PE	Sauzini	Zazaki
[s] ~ [ʃ]	[s]	[ʃ]
correct	/rast/	/raʃt/
right	/rʌst/	/raʃt/

Table 36. [ʊ]~[w] PE between Sauzini and Zazaki

PE	Sauzini	Zazaki
[ʊ]~[w]	[ʊ]	[w]
night	/ʃʌʊ/	/ʃôw/

And we can say that there are equvalances between [ʒ], [s] [ʊ] and [ʤ], [ʃ], [w], sounds thus it can be said that Sauzini is [ʒ], [s] and [ʊ] language while Zazaki is [ʤ], [ʃ] and [w] language.

3.2.3.3. Position of Sauzini in NWI Languages

The comparision of Sauzini with Kurmanji and Zazaki which are counted in Nort-Western Iranian languages shows that Sauzini is close to these languages according to the glottostatistic. The basic words is common at the 51.4% with Kurmanji, and at the 44,2% with Zazaki.

Table 37. Glottostatistic of Sauzini and NWI

	Kurmanji		Zazaki	
Similarity	n	%	n	%
Sauzini	107	51.4	92	44.2

In terms of Glottochronology, there are about 350 years between the starting point of separation of these two languages. In this respect, Sauzini is seemed to closer to Kurmanji as they started to emerge as different dialects around 439 AC. Likewise Sauzini and Zazaki started to emerge as a separated dialect in 81 AC. Figure 10 shows these relations.

Figure 10. Glottochronology of Sauzini.
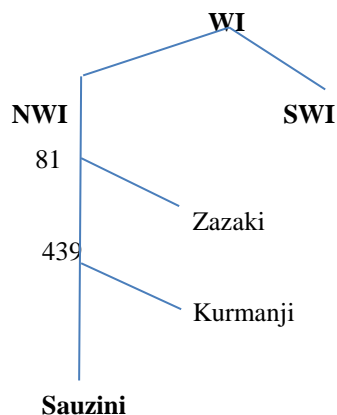
Although Sauzini seems close to Kurmanji on glottochronologic base, in terms of phonetic equivalances it is understood that Sauzini is closer to Zazaki.

In deed, in [t] ~ [d] equivalance, Sauzini differs from kurmanji which is [d] language, and it is in the [t] language category together with Zazaki. The voiced alternative of this sound is used by Kurmanji and at this point it differs from Sauzini and Zazaki.

Table 38. [d]~[t] PE of Sauzini

[d]~[t]	[d]	[t]	
	Kurmanji	**Zazaki**	**Sauzini**
you	/du/	/tî/	/**t**u/
narrow	/denk/	/teng/	/**t**{ə/ʌ}ŋk/
to fear	/dîrs/	/tersen/	/**t**ırsandʉn/
sharp	/dûʒ/	/tiʒ/	/**t**iʒ/

On the other hand, There is [b] ~ [v] variance between them. Kurmanji choose [b] variance while Zazaki and Sauzini are at the same category as [v] languages. Table 39 shows this sound correspondence.

Table 39. [b]~[v] PE of Sauzini

[b]~[v]	[b]	[v]	
	Kurmanji	**Zazaki**	**Sauzini**
leaf	/**b**elg/	/**p**ell/	/**v**ʌlg/
wind	/**b**a/	/*hava*/	/**v**ɑ:ɹəwɑ/**v**a/
snow	/**b**erf/	/**v**or/	/**v**əɹf/
to say	/**b**eʒadʉn/	/**v**aten	/**v**ʉtʉn/
rain	/ʃılî/	/dıʒn/	/**v**a:rʌn/
to tie	/*girêdan*/	/*gıredajen*/	/**w**ɒstʉn/

Although, glottochronologic data shows that Kurmanji and Sauzini are closer to each other, phonetic equivalances shows that Sauzini is closer to Zazaki.

3.2.4. Sauzini and SWI Languages

In this section, the place of Sauznini into South-West Iranian languages will be interrogated. At first sight, the closeness of Sazuini to South-West Iranian languages draws attention according to the number of common words they share. But to determine the details of this relation, Sauzini must be compared with Persian and Baḵtiāri in terms of glottostatistic, glottochronologic and phonetic equivalances.

3.2.4.1. Sauzini and Persian

Comperative patern between Sauzini and Persian shows great similarity. 120 common words draw attention between them. When we look at the percentage of similarity, we see that %57.6 of matchup.

$$t = \frac{\log (0,576)}{2 \log (0,81)} = \frac{-0,23957}{-0,18302} = 1308$$

According to this formula %57.6 of similarity shows that Sauzini and Persian started to emerge as different languages about 1308 years ago, around 710 AC (2018 - 1308= 710). Our results show that there are 3 phonetic equvalences between Sauzini and Persian: [ʒ] ~ [z], [v] ~ [b] ve [ʊ] ~ [b].The first one is [ʒ] ~ [z] variations.

It is seen that [ʒ] sound Sauzini appears as [z] in Persian: diɾiʒ/ ~ /derɑz/ ("long"), /ʒ{ə/ɤ}n/ ~ /zan/ ("woman"), /ʒ{ə/ɤ}n/ ~ /zan/ ("wife"), /ruʒ/ ~ /ruz/ ("day"), /tiʒ/ ~ /tiz/ ("sharp"). Tables 40, 41, 42 show these correspondences.

Table 40. [[ʒ] ~ [z] PE between Sauzini and Persian.

PE	Sauzini	Persian
[ʒ] ~ [z]	[ʒ]	[z]
long	/diɾiʒ/	/derɑz/
woman	/ʒ{ə/ɤ}n/	/zan/
wife	/ʒ{ə/ɤ}n/	/zan/
day	/ruʒ/	/ruz/
sharp	/tiʒ/	/tiz/

Second one is [b] ~ [v] variation at the beginning of a word. [b] sound at the begginin of a word in Persian corresponds to [v] sound in Sauzini.

Table 41. [v] ~ [b] PE between Sauzini and Persian.

PE	Sauzini	Persian
[v] ~ [b]	[v]	[b]
leaf	/vʌlg/	/barg/
rain	/va:rʌn/	/bɑrɑ(u)n/
wind/	vɑ:ɹəwɑ/va/	/bɑd/
snow	/vəɹf/	/barf/
to tie	/wɒstuun/	/bastan /

Table 42. [ʊ] ~ [b] PE between Sauzini and Persian.

PE	Sauzini	Persian
[ʊ] ~ [b]	[ʊ]	[b]
green	/saʊs/	/sebz/
night	/ʃʌʊ/	/ʃab/

water	/aʊ/	/ɑb/
cloud	/aʊr/	/abr/
false cognate		
feather	*/mü/*	*/Per/+false cog.*
hair	*/pɤɹtʃ/*	*/mu/*

The last one is [ʊ] ~ [b]variation at the end and within a word. [ʊ]sound in Sauzini corresponds to [b] sound in Persian.

There are also false cognate words between Sauzini and Persian as in the example "feather" and "hair".

When we look at the historical events in the 8th century, we can see that between 637-641 Iran was conqured by Arabic-Islamic army. In 750 Abbasid dynasty defeated Emevis and rule over Iran.So we can say that Arabic breeze can affect Iranian languages. İncluding Arabic words are corroborative qualification about Sauzini that it can be one of the Iranian languages wich went through this historical stage.

As we mentioned in the section of geographic framework, Sauzini is mainly spoken in the northwest of Turkey such as Sinop, Kastamonu, Bartin, Karabuk, Amasya and recently in Istanbul. If we go back though the history, Persian civilization was founded around 500 BC and their territory traced from Pakistan to Bulgaria in fact we can see that Persians spread out throughout the Turkey too. The time that we found out is clearly too far to the Persian origin and it is also seems impossible to continue their existence since its foundation. However spoken are of Sauzini is also notable.

3.2.4.2. Sauzini and Baḵtiāri

Baḵtiāri is one of the languages that seem similar to Sauzini. Baḵtiāri is the dialect spoken mainly in southwestern Iran. There are 130 common words between them .That is % 62.5 of similarity. The glottochronologic date of separation as follows:

$$t = \frac{\log(0{,}625)}{2\log(0{,}81)} = \frac{-0{,}20411}{-0{,}18302} = 1{,}115$$

As calculation shows Baḵtiāri and Sauzini started to emerge as different dialects about 1115 years ago. Glottochronology gives the date 903 AC as a starting point of this separation (2018 - 1115= 903).

Wen we look at the historical background, as the closest date, it refers to date 1040 when Seljuks defeat Ghaznavid state in Dandanakan war. Firstly Seljuks conquered Khorasan and then the whole Iran.

When the pnoetic equvalces are analysed, it is seen that the phonetic equivalence are not different from others. Sound correspondence between Sauzini and Baḵtiāri are as follows.

When phonetic equivalances between Sauzini and Baḵtiāri are analysed, it is seen that these equvalances are indeed the similar phonetic equivalances with Persian. First one is [b] ~ [v] variation at the beginning of a word. As a [v] language Sauzini differs from Baḵtiāri which is a [b] language like Persian.

Table 43. [v] ~ [b] PE between Sauzini and Baḵtiāri

PE	Sauzini	Baḵtiāri
[v] ~ [b]	**[v]**	**[b]**
leaf	/**v**ʌlg/	/**b**alg/
rain	/**v**ɑ:rʌn/	/**b**ɑ:run/
wind	/**v**a/	/**b**ɑ:d/
snow	/**v**əɹf/	/**b**arf/
to tie	/**w**ɒstɯn/	/**b**asten/
to say	/**v**ʉtɯn/	/**b**eʒadɯn/

The second phonetic equivalence is in [ʒ] ~ [z] variations. Similarly Baḵtiāri and Persian are [z] languages while Sazuini differs by its preference of [ʒ] variation.

Table 44 . [ʒ] ~ [z] PE between Sauzini and Baḵtiāri

PE	Sauzini	Baḵtiāri
[ʒ] ~ [z]	**[ʒ]**	**[z]**
sharp	/ti**ʒ**/	/ti**z**/
long	/diɾi**ʒ**/	/derɑ**z**/
woman	/**ʒ**{ə/ɤ}n/	/**z**i:ne/
wife	/**ʒ**{ə/ɤ}n/	/**z**i:ne/
day	/ru**ʒ**/	/ru**z**/

3.2.4.3. Sauzini is a SWI Language?

In the comparision of Sauzini with South-West Iranian languages, it is preoccupied that this language can be categoried in South-West Iranian languages. Because the common words rate between these languages are higher than the common words rate of North-West Iranian languages. While this rate is 58% with Persian, it reaches up to 63.4% with Baḵtiāri.

Table 45. Glottostatistic of Sauzini and SWI

	Persian		Baḵtiāri	
Sauzini	n	%	n	%
	120	57.6	132	63.4

When we look at the separation dates of these languages, it is seen that their starting point of separation corresponds to a nearer period than the starting point of separation dates of North-West Iranian languages.The Glottochronologic method shows that Sauzini and Persian started to emerge as different dialects around 710 AC, with Baḵtiāri around 903 AC. Figure 11 shows relation of Sauzini with SWI languages.

Figure11: Glottochronology of Sauzini
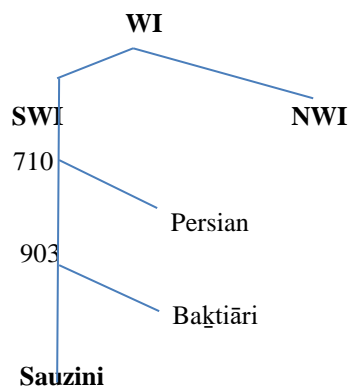
However, eventhough, these languages seem close to each other according to the glottochronology, in terms of phonetic equivalances Sauzini has many different aspects with both Persian and Baḵtiāri.

The first one is [ʊ] ~ [w] ~ [b] variation which is seen at the end and within a word. While Sauzini chooses [ʊ] sound, Baḵtiāri chooses[w] and Persian chooses [b] sounds.

Table 46 . [ʊ]~[w]~[b]PE of Sauzini

PE	[ʊ]	[w]	[b]
[ʊ]~[w]~[b]	**Sauzini**	**Baḵtiāri**	**Persian**
green	/saʊs/	/sawz/	/sebz/
night	/ʃʌʊ/	/ʃaw/	/ʃab/
water	/aʊ/	/aw/	/ɑb/
cloud	/aʊr/	/awr/	/abr/

Another equivalnace is seen in [v] ~ [b] variation. Sauzini by its pereference of [v] variation differs from Baḵtiāri and Persian which are [b] languages.

Table 47 . [v]~[b] PE of Sauzini

[v]~[b]	[v]	[b]	
	Sauzini	**Baḵtiāri**	**Persian**
leaf	/vʌlg/	/balg/	/barg/
wind	/vɑːɹəwɑ/**va**/	/bɑːd/	/bɑd/
snow	/vəɹf/	/barf/	/barf/
to say	/vuutɯn/	/beʒadɯn/	/goftan/
rain	/va:rʌn/	/bɑːrun/	/bɑrɑ(u)n/
to tie	/wɒstɯn/	/basten/	/bastan /

Another decisive equivalance is [ʒ] ~ [z] variation. Sauzini differs from Persian and Baḵtiāri with [ʒ] sound.

Table 48 . [ʒ] ~ [z] PE of Sauzini

[ʒ] ~ [z]	[ʒ]		[z]
	Sauzini	**Baḵtiāri**	**Persian**
long	/diɾiʒ/	/derɑz/	/derɑz/
woman	/ʒ{ə/ɤ}n/	/zi:ne/	/zan/
day	/ruʒ/	/ruz/	/ruz/
sharp	/tiʒ/	/tiz/	/tiz/

It is understood that Sauzini language which adopts [ʒ], [v] and [ʊ] sounds differs from Baḵtiāri and Perisian languages which adopt [z], [b] and [w] ~ [b] sounds.

To sum up, the datas which are gathered with glottostatistic and glottochronologic methods and the datas which are optained with phonetic equivalances are not compromissed with each other. In this respect, it won't be correct to classify Sauzini with SWI languages at this phase.

3.3. Sauzini is a Language Apart from SWI and NWI Laguages.

3.3.1. Classification on Glottostatistic and Glottochronology

This thesis which is tried to determine the place of Sauzini clearly shows that this language belongs to Iranian languages which started to emerge as a separated group from Indo-European language family about 5000-6000 years ago, between 3000-4000 BC. Hovever, Glottostatistic and Glottochronologic findings show that Sauzini is close to South West Iranian languages but on the other hand phonetic equivalences shows similarity with North West Iranian Language Zazaki. Thus these findings gives us contrary information. Thus Sauzini should be compared with other Iranian languages and Kurdish dialects too.

Figure 12. Glottochronology of Iranian Languages and English
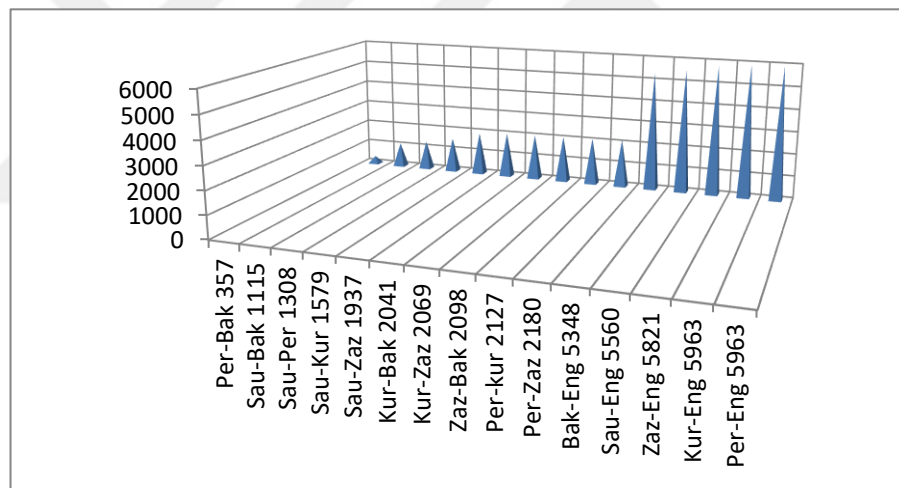
On the other hand, is appears that Sauzini belongs to West Iranian languages. But Sauzini should be also compared with the other Kurdish languages, dialects to make a straight classification. In deed, It is seen that the starting point of seperation of languages are relatively close to each other. As the earliest date is 162 BC which is the starting point of separation of Persian and Zazaki, this date could be based on as the the probable separation date of West Iranian languages. Besides, with reference to the diagram which shows the glottochronology of languages, it is possible to divide languages into three categories.

Figure 13. Glottochronology of WI Languages
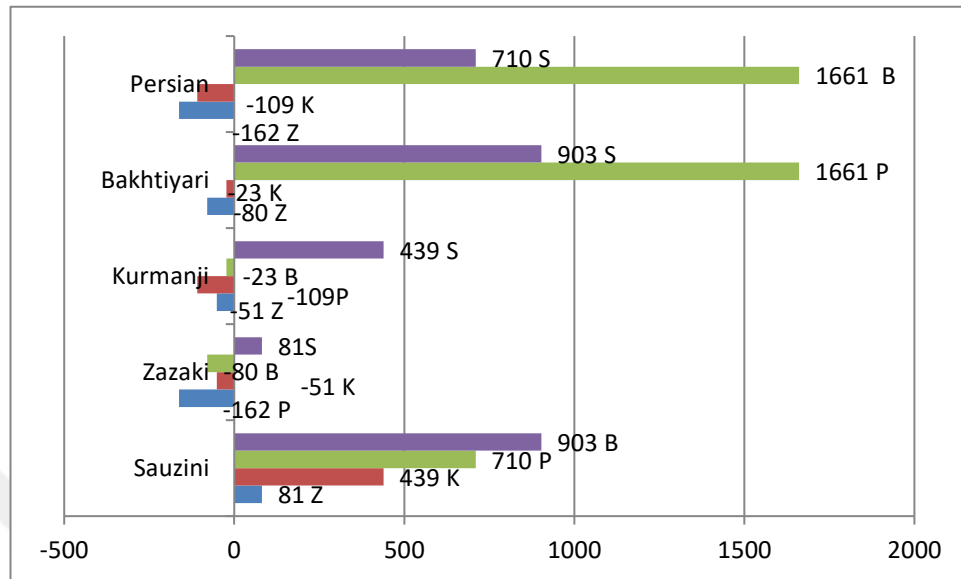
The first group, includes languages which starts to emerge a separate dialect relatively in an older date. In this respect Zazaki and Kurmanji present differences. It is seen that these two languages, except for Sauzini, started to emerge as separate languages between 162 BC and 23 BC. Zazaki has the earliest date of separation. It started to emerge as a separate dialect apart from Persian in 162 BC, from Baḵtiāri in 80 BC. Even the separation date with Sauzini in 81 AC shows a quite early date. It also seems impossible to put Zazaki and Kurmanji in the same group. Because they started to emerge as different dialects around 51 BC. That is even earlier than Sauzini.

The second group, includes languages which have relatively closer dates of separation. The high point of this group is the position of Persian and Baḵtiāri. The separation date of these languages indicates a quite closer period that is 1661 AC. Even their separation date from Sauzini refers a more recent period that others. Sauzini started to emerge as a separate dialect apart from Baḵtiāri in 903 AC, and from Persian in 720 AC.

But it is controversial whether Sauzini belongs to this group or not. Because the starting point of separation of Persian and Baḵtiāri with Kurmanji and Zazaki is quite old. While Persian started to emerge as a separated dialects between 162 -109 BC, Baḵtiāri started to emerge as a separate dialect between 80-23 BC. However the starting point of separation dates of Sauzini from Zazaki and Persian is not that old.

Sauzini stated to emerge as a separate dialect apart from Zazaki around 81 AC and especially from Kurmanji around 439 AC, in fact, after separated from Baḵtiāri about 270 years ago. As it is clearly seen from the diagram, Sauzini has a different place among these languages. On the one hand it stated to separate earlier than languages of both groups. On the other hand the separation dates quite back from Baḵtiāri and Persian is also quite older than the separation date, 1661 AC, of Baḵtiāri and Persian with each other. Figure 14 shows approximate dates among these languages as different dialects.

Figure: 14 Separation Dates of Indo-European Languages

*Indo-European
(-4000 /-3000)

*Germen
(-500)

*Indo-Iranian
(-1500)

*Iranian

Hint

*WI

*EI

(-51)

(81- 439)

(710 - 903)

(1661)

English Persian   Ba<u>k</u>tiāri   **<u>Sauzini</u>**   Kurmanji   Zazaki
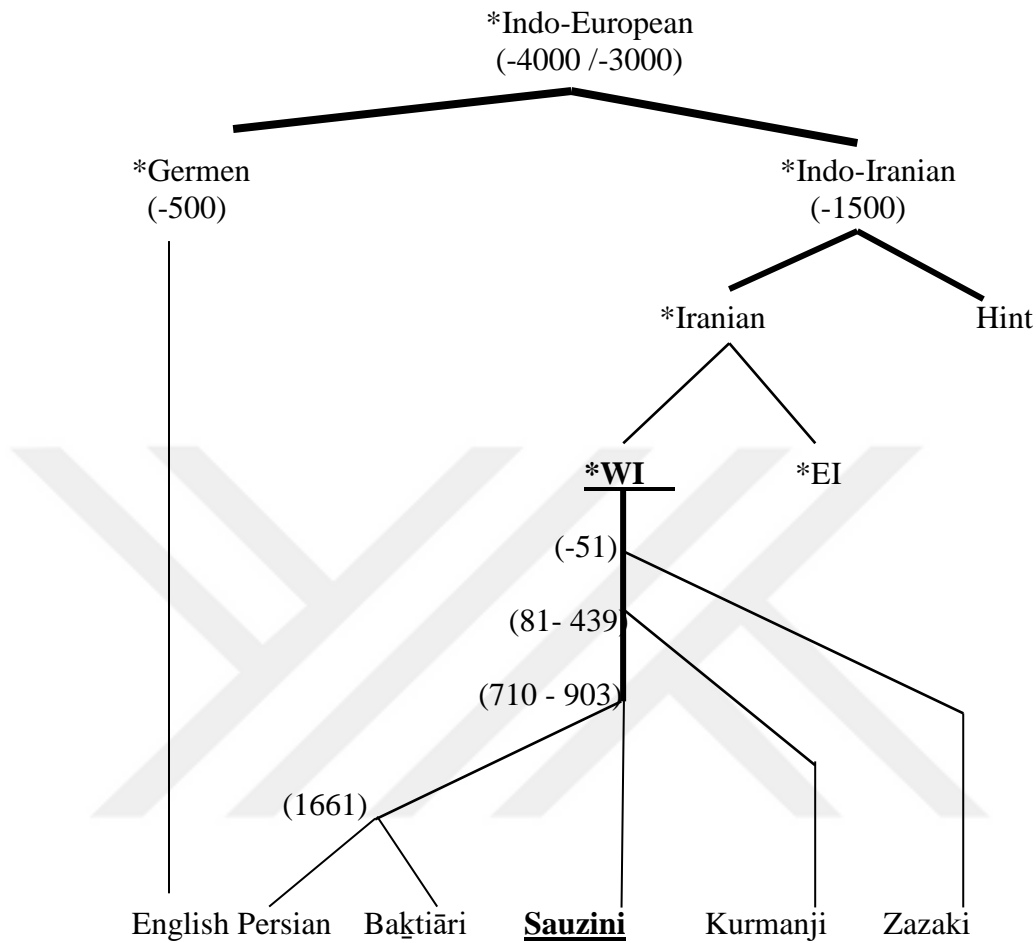
Conequently, in terms of glottochronology, it is not possible to embody Sauzini into both groups. It can be said that Sauzini creates another indipendent group. As it is seen from the diagram above, this classification can be suggested on glottochronological basis. Zazaki creates a different group as the earliest language which started to separate from West-Iranian languages. Kurmanji creates another group which started to separate from West-Iranian languages about130 years later after Zazaki. The idea that these two languages create North-West Iranian group is controversial.

The third group is the group which includes Persian and Ba<u>k</u>tiāri that are very close to each other in all points. This group which Ba<u>k</u>tiāri and Persian constitute, separated around 17th century and they create South-West Iranian language group.

As for Sauzini which started to emerge as a separate dialects from West-Iranian languages about 700-900 AC, it is difficult to come a compromise about in which group it should be take place. But glottochronological results corroborate the idea that this language is seemed to be a language between Kurmanji, Zazaki and South-West languages.

3.3.2. Classification on Phonetic Equivalences

To get an exact desicion, phonetic equivalences has been taken into cosideration. The results which have been gathered have been compromised with the projected hypothesis above. First of all, it is seen that as a [d] language, Kurmanji differs from other languages in [d] ~ [t] variation. At this point, as a [t] language, Sauzini is in the same position with other three languages.

Table 49. [d]~[t] Equivalences

[d]~[t]	[d]	[t]			
	Kurmanji	**Zazaki**	**Sauzini**	**Persian**	**Baḵtiāri**
you	/du/	/tî/	/**t**u/	/**t**o/	/**t**o/
narrow	/denk/	/teng/	/**t**{ə/ʌ}ŋk/	/**t**eng/	/**t**eng/
to fear	/dîrs/	/tersen/	/**t**ırsanduın/	/**t**arsidan/	/**t**arsiden/
sharp	/dûʒ/	/tiʒ/	/**t**iʒ/	/**t**iz/	/**t**iz/

Apart from Zazaki and Sauzini, and together with Persian and Baḵtiāri Kurmanji appears as a [b] language in [v]~[[b] variation. At this point Zazaki and Sauzini are in the same position as [v] languages.

Table 50. [v]~[[b] Equivalences

[v]~[[b]	[v]		[b]		
	Zazaki	**Sauzini**	**Kurmanji**	**Persian**	**Baḵtiāri**
leaf	/**p**ell/	/**v**ʌlg/	/**b**elg/	/**b**arg/	/**b**alg/
wind	*/hava/*	/**v**ɑ:ɹəwɑ/**v**a/	/**b**a/	/**b**ɑd/	/**b**ɑ:d/
snow	/**v**or/	/**v**əɹf/	/**b**erf/	/**b**arf/	/**b**arf/
to say	/**v**aten	/**v**uutuın/	/**b**eʒaduın/	/goftan/	/**b**eʒaduın/
rain	/dıʒn/	/**v**a:rʌn/	/ʃılî/	/**b**arɑ(u)n/	/**b**ɑ:run/
to tie	*/gıredajen/*	/**w**ɒstuın/	*/girêdan/*	/**b**astan /	/**b**asten/

When it comes to [b] ~ [w] ~ [v] ~ [ʊ] variations, it is seen that Kurmanji differs from both Sauzini and Zazaki. Zazaki together with Baḵtiāri adopt[w] variation

while Kurmanji adopts [v] and Sauzini adopts [ʊ] variations. The only [b] language is Persian.

Table 51. [w] ~ [v] ~ [ʊ] ~ [b] Equivalences

[b]~[w]~[v]~[ʊ]	[w]		[v]	[ʊ]	[b]
	Zazaki	**Baḵtiāri**	**Kurmanji**	**Sauzini**	**Persian**
green	/jeʃîl/	/sawz/	/kesk/	/saʊs/	/sebz/
night	/ʃôw/	/ʃaw/	/ʃev/	/ʃʌʊ/	/ʃab/
water	/awk/	/aw/	/av/	/aʊ/	/ɑb/
cloud	/howr/	/awr/	/aur	/aʊr/	/abr/

However it is seen that Sauzini is in the same group with Kurmanji and Zazaki in [ʒ] ~ [z] variation. The [z] consonant in Persian and Baḵtiāri corresponds to the [ʒ] consonant in other three languages. After all, some times this consonant corresponds to [dʒ] sound in Kurmanji as in the example /dʒini/ "woman".

Table 52. [ʒ] ~ [z] Equivalences

[ʒ] ~ [z]	[ʒ]			[z]	
	Kurmanji	**Zazaki**	**Sauzini**	**Persian**	**Baḵtiāri**
long	/derg/	/direʒ /	/diɾiʒ/	/derɑz/	/derɑz/
woman	/dʒini/	/ʒin/	/ʒ{ə/ɤ}n/	/zan/	/zi:ne/
day	/ruʒ/	roʒ/	/ruʒ/	/ruz/	/ruz/
sharp	/dûʒ/	/tiʒ /	/tiʒ/	/tiz/	/tiz/

From this point, we can show the phonetic equivalence in West-Iranian languages and their relations as in the diagram below. The most highlighted result is that Sauzini language takes place in the same group with Zazaki except for [b] ~ [w] ~ [v] ~ [ʊ] variations. The difference here is in [w] ~ [ʊ] variations which are in very close sounds category.

Figure 15: Phonetic Equivalence in WI Languages

Persian	Baḵtiāri	**<u>Sauzini</u>**	Kurmanji	Zazaki

```
Persian   Baḵtiāri    Sauzini        Kurmanji   Zazaki
   |          |           |                       [d]
   |_____|_____|_____|
                      [t]
   |          |              |                    [v]
   |_____|_____|_____|
   |                  [b]    |              |
  [b]                       [ʊ]            [v]
   |          |_____|_____|
   |                          |      [w]     |
   |_____|               |_____|
        [z]                          [ʒ]
```
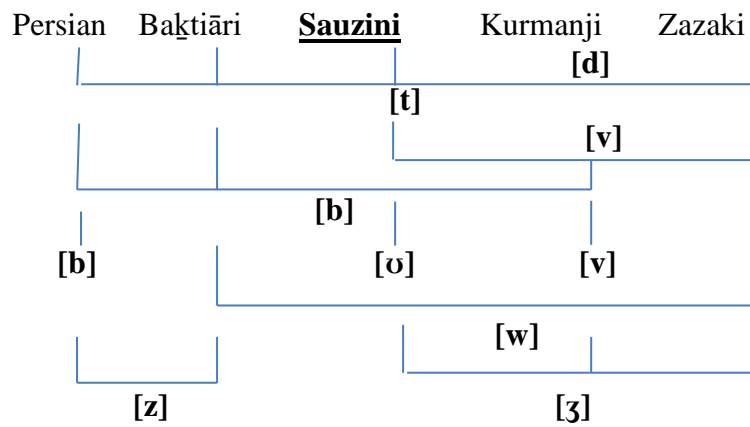
Consequently, it is understood that the languages which Sauzini are compared with have close relations with one another. But when phonetic equivalence are taken into consideration, particularly Zazaki, all these languages have common fetures, on the other hand each of these languages has also their own fetures that differs them from others.

CONCLUSION

This thesis is a kind of task which is a duty to do. Sauzini is the language of a small tribe who lives in Kastamonu/Yesilova province of Turkey. To study Sauzini is not an easy job as it has no written material. All the native speakers of Sauzini are bilingual and that is another difficulty of this study. Our investigation on this language shows that this community protect their language so far because they have a limited communication with outside of this community. Their choice of education and marriage are the main factors behind this protection. Although they still carry out marriage within their own community, compulsory education and migration to the big cities have changed the priority of Sauzini recently. Strong family ties are another striking feature of this community. Furthermore, studies should be done to determine the sociolinguistic condition of this language and especially interms of "ethnolinguistic vitality" and "endangered languages".

The aim of this study is not to study the ethnicity of Sauzinians but to study their language and make a preliminary classification of it. Although there have not been any studies about Sauzinians, they are assumed to be Kurdish or Cypsies by an outsider looking in. Thus, we have already talked about the complexity of Kurdish and even the word Kurdish put a question mark in the minds. There are many different hypotheses about Kurdish language and its origin. Richard Donovan in his thesis and many others give a map of region inhabited by Kurdish. These maps mostly cover some provinces in the east part of Tukey, Syria, Iran and Iraq (Donovan, 1990). In this respect Sauzinians has a different inhabitant but their relation should be examined in other studies.

As it is understood, Kurdish history is complex and many studies about their language and ethnicity are in the shadow of political manipulation. However glottostatistic and glottochronologic studies show that these languages are close to one another. In spite of the fact that our investigation shows that there are important differences between Zazaki, Kurmanji and Sauzini in their customs such as wedding and folk dancing and the issues such as feud, aga and tribalism which are practised by many Kurdish families in the east are not seen in Sauzini tradition and social structure.

As there are not any written materials about their language our investigation mainly depends upon the information which is gathered from our native speakers.

The region where they live is mainly the west part of the Blacksea. Kastamonu, Sinop, Karabuk, Amasya are the provinces where they mainly spread. But this thesis just covers Kastamonu/Yesilova village and the villagers who migrate to the Istanbul. It is easy to determine them because they prefer to live in the same neighbourhood. The population of Sauzinians who lives in Yesilova is 765 but we have already indicated that there are many kins of sauzinians who live in Istanbul and their numer all together is roughly 1300-1500. Due to the fact that they live in big cities and they take compulsory education, newborns do not produce this language any more so our theory that Sauzini can be one of the edengered languages becomes a strong theory.

> "Many languages are falling out of use and being replaced by others that are more widely used in the region or nation... these endangered languages will become extinct within the next century. Many other languages are no longer being learned by new generations of children or by new adult speakers; these languages will become extinct when their last speaker dies."(Woodbury & Birner, 2018).

As Woodbury explains new generation will no longer learn this language. Many other scholars such as Wade Davis in his "Vanishing Cultures" (Davis, 1999) and Lenore Grenoble in his "Endangered Languages: Language Loss and Community Response" highlights the same idea. (Grenoble, 1998).

Recent archelogical findings correspond to our study incidently. The archelogical studies which are done by associate professor Sevket Donmez show that there is trail from Persian in the black sea region in Amasya/Oluz Höyük. (Donmez, 2012, p.140-145). It is hard to say that it explains the the existence of Sauzinians in the black sea region but it should be taken into consideration. Also the similarity between the names of Sasanians and Sauzinians that we already mentioned in the Persian Origin of Sauzinians section help us to go twords the theory Persian origin. The idea of the Sauzinians about coming from Khorosan or Persian origin is seemed to be a strong theory. When it comes to the other theory about their Kurdish origin, we found that even the word of Kurdish is problematic. We could not found any material

or hint about Kurdish origins of this tribe except they call all the Kurdish people as Sauzini. So it is another contention which asserts that all this communities come from the same origin. There should be other studies to find out their ethnicity.

The first chapter of this study is devoted to show that Sauzini is an Indo-European language. According to the Britanica "The chief reason for grouping the Indo-European languages together is that they share a number of items of basic vocabulary, including grammatical affixes." (Jasanoff and Cowgill, 2018). Our study shows that there are shared items in the affixes between these languages. In our first investigation associated with Prof. Eser Taylan and her assistant Filiz Mutlu, we found twelve different vowel sounds and this work is presented to the academicians in Bogazici University in 2016.

Southwest Iranian language group which includes Persian and Bak̲tiāri shows more similarity in terms of *glottostatistic*, *glottochronology* and phonetic equivalances than northwest Iranian group which includes Zazaki and Kurmanji.

In the chapter two, methodological and hypothetic framework of the the analysis, which is handled, are drawn. Different methods and theories in comparison of languages are discussed. In this sense, Genetic and Historical classification method is considered appropriate among different available approaches. Within this scope, glottostatistic and glottochronologic methods, which are used to determine the genetic relations between languages are considered appropriate in terms of giving information about their separation dates and categorise languages as different language families or categorise even different groups in the same family. Together with this, the analysis of phonetic equivalences are also appealed in case of unsatisfactoriness of these resaults. Thus, findings are provided as a result of the comparison of datas which is gathered with thee diferent ways.

In the third chapter of this work which covers analysis section, the details of the method are explained. In the second part of this cahapter, the languages which are dealth with are compared according to this method.

Primarily, Sauzini and other languages under the investigation are compared to determine their position in Indo-European language family and English which is a

Germanic language has been compared with these languages one by one. According to the glottochronologic analysis, the most distant relationship is among Iranian languages and German language, English. English respectively separated from Persian and Kurmanji 5963 years ago, from Zazaki 5821 years ago, from Sauzini 5560 years ago, and from Baḵtiāri 5348 years ago. When the results are examined, English separated from these languages in approximate dates. The separation dates of these languages and English are very close to each other so this shows that these languages belong to the same group that is Iranian language group. On the ther hand, our phonetic equivalence analysis is also in the line with these results.

In the second part, the Iranian languages which are compared with Sauzini are compared with each other to determine whether they are in the same language group in Iranian languages. The results show that Persian and Baḵtiāri belong to SWI languages and Zazaki and Kurmanji demonstrate that they are differs from this group. Nevertheless these results do not provide a concrete indication that they belong to same group, NWI language group.

In deed, the results highlight the turth that West Iranian languages divided into two groups. It is considered that Persian and Baḵtiāri, which are traditionally grouped as South-West Iranian languages, are quite close to each other both interms of glottochronology and phonetic equivalences. The phonetic variances between these two languages, which separated about the mid 17th century, remain limited with [b] ~ [w]/[v] and [g] ~ [j] variances. Besides, the starting point of emergence dates of these two languages as separate dialects other dates back to a quite earlier. Glottochronology shows that Perisan started to separated with Zazaki in 162 BC, with Kurmanji in 109 BC. As for Baḵtiāri the separation dates are very close these dates. Baḵtiāri separated with Zazaki in 80 BC, with kurmanji in 23 BC.

Although there are many different views about the classification of Kurmanji and Zazaki, it is not possible to say similar things about Zazaki and Kurmanji which are usually grouped in North-West Iranian languages. Indeed the separation dates of these two languages are found as 51 BC. It means that the separation date of these two languages and their separaion from South-West Iranian languages are almost same.

This result compromised with the idea of some linguistics who do not categorize Zazaki in Kurdish languages.

Unfortunately, there is no historical background about this date and Kurdish. But if we look at the Turkish's chronological history, between 60-31 BC we see the invation of Chinese and we see the fall of Great Hun Empire. In the 109 BC, which is the separation date of Persian and Kurmanji, Great Hun Empire was founded.

When we look at the phonetic equivalences, we can see that there are singnificant differences between these two languages. Zazaki is seen as [ʤ], [ʒ], [t] and [v] language while Kurmanji can be determined as [ʒ], [d], [v] and [b] language. These two languages differ in [t]~[d], [b]~[v] and [b]~[p] variations so it rises doubt about their belonging to the same group. However, for the sake of systemness of this study, these two languages are categorized in North-West language group.

At the end of this study, the place for Sauzini in both North-West and South-West Iranian languages are examined. Thus Sauzini is compared with these languages from different groups. Firstly, in the comparison of Sauzini with North-West languages, Kurmanji and Zazaki, we see that Sauzini is close to these languages in terms of glottochronology. Also, Sauzini is closer to Kurmanji which separated in 439 AC in terms of Glottochronology.

Sauzini and Kurmanji separated from each other 1579 years ago in 439 AC. When we first look at the Turkish historical events, the earliest history is about Atilla's era and his expedition to the East-Rome and the earliest information about Turkish and Kurdish came across in 1021.

In addition, Zazaki, which separated from Sauzini in 81 AC, is determined closer than Kurmanji in terms of phonetic equivalences. So indeed, in [t]~[d] variation Sauzini differs from Kurmanji which is a [d] language while it becomes a [t] language together with Zazaki. In [b] ~ [v] variation Kurmanji chooses [b] sound while Zazaki and Sauzini choose [v] sound. In this respect, Sauzini and Zazaki are in the same position.

Finally the place of Sauzini in South-West Iranian languages is examined. At the first sight the number of the common words between Sauzini and South-West

Iranian languages (Persian and Baḵtiāri) takes attention. The number of the common words with Persian is determined as 58%, with Baḵtiāri is determined as 63.4%. It is detected that the separation date of Sauzini from these languages is nearer than NWI languages. These separations took place in 710 AC with Persian and in 903 AC with Baḵtiāri. When we look at the historical back ground of these dates, in 700s Turkish tribes and states was located in central Asia, current Turkish Territory belonged to Constantinapole and current Persia territory and Khorason was under the control of the Islamic governments. From 637 Persia territory was under the control of the Arabic-Islamic states and in 750 Abbasid dynasty took the control of the Iran. The 710 is far away from the date 1514 Caldiran War which Sauzinians claim that they might have come to this territory to help Caldiran War (Hitit Group and Karasakal, 2018). However the date 710s indicates an Arabic-Islamic hustle. When it comes to Kurdish existence in these territories, we couldn't see any Kurdish hustle until the date 1040 (Karasakal, 2018).

Nevertheless, Sauzini bears different aspects apart from these two languages in terms of phonetic equivalances. Sauzini appears as [ʒ], [v] and [ʊ] language while Persian and Baḵtiāri are in the staus of [z], [b] and [w], [b] languages. Apart from the datas which are gathered with Glottostatistic and glottochronologic methods, phonetic equivalances shows that it is not possible to categorize Sauzini with SWI languages.

To sum up, it is understood that Sauzini has a close relation with languages which are compared with. It also has common features with all these languages in terms of phonetic equivalences. Thus it can be claimed that Sauzini belongs to an independent language group which separated from "Common West-Iranian" languages in a date after Zazaki and Kurmanji but before SWI languages. In this respect, it is another important reseach subject to determine whether Sauzini belongs to another language group which only Sauzini belongs to it or a language group which Sauzini is a part of it. To compare Sauzini with other West Iranian languages can enable to find an answer to this question.

The reason why Sauzini is close to Persian and Baḵtiāri in terms of *glottochronology* and *glottostatistic,* apart from phonetic equivalances, is that Sauzini may be close to Baḵtiāri and Persian geographically and culturally. Thus the common

words between these three languages could be due to the sustained contact among them. If so, the possibility of migration from Iran became stronger. Thus the relation between Sauzini and Lak should be investigated.

Figure: 16 Separation Dates of Indo-European Languages

*Indo-European
(-4000 /-3000)

*Germen
(-500)

*Indo-Iranian
(-1500)

*Iranian

Hint

*WI

*EI

(-51)

(81-439)

(710-903)

(1661)

English Persian   Baᵏṭiāri   **Sauzini**   Kurmanji   Zazaki

[d]

[t]

[v]

[b]

[b]   [ʊ]   [v]

[w]

[z]   [ʒ]
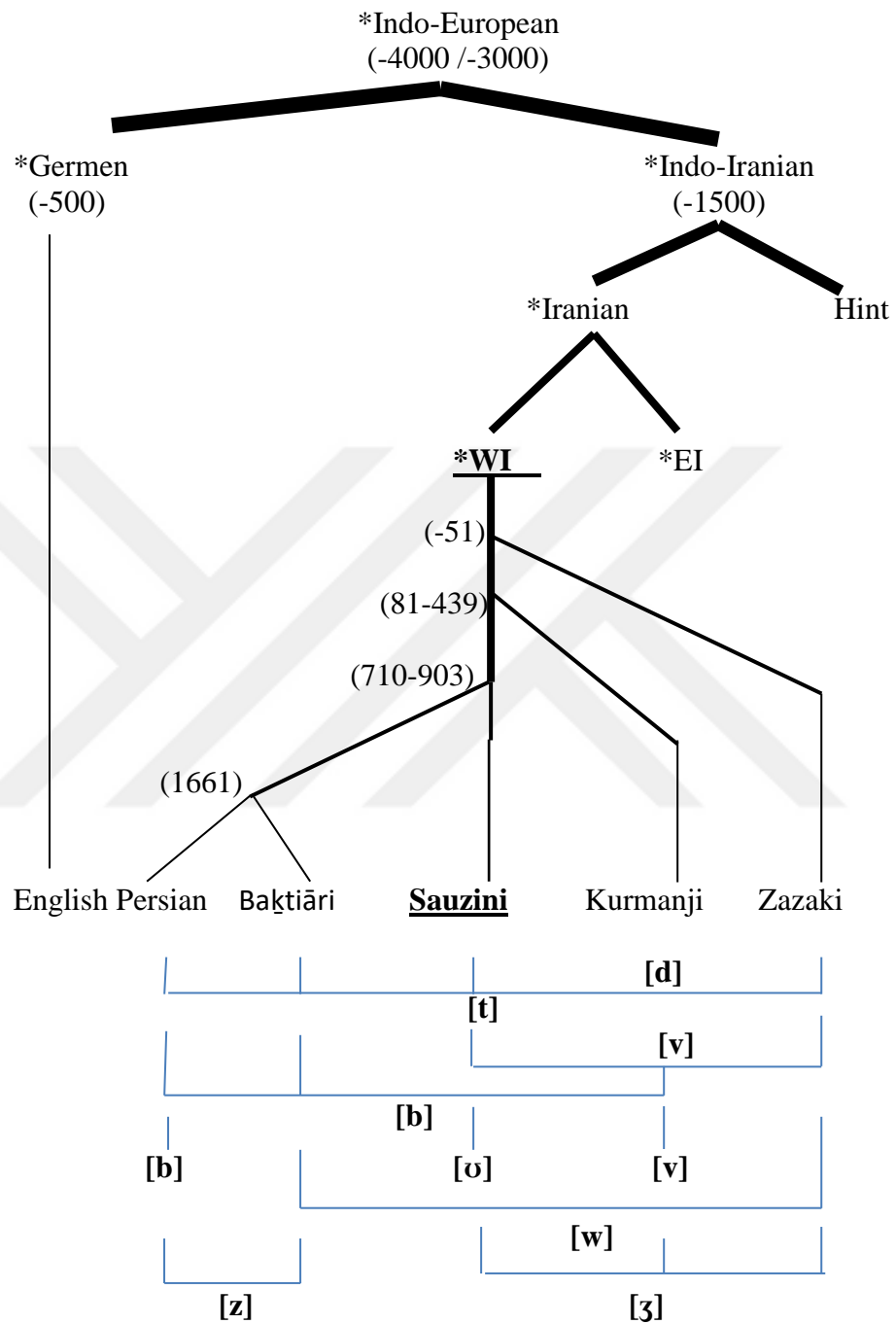
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APPENDIX

Appendix 1. The Basic Word List (Transctiption)

		English	Sauzini	Persian	Zazaki	Kurmanji	Baḵtiāri
1.	I	/aɪ/	/mʉn/	/man/	/ez/	/ez/	/mo/
2.	you (sing.)	/juː/	/tu/	/to/	/tî/	/tu/ /du/	/to/
3.	he	/heː/	/awa/	/u / iʃɑ(u)n/	/we/	/ew/	/ho/
4.	we	/wiː/	/ima//imana/	/mɑ/	/ma/	/em/	/ima/
5.	you (plural)	/juː/	/üja/	/ʃomɑ/	/ʃimɑ/	/hun/	/isa/
6.	they	/θeɪ/	/awa:na/	/inhɑ / iʃɑ(u)n/	/ʃimɑ/	/wana/	/ono/
7.	this	/ðɪs/	/aja/	/in/	/ına/	/ev/	/jo/
8.	that	/ðæt/	/aw//awa/	/un / ɑn/	/ına/	/ew/	/ho/
9.	here	/hɪəˈ/	/ira/	/inʤɑ/	/ewta/	/wɪra/	/iʧo/
10.	there	/ðeəˈ/	/awra/	/ɑ(u)nʤɑ/	/wera/	/wura/	/oʧo/
11.	who	/huː/	/ki/	/ki/	/kom/	/ki/	/ki/
12.	what	/wɒt/	/ tʃ{ʌ/ə} /	/ʧi / ʧe/	/tî/	/ʧɪ/	/ ʧe /
13.	where	/weəʳ/	/ko/	/koʤɑ / ku/	/kowera/	/kuderi/	/koʤe//koje/
14.	when	/wen/	/tʃi:tʃʌx//key/	/key/	/kej/	/ʧɪwaxti/	/kay/
15.	how	/haʊ/	/tʃün/	/ʧetowr/	/tî/	/ʧuta/	/ ʧetaw /
16.	not	/nɒt/	/ni//ne//ma/	/ne- / na/	/ma-me/	/na/	/ni//na//ma/
17.	all	/ɔːl/	/gi/	/hame/	/pîr/	/gɪʃk/	/hame/
18.	many	/ˈmeni/	/fɪre/	/zijɑd/	/zat/	pɪr/	/farɑvu(n)/qalve/

19.	some	/sʌm/	/hʌni/	/ʧand/	/ʧent xât/	/cʌʂʃkek/	/ʧand//jekam/
20.	few	/fju:/	/kʌmi/	/kam(i)/	/ton/	/hɪndɪk/	/ʧand/
21.	other	/'ʌðəʳ/	/ikʌlʌ/	/digger/	/ajbîn/	/yadɪn/	/dijar/
22.	one	/wʌn/	/iki/	/Jek/	/jew tek/	/jek/	/jak/
23.	two	/tu:/	/duan/	/do/	/di/	/du/dɪdu/	/do/
24.	three	/θri:/	/sian/	/se/	/hîrê/î	/se/sɪsə:/	/se//so/
25.	four	/fɔ:ʳ/	/tʃoran/	/ʧahɑr/	/ʧhâr/	/ʧar/	/ʧɑr/
26.	five	/faɪv/	/pʌncʌn/	/pendʒ/	/pondʒ/	/bendʒ/	/pandʒ/
27.	big	/bɪg/	/jawrʌ/	/bozorg/	/xîs/	/mezɪn/	/ga:p/
28.	long	/lɒŋ/	/dirizʒ/	/deraz/	/derg/	/direʒ/	/deraz/
29.	wide	/waɪd/	/vɪʃa/	/pehn/	/hârâj/	/fireh/	/pahn/
30.	thick	/tɪk/	/qɑvi/	/koloft/		/qalin/	/koloft//zomoxt/
31.	heavy	/'hevi/	/suŋgi/	/sengin/	/gîron/	/gɪran/	/sengin/
32.	small	/smɔ:l/	/bytʃuk/	/kuʧek/	/kɪjt/	/cuʧik/	/koʧir/
33.	short	/ʃɔ:t/	/qɑvi/	/kutah/	/kɪr/	/qɪn/	/kutah/
34.	narrow	/'næɾəʊ/	/t{ə/ʌ}ŋk/	/teng/	/teng/	/denk/ nazaln/	/teng/
35.	thin	/θɪn/	/suɪst/	/nazok/	/zayɪf/	/zɪrav/zayɪf/	/nazok/
36.	woman	/'ʊʊmən/	/ʒ{ə/ɣ}n/	/zan/	/dʒini/	/ʒin//ʒɪnɪk/	/zi:ne/
37.	man (adult male)	/mæn/	/ɑ:m/	/mard/	/dʒomîrt/	/mer/ merɪk/	/pijɑ/
38.	man (human being)	/mæn/	/[i} sɑn/	/ensɑn/	/iso/	/merî/	/ɑ:dom/
39.	child	/ʧaɪld/	/zɑ:ɾwu/	/baʧe/	/put /lerr /	/kulfet/	/baʧe/
40.	wife	/ʊaɪʃ/	/ʒ{ə/ɣ}n/	/zan/	/dʒini/	/ʒ{ə/ɣ}n/	/zi:ne/
41.	husband	/'hʌzbənd/	/merd/	/ʃohɑr/	/merde/	/mer/	/mi:re/

42.	mother	/ˈmʌðəʳ/	dɑi/dɑj/dalık/	/madɑr/	/daîjk/	/cijamı//	/dɑ/
43.	father	/ˈfɑːðəʳ/	/bɑʊ/bɑʊk/	/pedɑr/	/baujk/	/bav/bawo/	/bau//bava/
44.	animal	/ˈænɪmᵊl/	/hajwʌn/	/hejvɑ(u)n/	/hejwan/	/hejan/	/dʒunevar/
45.	fish	/fɪʃ/	/mɑːsi/	/mahi/	/mase/	/maːsi/	/mɑhi/
46.	bird	/bɜːd/	/dʒydʒu/	/parande / /dʒudʒe /	/milʧık/	/ʧuʧuk/	/bɑlende//parande
47.	dog	/dɒg/	/sʌ/	/sag/	/kutîk/	/guʧık/	/saj/
48.	louse	/laʊs/	/ispe/	/ʧepeʧ/	/eʃpiʒ/	/rıʃk/	/ʃeʃ/
49.	snake	/sneɪk/	/mɑr/	/mɑr/	/mɑr/	/mɑr/	/mɑr/
50.	worm	/wɜːm/	/kıːm/	/kerm/	/kılbınêrt/	/ruvi/	/kerm/
51.	tree	/triː/	/dar/	/deraxt/	/dar/	/axa/dar/	/dɑːr//deraxt/
52.	forest	/ˈfɒrɪst/	/kö/	/dʒengel/	/raz/	/meʃe/	/dʒangal/
53.	stick	/stɪk/	/tʃıkıl/tʃu/	/ʧub/		/gırʃ/	/ʧu/
54.	fruit	fruːt	/jemiʃ/	/mive/	/jemîʃ/	/mewi/jemîʃ/	/miva/
55.	seed	/siːd/	/toːxum/	/toxm/	/toːxum/	/toxim/	/dune//toːm/
56.	leaf	/liːf/	/vʌlg/	/barg/	/pell/	/belg/	/balg/
57.	root	/ruːt/	/kuk/	/riʃe/		/kok/	/riʃe/
58.	bark (of a tree)	/baːk/	/qalux/	/tane/	/ver/	/qavuk/	/tane/
59.	flower	/flaʊəʳ/	/ tʃitʃʌ/	/gol/	/villîk/	/tʃîtʃek/	/gol/
60.	grass	/grɑːs/	/tʃiman/	/alef/ /tʃaman/	/var/	/tʃîmen/	/alaf/
61.	rope	/rəʊp/	/bʌnd/	/tanab/	/la/	/bend/t/	/tanɑv/
62.	skin	/skɪn/	/tʃəːm/pöst/	/pust/	/zer/este/	/post/	/pust/
63.	meat	/miːt/	/göʃt/	/guʃt/	/guʃt/	/goʃt/	/guʃt/
64.	blood	/blʌd/	/xün/	/xun/	/gûyn/	/xun/	/hiːn/
65.	bone	/bəʊn/	/hyznɑq/	/ostoxun/	kate	/hasti/	/ostoxun/

66.	fat (noun)	/fæt/	/run/	/rowgan/	/run/	/run/	/ruqe/
67.	egg	/eg/	/hak/	/toxm-e morg/	/hak/	/hêk/	/hɑje/
68.	horn	/hɔ:n/	/ʃʌx/	/ʃax/	/estɪn/	/gotʃ/	/buq//ʃɑx/
69.	tail	/teɪl/	/düm/	/dom/	/bɪtʃ/	/botʃik/	/di:n//dom/
70.	feather	/ˈfðər/	/mü/	/per/	/mûj/	/bɪrtʃ/pɪrtʃ/	/par/
71.	hair	/heər/	/pʏɪtʃ/	/mu/	/gɪdʒîk/	/por/	/gi:s//zolf//mi/
72.	head	/hed/	/s{ə/ɜ}ɹ	/sar/	/sera/	/ser/	/sar/
73.	ear	/ɪər/	/gø/	/guʃ/	/guʃ/	/go/	/guʃ/
74.	eye	/aɪ/	tʃeʊ	/ʧeʃm/	/ʧîm/	/ʧav/	/ti/
75.	nose	/nəʊz/	/ pyz/	/damɑq/	/zinî/	/boz/fɪrnɪk/	/noft/
76.	mouth	/maʊθ/	/dəm /	/dahan/	/fek/	/dev/	/dohun//dohu//puz/
77.	tooth	/tu:θ/	/dʏan/	/dandɑ(u)n/	/dindo/	/dɪran/	/dendu(n)/
78.	tongue (organ)	/tʌŋ/	/zan/	/zebɑ(u)n/	/zu/	/zɪman/	/z(av)un/
79.	fingernail	/fɪŋgərneɪl/	/dɪrnaq/	/naxun/	/neŋgu/	/dɪnax/	/noxun/
80.	foot	/fʊt/	/pa/	/pɑ/	/nɪŋ/	/nɪg/	/pɑ/
81.	leg	/leg/	/qəɪtʃ/	/leŋ/	/nɪŋ/	/ʃeq/	/leng/
82.	knee	/ni:/	/tʃɔk/	/zɑnu/	/ʧêka/	/tʃok/	/zu:ni/
83.	hand	/hænd/	/dʏst/	/dast/	/dest/	/dest/	/dast/
84.	wing	/wɪŋ/	/bal/	/bal/	/pel/	/ganep/	/bɑ:l/
85.	belly	/ˈbeli/	/zɪk/	/ʃekam/	/zêre/	/zɪk/	/eʃkam/
86.	guts	/ˈgʌts/	/laʊrəg/	/rude/	/roqle/	/rûvî/	/rude//rovine/
87.	neck	/nek/	/kʌfʌl/	/gerdɑn/	/mil/	/stû/	/garden/
88.	back	/bæk/	/ɔrtepiʃt/	/poʃt/	/mîne/	/navkel/newq/	/poʃt/
89.	breast	/brest/	/səɹʌ duɫ/	/sine/	/sêne/	/sɪŋg/	/sine/

90.	heart	/ha:t/	/səɹʌ duɫ/qalb/	/del/qalb/	/zerr/	/dıl/	/del/
91.	liver	/ˈlɪvər/	/dʒɪaɹ/	/dʒigar/	/ʧɪğer/	/gezeb/	/dʒijar/
92.	to drink	/drɪŋk/	/meˈtən/	/niʃudan/	/wertın/	/xarın/	/nuʃiden/
93.	to eat	/i:t/	/xʊɑrduın/	/xordan/	/wert/ʧi/	/xarın/	/xarden/
94.	to bite	/baıt/	/gʌz kurduın/	/gaz/ /gereftan/	/gaz kerden/	/gıt kırın/	/gaʃten/
95.	to suck	/sʌk/	/metuın/	/makidan / mek/ /zadan/	/mısna/	/bımeʒın/mıʒandî/	/mek zejden/
96.	to spit	/spıt/	/talıq wajtuın/	/tof kardan/	/aluw/	/tuk-ır/	/tof kerden/
97.	to vomit	ˈvɒmɪt	/qew kurduın/	/bala avordan/	/kal bına/	/vereʃan/	/bɑːlɑ: ovorden/
98.	to blow	/bləʊ/	/Puf kurduın/	/pof kardan / bad kardan/		/pıf/	/pof kerden//ba: kerden
99.	to breathe	/breθ/	/solux rıtanduın/	/nefes keʃidan/	/nefes grot/	/nefes hılde/bıde/	/nafas keʃiden/
100.	to laugh	/lɑ:f/	/kanı kurduın/	/xandidan/	/hıwu/	/bî-ken/kenya/	/xandiden/
101.	to see	/si:/	/ijanduın/	/didan/	/vejnajıʃ/dı/	/ditin/	/diden/
102.	to hear	/hɪəʳ/	/ıʒanduın/	/ʃenidan/	/eʃ nawıt-ıʃ /	/bîhistin/	/aʃniden/
103.	to know	/nəʊ/	/ızanduın/	/dɑnestan/	/ezon /	/zanîn/	/dunesten/
104.	to think	/θıŋk/		/eniʃidan/			/ferk kerden/ andiʃiden
105.	to smell	/smel/	/bü kurduın/	/bu kardan/	/bûj/	/bîn kirin/	/bu kerden/
106.	to fear	/fɪəʳ/	/tırsanduın/	/tarsidan/	/tersen/	/dîrs/	/owraji /vabiden//perake kasi raden//tarsiden/
107.	to sleep	/sli:p/	/xaftuın/	/xabidan/	/rawken/	/xav/xavn/	/xa(o)wsiden/
108.	to live	/lɪv/	/vuustuın/	/zendegi/ /kardan/	/rînıʃtin/	/rudun/	/zendeji kerden/
109.	to die	/daı/	/muırduın/	/mordan / fot kardan/	/merk/	/mırîn/	/morden/
110.	to kill	/kıl/	/fuıʃtuın/	/koʃtan/	/kîʃt/mırena/	/buguʒandî/	/koʃten/

111.	to fight	/faɪt/	/cʌŋg/	/dʒeng kardan/	/koxe kerd/	/hev xɪstɪn/	/dʒengiden/
112.	to hunt	/hʌnt/	/rɯːtɯn/	/ʃekar kardan/	/sejd/	/nefes hɪlde/bɪde/	/ ʃekar kerden /
113.	to hit	/hɪt/	/lejʌndɯn/	/Zadan/	/purj/	/lexîstîn/	/zejden/
114.	to cut	/kʌt/	/bɯrandɯn/	/boridan/	/bɪrna/	/gutkɪrɪn/	/boriden/
115.	to split	/splɪt/	/düdʒ kurdɯn/	/dʒoda kardan /	/barkej/	/veqetin/	/dʒoda kerden//eʃkanden// hird kerden/
116.	to stab	stæb	/keʳd kurdɯn/	?	/kard ke/	/kêr kɪrɪn/	/zaxmi kerden/
117.	to scratch	/skræt͡ʃ/	/xorandɯn/	/xarundan/	/kenen/	/xurandî/	/xaronden/
118.	to dig	/dɪg/	/t͡ʃapa kurdɯn / kanandɯn	/t͡ʃale/ /kardan/	/kendɪʃ/	/kolandɪn/	/kandene zemin//
119.	to swim	/swɪm/	/miljoːni kurdɯn/	/ʃena kardan/	/asnaw/	/sobanî/	/ʃenaw kerden//melah kerden/
120.	to fly	/flaɪ/	/paːrʌndɯn/	/paridan/	/fɪra/	/fɪrja/	/pariden/
121.	to walk	/wɔːk/	/rɪt͡ʃiːn/	/rah raftan/	/ʃîn/	/revet͡ʃün/meʃîn/	/rah raːden/
122.	to come	/kʌm/	/haːtɪn/	/a(u)madan/	/emaj/	/hatin/	/evejden// ovajden/
123.	to lie (as in a bed)	/laɪ/	/laʒandɯn/	/deraz kedan/	/kalben/	/velezandɪn/	/ deraz keʃiden /
124.	to sit	/sɪt/	/niʃandɯn/	/neʃestan/	/rɪʃen/	/runuʃt/	/neʃasten/
125.	to stand	/stænd/	/paːlɪstandɯn/	/boland ʃodan/	/warîʃt/	/rab/	/vajsaden//vastaden/
126.	to turn (intransitive)	/tɜːn/	/raːdandɯn/	/bar gaʃtan/	/tade/	/wergerandɪn/	/ver gaʃten/
127.	to fall	/fɔːl/	/kʌftɯn/	/oftadan/	/ergɪna/	/ketîn/	/vasten/
128.	to give	/gɪv/	/daːɯn/	/dadan/	/dajîʃ/	/bɪde//da verdi/	/daden/
129.	to hold	/həʊld/	/rɪtandɯn/	/gereftan/	/tepîʃten/	/bɪgre/	/nijah daʃten/
130.	to squeeze	/skwiːz/	/lüʃandɯn/	/t͡ʃelundan/	/tada/	/gɪvaʃtîn/	/moʒniden/

131.	to rub	/rʌb/	/vilikanduın/	/sabidan/	/wɪlejn/	/mɪzdan/	/sajiden/
132.	to wash	/wɒʃ/	/ʃürtuın/	/ʃostan/	/ʃît/	/bɪʃo/	/ʃoʃten/
133.	to wipe	/waıp/	/tamuız kuırduın/	/pak kardan/	/esterden/	/pakırîn/	/pak kerden/
134.	to pull	/pʊl/	/kiʃanduın/	/keʃidan/	/kaʃ kerden/	/kɪʃandın/	/keʃiden/
135.	to push	/pʊʃ/	/daf:lenanduın/	/hol dadan/	/nıskda/	/dafta/	/hol daden/
136.	to throw	/θrəʊ/	/wɒjtuın/	/endaxtan/	/eʃten/	/vaʒandın/	/endaxten/
137.	to tie	/taı/	/wɒstuın/	/bastan/	/gıredajen/	/girêdan/	/basten/
138.	to sew	/səʊ/	/düranduın/	/duxtan/	/deʃt/	/durun/	/doxten/
139.	to count	kaʊnt	/iʒmarduın/	/ʃomordan/	/omorden/	/biʒmarduın/	/eʃmorden/
140.	to say	/seı/	/vuutuın/	/goftan/	/vaten/	/beʒaduın/	/goden/
141.	to sing	/sıŋ/	/gurani tʃuranduın/	/avaz xɑ(u)ndan/	/dêjîr kerden/	/kulam beʒaduın/	/ɑvaz xonden/
142.	to play	/pleı/	/wɒstuın/	/bazi kardan/	/kay kerden/	/lîsti/ /bîlîzandi/	/bazi kerden/
143.	to float	/fləʊt/	/ri: tʃıuın/	/garq/	/asnaw kerden/	/ser avi ket/	/be aw vasten/
144.	to flow	/fləʊ/	/harıkanduın/	/rixtan/	/jana/	/aw here/	/dʒari vabiden/
145.	to freeze	/fri:z/	/buz ruutuın/	/yax kardan/zadan/	/xenkejw/	/cemidanduın/	/jax zejden/ /retʃesten/
146.	to swell	/swel/	/pʌnduımanduın/	/bad kardan/	/miraz/	/pertʃfî/	/bɑ:d kerden/
147.	sun	/sʌn/	/xɒʳ/	/aftab/xorʃid/	/tîntʃ/	/daw/	/aftaw//xorʃi(d)/
148.	moon	/mu:n/	/maŋg/	/mah/	/aʃm/	/hiv/	/mah/
149.	star	/sta:ʳ/	/asarʌ/	/setare/	/estare/	ustırık	/ɑstare/
150.	water	/wɔ:təʳ/	/aʊ/	/ab/	/awk/	/av/	/aw/
151.	rain	/reın/	/va:rʌn/	/bara(u)n/	/dɪʒn/	/ʃilî/	/ ba:ru// ba:run/
152.	river	/ˈrıvəʳ7	/tʃ{ə/ʌ}m/	/rudxa(u)ne/	/rû/	/tʃermi/	/rud/
153.	lake	/leık/	/gyl /	/derjatʃe/	/gol/	/gol/	/derjɑ/
154.	sea	/si:/	/dɣŋɤz /	/derjɑ/	/dengiz/	/denız/	/derjɑ/

155.	salt	/sɔːlt, sɒlt/	/xwɑ/	/namaq/	/sol/	/xoy/	/nomek//nemek/
156.	stone	stəʊn	/ʃɤ'tʃɤk/	/seng/	/kera/	/gevɪr/	/bard/
157.	sand	/sænd/	/qum/	/ʃen/	/qum/	/kum/	/tʃit/
158.	dust	/dʌst/	/tüz/	/xɑq/	/töz/	/toz/	/xɑk/
159.	earth	/ɜːθ/	/xakʰ /	/zemin/	/herr/	/xalî/	/ze(o)min/
160.	cloud	/klaʊd/	/pulut/	/abr/	/howr/	/bulut//aur/	/awr/
161.	fog	/fɒg/	/sis/	/meh/	/duman/	/sis/	/meh/
162.	sky	/skaɪ/	/r3ja asıman/	/ɑsemɑ(u)n/	/asmîn/	/aur:/	/ɑsemu(n)/
163.	wind	/wɪnd/	/vɑːɹəwɑ/	/bɑd/	/hava/	/ba/	/bɑːd/
164.	snow	/snəʊ/	/vəɹf/	/barf/	/vor/	/berf/	/barf/
165.	ice	/aɪs/	/buz/	/jax/	/dʒemed/	/buz/	/jax/
166.	smoke	/sməʊk/	/tuman /dü/	/dud/	/dô/	/dûman/	/di/
167.	fire	/faɪər /	/aːrɪ/	/ateʃ/	/adır/	/agî/	/taʃ/
168.	ash	/æʃ/	/xʌka kawu/	/xɑqestar/	/well/	/kul/	/hol/
169.	to burn	/bɜːn/	/syzandɯn/	/Suzɑ(u)ndan/	/veʃna/	/ʃewɪtandin/	/soxten//soːden/
170.	road	/rəʊd/	/ri/	/rah/	/rajer/	/rê/	/rah/
171.	mountain	/ˈmaʊntɪn/	/kœ /	/kuh/	/kô/	/tʃî/tʃîja/	/koh/
172.	red	/red/	/søɹ/	/qermez/	/sûr/	/sor/	/soːr/
173.	green	/griːn/	/saʊs/	/sebz/	/jeʃîl/	/kesk/	/sawz/
174.	yellow	/ˈjeləʊ/	/tʃaːkɤɹ/	/zard/	/zerd/	/zer/	/zard/
175.	white	/waɪt/	/tʃəɪmə/	/sefid/	/spî/	/sɪpi/	/espiːd/
176.	black	/blæk/	/si/	/siyah/	/sej/	/reʃ/	/ʃah//siɑh/
177.	night	/naɪt/	/ʃʌʊ/	/ʃab/	/ʃôw/	/ʃev/	/ʃaw/
178.	day	/deɪ/	/ruʒ/	/ruz/	/ruʒ/	/roʒ/	/ruz/

179.	year	/jɪəʳ/	/sɑɫ /	/sɑl/	/serr/	/sʌl/	/sɑl/
180.	warm	/wɔːm/	/gʌʳm/	/garm/	/germ/	/kellî/	/garm/
181.	cold	/kəʊld/	/gʌʳm/	/sard/	/serd/	/sar//semî/a/	/sard/
182.	full	/fʊl/	/pɪr/	/por/	/pɪr/	/ʃepellî/	/por//zar riz/
183.	new	/njuː/	/nuː/	/now/	/new/		/naw//tɑze/
184.	old	/əʊld/	/pir/	/pir/	/khî/	/gemn/	/pir/
185.	good	/gʊd/	/xas//baʃ/	/xub/	/hol/	/rɪnd/	/xu/
186.	bad	/bæd/	/xaraw/	/bad/	/xîrab/	/kotɪ/	/liʃ/
187.	rotten	/ˈrɒtⁿn/	/xarʌʊ/	/gendide/	/xelîsiya/		/gand//gandide/ /gand kerde/ /bu kerde/
188.	dirty	/ˈdɜːti/	/pis/gɪller	/kesif/	/lâjme/	/gɪller/	/kasif//tʃerk//nadʒest/partʃal/
189.	straight	/streɪt/	/düz/	/mostaqim/	/raʃt/	/duz/	/rɑst//saf/
190.	round	/raʊnd/	/juvarlaq/	/gerd/	/qoller/	/yuvarlaq/	/gerd//dowr/dɑjere/
191.	sharp (as a knife)	/ʃɑːp/	/tiʒ/	/tiz/	/tiʒ/	/dûʒ/	/tiz/
192.	dull (as a knife)	/dʌl/	/kul/	/Kond/	/kôl/	/dûʒ nine //go/	/kol/
193.	smooth	/smuːð/	?	/narm/	/rapraʃt/		/narm/
194.	wet	/wet/	/tʌr/	/xis/	/hî/	/ʃil/	/xis/
195.	dry	/draɪ/	/hüʃk/	/xoʃk/	/zuwa/	/ziyâ/	/xoʃk/
196.	correct	/kəˈrekt/	/rast/	/dorost/	/raʃt/	/rast/	/dorost//rɑst/
197.	near	/nɪəʳ/	/nezɪk/	/nazdik/	/nɪzdî/	/nêzîk/	/nezdik//hamitʃo/
198.	far	/fɑːʳ/	/dɜːr/	/dur/	/dûr/	/dur/	/diːr/
199.	right	/raɪt/	/rʌst/	/rast/	/raʃt/	/rast/	/rɑst/
200.	left	/left/	/ʧap/	/ʧap/	/ʧep/	/ʧep/	/ʧap/

201.	at ?		/-a/	/be- ?/	/ɪz/	/-ra/	/be//ri //ba:le//sare/
202.	in	/ɪn/	/naʊ/	/tu / dar/	/zerez/	/hʌndurida/	/mene/
203.	with	wɪð	/goʳd/	/ba baham/	/mɪ/	/tevî/	/bɑ/
204.	and	/ænd/	/-aʊ/	/va /o/	/o/	/ -va, -ve/	/vo//o/
205.	if	/ɪf/	/ʌka/	/eger/	/eger/	/-ki/ /eğerki/	/ajar/
206.	because	bɪˈkəz	/raʊkʌ/	/ʧun/	/ʧînkî/	/ʧunkɪ/	/ʧon(ke)/
207.	half	/haːf/	/nim/	/nim / nesf/	/nîm/	/nîv/	/nim//nesf/
208.	navel	/ˈneɪvəl/	/nawʊk/	/nāf/	/nak/	/navîk/	/nɑːf/

Appendix 2. Comperative Pattern between English and Sauzini

No.	English	English	Sauzini	Similarity
1	I	/aɪ/	/mɯn/	-
2	you (singular)	/juː/	/tu/	+
3	he	/heː/	/awa/	-
4	we	/wiː/	/ima//imana/	-
5	you (plural)	/juː/	/üja/	-
6	they	/θeɪ/	/awaːna/	-
7	this	/ðɪs/	/aja/	-
8	that	den där *c*, det där *n*	/aw//awa/	-
9	here	/hɪəˈ/	/ira/	+
10	there	/ðeəˈ/	/awra/	-
11	who	/huː/	/ki/	-
12	what	/wɒt/	/ tʃ{ʌ/ə} /	-
13	where	/weəʳ/	/ko/	-
14	when	/wen/	/tʃiːtʃʌx//key/	-
15	how	/haʊ/	/tʃün/	-
16	not	/nɒt/	/ni//ne//ma/	+
17	all	/ɔːl/	/gi/	-
18	many	/ˈmeni/	/fɪre/	-
19	some	/sʌm/	/hʌni/	-
20	few	/fjuː/	/kʌmi/	-
21	other	/ˈʌðəʳ/	/ikʌlʌ/	-
22	one	/wʌn/	/iki/	-
23	two	/tuː/	/duan/du/	+
24	three	/θriː/	/sian/	-
25	four	/fɔːʳ/	/tʃoran/tʃor/	+
26	five	/faɪv/	/pʌncʌn/	-
27	big	/bɪg/	/jawrʌ/	-
28	long	/lɒŋ/	/diɾiʒ/	-
29	wide	/waɪd/	/vɪʃa/	-
30	thick	/tɪk/	/qɑvi/	-
31	heavy	/ˈhevi/	/sɯŋgi/	-
32	small	/smɔːl/	/bytʃuk/	-
33	short	ʃɔːt	/qɑvi/	-
34	narrow	/ˈnærəʊ/	/t{ə/ʌ}ŋk/	-
35	thin	/θɪn/	/sɯst/	-
36	woman	/ˈɯʊmən/	/ʒ{ə/ɤ}n/	-
37	man (adult male)	/mæn/	/ɑːm/	-

38	man (human being)	/mæn/	/[i} sɑn/	-
39	child	/t͡ʃaɪld/	/zɑːrwu/	-
40	wife	/ɯaɪʃ/	/ʒ{ə/ɤ}n/	-
41	husband	/ˈhʌzbənd/	/merd/	-
42	mother	/ˈmʌðəʳ/	dɑi/dɑj/dalık/	-
43	father	/ˈfaːðəʳ/	/baʊ/baʊk/	-
44	animal	/ˈænɪmᵊl/	/hɑjwʌn/	-
45	fish	/fɪʃ/	/mɑːsi/	-
46	bird	/bɜːd/	/dʒydʒu/	-
47	dog	/dɒg/	/sʌ/	-
48	louse	/laʊs/	/ispe/	-
49	snake	/sneɪk/	/mɑr/	-
50	worm	/wɜːm/	/kıːm	+
51	tree	/triː/	/dar/	+ t/d
52	forest	/ˈfɒrɪst/	/kö/	-
53	stick	/stɪk/	/t͡ʃɪkɪl/t͡ʃu/	-
54	fruit	fruːt	/jemiʃ/	-
55	seed	/siːd/	/toːxum/	-
56	leaf	/liːf/	/vʌlg/	-
57	root	/ruːt/	/kuk/	-
58	bark (of a tree)	/baːk/	/qalux/	-
59	flower	/flaʊəʳ/	/ t͡ʃitʃʌ/	-
60	grass	/grɑːs/	/t͡ʃɪman/	-
61	rope	/rəʊp/	/bʌnd/	-
62	skin	/skɪn/	/t͡ʃəːm/pöst/	-
63	meat	/miːt/	/göʃt/	-
64	blood	/blʌd/	/xün/	-
65	bone	/bəʊn/	/hyznɑq/	-
66	fat (noun)	/fæt/	/run/	-
67	egg	/eg/	/hak/	+
68	horn	/hɔːn/	/ʃʌx/	-
69	tail	/teɪl/	/düm/	-
70	feather	/ˈfðəʳ/	/mü/	-
71	hair	/heər/	/pɤɹt͡ʃ/	-
72	head	/hed/	/s{ə/ɜ}ɹ	-
73	ear	/ɪər/	/gø/	-
74	eye	/aɪ/	/t͡ʃeʊ/	-
75	nose	/nəʊz/	/ pyz/	-
76	mouth	/maʊθ/	/dəm /	-
77	tooth	/tuːθ/	/dɤɑn/	-

78	tongue (organ)	/tʌŋ/	/zan/	+
79	fingernail	ˈfɪŋgərneɪl	/dɪrnaq/	-
80	foot	/fʊt/	/pa/	+
81	leg	/leg/	/qəɪtʃ/	+
82	knee	/ni:/	/tʃɔk/	-
83	hand	/hænd/	/dɤst/	-
84	wing	/wɪŋ/	/bal/	-
85	belly	/ˈbeli/	/zɪk/	-
86	guts	/ˈgʌts/	/laʊrəg/	-
87	neck	/nek/	/kʌfʌl/	-
88	back	/bæk/	/ɔrtepiʃt/	-
89	breast	/brest/	/səɪʌ duɫ/	-
90	heart	/ha:t/	/səɪʌ duɫ/qalb/	-
91	liver	/ˈlɪvər/	/dʒɪaɪ/	-
92	to drink	/drɪŋk/	/meˈtən/	-
93	to eat	/i:t/	/xʊɑrdɯn/	-
94	to bite	/baɪt/	/gʌz kɯrdɯn/	-
95	to suck	/sʌk/	/metɯn/	-
96	to spit	/spɪt/	/talɪq wajtɯn/	-
97	to vomit	ˈvɒmɪt	/qew kɯrdɯn/	-
98	to blow	/bləʊ/	/Puf kɯrdɯn/	-
99	to breathe	/breθ/	/solux rɪtandɯn/	-
100	to laugh	/lɑ:f/	/kanɪ kɯrdɯn/	-
101	to see	/si:/	/ijandɯn/İ/	+
102	to hear	/hɪərʳ/	/ɪʒandɯn/	-
103	to know	/nəʊ/	/ɪzandɯn/	-
104	to think	/θɪŋk/		-
105	to smell	/smel/	/bü kɯrdɯn/	-
106	to fear	/fɪərʳ/	/tɪrsandɯn/	-
107	to sleep	/sli:p/	/xaftɯn/	-
108	to live	/lɪv/	/vɯɪstɯn/	-
109	to die	/daɪ/	/murdɯn/	-
110	to kill	/kɪl/	/fɯʃtɯn/	-
111	to fight	/faɪt/	/cʌŋg/	-
112	to hunt	/hʌnt/	/rɯutɯn/	-
113	to hit	/hɪt/	/lejʌndɯn/	-
114	to cut	/kʌt/	/bɯrandɯn/	-
115	to split	/splɪt/	/düdʒ kɯrdɯn/	-
116	to stab	stæb	/keʳd kɯrdɯn/	-
117	to scratch	/skrætʃ/	/xorandɯn/	-

118	to dig	/dɪg/	/t͡ʃapa kurdun / kanandun	-
119	to swim	/swɪm/	/miljo:ni kurdun/	-
120	to fly	/flaɪ/	/pa:rʌndun/	-
121	to walk	/wɔːk/	/rɪt͡ʃiːn/	-
122	to come	/kʌm/	/ha:tɪn/	-
123	to lie (as in a bed)	/laɪ/	/lɑʒandun/	-
124	to sit	/sɪt/	/niʃandun/	-
125	to stand	/stænd/	/pa:lɪstandun/	+
126	to turn (intransitive)	/tɜːn/	/ra:dandun/	-
127	to fall	/fɔːl/	/kʌftun/	-
128	to give	/gɪv/	/da:un/	-
129	to hold	/həʊld/	/rɪtandun/	-
130	to squeeze	/skwiːz/	/lüʃandun/	-
131	to rub	/rʌb/	/vilikandun/	-
132	to wash	/wɒʃ/	/ʃürtun/	-
133	to wipe	/waɪp/	/tamuz kurdun/	-
134	to pull	/pʊl/	/kiʃandun/	-
135	to push	/pʊʃ/	/daf:lenandun/	-
136	to throw	/θrəʊ/	/wɒjtun/	-
137	to tie	/taɪ/	/wɒstun/	-
138	to sew	/səʊ/	/dürandun/	-
139	to count	kaʊnt	/iʒmardun/	-
140	to say	/seɪ/	/vutun/	-
141	to sing	/sɪŋ/	/gurani t͡ʃurandun/	-
142	to play	/pleɪ/	/wɒstun/	-
143	to float	/fləʊt/	/ri: t͡ʃiun/	-
144	to flow	/fləʊ/	/harɪkandun/	-
145	to freeze	/friːz/	/buz rutun/	-
146	to swell	/swel/	/pʌndumandun/	-
147	sun	/sʌn/	/xɒʳ/	-
148	moon	/muːn/	/maŋg/	-
149	star	/staːʳ/	/asarʌ/	+
150	water	/wɔːtəʳ/	/aʊ/	-
151	rain	/reɪn/	/va:rʌn/	+
152	river	/ˈrɪvəʳ7	/t͡ʃ{ə/ʌ}m/	-
153	lake	/leɪk/	/gyl /	-
154	sea	/siː/	/dɤŋgɤz /derja/	-
155	salt	/sɔːlt, sɒlt/	/xwɑ/	-
156	stone	stəʊn	/ʃɤˈt͡ʃɤk/	-
157	sand	/sænd/	/qum/	-

158	dust	/dʌst/	/tüz/	-
159	earth	/ɜ:θ/	/xakʰ /zami/	-
160	cloud	/klaʊd/	/pulut/	-
161	fog	/fɒg/	/sis/	-
162	sky	/skaɪ/	/r3ja asɪman/	-
163	wind	/wɪnd/	/vɑ:ɹəwɑ/	-
164	snow	/snəʊ/	/vəɹf/	-
165	ice	/aɪs/	/buz/	-
166	smoke	/sməʊk/	/tuman /dü/	-
167	fire	/faɪər /	/a:rɪ/	+
168	ash	/æʃ/	/xʌka kawu/	-
169	to burn	/bɜ:n/	/syzandɯn/	-
170	road	/rəʊd/	/ri/	-
171	mountain	/ˈmaʊntɪn/	/kœ /	-
172	red	/red/	/søɹ/	-
173	green	/gri:n/	/saʊs/	-
174	yellow	/ˈjeləʊ/	/tʃɑ:kɤɹ/zaɪd/	-
175	white	/waɪt/	/tʃəɹmə/	-
176	black	/blæk/	/si/	-
177	night	/naɪt/	/ʃʌʊ/	-
178	day	/deɪ/	/ruʒ/	-
179	year	/jɪəʳ/	/sɑł /	-
180	warm	/wɔ:m/	/gʌʳm/	+
181	cold	/kəʊld/	/bʊs/sarma/	-
182	full	/fʊl/	/pɪr/	-
183	new	/nju:/	/nu:/	+
184	old	/əʊld/	/pir/	-
185	good	/gʊd/	/xas//baʃ/	-
186	bad	/bæd/	/xaraw/	-
187	rotten	/ˈrɒtᵊn/	/xarʌʊ/	-
188	dirty	/ˈdɜ:ti/	/pis/gɪller	-
189	straight	/streɪt/	/düz/	-
190	round	/raʊnd/	/juvarlaq/	-
191	sharp (as a knife)	/ʃɑ:p/	/tiʒ/	-
192	dull (as a knife)	/dʌl/	/kul/	+ d/k
193	smooth	/smu:ð/	/narm/	-
194	wet	/wet/	/tʌr/	-
195	dry	/draɪ/	/hüʃk/	-
196	correct	/kəˈrekt/	/rast/	-
197	near	/nɪəʳ/	/nezɪk/	-

198	far	/fɑːʳ/	/dɜːr/	-
199	right	/raɪt/	/rʌst/	+
200	left	/left/	/ʧap/	-
201	at ?	/æt/	/-a/	-
202	in	/ɪn/	/naʊ/	-
203	with	wɪð	/goʳd/	-
204	and	/ænd/	/-aʊ/	-
205	if	/ɪf/	/ʌka/	-
206	because	/bɪˈkəz/	/raʊkʌ/	-
207	half	/hɑːf/	/nim/	-
208	navel	/ˈneɪvəl/	/naʼʊk/	+

Appendix 3. Comperative Pattern Between English and Zazaki

No.	English	English	Zazaki	Similarity
1	I	/aɪ/	/ez/	-
2	you (singular)	/juː/	/tî/	-
3	he	/heː/	/we/	-
4	we	/wiː/	/ma/	-
5	you (plural)	/juː/	/ʃɪmɑ/	-
6	they	/θeɪ/	/ʃɪmɑ/	-
7	this	/ðɪs/	/ɪna/	-
8	that	den där *c*, det där *n*	/ɪna/	-
9	here	/hɪə'/	/ewta/	-
10	there	/ðeə'/	/wera/	-
11	who	/huː/	/kom/	-
12	what	/wɒt/	/tî/	-
13	where	/weəʳ/	/kowera/	+
14	when	/wen/	/kej/	-
15	how	/haʊ/	/tî/	-
16	not	/nɒt/	/ma-me/	-
17	all	/ɔːl/	/pîr/	-
18	many	/'meni/	/zat/	-
19	some	/sʌm/	/ʧent xât/	-
20	few	/fjuː/	/ton/	-
21	other	/'ʌðəʳ/	/ajbîn/	-
22	one	/wʌn/	/jew tek/	-
23	two	/tuː/	/di/	+
24	three	/θriː/	/hîrê/î/	+
25	four	/fɔːʳ/	/ʧhâr/	+
26	five	/faɪv/	/pondʒ/	-
27	big	/bɪg/	/xîs/	-
28	long	/lɒŋ/	/derg/	-
29	wide	/waɪd/	/hârâj/	--
30	thick	/tɪk/	/xirsek/	-
31	heavy	/'hevi/	/gîron/	-
32	small	/smɔːl/	/kɪjt/	-
33	short	ʃɔːt	/kɪr/	-
34	narrow	/'næɾəʊ/	/teng/	-
35	thin	/θɪn/	/zayɪf/	-
36	woman	/'ɯʊmən/	/dʒini/	-
37	man (adult male)	/mæn/	/dʒomîrt/	-

38	man (human being)	/mæn/	/iso/	-
39	child	/t͡ʃɑɪld/	/put /lerr /	-
40	wife	/ɯɑɪʃ/	/ʤini/	-
41	husband	/ˈhʌzbənd/	/merde/	-
42	mother	/ˈmʌðəʳ/	/daîjk/	-
43	father	/ˈfɑːðəʳ/	/baujk/	-
44	animal	/ˈænɪmᵊl/	/hejwan/	-
45	fish	/fɪʃ/	/mase/	-
46	bird	/bɜːd/	/milʧɪk/	-
47	dog	/dɒg/	/kutîk/	-
48	louse	/laʊs/	/eʃpiʒ/	-
49	snake	/sneɪk/	/mɑr/	-
50	worm	/wɜːm/	/kɪlbɪnêrt/	-
51	tree	/triː/	/dar/	-
52	forest	/ˈfɒrɪst/	/raz/	-
53	stick	/stɪk/	/sėx/	-
54	fruit	fruːt	/jemîʃ/	-
55	seed	/siːd/	/toːxum/	-
56	leaf	/liːf/	/pell/	-
57	root	/ruːt/	/reje/	-
58	bark (of a tree)	/baːk/	/ver/	-
59	flower	/flaʊəʳ/	/villîk/	-
60	grass	/grɑːs/	/var/	-
61	rope	/rəʊp/	/la/	-
62	skin	/skɪn/	/zer/este/	-
63	meat	/miːt/	/guʃt/	-
64	blood	/blʌd/	/gûyn/	-
65	bone	/bəʊn/	/kate/	-
66	fat (noun)	/fæt/	/run/	-
67	egg	/eg/	/hak/	+
68	horn	/hɔːn/	/estɪn/	-
69	tail	/teɪl/	/bɪtʃ/	-
70	feather	/ˈfðəʳ/	/mûj/	-
71	hair	/heər/	/gɪdʒîk/	-
72	head	/hed/	/sera/	-
73	ear	/ɪər/	/guʃ/	-
74	eye	/aɪ/	/ʧîm/	-
75	nose	/nəʊz/	/zinî/	+
76	mouth	/maʊθ/	/fek/	-

77	tooth	/tu:θ/	/dindo/	-
78	tongue (organ)	/tʌŋ/	/zu/	-
79	fingernail	ˈfɪŋgərneɪl	/neŋgu/	-
80	foot	/fʊt/	/nɪŋ/	-
81	leg	/leg/	/nɪŋ/	-
82	knee	/ni:/	/ʧêka/	-
83	hand	/hænd/	/dest/	-
84	wing	/wɪŋ/	/pel/	-
85	belly	/ˈbeli/	/zêre/	-
86	guts	/ˈgʌts/	/roqle/	-
87	neck	/nek/	/mil/	-
88	back	/bæk/	/mîne/	-
89	breast	/brest/	/sêne/	-
90	heart	/ha:t/	/zerr/	-
91	liver	/ˈlɪvər/	/ʧɪğer/	-
92	to drink	/drɪŋk/	/wertɪn/	-
93	to eat	/i:t/	/wert/ʧi/	-
94	to bite	/baɪt/	/gaz kerden/	-
95	to suck	/sʌk/	/mɪsna/	-
96	to spit	/spɪt/	/aluw/	-
97	to vomit	ˈvɒmɪt	/kal bɪna/	-
98	to blow	/bləʊ/	-	-
99	to breathe	/breθ/	/nefes grot/	-
100	to laugh	/lɑ:f/	/hɪwu/	-
101	to see	/si:/	/vejnajɪʃ/dɪ/	+
102	to hear	/hɪərʳ/	/eʃ nawɪt-ɪʃ /	-
103	to know	/nəʊ/	/ezon /	-
104	to think	/θɪŋk/	/endê ʃ /	-
105	to smell	/smel/	/bûj/	-
106	to fear	/fɪərʳ/	/tersen/	-
107	to sleep	/sli:p/	/rawken/	-
108	to live	/lɪv/	/rînɪʃtɪn/	-
109	to die	/daɪ/	/merk/	-
110	to kill	/kɪl/	/kîʃt/mɪrena/	-
111	to fight	/faɪt/	/koxe kerd/	-
112	to hunt	/hʌnt/	/sejd/	-
113	to hit	/hɪt/	/purj/	-
114	to cut	/kʌt/	/bɪrna/	-
115	to split	/splɪt/	/barkej/	-
116	to stab	/stæb/	/kard ke/	-

117	to scratch	/skræt͡ʃ/	/kenen/	-
118	to dig	/dɪg/	/kendɪʃ/	-
119	to swim	/swɪm/	/asnaw/	-
120	to fly	/flaɪ/	/fɪra/	-
121	to walk	/wɔ:k/	/ʃîn/	-
122	to come	/kʌm/	/emaj/	-
123	to lie (as in a bed)	/laɪ/	/kalben/	-
124	to sit	/sɪt/	/rɪʃen/	-
125	to stand	/stænd/	/warîʃt/	-
126	to turn (intransitive)	/tɜ:n/	/tade/	-
127	to fall	/fɔ:l/	/ergɪna/	-
128	to give	/gɪv/	/dajîʃ/	-
129	to hold	/həʊld/	/tepîʃten/	-
130	to squeeze	/skwi:z/	/tada/	-
131	to rub	/rʌb/	/wɪlejn/	-
132	to wash	/wɒʃ/	/ʃît/	-
133	to wipe	/waɪp/	/esterden/	-
134	to pull	/pʊl/	/kaʃ kerden/	-
135	to push	/pʊʃ/	/nɪskda/	-
136	to throw	/θrəʊ/	/eʃten/	-
137	to tie	/taɪ/	/gɪredajen/	-
138	to sew	/səʊ/	/deʃt/	-
139	to count	kaʊnt	/omorden/	-
140	to say	/seɪ/	/vaten/	-
141	to sing	/sɪŋ/	/dêjîr kerden/	-
142	to play	/pleɪ/	/kay kerden/	-
143	to float	/fləʊt/	/asnaw kerden/	-
144	to flow	/fləʊ/	/jana/	-
145	to freeze	/fri:z/	/xenkejw/	-
146	to swell	/swel/	/miraz/	-
147	sun	/sʌn/	/tîntʃ/	-
148	moon	/mu:n/	/aʃm/	-
149	star	/sta:ʳ/	/estare/	+
150	water	/wɔ:təʳ/	/awk/	-
151	rain	/reɪn/	/dɪʒn/	-
152	river	/ˈrɪvəʳ7	/rû/	+
153	lake	/leɪk/	/gol/	-
154	sea	/si:/	/dengiz/	-
155	salt	/sɔ:lt, sɒlt/	/sol/	+
156	stone	stəʊn	/kera/	-

157	sand	/sænd/	/qum/	-
158	dust	/dʌst/	/töz/	-
159	earth	/ɜ:θ/	/herr/	-
160	cloud	/klaʊd/	/howr/	-
161	fog	/fɒg/	/duman/	-
162	sky	/skaɪ/	/asmîn/	-
163	wind	/wɪnd/	/hava/	-
164	snow	/snəʊ/	/vor/	-
165	ice	/aɪs/	/dʒemed/	-
166	smoke	/sməʊk/	/dô/	-
167	fire	/faɪər /	/adır/	-
168	ash	/æʃ/	/well/	-
169	to burn	/bɜ:n/	/veʃna/	-
170	road	/rəʊd/	/rajer/	-
171	mountain	/ˈmaʊntɪn/	/kô/	-
172	red	/red/	/sûr/	-
173	green	/gri:n/	/jeʃîl/	-
174	yellow	/ˈjeləʊ/	/zerd/	-
175	white	/waɪt/	/spî/	-
176	black	/blæk/	/sej/	-
177	night	/naɪt/	/ʃôw/	-
178	day	/deɪ/	/ruʒ/	-
179	year	/jɪər/	/serr/	-
180	warm	/wɔ:m/	/germ/	+
181	cold	/kəʊld/	/serd/	-
182	full	/fʊl/	/pır/	-
183	new	/nju:/	/new/	+
184	old	/əʊld/	/khî/	-
185	good	/gʊd/	/hol/	-
186	bad	/bæd/	/xîrab/	-
187	rotten	/ˈrɒtˀn/	/xelîsiya/	-
188	dirty	/ˈdɜ:ti/	/lâjme/	-
189	straight	/streɪt/	/raʃt/	-
190	round	/raʊnd/	/qoller/	-
191	sharp (as a knife)	/ʃɑ:p/	/tiʒ/	-
192	dull (as a knife)	/dʌl/	/kôl/	+
193	smooth	/smu:ð/	/rapraʃt/	-
194	wet	/wet/	/hî/	-
195	dry	/draɪ/	/zuwa/	-
196	correct	/kəˈrekt/	/raʃt/	-

197	near	/nɪəʳ/	/nɪzdî/	+
198	far	/faːʳ/	/dûr/	-
199	right	/raɪt/	/raʃt/	+
200	left	/left/	/tʃep/	-
201	at ?	/æt/	/ɪz/	-
202	in	/ɪn/	/zerez/	-
203	with	wɪð	/mɪ/	-
204	and	/ænd/	/o/	-
205	if	/ɪf/	/eger/	-
206	because	bɪˈkəz	/tʃînkî/	-
207	half	/hɑːf/	/nim /	-
208	navel	/ˈneɪvəl/	/nak/	+

Appendix 4. Comperative Pattern Between English and Kurmanji

No.	English	English	Kurmanji	Similarity
1	I	/aɪ/	/ez/	-
2	you (singular)	/juː/	/tu/ /du/	+
3	he	/heː/	/ew/	-
4	we	/wiː/	/em/	-
5	you (plural)	/juː/	/hun/	-
6	they	/θeɪ/	/wana/	-
7	this	/ðɪs/	/ev/	-
8	that	den där *c*, det där *n*	/ew/	-
9	here	/hɪəˈ/	/wɪra/	-
10	there	/ðeəˈ/	/wura/	-
11	who	/huː/	/ki/	-
12	what	/wɒt/	/tʃɪ/	-
13	where	/weəʳ/	/kuderi/	-
14	when	/wen/	/tʃɪwaxti/	-
15	how	/haʊ/	/tʃuta/	-
16	not	/nɒt/	/na/	+
17	all	/ɔːl/	/gɪʃk/	-
18	many	/ˈmeni/	pɪr/	-
19	some	/sʌm/	/cʌşʃkek/	-
20	few	/fjuː/	/hɪndɪk/	-
21	other	/ˈʌðəʳ/	/yadɪn/	-
22	one	/wʌn/	/jek/	-
23	two	/tuː/	/du/dɪdu/	+
24	three	/θriː/	/se/sɪsəː/	-
25	four	/fɔːʳ/	/tʃɑr/	+
26	five	/faɪv/	/bendʒ/	-
27	big	/bɪg/	/mezɪn/	-
28	long	/lɒŋ/	/direʒ/	-
29	wide	/waɪd/	/fireh/	-
30	thick	/tɪk/	/qalin/	-
31	heavy	/ˈhevi/	/gɪran/	-
32	small	/smɔːl/	/cutʃik/	-
33	short	ʃɔːt	/qɪn/	-
34	narrow	/ˈnærəʊ/	/denk/ nazaln/	-
35	thin	/θɪn/	/zɪrav/zayɪf/	-
36	woman	/ˈwʊmən/	/ʒin//ʒɪnɪk/	-
37	man (adult male)	/mæn/	/mer/ merɪk/	-
38	man (human being)	/mæn/	/merî/	-

39	child	/t͡ʃaɪld/	/kulfet/	-
40	wife	/ɯaɪʃ/	/ʒ{ə/ɤ}n/	-
41	husband	/ˈhʌzbənd/	/mer/	-
42	mother	/ˈmʌðər/	/cijamı//	-
43	father	/ˈfɑːðər/	/bav/bawo/	-
44	animal	/ˈænɪməl/	/hejan/	-
45	fish	/fɪʃ/	/maːsi/	-
46	bird	/bɜːd/	/t͡ʃut͡ʃuk/	-
47	dog	/dɒg/	/gut͡ʃɪk/	-
48	louse	/laʊs/	/rɪʃk/	-
49	snake	/sneɪk/	/mɑr/	-
50	worm	/wɜːm/	/kurm/	+
51	tree	/triː/	/axa/dar/	-
52	forest	/ˈfɒrɪst/	/meʃe/	-
53	stick	/stɪk/	/gɪrʃ/	-
54	fruit	fruːt	/mewi/jemîʃ/	-
55	seed	/siːd/	/toxim/	-
56	leaf	/liːf/	/belg/	-
57	root	/ruːt/	/kok/	-
58	bark (of a tree)	/baːk/	/qavuk/	-
59	flower	/flaʊər/	/t͡ʃîtʃek/	-
60	grass	/grɑːs/	/t͡ʃîmen/	-
61	rope	/rəʊp/	/bend/t/	-
62	skin	/skɪn/	/post/	-
63	meat	/miːt/	/goʃt/	-
64	blood	/blʌd/	/xun/	-
65	bone	/bəʊn/	/hasti/	-
66	fat (noun)	/fæt/	/run/	-
67	egg	/eg/	/hêk/	+
68	horn	/hɔːn/	/gotʃ/	-
69	tail	/teɪl/	/botʃɪk/	-
70	feather	/ˈfðər/	/bɪrtʃ/pɪrtʃ/	-
71	hair	/heər/	/por/	-
72	head	/hed/	/ser/	-
73	ear	/ɪər/	/go/	-
74	eye	/aɪ/	/t͡ʃav/	-
75	nose	/nəʊz/	/boz/fɪrnɪk/	+
76	mouth	/maʊθ/	/dev/	-
77	tooth	/tuːθ/	/dɪran/	-
78	tongue (organ)	/tʌŋ/	/zɪman/	-

79	fingernail	ˈfɪŋgərneɪl	/dınax/	-
80	foot	/fʊt/	/nıg/	-
81	leg	/leg/	/ʃeq/	+
82	knee	/ni:/	/tʃok/	-
83	hand	/hænd/	/dest/	-
84	wing	/wıŋ/	/ganep/	-
85	belly	/ˈbeli/	/zık/	-
86	guts	/ˈgʌts/	/rûvî/	-
87	neck	/nek/	/stû/	-
88	back	/bæk/	/navkel/newq/	+
89	breast	/brest/	/sıŋg/	-
90	heart	/ha:t/	/dıl/	-
91	liver	/ˈlıvər/	/gezeb/	-
92	to drink	/drıŋk/	/xarın/	-
93	to eat	/i:t/	/xarın/	-
94	to bite	/baıt/	/gıt kırın/	-
95	to suck	/sʌk/	/bımeʒın/mıʒandî/	-
96	to spit	/spıt/	/tuk-ır/	-
97	to vomit	ˈvɒmıt	/vereʃan/	-
98	to blow	/bləʊ/	/pıf/	-
99	to breathe	/breθ/	/nefes hılde/bıde/	-
100	to laugh	/lɑ:f/	/bî-ken/kenya/	-
101	to see	/si:/	/ditin/	+
102	to hear	/hıərʳ/	/bîhistin/	-
103	to know	/nəʊ/	/zanîn/	-
104	to think	/θıŋk/	-	-
105	to smell	/smel/	/bîn kirin/	-
106	to fear	/fıəʳ/	/dîrs/	-
107	to sleep	/sli:p/	/xav/xavn/	-
108	to live	/lıv/	/rudun/	-
109	to die	/daı/	/mırîn/	-
110	to kill	/kıl/	/buguʒandî/	-
111	to fight	/faıt/	/hev xıstın/	-
112	to hunt	/hʌnt/	/nêtʃîr/	-
113	to hit	/hıt/	/lexîstîn/	-
114	to cut	/kʌt/	/gutkırın/	+
115	to split	/splıt/	/veqetın/	-
116	to stab	stæb	/kêr kırın/	-
117	to scratch	/skrætʃ/	/xurandî/	-
118	to dig	/dıg/	/kolandın/	-

119	to swim	/swɪm/	/sobanî/	-
120	to fly	/flaɪ/	/fırja/	-
121	to walk	/wɔ:k/	/revet͡ʃün/meʃîn/	-
122	to come	/kʌm/	/hatın/	-
123	to lie (as in a bed)	/laɪ/	/velezandın/	-
124	to sit	/sɪt/	/runuʃt/	+
125	to stand	/stænd/	/rab/	-
126	to turn (intransitive)	/tɜ:n/	/wergerandın/	-
127	to fall	/fɔ:l/	/ketîn/	-
128	to give	/gɪv/	/bıde//da verdi/	-
129	to hold	/həʊld/	/bıgre/	-
130	to squeeze	/skwi:z/	/gıvaʃtîn/	-
131	to rub	/rʌb/	/mızdan/	-
132	to wash	/wɒʃ/	/bıʃo/	-
133	to wipe	/waɪp/	/pakırîn/	-
134	to pull	/pʊl/	/kıʃandın/	-
135	to push	/pʊʃ/	/dafta/	-
136	to throw	/θrəʊ/	/vaʒandın/	-
137	to tie	/taɪ/	/girêdan/	-
138	to sew	/səʊ/	/durun/	-
139	to count	kaʊnt	/bıʒmardʉn/	-
140	to say	/seɪ/	/beʒadʉn/	-
141	to sing	/sɪŋ/	/kulam beʒadʉn/	-
142	to play	/pleɪ/	/lîsti/ /bîlîzandi/	-
143	to float	/fləʊt/	/ser avi ket/	-
144	to flow	/fləʊ/	/aw here/	-
145	to freeze	/fri:z/	/cemidandʉn/	-
146	to swell	/swel/	/pertʃfî/	-
147	sun	/sʌn/	/daw/	-
148	moon	/mu:n/	/hiv/	-
149	star	/sta:ʳ/	ustırık	+
150	water	/wɔ:təʳ/	/av/	-
151	rain	/reɪn/	/ʃılî/	-
152	river	/ˈrɪvəʳ7	/t͡ʃermi/	-
153	lake	/leɪk/	/gol/	-
154	sea	/si:/	/denız/	-
155	salt	/sɔ:lt, sɒlt/	/xoy/	-
156	stone	stəʊn	/gevır/	-
157	sand	/sænd/	/kum/	-
158	dust	/dʌst/	/toz/	-

159	earth	/ɜ:θ/	/xalî/	-
160	cloud	/klaʊd/	/bulut//aur/	-
161	fog	/fɒg/	/sis/	-
162	sky	/skaɪ/	/aur:/	-
163	wind	/wɪnd/	/ba/	-
164	snow	/snəʊ/	/berf/	-
165	ice	/aɪs/	/buz/	-
166	smoke	/sməʊk/	/dûman/	-
167	fire	/faɪər /	/agî/	-
168	ash	/æʃ/	/kul/	-
169	to burn	/bɜːn/	/ʃewɪtandin/	-
170	road	/rəʊd/	/rê/	-
171	mountain	/ˈmaʊntɪn/	/tʃî/tʃîja/	-
172	red	/red/	/sor/	-
173	green	/griːn/	/kesk/	-
174	yellow	/ˈjeləʊ/	/zer/	-
175	white	/waɪt/	/sɪpi/	-
176	black	/blæk/	/reʃ/	-
177	night	/naɪt/	/ʃev/	-
178	day	/deɪ/	/roʒ/	-
179	year	/jɪər/	/sʌl/	-
180	warm	/wɔ:m/	/kellî/	-
181	cold	/kəʊld/	/sar//semî/a/	-
182	full	/fʊl/	/ʃepellî/	-
183	new	/njuː/	/nû/	+
184	old	/əʊld/	/gemn/	-
185	good	/gʊd/	/rɪnd/	-
186	bad	/bæd/	/kotɪ/	-
187	rotten	/ˈrɒtən/	/gnî/	-
188	dirty	/ˈdɜːti/	/gɪller/	-
189	straight	/streɪt/	/duz/	-
190	round	/raʊnd/	/yuvarlaq/	-
191	sharp (as a knife)	/ʃɑːp/	/dûʒ/	-
192	dull (as a knife)	/dʌl/	/dûʒ nine //go/	-
193	smooth	/smuːð/	/hilû/	-
194	wet	/wet/	/ʃil/	-
195	dry	/draɪ/	/ziyâ/	-
196	correct	/kəˈrekt/	/rast/	-
197	near	/nɪər/	/nêzîk/	+
198	far	/fa:r/	/dur/	+

199	right	/raɪt/	/rast/	+
200	left	/left/	/ʧep/	-
201	at ?	/æt/	/-ra/	-
202	in	/ɪn/	/hʌndurida/	-
203	with	wɪð	/tevî/	-
204	and	/ænd/	/ -va, -ve/	-
205	if	/ɪf/	/-ki/ /eğerki/	-
206	because	bɪˈkəz	/ʧunkı/	-
207	half	/hɑːf/	/nîv /	-
208	navel	/ˈneɪvəl/	/navik/	+

Appendix 5. Comperative Pattern Between English and Persian

No.	English	English	Persian	Similarity
1	I	/aɪ/	/man/	-
2	you (singular)	/juː/	/to/	+
3	he	/heː/	/u / iʃɑ(u)n/	-
4	we	/wiː/	/mɑ/	-
5	you (plural)	/juː/	/ʃomɑ/	-
6	they	/θeɪ/	/inhɑ / iʃɑ(u)n/	-
7	this	/ðɪs/	/in/	-
8	that	den där *c*, det där *n*	/un / ɑn/	-
9	here	/hɪəˈ/	/inʤɑ/	-
10	there	/ðeəˈ/	/ɑ(u)nʤɑ/	-
11	who	/huː/	/ki/	-
12	what	/wɒt/	/ʧi / ʧe/	-
13	where	/weəʳ/	/koʤɑ / ku/	-
14	when	/wen/	/Ќey/	-
15	how	/haʊ/	/ʧetowr/	-
16	not	/nɒt/	/ne- / na/	+
17	all	/ɔːl/	/hame/	-
18	many	/ˈmeni/	/zijɑd/	-
19	some	/sʌm/	/ʧand/	-
20	few	/fjuː/	/kam(i)/	-
21	other	/ˈʌðəʳ/	/digger/	-
22	one	/wʌn/	/Jek/	-
23	two	/tuː/	/do/	+
24	three	/θriː/	/se/	-
25	four	/fɔːʳ/	/ʧahɑr/	+
26	five	/faɪv/	/penʤ/	-
27	big	/bɪg/	/bozorg/	-
28	long	/lɒŋ/	/derɑz/	-
29	wide	/waɪd/	/pehn/	-
30	thick	/tɪk/	/koloft/	-
31	heavy	/ˈhevi/	/Sengin/	-
32	small	/smɔːl/	/kuʧek/	-
33	short	/ʃɔːt/	/kutah/	-
34	narrow	/ˈnærəʊ/	/teng/	-
35	thin	/θɪn/	/nazok/	-
36	woman	/ˈwʊmən/	/zan/	-
37	man (adult male)	/mæn/	/mard/	-

38	man (human being)	/mæn/	/ensɑn/	-
39	child	/t͡ʃɑɪld/	/batʃe/	-
40	wife	/ɯɑɪʃ/	/zan/	-
41	husband	/ˈhʌzbənd/	/ʃohɑr/	-
42	mother	/ˈmʌðəʳ/	/madɑr/	+
43	father	/ˈfɑːðəʳ/	/pedɑr/	+
44	animal	/ˈænɪmᵊl/	/hejvɑ(u)n/	-
45	fish	/fɪʃ/	/mahi/	-
46	bird	/bɜːd/	/parande / dʒudʒe /	-
47	dog	/dɒg/	/sag/	-
48	louse	/laʊs/	/ʃepeʧ/	-
49	snake	/sneɪk/	/mɑr/	-
50	worm	/wɜːm/	/kerm/	+
51	tree	/triː/	/deraxt/	-
52	forest	/ˈfɒrɪst/	/dʒengel/	-
53	stick	/stɪk/	/ʧub/	-
54	fruit	fruːt	/mive/	-
55	seed	/siːd/	/toxm/	-
56	leaf	/liːf/	/barg/	-
57	root	/ruːt/	/riʃe/	-
58	bark (of a tree)	/baːk/	/tane/	-
59	flower	/flaʊəʳ/	/gol/	-
60	grass	/grɑːs/	/alef /ʧaman/	-
61	rope	/rəʊp/	/tanab/	-
62	skin	/skɪn/	/pust/	-
63	meat	/miːt/	/guʃt/	-
64	blood	/blʌd/	/xun/	-
65	bone	/bəʊn/	/ostoxun/	-
66	fat (noun)	/fæt/	/rowgan/	-
67	egg	/eg/	/toxm-e morg/	-
68	horn	/hɔːn/	/ʃax/	-
69	tail	/teɪl/	/dom/	-
70	feather	/ˈfðəʳ/	/Per/	-
71	hair	/heər/	/mu/	-
72	head	/hed/	/sar/	-
73	ear	/ɪər/	/guʃ/	-
74	eye	/aɪ/	/ʧeʃm/	-
75	nose	/nəʊz/	/damɑq/	-
76	mouth	/maʊθ/	/dahan/	-
77	tooth	/tuːθ/	/dandɑ(u)n/	-
78	tongue (organ)	/tʌŋ/	/zebɑ(u)n /	-

79	fingernail	ˈfɪŋɡərneɪl	/nɑxun/	-
80	foot	/fʊt/	/pɑ/	-
81	leg	/leg/	/leng/	+
82	knee	/niː/	/zɑnu/	-
83	hand	/hænd/	/dast/	-
84	wing	/wɪŋ/	/bɑl/	-
85	belly	/ˈbeli/	/ʃekam/	-
86	guts	/ˈgʌts/	/rude/	-
87	neck	/nek/	/gerdɑn/	-
88	back	/bæk/	/poʃt/	-
89	breast	/brest/	/sine/	-
90	heart	/haːt/	/del/qalb/	-
91	liver	/ˈlɪvər/	/dʒigar/	-
92	to drink	/drɪŋk/	/niʃudan/	-
93	to eat	/iːt/	/xordan/	-
94	to bite	/baɪt/	/gaz gereftan/	-
95	to suck	/sʌk/	/makidan / mek zadan/	-
96	to spit	/spɪt/	/tof kardan/	-
97	to vomit	ˈvɒmɪt	/bala avordan/	-
98	to blow	/bləʊ/	/pof kardan / bad kardan/	-
99	to breathe	/breθ/	/nefes keʃidan/	-
100	to laugh	/lɑːf/	/xandidan/	-
101	to see	/siː/	/didan/	-
102	to hear	/hɪərʳ/	/ʃenidan/	-
103	to know	/nəʊ/	/dɑnestan/	-
104	to think	/θɪŋk/	/eniʃidan/	-
105	to smell	/smel/	/bu kardan/	-
106	to fear	/fɪərʳ/	/tarsidan/	-
107	to sleep	/sliːp/	/xabidan/	-
108	to live	/lɪv/	/zendegi kardan/	-
109	to die	/daɪ/	/mordan / fot kardan/	-
110	to kill	/kɪl/	/koʃtan/	-
111	to fight	/faɪt/	/dʒeng kardan/	-
112	to hunt	/hʌnt/	/ʃekar kardan/	-
113	to hit	/hɪt/	/zadan/	-
114	to cut	/kʌt/	/boridan/	-
115	to split	/splɪt/	/dʒoda kardan/	-
116	to stab	/stæb/	/zkhm zadan/??	-
117	to scratch	/skrætʃ/	/xarundan/	-
118	to dig	/dɪg/	/çale kardan/	-

119	to swim	/swɪm/	/ʃena kardan/	-
120	to fly	/flaɪ/	/paridan/	-
121	to walk	/wɔ:k/	/rah raftan/	-
122	to come	/kʌm/	/ɑ(u)madan/	-
123	to lie (as in a bed)	/laɪ/	/deraz kedan/	-
124	to sit	/sɪt/	/neʃestan/	-
125	to stand	/stænd/	/boland ʃodan/	-
126	to turn (intransitive)	/tɜ:n/	/bar gaʃtan/	-
127	to fall	/fɔ:l/	/oftadan/	-
128	to give	/gɪv/	/dɑdan/	-
129	to hold	/həʊld/	/gereftan/	-
130	to squeeze	/skwi:z/	/tʃelundan/	-
131	to rub	/rʌb/	/sɑbidan/	-
132	to wash	/wɒʃ/	/ʃostan/	-
133	to wipe	/waɪp/	/pak kardan/	-
134	to pull	/pʊl/	/keʃidan/	-
135	to push	/pʊʃ/	/hol dɑdan/	-
136	to throw	/θrəʊ/	/endaxtan/	-
137	to tie	/taɪ/	/bastan/	-
138	to sew	/səʊ/	/duxtan/	-
139	to count	kaʊnt	/ʃomordan/	-
140	to say	/seɪ/	/goftan/	-
141	to sing	/sɪŋ/	/avaz xɑ(u)ndan/	-
142	to play	/pleɪ/	/bazi kardan/	-
143	to float	/fləʊt/	/garq/	-
144	to flow	/fləʊ/	/rixtan/	-
145	to freeze	/fri:z/	/jax kardan/zadan/	-
146	to swell	/swel/	/bad kardan/	-
147	sun	/sʌn/	/aftab/xorʃid/	-
148	moon	/mu:n/	/mah/	-
149	star	/stɑ:ʳ/	/setare/	+
150	water	/wɔ:təʳ/	/ɑb/	-
151	rain	/reɪn/	/bɑrɑ(u)n/	-
152	river	/ˈrɪvəʳ7	/rudxɑ(u)ne/	-
153	lake	/leɪk/	/derjatʃe/	-
154	sea	/si:/	/derjɑ/	-
155	salt	/sɔ:lt, sɒlt/	/namaq/	-
156	stone	/stəʊn/	/seng/	-
157	sand	/sænd/	/ʃen/	-
158	dust	/dʌst/	/xɑq/	-

159	earth	/ɜ:θ/	/zemin/	-
160	cloud	/klaʊd/	/abr/	-
161	fog	/fɒg/	/meh/	-
162	sky	/skaɪ/	/ɑsemɑ(u)n/	-
163	wind	/wɪnd/	/bɑd/	-
164	snow	/snəʊ/	/barf/	-
165	ice	/aɪs/	/yax/	-
166	smoke	/sməʊk/	/dud/	-
167	fire	/faɪər /	/ateʃ/	-
168	ash	/æʃ/	/xɑqestar/	-
169	to burn	/bɜːn/	/suzɑ(u)ndan/	-
170	road	/rəʊd/	/rah/	-
171	mountain	/ˈmaʊntɪn/	/kuh/	-
172	red	/red/	/qermez/	-
173	green	/griːn/	/sebz/	-
174	yellow	/ˈjeləʊ/	/zard/	-
175	white	/waɪt/	/sefid/	-
176	black	/blæk/	/siyah/	-
177	night	/naɪt/	/ʃab/	-
178	day	/deɪ/	/ruz/	-
179	year	/jɪər/	/sɑl/	-
180	warm	/wɔːm/	/garm/	+
181	cold	/kəʊld/	/sard/	-
182	full	/fʊl/	/por/	-
183	new	/njuː/	/now/	+
184	old	/əʊld/	/pir/	-
185	good	/gʊd/	/xub/	-
186	bad	/bæd/	/bad/	+
187	rotten	/ˈrɒtən/	/gendide/	-
188	dirty	/ˈdɜːti/	/kesif/	-
189	straight	/streɪt/	/mostaqim/	-
190	round	/raʊnd/	/gerd/	-
191	sharp (as a knife)	/ʃɑːp/	/tiz/	-
192	dull (as a knife)	/dʌl/	/kond/	-
193	smooth	/smuːð/	/narm/	-
194	wet	/wet/	/xis/	-
195	dry	/draɪ/	/xoʃk/	-
196	correct	/kəˈrekt/	/dorost/	-
197	near	/nɪər/	/nazdik/	-
198	far	/faːr/	/dur/	-

199	right	/raɪt/	/rast/	+
200	left	/left/	/ʧap/	-
201	at ?	/æt/	/be- ?/	-
202	in	/ɪn/	/tu / dar/	-
203	with	wɪð	/ba/ baham/	-
204	and	/ænd/	/va /o/	-
205	if	/ɪf/	/eger/	-
206	because	/bɪˈkəz/	/ʧun/	-
207	half	/hɑːf/	/nesf/	-
208	navel	/ˈneɪvəl/	/nāf/	+

Appendix 6. Comperative patern between Sauzini and Persian

No.	English	Sauzini	Persian	Similarity
1	I	/mʉn/	/man/	+
2	you (singular)	/tu/	/to/	+
3	he	/awa/	/u / iʃɑ(u)n/	-
4	we	/ima//imana/	/mɑ/	+
5	you (plural)	/üja/	/ʃomɑ/	-
6	they	/awa:na/	/inhɑ / iʃɑ(u)n/	-
7	this	/aja/	/in/	-
8	that	/aw//awa/	/un / ɑn/	-
9	here	/ira/	/inʤɑ/	+
10	there	/awra/	/ɑ(u)nʤɑ/	-
11	who	/ki/	/ki/	+
12	what	/ tʃ{ʌ/ə} /	/ʧi / ʧe/	+
13	where	/ko/	/koʤɑ / ku/	+
14	when	/tʃɪ:tʃʌx//key/	/Key/	+
15	how	/tʃün/	/ʧetowr/	-
16	not	/ni//ne//ma/	/ne- / na/	+
17	all	/gi/	/hame/	-
18	many	/fire/	/zijɑd/	-
19	some	/hʌni/	/ʧand/	-
20	few	/kʌmi/	/kam(i)/	-
21	other	/ikʌlʌ/	/digger/	-
22	one	/iki/	/Jek/	-
23	two	/duan/du/	/Do/	+
24	three	/sian/	/se/	+
25	four	/tʃoran/tʃor/	/ʧahɑr/	+
26	five	/pʌncʌn/	/penʤ/	+
27	big	/jawrʌ/	/bozorg/	-
28	long	/diɾiʒ/	/derɑz/	+
29	wide	/vɪʃa/Pen/	/pehn/	+
30	thick	/qɑvi/	/koloft/	-
31	heavy	/sʉŋgi/	/Sengin/	+
32	small	/bytʃuk/	/kuʧek/	+
33	short	/qɑvi/	/kutah/	-
34	narrow	/t{ə/ʌ}ŋk/	/teng/	+
35	thin	/sʉst/	/nazok/	-
36	woman	/ʒ{ə/ɤ}n/	/zan/	+
37	man (adult male)	/ɑ:m/	/mard/	-
38	man (human being)	/[i} sɑn/	/ensɑn/	+

39	child	/zɑːrwu/	/batʃe/	-
40	wife	/ʒ{ə/ɤ}n/	/zan/	+
41	husband	/merd/	/ʃohar/	-
42	mother	dɑi/dɑj/dalık/	/madɑr/	-
43	father	/bɑʊ/bɑʊk/	/pedɑr/	-
44	animal	/hɑjwʌn/	/hejvɑ(u)n/	+
45	fish	/mɑːsi/	/mahi/	+
46	bird	/dʒydʒu/	/parande / dʒudʒe /	+
47	dog	/sʌ/	/sag/	+
48	louse	/ispe/	/ʧepeʧ/	+
49	snake	/mɑr/	/mɑr/	+
50	worm	/kɪːm/	/kerm/	+
51	tree	/dar/	/deraxt/	+ t/d
52	forest	/kö/	/dʒengel/	-
53	stick	/tʃıkıl/tʃu/	/ʧub/	+
54	fruit	/jemiʃ/majwa/	/mive/	+
55	seed	/toːxum/	/toxm/	+
56	leaf	/vʌlg/	/barg/	+v/b
57	root	/kuk/riʃı/	/riʃe/	+
58	bark (of a tree)	/qalux/	/tane/	-
59	flower	/ tʃitʃʌ/ gul/	/gol/	+
60	grass	/tʃiman/	/alef /tʃaman/	+
61	rope	/bʌnd/	/tanab/	+
62	skin	/tʃəːm/pöst/	/pust/	+
63	meat	/göʃt/	/guʃt/	+
64	blood	/xün/	/xun/	+
65	bone	/hyznɑq/	/ostoxun/	-
66	fat (noun)	/run/	/rowgan/	+
67	egg	/hak/	/toxm-e morg/	+
68	horn	/ʃʌx/	/ʃax/	+
69	tail	/düm/	/dom/	+
70	feather	/mü/	/Per/	+false cog.
71	hair	/pɤɹtʃ/	/mu/	+
72	head	/s{ə/ʒ}ɹ	/sar/	+
73	ear	/gø/	/guʃ/	+
74	eye	tʃeʊ	/ʧeʃm/	+
75	nose	/ pyz/	/damɑq/	-
76	mouth	/dəm /	/dahan/	-
77	tooth	/dɤɑn/	/dandɑ(u)n/	+
78	tongue (organ)	/zan/	/zebɑ(u)n /	+

79	fingernail	/dɪrnaq/	/nɑxun/	-
80	foot	/pa/	/pɑ/	+
81	leg	/qəɪtʃ/	/leng/	-
82	knee	/tʃɔk/	/zɑnu/	-
83	hand	/dɤst/	/dast/	+
84	wing	/bal/	/bɑl/	+
85	belly	/zɪk/	/ʃekam/	-
86	guts	/laʊrəg/	/rude/	-
87	neck	/kʌfʌl/	/gerdɑn/	-
88	back	/ɔrtepiʃt/	/poʃt/	+
89	breast	/səɹʌ duɫ/	/sine/	-
90	heart	/səɹʌ duɫ/qalb/	/del/qalb/	+
91	liver	/dʒɪaɹ/	/dʒigar/	+60?
92	to drink	/meˈtən/	/niʃudan/	-
93	to eat	/xʊɑrdɯn/	/xordan/	+
94	to bite	/gʌz kurdɯn/	/gaz gereftan/	+
95	to suck	/metɯn/	/makidan / mek zadan/	+
96	to spit	/talɪq wajtɯn/	/tof kardan/	-
97	to vomit	/qew kurdɯn/	/bala avordan/	-
98	to blow	/Puf kurdɯn/	/pof kardan / bad kardan/	+
99	to breathe	/solux rɪtandɯn/nafas kiʃandɯn/	/nefes keʃidan/	+
100	to laugh	/kanɪ kurdɯn/	/xandidan/	-
101	to see	/ijandɯn/İ/	/didan/	+
102	to hear	/ɪʒandɯn/	/ʃenidan/	-
103	to know	/ɪzandɯn/	/dɑnestan/	-
104	to think		/eniʃidan/	-
105	to smell	/bü kurdɯn/	/bu kardan/	+
106	to fear	/tɪrsandɯn/	/tarsidan/	+
107	to sleep	/xaftɯn/	/xabidan/	+
108	to live	/vɯstɯn/	/zendegi kardan/	-
109	to die	/murdɯn/	/mordan / fot kardan/	+
110	to kill	/fuʃtɯn/	/koʃtan/	+
111	to fight	/dʒʌŋg/	/dʒeng kardan/	+
112	to hunt	/rutɯn/	/ʃekar kardan/	-
113	to hit	/lejʌndɯn/	/zadan/	-
114	to cut	/bɯrandɯn/	/boridan/	+
115	to split	/düdʒ kurdɯn/	/dʒoda kardan/	-
116	to stab	/keʳd kurdɯn/	/zkhm zadan/??	-

117	to scratch	/xorandɯn/	/xarundan/	+
118	to dig	/t͡ʃapa kurdɯn/kanandɯn	/çale kardan/	-
119	to swim	/miljo:ni kurdɯn/	/ʃena kardan/	-
120	to fly	/pa:rʌndɯn/	/paridan/	-
121	to walk	/rɪt͡ʃı:n/	/rah raftan/	-
122	to come	/ha:tɪn/	/ɑ(u)madan/	-
123	to lie (as in a bed)	/laʒandɯn/	/deraz kedan/	-
124	to sit	/niʃandɯn/	/neʃestan/	-
125	to stand	/pa:lıstandɯn/	/boland ʃodan/	+
126	to turn (intransitive)	/ra:dandɯn/	/bar gaʃtan/	-
127	to fall	/kʌftɯn/	/oftadan/	-
128	to give	/da:ɯn/	/dɑdan/	+
129	to hold	/rɪtandɯn/	/gereftan/	-
130	to squeeze	/lüʃandɯn/	/t͡ʃelundan/	-
131	to rub	/vilikandɯn/	/sɑbidan/	-
132	to wash	/ʃürtɯn/	/ʃostan/	+
133	to wipe	/tamɯz kurdɯn/	/pak kardan/	-
134	to pull	/kiʃandɯn/	/keʃidan/	+
135	to push	/daf:lenandɯn/	/hol dɑdan/	-
136	to throw	/wɒjtɯn/	/endaxtan/	-
137	to tie	/wɒstɯn/	/bastan/	+
138	to sew	/dürandɯn/	/duxtan/	-
139	to count	/iʒmardɯn/	/ʃomordan/	+
140	to say	/vɯtɯn/	/goftan/	-
141	to sing	/gurani t͡ʃɯrandɯn/	/avaz xɑ(u)ndan/	-
142	to play	/wɒstɯn/	/bazi kardan/	-
143	to float	/ri: t͡ʃɯɯn/	/garq/	-
144	to flow	/harıkandɯn/	/rixtan/	-
145	to freeze	/buz rɯtɯn/	/jax kardan/zadan/	-
146	to swell	/pʌndɯmandɯn/	/bad kardan/	-
147	sun	/xɒʳ/	/aftab/xorʃid/	+
148	moon	/maŋg/	/mah/	+
149	star	/asarʌ/	/setare/	+
150	water	/aʊ/	/ɑb/	+
151	rain	/va:rʌn/	/bɑrɑ(u)n/	+
152	river	/t͡ʃ{ə/ʌ}m/	/rudxɑ(u)ne/	-
153	lake	/gyl /	/derjat͡ʃe/	-
154	sea	/dɤŋgɤz /derja/	/derjɑ/	+
155	salt	/xwɑ/	/namaq/	-
156	stone	/ʃɤ'tʃɤk/	/seng/	-

157	sand	/qum/	/ʃen/	-
158	dust	/tüz/xa kʰ /	/xɑq/	+
159	earth	/xakʰ /zami/	/zemin/	+
160	cloud	/pulut/aur/	/abr/	+
161	fog	/sis/	/meh/	-
162	sky	/r3ja asıman/	/ɑsemɑ(u)n/	+
163	wind	/vɑ:ɹəwɑ/va/	/bɑd/	+
164	snow	/vəɹf/	/barf/	+
165	ice	/buz/	/yax/	-
166	smoke	/dü/	/dud/	+
167	fire	/a:rɪ/	/ateʃ/	+
168	ash	/xʌka kawu/	/xɑqestar/	+
169	to burn	/syzandɯn/	/suzɑ(u)ndan/	+
170	road	/ri/	/rah/	+
171	mountain	/kœ /	/kuh/	+
172	red	/søɹ/	/qermez/	-
173	green	/saʊs/	/sebz/	+
174	yellow	/tʃɑ:kɤɹ/zard/	/zard/	+
175	white	/tʃəɹmə/	/sefid/	-
176	black	/si/	/siyah/	+
177	night	/ʃʌʊ/	/ʃab/	+
178	day	/ruʒ/	/ruz/	+
179	year	/sɑɫ /	/sɑl/	+
180	warm	/gʌˤm/	/garm/	+
181	cold	/bʊs/sʌˤma/	/sard/	+
182	full	/pır/	/por/	+
183	new	/nu:/	/now/	+
184	old	/pir/	/pir/	+
185	good	/xas//baʃ/	/xub/	-
186	bad	/xaraw/	/bad/	-
187	rotten	/xarʌʊ/	/gendide/	-
188	dirty	/pis/gıller	/kesif/	-
189	straight	/düz/	/mostaqim/	-
190	round	/juvarlaq/	/gerd/	-
191	sharp (as a knife)	/tiʒ/	/tiz/	+
192	dull (as a knife)	/kul/	/kond/	+
193	smooth	/narm/	/narm/	+
194	wet	/tʌr/	/xis/	-
195	dry	/hüʃk/	/xoʃk/	+
196	correct	/rast/	/dorost/	+

197	near	/nezɪk/	/nazdik/	+
198	far	/dɜːr/	/dur/	+
199	right	/rʌst/	/rast/	+
200	left	/ʧap/	/ʧap/	-
201	at ?	/-a/	/be- ?/	-
202	in	/naʊ/	/tu / dar/	-
203	with	/goʳd/	/ba/ baham/	-
204	and	/-aʊ/	/va /o/	-
205	if	/ʌka/	/eger/	-
206	because	/raʊkʌ/	/ʧun/	-
207	half	/nim/	/nesf/	-
208	navel	/na'ʊk/	/nāf/	+

Appendix 7. Comperative Pattern Between Sauzini and Kurmanji

No.	English	Sauzini	Kurmanji	Similarity
1	I	/muɯn/	/ez/	-
2	you (singular)	/tu/	/tu/ /du/	+
3	he	/awa/	/ew/	+
4	we	/ima//imana/	/em/	+
5	you (plural)	/üja/	/hun/	-
6	they	/awa:na/	/wana/	+
7	this	/aja/	/ev/	-
8	that	/aw//awa/	/ew/	+
9	here	/ira/	/wɪra/	+
10	there	/awra/	/wura/	+
11	who	/ki/	/ki/	+
12	what	/ tʃ{ʌ/ə} /	/tʃɪ/	+
13	where	/ko/	/kuderi/	+
14	when	/tʃi:tʃʌx//key/	/tʃɪwaxti/	+
15	how	/tʃün/	/tʃuta/	+
16	not	/ni//ne//ma/	/na/	+
17	all	/gi/	/gɪʃk/	+
18	many	/fɪre/	pɪr/	-
19	some	/hʌni/	/cʌşʃkek/	-
20	few	/kʌmi/	/hɪndɪk/	-
21	other	/ikʌlʌ/	/yadɪn/	-
22	one	/iki/	/jek/	-
23	two	/duan/du/	/du/dɪdu/	+
24	three	/sian/	/se/sɪsə:/	+
25	four	/tʃoran/tʃor/	/tʃɑr/	+
26	five	/pʌncʌn/	/bendʒ/	+
27	big	/jawrʌ/	/mezɪn/	-
28	long	/diɾiʒ/	/direʒ/	+
29	wide	/vɪʃa/pen/	/fireh/	-
30	thick	/qɑvi/	/qalin/	-
31	heavy	/suɯŋgi/	/gɪran/	-
32	small	/bytʃuk/	/cutʃɪk/	+
33	short	/qut/	/qɪn/	-
34	narrow	/t{ə/ʌ}ŋk/	/denk/ nazaln/	+
35	thin	/suɯst/	/zɪrav/zayıf/	-
36	woman	/ʒ{ə/ɤ}n/	/ʒin//ʒɪnɪk/	+
37	man (adult male)	/ɑ:m/	/mer/ merɪk/	-

38	man (human being)	/[i} sɑn/	/merî/	-
39	child	/zɑːrwu/	/kulfet/	-
40	wife	/ʒ{ə/ɤ}n/	/ʒ{ə/ɤ}n/	+
41	husband	/merd/	/mer/	+
42	mother	dɑi/dɑj/dalık/	/cijamı//	-
43	father	/bɑʊ/bɑʊk/	/bav/bawo/	+
44	animal	/hɑjwʌn/	/hejan/	+
45	fish	/mɑːsi/	/maːsi/	+
46	bird	/dʒydʒu/	/ʧuʧuk/	+
47	dog	/sʌ/	/guʧık/	-
48	louse	/ispe/	/rıʃk/	-
49	snake	/mɑr/	/mɑr/	+
50	worm	/kɪːm	/kurm/	+
51	tree	/dar/	/axa/dar/	+
52	forest	/kö/	/meʃe/	-
53	stick	/ʧıkıl/ʧu/	/gırʃ/	-
54	fruit	/jemiʃ/	/mewi/jemîʃ/	+
55	seed	/toːxum/	/toxim/	+
56	leaf	/vʌlg/	/belg/	+v/b
57	root	/kuk/	/kok/	+
58	bark (of a tree)	/qalux/	/qavuk/	+
59	flower	/ ʧitʃʌ/gul/	/ʧîʧek/	+
60	grass	/ʧiman/	/ʧîmen/	+
61	rope	/bʌnd/	/bend/t/	+
62	skin	/ʧəːm/pöst/	/post/	+
63	meat	/göʃt/	/goʃt/	+
64	blood	/xün/	/xun/	+
65	bone	/hyznɑq/	/hasti/	-
66	fat (noun)	/run/	/run/	+
67	egg	/hak/	/hêk/	+
68	horn	/ʃʌx/	/goʧ/	-
69	tail	/düm/	/boʧık/	-
70	feather	/mü/	/bırʧ/pırʧ/	-
71	hair	/pɤɹıʧ/	/por/	+
72	head	/s{ə/ʒ}ɹ	/ser/	+
73	ear	/gø/	/go/	+
74	eye	ʧeʊ	/ʧav/	+
75	nose	/ pyz/	/boz/fırnık/	+p/b
76	mouth	/dəm /	/dev/	+
77	tooth	/dɤɑn/	/dıran/	+

78	tongue (organ)	/zan/	/zɪman/	+
79	fingernail	/dɪrnaq/	/dɪnax/	+
80	foot	/pa/	/nɪg/	-
81	leg	/qəɹtʃ/	/ʃeq/	-
82	knee	/tʃɔk/	/tʃok/	+
83	hand	/dʏst/	/dest/	+
84	wing	/bɑl/	/ganep/	-
85	belly	/zɪk/	/zɪk/	+
86	guts	/laʊrəg/	/rûvî/	-
87	neck	/kʌfʌl/	/stû/	-
88	back	/ɔrtepiʃt/	/navkel/newq/	-
89	breast	/səɹʌ duɫ/	/sɪŋg/	-
90	heart	/səɹʌ duɫ/qalb/	/dɪl/	+
91	liver	/dʒɪaɹ/	/gezeb/	-
92	to drink	/me'tən/	/xarɪn/	-
93	to eat	/xʊɑrduɪn/	/xarɪn/	+
94	to bite	/gʌz kurduɪn/	/gɪt kɪrɪn/	-
95	to suck	/metuɪn/	/bɪmeʒɪn/mɪʒandî/	-
96	to spit	/talɪq wajtuɪn/	/tuk-ɪr/	-
97	to vomit	/qew kurduɪn/	/vereʃan/	-
98	to blow	/Puf kurduɪn/	/pɪf/	+
99	to breathe	/solux rɪtanduɪn/	/nefes hɪlde/bɪde/	-
100	to laugh	/kanɪ kurduɪn/	/bî-ken/kenya/	+
101	to see	/ijanduɪn/İ/	/ditin/	+
102	to hear	/ɪʒanduɪn/	/bîhistin/	-
103	to know	/ɪzanduɪn/	/zanîn/	+
104	to think		-	-
105	to smell	/bü kurduɪn/	/bîn kirin/	+
106	to fear	/tɪrsanduɪn/	/dîrs/	+t/d
107	to sleep	/xaftuɪn/	/xav/xavn/	+
108	to live	/vuɪstuɪn/	/rudun/	-
109	to die	/murduɪn/	/mɪrîn/	+
110	to kill	/fuɪʃtuɪn/	/buguʒandî/	-
111	to fight	/cʌŋg/	/hev xɪstɪn/	-
112	to hunt	/ruɪtuɪn/	/nefes hɪlde/bɪde/	-
113	to hit	/lejʌnduɪn/	/lexîstîn/	-
114	to cut	/buɪranduɪn/	/gutkɪrɪn/	-
115	to split	/düdʒ kurduɪn/	/veqetɪn/	-
116	to stab	/keᵣd kurduɪn/	/kêr kɪrɪn/	+
117	to scratch	/xoranduɪn/	/xurandî/	+

118	to dig	/t͡ʃapa kurdɯn/kanandɯn	/kolandɪn/	-
119	to swim	/miljo:ni kurdɯn/	/sobanî/	-
120	to fly	/pa:rʌndɯn/	/fɪrja/	-
121	to walk	/rɪt͡ʃɪ:n/	/revet͡ʃün/meʃîn/	-
122	to come	/ha:tɪn/	/hatɪn/	+
123	to lie (as in a bed)	/lɑʒandɯn/	/velezandɪn/	-
124	to sit	/niʃandɯn/	/runuʃt/	+
125	to stand	/pa:lɪstandɯn/	/rab/	-
126	to turn (intransitive)	/ra:dandɯn/	/wergerandɪn/	-
127	to fall	/kʌftɯn/	/ketîn/	+
128	to give	/da:ɯn/	/bɪde/	-
129	to hold	/rɪtandɯn/	/bɪgre/	-
130	to squeeze	/lüʃandɯn/	/gɪvaʃtîn/	-
131	to rub	/vilikandɯn/	/mɪzdan/	-
132	to wash	/ʃürtɯn/	/bɪʃo/	-
133	to wipe	/tamɯz kurdɯn/	/pakɪrîn/	-
134	to pull	/kiʃandɯn/	/kɪʃandɪn/	+
135	to push	/daf:lenandɯn/	/dafta/	+
136	to throw	/wɒjtɯn/	/vaʒandɪn/	-
137	to tie	/wɒstɯn/	/girêdan/	-
138	to sew	/dürandɯn/	/durun/	+
139	to count	/iʒmardɯn/	/biʒmardɯn/	+
140	to say	/vɯtɯn/	/beʒadɯn/	-
141	to sing	/gurani t͡ʃɯrandɯn/	/kulam beʒadɯn/	-
142	to play	/wɒstɯn/	/lîsti/ /bîlîzandi/	-
143	to float	/ri: t͡ʃɯn/	/ser avi ket/	-
144	to flow	/harɪkandɯn/	/aw here/	-
145	to freeze	/buz rɯtɯn/	/cemidandɯn/	-
146	to swell	/pʌndɯmandɯn/	/pert͡ʃfî/	-
147	sun	/xɒʳ/	/daw/	-
148	moon	/maŋg/	/hiv/	-
149	star	/asarʌ/	ustɪrɪk	+
150	water	/aʊ/	/av/	+
151	rain	/va:rʌn/	/ʃɪlî/	+
152	river	/t͡ʃ{ə/ʌ}m/	/t͡ʃermi/	+
153	lake	/gyl /	/gol/	+
154	sea	/dɤŋgɤz /	/denɪz/	+
155	salt	/xwɑ/	/xoy/	+
156	stone	/ʃɤ't͡ʃɤk/	/gevɪr/	-
157	sand	/qum/	/kum/	+

158	dust	/tüz/	/toz/	+
159	earth	/xakʰ /	/xalî/	-
160	cloud	/pulut/awr/	/bulut//aur/	+
161	fog	/sis/	/sis/	+
162	sky	/r3ja asıman/	/aur/	-
163	wind	/vɑːɹəwɑ/	/ba/	+ b/v
164	snow	/vəɹf/	/berf/	+
165	ice	/buz/	/buz/	+
166	smoke	/tuman /dü/	/dûman/	+
167	fire	/aːrɪ/	/agî/	+
168	ash	/xʌka kawu/	/kul/	-
169	to burn	/syzandɯn/	/ʃewɪtandin/	-
170	road	/ri/	/rê/	+
171	mountain	/kœ /	/ʧî/ʧîja/	-
172	red	/søɹ/	/sor/	+
173	green	/saʊs/	/kesk/	-
174	yellow	/ʧɑːkɤɹ/zard/	/zer/	+
175	white	/ʧəɹmə/	/sıpi/	-
176	black	/si/	/reʃ/	-
177	night	/ʃʌʊ/	/ʃev/	+
178	day	/ruʒ/	/roʒ/	+
179	year	/sɑł /	/sʌl/	+
180	warm	/gʌʳm/	/kellî/	-
181	cold	/bʊs/	/sar//semî/a/	-
182	full	/pɪr/	/ʃepellî/	-
183	new	/nuː/	/nû/	+
184	old	/pir/	/gemn/	-
185	good	/xas//baʃ/	/rınd/	-
186	bad	/xaraw/	/kotɪ/	-
187	rotten	/xarʌʊ/	/gnî/	-
188	dirty	/pis/gıller	/gıller/	+
189	straight	/düz/	/duz/	+
190	round	/juvarlaq/	/juvarlaq/	+
191	sharp (as a knife)	/tiʒ/	/dûʒ/	+d/j
192	dull (as a knife)	/kul/	/dûʒ nine //go/	-
193	smooth	/narm/	/hilû/	-
194	wet	/tʌr/	/ʃil/	-
195	dry	/hüʃk/	/ziyâ/	-
196	correct	/rast/	/rast/	+
197	near	/nezɪk/	/nêzîk/	+

198	far	/dɜːr/	/dur/	+
199	right	/rʌst/	/rast/	+
200	left	/ʧap/	/ʧep/	+
201	at ?	/-a/	/-ra/	-
202	in	/naʊ/	/hʌndurida/	-
203	with	/goʳd/	/tevî/	-
204	and	/-aʊ/	/ -va, -ve/	-
205	if	/ʌka/	/-ki/ /eğerki/	-
206	because	/raʊkʌ/	/ʧunkı/	-
207	half	/nim/	/nîv /	+
208	navel	/na'ʊk/	/navik/	+

Appendix 8. Comperative Pattern Between Sauzini and Zazaki

No.	English	Sauzini	Zazaki	Similarity
1	I	/mʊn/	/ez/	-
2	you (singular)	/tu/	/tî/	+
3	he	/awa/	/we/	+
4	we	/ima//imana/	/ma/	+
5	you (plural)	/üja/	/ʃimɑ/	+
6	they	/awa:na/	/ʃimɑ/	-
7	this	/aja/	/ına/	-
8	that	/aw//awa/	/ına/	-
9	here	/ira/	/ewta/	-
10	there	/awra/	/wera/	+
11	who	/ki/	/kom/	+
12	what	/ tʃ{ʌ/ə} /	/tî/	+
13	where	/ko/	/kowera/	+
14	when	/tʃi:tʃʌx//key/	/kej/	+
15	how	/tʃün/	/tî/	-
16	not	/ni//ne//ma/	/ma-me/	+
17	all	/gi/	/pîr/	-
18	many	/fɪre/	/zat/	-
19	some	/hʌni/	/tʃent xât/	-
20	few	/kʌmi/	/ton/	-
21	other	/ikʌlʌ/	/ajbîn/	-
22	one	/iki/	/jew tek/	-
23	two	/duan/du/	/di/	+
24	three	/sian/	/hîrê/î	-
25	four	/tʃoran/tʃor/	/tʃhâr/	+
26	five	/pʌncʌn/	/pondʒ/	+
27	big	/jawrʌ/	/xîs/	-
28	long	/dirɪʒ/	/derg/	+
29	wide	/vɪʃa/	/hârâj/	-
30	thick	/qɑvi/	/xirsek/	-
31	heavy	/sʊŋgi/	/gîron/	-
32	small	/bytʃuk/	/kɪjt/	-
33	short	/qɑvi/	/kɪr/	-
34	narrow	/t{ə/ʌ}ŋk/	/teng/	+
35	thin	/sʊst/	/zayɪf/	-
36	woman	/ʒ{ə/ɤ}n/	/ʤini/	+
37	man (adult male)	/ɑ:m/	/dʒomîrt/	-

				+
38	man (human being)	/[i} sɑn/	/iso/	
39	child	/zɑːɾwu/	/put /lerr /	-
40	wife	/ʒ{ə/ɤ}n/	/dʒini/	+
41	husband	/merd/	/merde/	+
42	mother	dɑi/dɑj/dalık/	/daîjk/	+
43	father	/bɑʊ/bɑʊk/	/baujk/	+
44	animal	/hɑjwʌn/	/hejwan/	+
45	fish	/mɑːsi/	/mase/	+
46	bird	/dʒydʒu/	/milʧık/	-
47	dog	/sʌ/	/kutîk/	-
48	louse	/ispe/	/eʃpiʒ/	+
49	snake	/mɑr/	/mɑr/	+
50	worm	/kıːm	/kılbınêrt/	+
51	tree	/dar/	/dar/	+ t/d
52	forest	/kö/	/raz/	-
53	stick	/ʧıkıl/ʧu/	/sėx/	-
54	fruit	/jemiʃ/	/jemîʃ/	+
55	seed	/toːxum/	/toːxum/	+
56	leaf	/vʌlg/	/pell/	+ p/v
57	root	/kuk/rej/	/reje/	+
58	bark (of a tree)	/qalux/	/ver/	-
59	flower	/ ʧıʧʃʌ/gul/	/villîk/	-
60	grass	/ʧıman/	/var/	-
61	rope	/bʌnd/	/la/	-
62	skin	/ʧəːm/pöst/	/zer/este/	-
63	meat	/göʃt/	/guʃt/	+
64	blood	/xün/	/gûyn/	+
65	bone	/hyznɑq/	/kate/	-
66	fat (noun)	/run/	/run/	+
67	egg	/hak/	/hak/	+
68	horn	/ʃʌx/	/estın/	-
69	tail	/düm/	/bıʧ/	-
70	feather	/mü/	/mûj/	+
71	hair	/pɤɹʧ/	/gıdʒîk/	-
72	head	/s{ə/ɜ}ɹ	/sera/	+
73	ear	/gø/	/guʃ/	+
74	eye	ʧeʊ	/ʧîm/	+
75	nose	/ pyz/	/zinî/	-
76	mouth	/dəm /	/fek/	-

77	tooth	/dʁan/	/dindo/	+
78	tongue (organ)	/zan/	/zu/	+
79	fingernail	/dɪrnaq/	/neŋgu/	-
80	foot	/pa/	/nɪŋ/	-
81	leg	/qəɹtʃ/	/nɪŋ/	-
82	knee	/tʃɔk/	/ʧêka/	+
83	hand	/dʁst/	/dest/	+
84	wing	/bal/	/pel/	+b/p
85	belly	/zɪk/	/zêre/	-
86	guts	/laʊrəg/	/roqle/	+
87	neck	/kʌfʌl/	/mil/	-
88	back	/ɔrtepiʃt/	/mîne/	-
89	breast	/səɹʌ dɯł/	/sêne/	-
90	heart	/səɹʌ dɯł/qalb/	/zerr/	-
91	liver	/dʒɪaɹ/	/ʧɪğer/	+
92	to drink	/meˈtən/	/wertɪn/	-
93	to eat	/xʊɑrdɯn/	/wert/ʧi/	-
94	to bite	/gʌz kurdɯn/	/gaz kerden/	+
95	to suck	/metɯn/	/mɪsna/	-
96	to spit	/talɪq wajtɯn/	/aluw/	-
97	to vomit	/qew kurdɯn/	/kal bɪna/	-
98	to blow	/Puf kurdɯn/	-	-
99	to breathe	/solux rɪtandɯn/nʌfas/	/nefes grot/	+
100	to laugh	/kanɪ kurdɯn/	/hɪwu/	-
101	to see	/ijandɯn/İ/	/vejnajɪʃ/dɪ/	+
102	to hear	/ɪʒandɯn/	/eʃ nawɪt-ɪʃ /	-
103	to know	/ɪzandɯn/	/ezon /	+
104	to think		/endê ʃ /	-
105	to smell	/bü kurdɯn/	/bûj/	+
106	to fear	/tɪrsandɯn/	/tersen/	+
107	to sleep	/xaftɯn/	/rawken/	-
108	to live	/vɯɪstɯn/	/rînɪʃtɪn/	-
109	to die	/mɯrdɯn/	/merk/	-
110	to kill	/fuɪʃtɯn/	/kîʃt/mɪrena/	+
111	to fight	/cʌŋg/	/koxe kerd/	-
112	to hunt	/rɯɯtɯn/	/sejd/	-
113	to hit	/lejʌndɯn/	/purj/	-
114	to cut	/bɯrandɯn/	/bɪrna/	+
115	to split	/düdʒ kurdɯn/	/barkej/	-
116	to stab	/keʳd kurdɯn/	/kard ke/	+

117	to scratch	/xorandɯn/	/kenen/	-
118	to dig	/t͡ʃapa kurdɯn/kanandɯn	/kendıʃ/	-
119	to swim	/miljo:ni kurdɯn/	/asnaw/	-
120	to fly	/pa:rʌndɯn/	/fıra/	-
121	to walk	/rıt͡ʃı:n/	/ʃîn/	-
122	to come	/ha:tın/	/emaj/	-
123	to lie (as in a bed)	/laʒandɯn/	/kalben/	-
124	to sit	/niʃandɯn/	/rıʃen/	-
125	to stand	/pa:lıstandɯn/	/warîʃt/	-
126	to turn (intransitive)	/ra:dandɯn/	/tade/	-
127	to fall	/kʌftɯn/	/ergına/	-
128	to give	/da:ɯn/	/dajîʃ/	+
129	to hold	/rıtandɯn/	/tepîʃten/	-
130	to squeeze	/lüʃandɯn/	/tada/	-
131	to rub	/vilikandɯn/	/wılejn/	-
132	to wash	/ʃürtɯn/	/ʃît/	+
133	to wipe	/tamɯz kurdɯn/	/esterden/	-
134	to pull	/kiʃandɯn/	/kaʃ kerden/	+
135	to push	/daf:lenandɯn/	/nıskda/	-
136	to throw	/wɒjtɯn/	/eʃten/	-
137	to tie	/wɒstɯn/	/gıredajen/	-
138	to sew	/dürandɯn/	/deʃt/	-
139	to count	/iʒmardɯn/	/omorden/	-
140	to say	/vɯtɯn/	/vaten/	+
141	to sing	/gurani t͡ʃurandɯn/	/dêjîr kerden/	-
142	to play	/wɒstɯn/	/kay kerden/	-
143	to float	/ri: t͡ʃıɯn/	/asnaw kerden/	-
144	to flow	/harıkandɯn/	/jana/	-
145	to freeze	/buz rɯtɯn/	/xenkejw/	-
146	to swell	/pʌndɯmandɯn/	/miraz/	-
147	sun	/xɒʳ/	/tîntʃ/	-
148	moon	/maŋg/	/aʃm/	-
149	star	/asarʌ/	/estare/	+
150	water	/aʊ/	/awk/	+
151	rain	/va:rʌn/	/dıʒn/	-
152	river	/tʃ{ə/ʌ}m/	/rû/	-
153	lake	/gyl /	/gol/	+
154	sea	/dɤŋgɤz /	/dengiz/	+
155	salt	/xwɑ/	/sol/	-
156	stone	/ʃɤ'tʃɤk/	/kera/	-

157	sand	/qum/	/qum/	+
158	dust	/tüz/	/töz/	+
159	earth	/xakʰ /zami/	/herr/	-
160	cloud	/pulut/awr/	/howr/	+
161	fog	/sis/	/duman/	-
162	sky	/r3ja asıman/	/asmîn/	+
163	wind	/vɑ:ɹəwɑ/	/hava/	-
164	snow	/vəɹf/	/vor/	+
165	ice	/buz/	/dʒemed/	-
166	smoke	/tuman /dü/	/dô/	+
167	fire	/a:rɪ/	/adır/	+
168	ash	/xʌka kawu/	/well/	-
169	to burn	/syzandɯn/	/veʃna/	-
170	road	/ri/	/rajer/	+
171	mountain	/kœ /	/kô/	+
172	red	/søɹ/	/sûr/	+
173	green	/saʊs/	/jeʃîl/	-
174	yellow	/tʃɑ:kɤɹ/zard/	/zerd/	+
175	white	/tʃəɹmə/	/spî/	-
176	black	/si/	/sej/	+
177	night	/ʃʌʊ/	/ʃôw/	+
178	day	/ruʒ/	/ruʒ/	+
179	year	/sɑɫ /	/serr/	+
180	warm	/gʌˤm/	/germ/	+
181	cold	/bʊs/	/serd/	-
182	full	/pır/	/pır/	+
183	new	/nu:/	/new/	+
184	old	/pir/	/khî/	-
185	good	/xas//baʃ/	/hol/	-
186	bad	/xaraw/	/xîrab/	+
187	rotten	/xarʌʊ/	/xelîsiya/	-
188	dirty	/pis/gıller	/lâjme/	-
189	straight	/düz/	/raʃt/	-
190	round	/juvarlaq/	/qoller/	-
191	sharp (as a knife)	/tiʒ/	/tiʒ/	+
192	dull (as a knife)	/kul/	/kôl/	+
193	smooth	/narm/	/rapraʃt/	-
194	wet	/tʌr/	/hî/	-
195	dry	/hüʃk/	/zuwa/	-
196	correct	/rast/	/raʃt/	+

197	near	/nezɪk/	/nɪzdî/	+
198	far	/dɜ:r/	/dûr/	+
199	right	/rʌst/	/raʃt/	+
200	left	/ʧap/	/ʧep/	+
201	at ?	/-a/	/ɪz/	-
202	in	/naʊ/	/zerez/	-
203	with	/goʳd/	/mɪ/	-
204	and	/-aʊ/	/o/	-
205	if	/ʌka/	/eger/	-
206	because	/raʊkʌ/	/ʧînkî/	-
207	half	/nim/	/nim /	+
208	navel	/na'ʊk/	/nak/	+

Appendix 9. Comperative Pattern Between Persian and Kurmanji

No.	English	Persian	Kurmanji	Similarity
1	I	/man/	/ez/	-
2	you (singular)	/to/	/tu/ /du/	+
3	he	/u / iʃɑ(u)n/	/ew/	-
4	we	/mɑ/	/em/	-
5	you (plural)	/ʃomɑ/	/hun/	-
6	they	/inhɑ / iʃɑ(u)n/	/wana/	-
7	this	/in/	/ev/	-
8	that	/un / ɑn/	/ew/	-
9	here	/inʤɑ/	/wıra/	-
10	there	/ɑ(u)nʤɑ/	/wura/	-
11	who	/ki/	/ki/	+
12	what	/ʧi / ʧe/	/ʧı/	+
13	where	/koʤɑ / ku/	/kuderi/	+
14	when	/Key/	/ʧıwaxti/	-
15	how	/ʧetowr/	/ʧuta/	+
16	not	/ne- / na/	/na/	+
17	all	/hame/	/gıʃk/	-
18	many	/zijɑd/	pır/	-
19	some	/ʧand/	/cʌʃkek/	-
20	few	/kam(i)/	/hındık/	-
21	other	/digger/	/yadın/	-
22	one	/Jek/	/jek/	+
23	two	/Do/	/du/dıdu/	+
24	three	/se/	/se/sısə:/	+
25	four	/ʧahar/	/ʧɑr/	+
26	five	/penʤ/	/benʤ/	+
27	big	/bozorg/	/mezın/	-
28	long	/derɑz/	/direʒ/	+
29	wide	/pehn/	/fireh/	-
30	thick	/koloft/	/qalin/	-
31	heavy	/Sengin/	/gıran/	-
32	small	/kuʧek/	/cuʧık/	+
33	short	/kutah/	/qın/	-
34	narrow	/teng/	/denk/ nazaln/	+
35	thin	/nazok/	/zırav/zayıf/	-
36	woman	/zan/	/ʒin//ʒınık/	+
37	man (adult male)	/mard/	/mer/ merık/	+
38	man (human being)	/ensɑn/	/merî/	-

39	child	/baʧe/	/kulfet/	-
40	wife	/zan/	/ʒ{ə/ʁ}n/	+
41	husband	/ʃohɑr/	/mer/	-
42	mother	/mɑdɑr/	/cijamɪ//	-
43	father	/pedɑr/	/bav/bawo/	-
44	animal	/hejvɑ(u)n/	/hejan/	+
45	fish	/mahi/	/ma:si/	+
46	bird	/parande / ʤudʒe /	/ʧuʧuk/	+
47	dog	/sag/	/guʧɪk/	-
48	louse	/ʧepeʧ/	/rɪʃk/	-
49	snake	/mɑr/	/mɑr/	+
50	worm	/kerm/	/kurm/	+
51	tree	/deraxt/	/axa/dar/	+
52	forest	/ʤengel/	/meʃe/	-
53	stick	/ʧub/	/gɪrʃ/	-
54	fruit	/mive/	/mewi/jemîʃ/	+
55	seed	/toxm/	/toxim/	+
56	leaf	/barg/	/belg/	+
57	root	/riʃe/	/kok/	-
58	bark (of a tree)	/tane/	/qavuk/	-
59	flower	/gol/	/ʧîtʃek/	-
60	grass	/alef /ʧaman/	/ʧîmen/	+
61	rope	/tanab/	/bend/t/	-
62	skin	/pust/	/post/	+
63	meat	/guʃt/	/goʃt/	+
64	blood	/xun/	/xun/	+
65	bone	/ostoxun/	/hasti/	-
66	fat (noun)	/rowgan/	/run/	+
67	egg	/toxm-e morg/	/hêk/	+
68	horn	/ʃax/	/gotʃ/	-
69	tail	/dom/	/botʃik/	-
70	feather	/Per/	/bɪrtʃ/pɪrtʃ/	-
71	hair	/mu/	/por/	-
72	head	/sar/	/ser/	+
73	ear	/guʃ/	/go/	+
74	eye	/ʧeʃm/	/ʧav/	+
75	nose	/damɑq/	/boz/fɪrnɪk/	-
76	mouth	/dahan/	/dev/	-
77	tooth	/dandɑ(u)n/	/dɪran/	+
78	tongue (organ)	/zebɑ(u)n /	/zɪman/	+

79	fingernail	/nɑxun/	/dɪnax/	-
80	foot	/pɑ/	/nɪg/	-
81	leg	/leng/	/ʃeq/	-
82	knee	/zɑnu/	/tʃok/	-
83	hand	/dast/	/dest/	+
84	wing	/bɑl/	/ganep/	-
85	belly	/ʃekam/	/zɪk/	-
86	guts	/rude/	/rûvî/	-
87	neck	/gerdɑn/	/stû/	-
88	back	/poʃt/	/navkel/newq/	-
89	breast	/sine/	/sɪŋg/	+
90	heart	/del/qalb/	/dɪl/	+
91	liver	/dʒigar/	/gezeb/	-
92	to drink	/niʃudan/	/xarɪn/	-
93	to eat	/xordan/	/xarɪn/	+
94	to bite	/gaz gereftan/	/gɪt kɪrɪn/	+
95	to suck	/makidan / mek zadan/	/bɪmeʒɪn/mɪʒandî/	+
96	to spit	/tof kardan/	/tuk-ɪr/	+
97	to vomit	/bala avordan/	/vereʃan/	-
98	to blow	/pof kardan / bad kardan/	/pɪf/	+
99	to breathe	/nefes keʃidan/	/nefes hɪlde/bɪde/	+
100	to laugh	/xandidan/	/bî-ken/kenya/	-
101	to see	/didan/	/ditin/	+
102	to hear	/ʃenidan/	/bîhistin/	-
103	to know	/dɑnestan/	/zanîn/	-
104	to think	/eniʃidan/	-	-
105	to smell	/bu kardan/	/bîn kirin/	+
106	to fear	/tarsidan/	/dîrs/	+t/d
107	to sleep	/xabidan/	/xav/xavn/	+
108	to live	/zendegi kardan/	/rudun/	-
109	to die	/mordan / fot kardan/	/mɪrîn/	+
110	to kill	/koʃtan/	/buguʒandî/	-
111	to fight	/dʒeng kardan/	/hev xɪstɪn/	-
112	to hunt	/ʃekar kardan/	/nêtʃîr /	-
113	to hit	/zadan/	/lexîstîn/	-
114	to cut	/boridan/	/gutkɪrɪn/	-
115	to split	/dʒoda kardan/	/veqetɪn/	-
116	to stab	/zahm zadan/	/kêr kɪrɪn/	-
117	to scratch	/xarundan/	/xurandî/	+
118	to dig	/tʃale kardan/	/kolandɪn/	-

119	to swim	/ʃena kardan/	/sobanî/	-
120	to fly	/paridan/	/fırja/	-
121	to walk	/rah raftan/	/revetʃ͡ün/meʃîn/	-
122	to come	/ɑ(u)madan/	/hatın/	-
123	to lie (as in a bed)	/deraz kedan/	/velezandın/	-
124	to sit	/neʃestan/	/runuʃt/	+
125	to stand	/boland ʃodan/	/rab/	+
126	to turn (intransitive)	/bar gaʃtan/	/wergerandın/	-
127	to fall	/oftadan/	/ketîn/	+
128	to give	/dɑdan/	/bıde/	+
129	to hold	/gereftan/	/bıgre/	+
130	to squeeze	/tʃelundan/	/gıvaʃtîn/	-
131	to rub	/sɑbidan/	/mızdan/	-
132	to wash	/ʃostan/	/bıʃo/	-
133	to wipe	/pak kardan/	/pakırîn/	+
134	to pull	/keʃidan/	/kıʃandın/	+
135	to push	/hol dɑdan/	/dafta/	-
136	to throw	/endaxtan/	/vaʒandın/	-
137	to tie	/bastan/	/girêdan/	-
138	to sew	/duxtan/	/durun/	+
139	to count	/ʃomordan/	/biʒmardɯn/	+
140	to say	/goftan/	/beʒadɯn/	-
141	to sing	/avaz xɑ(u)ndan/	/kulam beʒadɯn/	-
142	to play	/bazi kardan/	/lîsti/ /bîlîzandi/	-
143	to float	/garq/	/ser avi ket/	-
144	to flow	/rixtan/	/aw here/	-
145	to freeze	/jax kardan/zadan/	/cemidandɯn/	-
146	to swell	/bad kardan/	/pertʃfî/	-
147	sun	/aftab/xorʃid/	/daw/	-
148	moon	/mah/	/hiv/	-
149	star	/setare/	ustırık	+
150	water	/ɑb/	/av/	+v/b
151	rain	/bɑrɑ(u)n/	/ʃılî/	-
152	river	/rudxɑ(u)ne/	/tʃermi/	-
153	lake	/derjatʃe/	/gol/	-
154	sea	/derjɑ/	/denız/	-
155	salt	/namaq/	/xoy/	-
156	stone	/seng/	/gevır/	-
157	sand	/ʃen/	/kum/	-
158	dust	/xɑq/	/toz/	+

159	earth	/zemin/	/xalî/	-
160	cloud	/abr/	/bulut//aur/	+
161	fog	/meh/	/sis/	-
162	sky	/ɑsemɑ(u)n/	/aur:/	-
163	wind	/bɑd/	/ba/	+
164	snow	/barf/	/berf/	+
165	ice	/yax/	/buz/	-
166	smoke	/dud/	/dûman/	+
167	fire	/ateʃ/	/agî/	+
168	ash	/xɑqestar/	/kul/	-
169	to burn	/suzɑ(u)ndan/	/ʃewɪtandin/	-
170	road	/rah/	/rê/	+
171	mountain	/kuh/	/ʧî/ʧîja/	-
172	red	/qermez/	/sor/	-
173	green	/sebz/	/kesk/	-
174	yellow	/zard/	/zer/	+
175	white	/sefid/	/sɪpi/	+
176	black	/siyah/	/reʃ/	-
177	night	/ʃab/	/ʃev/	+
178	day	/ruz/	/roʒ/	+
179	year	/sɑl/	/sʌl/	+
180	warm	/garm/	/kellî/	+
181	cold	/sard/	/sar//semî/a/	+
182	full	/por/	/ʃepellî/	-
183	new	/now/	/nû/	+
184	old	/pir/	/gemn/	-
185	good	/xub/	/rɪnd/	-
186	bad	/bad/	/kotɪ/	-
187	rotten	/gendide/	/gnî/	+
188	dirty	/kesif/	/gɪller/	-
189	straight	/mostaqim/	/duz/	-
190	round	/gerd/	/juvarlaq/	-
191	sharp (as a knife)	/tiz/	/dûʒ/	+
192	dull (as a knife)	/kond/	/dûʒ nine //go/	-
193	smooth	/narm/	/hilû/	-
194	wet	/xis/	/ʃil/	-
195	dry	/xoʃk/	/ziyâ/	-
196	correct	/dorost/	/rast/	+
197	near	/nazdik/	/nêzîk/	+
198	far	/dur/	/dur/	+

199	right	/rast/	/rast/	+
200	left	/tʃap/	/tʃep/	+
201	at ?	/be- ?/	/-ra/	-
202	in	/tu / dar/	/hʌndurida/	-
203	with	/ba/ baham/	/tevî/	-
204	and	/va /o/	/ -va, -ve/	+
205	if	/eger/	/-ki/ /eğerki/	+
206	because	/tʃun/	/tʃunkı/	+
207	half	/nesf/	/nîv /	+
208	navel	/nāf/	/navik/	+

Appendix 10.Comparative Pattern Between Persian and Zazaki

No.	English	Persian	Zazaki	Similarity
1	I	/man/	/ez/	-
2	you (singular)	/to/	/tî/	+
3	he	/u / iʃɑ(u)n/	/we/	-
4	we	/mɑ/	/ma/	+
5	you (plural)	/ʃomɑ/	/ʃîmɑ/	+
6	they	/inhɑ / iʃɑ(u)n/	/ʃîmɑ/	+
7	this	/in/	/ına/	+
8	that	/un / ɑn/	/ına/	+
9	here	/indʒɑ/	/ewta/	-
10	there	/ɑ(u)ndʒɑ/	/wera/	-
11	who	/ki/	/kom/	+
12	what	/ʧî / ʧe/	/tî/	+t/ʧ
13	where	/kodʒɑ / ku/	/kowera/	+
14	when	/Key/	/kej/	+
15	how	/ʧetowr/	/tî/	-
16	not	/ne- / na/	/ma-me/	+ n/m
17	all	/hame/	/pîr/	-
18	many	/zijɑd/	/zat/	+
19	some	/ʧand/	/ʧent xât/	+
20	few	/kam(i)/	/ton/	-
21	other	/digger/	/ajbîn/	-
22	one	/jek/	/jew tek/	+
23	two	/do/	/di/	+
24	three	/se/	/hîrê/î	-
25	four	/ʧahɑr/	/ʧhâr/	+
26	five	/pendʒ/	/pondʒ/	+
27	big	/bozorg/	/xîs/	-
28	long	/derɑz/	/derg/	+
29	wide	/pehn/	/hârâj/	-
30	thick	/koloft/	/xirsek/	-
31	heavy	/Sengin/	/gîron/	-
32	small	/kuʧek/	/kıjt/	+
33	short	/kutah/	/kır/	-
34	narrow	/teng/	/teng/	+
35	thin	/nazok/	/zayıf/	-
36	woman	/zan/	/dʒini/	-
37	man (adult male)	/mard/	/dʒomîrt/	+
38	man (human being)	/ensɑn/	/iso/	+

39	child	/baʧe/	/put /lerr /	-
40	wife	/zan/	/ʤini/	-
41	husband	/ʃohɑr/	/merde/	-
42	mother	/mɑdɑr/	/daîjk/	-
43	father	/pedɑr/	/baujk/	-
44	animal	/hejvɑ(u)n/	/hejwan/	+
45	fish	/mahi/	/mase/	+
46	bird	/parande / ʤuʤe /	/milʧik/	-
47	dog	/sag/	/kutîk/	-
48	louse	/ʧepeʧ/	/eʃpiʒ/	-
49	snake	/mɑr/	/mɑr/	+
50	worm	/kerm/	/kɪlbɪnêrt/	+
51	tree	/deraxt/	/dar/	+
52	forest	/ʤengel/	/raz/	-
53	stick	/ʧub/	/sèx/	-
54	fruit	/mive/	/jemîʃ/	-
55	seed	/toxm/	/to:xum/	+
56	leaf	/barg/	/pell/	+v/p
57	root	/riʃe/	/reje/	+
58	bark (of a tree)	/tane/	/ver/	-
59	flower	/gol/	/villîk/	-
60	grass	/alef /ʧaman/	/var/	-
61	rope	/tanab/	/la/	-
62	skin	/pust/	/zer/este/	-
63	meat	/guʃt/	/guʃt/	+
64	blood	/xun/	/gûyn/	+x/g
65	bone	/ostoxun/	/kate/	-
66	fat (noun)	/rowgan/	/run/	+
67	egg	/toxm-e morg/	/hak/	-
68	horn	/ʃax/	/estɪn/	-
69	tail	/dom/	/bɪʧ/	-
70	feather	/per/	/mûj/	-
71	hair	/mu/	/gɪdʒîk/	-
72	head	/sar/	/sera/	+
73	ear	/guʃ/	/guʃ/	+
74	eye	/ʧeʃm/	/ʧɪm/	+
75	nose	/damɑq/	/zinî/	-
76	mouth	/dahan/	/fek/	-
77	tooth	/dandɑ(u)n/	/dindo/	+
78	tongue (organ)	/zebɑ(u)n /	/zu/	+

79	fingernail	/nɑxun/	/neŋgu/	-
80	foot	/pɑ/	/nɪŋ/	-
81	leg	/leng/	/nɪŋ/	-
82	knee	/zɑnu/	/ʧêka/	-
83	hand	/dast/	/dest/	+
84	wing	/bɑl/	/pel/	+b/p
85	belly	/ʃekam/	/zêre/	-
86	guts	/rude/	/roqle/	-
87	neck	/gerdɑn/	/mil/	-
88	back	/poʃt/	/mîne/	-
89	breast	/sine/	/sêne/	+
90	heart	/del/qalb/	/zerr/	-
91	liver	/dʒigaɾ/	/ʧiğer/	+
92	to drink	/niʃudan/	/wertɪn/	-
93	to eat	/xordan/	/wert/ʧi/	-
94	to bite	/gaz gereftan/	/gaz kerden/	+
95	to suck	/makidan / mek zadan/	/mɪsna/	-
96	to spit	/tof kardan/	/aluw/	-
97	to vomit	/bala avordan/	/kal bɪna/	-
98	to blow	/pof kardan / bad kardan/	-	-
99	to breathe	/nefes keʃidan/	/nefes grot/	+
100	to laugh	/xandidan/	/hɪwu/	-
101	to see	/didan/	/vejnajɪʃ/dɪ/	+
102	to hear	/ʃenidan/	/eʃ nawɪt-ɪʃ /	-
103	to know	/dɑnestan/	/ezon /	-
104	to think	/eniʃidan/	/endê ʃ /	+
105	to smell	/bu kardan/	/bûj/	+
106	to fear	/tarsidan/	/tersen/	+t/d
107	to sleep	/xabidan/	/rawken/	-
108	to live	/zendegi kardan/	/rînɪʃtɪn/	-
109	to die	/mordan / fot kardan/	/merk/	+
110	to kill	/koʃtan/	/kîʃt/mɪrena/	+
111	to fight	/dʒeng kardan/	/koxe kerd/	-
112	to hunt	/ʃekar kardan/	/sejd/	-
113	to hit	/zadan/	/purj/	-
114	to cut	/boridan/	/bɪrna/	+
115	to split	/dʒoda kardan/	/barkej/	-
116	to stab	/zahm zadan/	/kard ke/	-
117	to scratch	/xarundan/	/kenen/	-
118	to dig	/tʃale kardan/	/kendɪʃ/	-

119	to swim	/ʃena kardan/	/asnaw/	-
120	to fly	/paridan/	/fıra/	-
121	to walk	/rah raftan/	/ʃîn/	-
122	to come	/ɑ(u)madan/	/emaj/	-
123	to lie (as in a bed)	/deraz kedan/	/kalben/	-
124	to sit	/neʃestan/	/rıʃen/	-
125	to stand	/boland ʃodan/	/warîʃt/	+
126	to turn (intransitive)	/bar gaʃtan/	/tade/	-
127	to fall	/oftadan/	/ergına/	-
128	to give	/dɑdan/	/dajîʃ/	+
129	to hold	/gereftan/	/tepîʃten/	-
130	to squeeze	/tʃelundan/	/tada/	-
131	to rub	/sɑbidan/	/wılejn/	-
132	to wash	/ʃostan/	/ʃît/	-
133	to wipe	/pak kardan/	/esterden/	-
134	to pull	/keʃidan/	/kaʃ kerden/	+
135	to push	/hol dɑdan/	/nıskda/	-
136	to throw	/endaxtan/	/eʃten/	-
137	to tie	/bastan/	/gıredajen/	-
138	to sew	/duxtan/	/deʃt/	-
139	to count	/ʃomordan/	/omorden/	+
140	to say	/goftan/	/vaten/	-
141	to sing	/avaz xɑ(u)ndan/	/dêjîr kerden/	-
142	to play	/bazi kardan/	/kay kerden/	-
143	to float	/garq/	/asnaw kerden/	-
144	to flow	/rixtan/	/jana/	-
145	to freeze	/jax kardan/zadan/	/xenkejw/	-
146	to swell	/bad kardan/	/miraz/	-
147	sun	/aftab/xorʃid/	/tîntʃ/	-
148	moon	/mah/	/aʃm/	-
149	star	/setare/	/estare/	+
150	water	/ɑb/	/awk/	+b/vw
151	rain	/barɑ(u)n/	/dıʒn/	-
152	river	/rudxɑ(u)ne/	/rû/	+
153	lake	/derjɑtʃe/	/gol/	-
154	sea	/derjɑ/	/dengiz/	-
155	salt	/namaq/	/sol/	-
156	stone	/seng/	/kera/	-
157	sand	/ʃen/	/qum/	-
158	dust	/xɑq/	/töz/	-

159	earth	/zemin/	/herr/	-
160	cloud	/abr/	/howr/	+
161	fog	/meh/	/duman/	-
162	sky	/ɑsemɑ(u)n/	/asmîn/	+
163	wind	/bɑd/	/hava/	-
164	snow	/barf/	/vor/	+b/v
165	ice	/yax/	/dʒemed/	-
166	smoke	/dud/	/dô/	+
167	fire	/ateʃ/	/adır/	+
168	ash	/xɑqestar/	/well/	-
169	to burn	/suzɑ(u)ndan/	/veʃna/	-
170	road	/rah/	/rajer/	+
171	mountain	/kuh/	/kô/	+
172	red	/qermez/	/sûr/	-
173	green	/sebz/	/jeʃîl/	-
174	yellow	/zard/	/zerd/	+
175	white	/sefid/	/spî/	-
176	black	/siyah/	/sej/	+
177	night	/ʃab/	/ʃôw/	+
178	day	/ruz/	/ruʒ/	+
179	year	/sɑl/	/serr/	+
180	warm	/garm/	/germ/	+
181	cold	/sard/	/serd/	+
182	full	/por/	/pır/	+
183	new	/now/	/new/	+
184	old	/pir/	/khî/	-
185	good	/xub/	/hol/	-
186	bad	/bad/	/xîrab/	-
187	rotten	/gendide/	/xelîsiya/	-
188	dirty	/kesif/	/lâjme/	-
189	straight	/mostaqim/	/raʃt/	-
190	round	/gerd/	/qoller/	-
191	sharp (as a knife)	/tiz/	/tiʒ/	+
192	dull (as a knife)	/kond/	/kôl/	-
193	smooth	/narm/	/rapraʃt/	-
194	wet	/xis/	/hî/	-
195	dry	/xoʃk/	/zuwa/	-
196	correct	/dorost/	/raʃt/	-
197	near	/nazdik/	/nızdî/	+
198	far	/dur/	/dûr/	+

199	right	/rast/	/raʃt/	+
200	left	/ʧap/	/ʧep/	+
201	at ?	/be- ?/	/ɪz/	+
202	in	/tu / dar/	/zerez/	-
203	with	/ba/ baham/	/mɪ/	-
204	and	/va /o/	/o/	+
205	if	/eger/	/eger/	+
206	because	/ʧun/	/ʧînkî/	+
207	half	/nesf/	/nim /	-
208	navel	/nāf/	/nak/	+

Appendix 11. Comparative Pattern between Kurmanji and Zazaki

No.	English	Kurmanji	Zazaki	Similarity
1	I	/ez/	/ez/	+
2	you (singular)	/tu/ /du/	/tî/	+
3	he	/ew/	/we/	-
4	we	/em/	/ma/	-
5	you (plural)	/hun/	/ʃimɑ/	-
6	they	/wana/	/ʃimɑ/	-
7	this	/ev/	/ɪna/	-
8	that	/ew/	/ɪna/	-
9	here	/wɪra/	/ewta/	-
10	there	/wura/	/wera/	+
11	who	/ki/	/kom/	+
12	what	/tʃɪ/	/tî/	+
13	where	/kuderi/	/kowera/	+
14	when	/tʃɪwaxti/	/kej/	-
15	how	/tʃuta/	/tî/	-
16	not	/na/	/ma-me/	+
17	all	/gɪʃk/	/pîr/	-
18	many	pɪr/	/zat/	-
19	some	/cʌʃkek/	/tʃent xât/	-
20	few	/hɪndɪk/	/ton/	-
21	other	/yadɪn/	/ajbîn/	-
22	one	/jek/	/jew tek/	+
23	two	/du/dɪdu/	/di/	+
24	three	/se/sɪsə:/	/hîrê/î	-
25	four	/tʃɑr/	/tʃhâr/	+
26	five	/bendʒ/	/pondʒ/	+
27	big	/mezɪn/	/xîs/	-
28	long	/direʒ/	/derg/	+
29	wide	/fɪreh/	/hârâj/	-
30	thick	/qalin/	/xirsek/	-
31	heavy	/gɪran/	/gîron/	+
32	small	/cutʃɪk/	/kɪjt/	-
33	short	/qɪn/	/kɪr/	-
34	narrow	/denk/ nazaln/	/teng/	+
35	thin	/zɪrav/zayɪf/	/zayɪf/	+
36	woman	/ʒin//ʒɪnɪk/	/dʒini/	+ʒ/dʒ
37	man (adult male)	/mer/ merɪk/	/dʒomîrt/	-

38	man (human being)	/merî/	/iso/	-
39	child	/kulfet/	/put /lerr /	-
40	wife	/ʒ{ə/ɤ}n/	/dʒini/	+
41	husband	/mer/	/merde/	+
42	mother	/cijamı//	/daîjk/	-
43	father	/bav/bawo/	/baujk/	+
44	animal	/hejan/	/hejwan/	+
45	fish	/ma:si/	/mase/	+
46	bird	/ʧuʧuk/	/milʧık/	-
47	dog	/guʧik/	/kutîk/	+
48	louse	/rıʃk/	/eʃpiʒ/	-
49	snake	/mɑr/	/mɑr/	+
50	worm	/kurm/	/kılbınêrt/	-
51	tree	/axa/dar/	/dar/	+
52	forest	/meʃe/	/raz/	-
53	stick	/gırʃ/	/sėx/	-
54	fruit	/mewi/jemîʃ/	/jemîʃ/	+
55	seed	/toxim/	/to:xum/	+
56	leaf	/belg/	/pell/	+p/b
57	root	/kok/	/reje/	-
58	bark (of a tree)	/qavuk/	/ver/	-
59	flower	/ʧîtʃek/	/villîk/	-
60	grass	/ʧîmen/	/var/	-
61	rope	/bend/t/	/la/	-
62	skin	/post/	/zer/este/	-
63	meat	/goʃt/	/guʃt/	+
64	blood	/xun/	/gûyn/	+
65	bone	/hasti/	/kate/	-
66	fat (noun)	/run/	/run/	+
67	egg	/hêk/	/hak/	+
68	horn	/gotʃ/	/estın/	-
69	tail	/botʃık/	/bıtʃ/	+
70	feather	/bırtʃ/pırtʃ/	/mûj/	-
71	hair	/por/	/gıdʒîk/	-
72	head	/ser/	/sera/	+
73	ear	/go/	/guʃ/	+
74	eye	/ʧav/	/ʧim/	+
75	nose	/boz/fırnık/	/zinî/	-
76	mouth	/dev/	/fek/	-
77	tooth	/dıran/	/dindo/	+

78	tongue (organ)	/zɪman/	/zu/	+
79	fingernail	/dɪnax/	/neŋgu/	-
80	foot	/nɪg/	/nɪŋ/	+
81	leg	/ʃeq/	/nɪŋ/	-
82	knee	/tʃok/	/tʃêka/	+
83	hand	/dest/	/dest/	+
84	wing	/ganep/	/pel/	-
85	belly	/zɪk/	/zêre/	-
86	guts	/rûvî/	/roqle/	-
87	neck	/stû/	/mil/	-
88	back	/navkel/newq/	/mîne/	-
89	breast	/sɪŋg/	/sêne/	+
90	heart	/dɪl/	/zerr/	-
91	liver	/gezeb/	/tʃɪğer/	-
92	to drink	/xarɪn/	/wertɪn/	-
93	to eat	/xarɪn/	/wert/tʃi/	-
94	to bite	/gɪt kɪrɪn/	/gaz kerden/	+
95	to suck	/bɪmeʒɪn/mɪʒandî/	/mɪsna/	-
96	to spit	/tuk-ɪr/	/aluw/	-
97	to vomit	/vereʃan/	/kal bɪna/	-
98	to blow	/pɪf/	-	-
99	to breathe	/nefes hɪlde/bɪde/	/nefes grot/	+
100	to laugh	/bî-ken/kenya/	/hɪwu/	-
101	to see	/ditin/	/vejnajɪʃ/dɪ/	+
102	to hear	/bîhistin/	/eʃ nawɪt-ɪʃ /	-
103	to know	/zanîn/	/ezon /	-
104	to think	-	/endê ʃ /	-
105	to smell	/bîn kirin/	/bûj/	+
106	to fear	/dîrs/	/tersen/	+t/d
107	to sleep	/xav/xavn/	/rawken/	-
108	to live	/rudun/	/rînɪʃtɪn/	-
109	to die	/mɪrîn/	/merk/	+
110	to kill	/buguʒandî/	/kîʃt/mɪrena/	-
111	to fight	/hev xɪstɪn/	/koxe kerd/	-
112	to hunt	/nêtʃîr /	/sejd/	-
113	to hit	/lexîstîn/	/purj/	-
114	to cut	/gutkɪrɪn/	/bɪrna/	-
115	to split	/veqetɪn/	/barkej/	-
116	to stab	/kêr kɪrɪn/	/kard ke/	+
117	to scratch	/xurandî/	/kenen/	-

118	to dig	/kolandın/	/kendıʃ/	-
119	to swim	/sobanî/	/asnaw/	-
120	to fly	/fırja/	/fıra/	+
121	to walk	/revet͡ʃün/meʃîn/	/ʃîn/	+
122	to come	/hatın/	/emaj/	-
123	to lie (as in a bed)	/velezandın/	/kalben/	-
124	to sit	/runuʃt/	/rıʃen/	-
125	to stand	/rab/	/warîʃt/	+
126	to turn (intransitive)	/wergerandın/	/tade/	-
127	to fall	/ketîn/	/ergına/	-
128	to give	/bıde/	/dajîʃ/	-
129	to hold	/bıgre/	/tepîʃten/	-
130	to squeeze	/gıvaʃtîn/	/tada/	-
131	to rub	/mızdan/	/wılejn/	-
132	to wash	/bıʃo/	/ʃît/	-
133	to wipe	/pakırîn/	/esterden/	-
134	to pull	/kıʃandın/	/kaʃ kerden/	+
135	to push	/dafta/	/nıskda/	-
136	to throw	/vaʒandın/	/eʃten/	-
137	to tie	/girêdan/	/gıredajen/	+
138	to sew	/durun/	/deʃt/	-
139	to count	/bıʒmarduın/	/omorden/	+
140	to say	/beʒaduın/	/vaten/	-
141	to sing	/kulam beʒaduın/	/dêjîr kerden/	-
142	to play	/lîsti/ /bîlîzandi/	/kay kerden/	-
143	to float	/ser avi ket/	/asnaw kerden/	-
144	to flow	/aw here/	/jana/	-
145	to freeze	/cemidanduın/	/xenkejw/	-
146	to swell	/pertʃfî/	/miraz/	-
147	sun	/daw/	/tînt͡ʃ/	-
148	moon	/hiv/	/aʃm/	-
149	star	ustırık	/estare/	+
150	water	/av/	/awk/	+
151	rain	/ʃılî/	/dıʒn/	+
152	river	/t͡ʃermi/	/rû/	-
153	lake	/gol/	/gol/	+
154	sea	/denız/	/dengiz/	+
155	salt	/xoy/	/sol/	-
156	stone	/gevır/	/kera/	-
157	sand	/kum/	/qum/	+

158	dust	/toz/	/töz/	+
159	earth	/xalî/	/herr/	-
160	cloud	/bulut//aur/	/howr/	+
161	fog	/sis/	/duman/	-
162	sky	/aur:/	/asmîn/	-
163	wind	/ba/	/hava/	-
164	snow	/berf/	/vor/	+b/v
165	ice	/buz/	/dʒemed/	-
166	smoke	/dûman/	/dô/	+
167	fire	/agî/	/adır/	-
168	ash	/kul/	/well/	-
169	to burn	/ʃewıtandin/	/veʃna/	-
170	road	/rê/	/rajer/	+
171	mountain	/tʃî/tʃîja/	/kô/	-
172	red	/sor/	/sûr/	+
173	green	/kesk/	/jeʃîl/	-
174	yellow	/zer/	/zerd/	+
175	white	/sıpi/	/spî/	+
176	black	/reʃ/	/sej/	-
177	night	/ʃev/	/ʃôw/	+
178	day	/roʒ/	/ruʒ/	+
179	year	/sʌl/	/serr/	+
180	warm	/kellî/	/germ/	+
181	cold	/sar//semî/a/	/serd/	+
182	full	/ʃepellî/	/pır/	-
183	new	/nû/	/new/	+
184	old	/gemn/	/khî/	-
185	good	/rınd/	/hol/	-
186	bad	/kotı/	/xîrab/	-
187	rotten	/gnî/	/xelîsiya/	-
188	dirty	/gıller/	/lâjme/	-
189	straight	/duz/	/raʃt/	-
190	round	/juvarlaq/	/qoller/	-
191	sharp (as a knife)	/dûʒ/	/tiʒ/	+ t/d
192	dull (as a knife)	/dûʒ nine //go/	/kôl/	-
193	smooth	/hilû/	/rapraʃt/	-
194	wet	/ʃıl/	/hî/	-
195	dry	/ziyâ/	/zuwa/	+y/w
196	correct	/rast/	/raʃt/	+
197	near	/nêzîk/	/nızdî/	+

198	far	/dur/	/dûr/	+
199	right	/rast/	/raʃt/	+
200	left	/ʧep/	/ʧep/	+
201	at ?	/-ra/	/ız/	-
202	in	/hʌndurida/	/zerez/	-
203	with	/tevî/	/mı/	-
204	and	/ -va, -ve/	/o/	-
205	if	/-ki/ /eğerki/	/eger/	+
206	because	/ʧunkı/	/ʧînkî/	+
207	half	/nîv /	/nim /	+
208	navel	/navik/	/nak/	+