LEXICAL-SEMANTIC WORD FORMATION IN SCIENTIFIC TERMINOLOGY OF THE TURKIC LANGUAGES IN XIII-XVI CENTURIES

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Abstract: If looking through the Turkic-language scientific works of the XIII-XVI centuries we can see that the term in modern linguistics historically named "istilah" has been used to refer to numerous linguistic units. The diversity of topics and wide spectrum of scientific works of the period provide a great variety of terminological lexicon. Numerous terms were reflected related to both secular and religious sciences in the works written during this period "Muyassiratul-ulum", "Mizanul-evzan", "Ad durratul-mudiyya fil-lughatit-turkiye", "Tohfatul-Ahavan", "Kitabul-Bahriya", "Khulase", "Nahjul-Faradis", "Adviyyayi-Mufrada", "Tarihi-Ali-Osman", "Muntahabi-Shifa" and so on. When looking through the lexical stock of works belonging to scientific style in the Turkic languages of the XIII-XVI centuries we can see that the terms were formed in different ways. Such terms either express new concepts by undergoing lexical-semantic changes or form by adding suffixes to words to express new concepts, or become a means of expressing a complex concept combining two words. In the formation of terms there has been not only a quantitative increase but also a qualitative enrichment of the vocabulary in the XIII-XVI centuries Turkic-language scientific style. The transformation of common words into terms, the determination of terms was one of the main directions of lexical-semantic word-formation in the background of the extension, narrowing and change of meaning in the vocabulary of the period.

Keywords: Lexical-semantic word formation, Scientific style, Terminological lexicon, Turkic languages.

1 Introduction

Written works mainly play a role of source in reviving the linguistic landscape of a concrete historical period. Among the works that reflect the separate language features at different stages of the historical development of the Turkic languages there are enough works related to the scientific style. The scientific style which is one of the styles of language having a different position in terms of functionality has its own internal laws. This regularity is mostly related to the lexical layer of the language. Thus when clarifying the characteristics of the scientific style first of all it's taken into account that it's a term. The term characterizes the scientific style as a unit of language vocabulary and has functionality in a limited range. From the analysis of the lexical stock of the scientific style in the XIII-XIV centuries it is clear that native terms are the core of the scientific style in the Turkic languages. Their percentage of usage varies from one field to another and mainly in Turks it is possible to determine with it which sciences have a more ancient history. Native terminology as a part of the people's language is a special language layer with deep roots having comprehensive usability and forming on the basis of different word-formation constructions. When looking through historical sources it is clear that native terminology in fact has ethnocultural character as an example of a nation's primary scientific thinking. Thus ethno-cultural linguistic units which we can call prototherms become terms in the later stages as a result of the development of certain professions and arts, their integration into some field of science and art. For example, the names of plants that appear in the Turkic written monuments belonging to the X-XII centuries, the dishes made from those plants initially attract the attention as an ethnocultural language unit. For example, in M. Kashgari's "Diwan" it is given the information about the fruit "ayva" (quince) [10]. In medical works belonging to XIV century the word made from the same fruit appears as a medical term in the form of pharmaceutical samples such as "ayva cevarişi", ayva tohmı, "ayva şarabı". Ishaq bin Murad's medical report on this fruit states: "Ayva sovuqdur, qurudur, madeye ve bağıra ve yürege mufiddir, Acla yiyicek karını bağlar ve susalığı keser ve südük yolın arıdur ve bögrege ve mesaneye faide eder. Ve aṃı etinden suyı yegrekdür...ve dexi eydürler anıṇ yaprağının kuli tutya yeri dutar, göze çekicek və anuṇ rubbı zusenteriya rencine şifa verür ve qarnı bağlar" [11, p.23].

Or the word "göz" (eye) is used in the terms as göz ağrısı, göz pınarı, ak düşmüş göz, göz canı, göz dönügi, göz bigarı in the medical monuments of the XIII-XVI centuries. Relating to the word "göz" the names of diseases such as seder (blackout), sebel (blurry and hazy vision), tavuk karağusı/ tavuk karağısı, verdinec are used in medical works of the time.

The word tamar/tamır/tamur used in M. Kashgari's "Divan Lughāt al-Turk" appears inside the terms such as "kol tamarı, setkün tamarı, incecük tamar, şiryan tamarı, bürçek tamarı, üseylim tamarı, devali tamarı, alın tamarı, basılık tamarı, masarika tamarı, mebiz tamarı, safin tamarı, ayak tamarı" in works of later periods.

However there are some terms that are used in the same way both in the XI-XII centuries encyclopedic monuments and in the XIII-XVI centuries scientific works: demregü, dumağu/ dumağı/ tumağı, baş bert, içegü, eyegü, öyken, sünük, sındu, sayrulık, dağlağu, yaqu ets.

2 Materials and Methods

As a result of historical development in the language words undergo changes both graphically and semantically. Especially changes in the semantic sphere of words cause qualitative changes in language. At the same time these changes reflect innovations in the minds of the people in relation to the boundaries of the semantic sphere of the concept. The widening and narrowing of the semantic boundaries of words, the acquisition of a new semantic field in the language is assessed as a lexical-semantic process of word formation. The word which is an expression of the language-thinking relationship reflects not only the attitude of the individual but also the attitude of the people to the imagination expressed by the word. From this point of view every word in the language should also be assessed as an expression of the people's way of thinking. Every word naming things and events in the objective world in fact expresses the main features of that concept in itself. Any concept has different semantic shades or features that this or another way of thinking is based on different shades in its naming. When naming a terminological language unit it is especially important to take into account which aspect of the semantic field of the word."Thus, the main aspect researchers observe in terms is that the theoretical understanding of scientific and technical facts finding its reflection. As a result of this, with the terminological naming there appears a close connection between the concepts becoming a term of knowledge this field or another" [15, p.21]. For example, the root of the term "ısıtma" (fever) is the verb ısıtmaq (to heat) used in the work XIV century monument "Hulasa". Fever which is the main symptom of various diseases is called just so in the Turkic language of the time. Relating to this word terms such as "ısıtma nevbeti", "göyündürici ısıtma", "ğıbb ısıtması", "balğam ısıtması", "rıb ısıtması", "ısıtma ditremegi" have also been used. In all these terms being a symptom of a disease the fact of heating is taken as the main feature in naming. However due to various causes of the disease there are also different symptoms such as headache, dryness in the body, nausea etc. While explaining "göyündürici ısıtma" and "balğam ısıtması" H.Barakat describes the following symptoms: "Göyündürüci ısıtma kim muhrıqa derbr safradan olur damar içində yıyımış olur, nişanı qatı issilikdür ve dexi göyünmek ve dil damaq qurımaqdur" [6, 125a]. "Balğam ısıtması kim dayirdür oldur kim balğam tamarlardan taşra yıyır ve küflenür anun nişanı çoq ditremek ve ağız datsuzluğu ve alt qapağı şişdügidür" [6, 125b]. As can be seen both "ısıtma" have different characteristics and two separate words – "muhrıqa" and "dayir" have been used in naming the terms in Arabic. However in the naming of terms in the Turkic language a more important feature of the concept was taken into account and auxiliary features were reflected in the term as a distinguishing sign of diseases. This means that the theoretical understanding of the same process is connected with the boundaries of the people's imagination of the concept. Or in the same work one of the medicinal plants "südlügen" is mentioned [6, 93 a; 51 b.]. The Latin name of the plant is euphorbia. The name in Turkic is apparently related to the word "süd" (milk). The reason is a

white, poisonous liquid similar to the milk secreted by the plant which was namely used in the preparation of medicines. This means that in the naming of terminology not the shape or color of the plant but the liquid inside it is basicly taken. Or in Niyazi's dictionary "El- lughatun- Nevaiyye l- istishadul-jaghatai" compiled in 1544 in Chagatai-Ottoman the term "örgemçi" expresses the notion of "spider". The word "örüg+em+çi" means "an insect which makes tether": "örgemçi-qaf gafı- acemidür. Örümcek demekdür anqabut menasına ki, Divanı- Lutfide tevhidde gelür" [8, p.273]. Or also in Cagatai the word "tor" was used along with the fishing net as the name of an ornament made of silk which was bound in order not to spoil the decrees of the ruler. At the same time the word was also used in the XVI century in the form of "torğu" [8, p.463,466]. Some historical terms used in Ashig Pashazadeh's historical work "Tavarikh-ali-Osman" belonging to XIV century reflect the historical view of his time. For example:"Karacahisar sancağı kim ana İnönü dirler, oğlı Orhana virdi ve <u>sübaşılığını</u> qarındaşı Gündüze virdi" [13]. The term "sübaşı" used here has historically been used by the Turks as a military term in the sense of commander. However during the Ottoman period the term acquired a new meaning. These persons who provide security in time of war, selected from the security regiment, were busy to collect taxes in peacetime. However the "sübaşı" who founded the Seljuk dynasty, this title which the Seljuks held in the Oghuz-Yabgu state in the XI century represented the army command. It means that from the XI century to the XIV century there was a differentiation in the meaning of the term, it acquired a new quality by expressing a new concept.

If we look at the semantic burden of any terminological language unit it is possible to see the results of a certain socio-historical stage, socio-public activity, the expression of scientific knowledge in society. Specially historical development of the Turkic languages covers a wide range of time and space that's why it is possible to see these traces in the process of semantic formation of words. Scientific terminology which is an integral part of the lexical layer of language is also an integral part of this process. It is true that the scientific style is a more stable system than the common layer in medieval Turkic languages. Thus the scientific language was mainly "common" for the period that's why it was observed no significant differences in the semantic sphere of terms. Moreover the plurality of borrowed terms in some fields and to preserve of their meanings in the source language as they are, reduces the semantic differentiation in the terminological sphere.

3 Results and Discussion

3.1 Semantic Development of Terms and Meaning

The term is distinguished from other common words in the language by giving definiteness to a concept. Definiteness is based on the stable, constant meaning of the term relating to the process to which the concept belongs. In general no word or term when it was first created reflects the whole meaning sphere of the concept in itself. But gradually the word becomes a conveyor not one but these or other several aspects of the semantic sphere. That is a word can become an expression of several concepts not just one. This is due to the fact that frames of meaning of those concepts are close or overlap. "The extension of any form expressing new meanings is a new special case of increasing frequency, and more difficult is that, seriously speaking, the utterance of any form is put forward by an unlearned situation, and the extent of unlearned situation is not the subject of the exact size" [1, p.425]. For example, in the XI century monument "Dīwān Lughāt al-Turk" the word "tütek" (pipe) is used in the meaning of pitcher, neck of things. However in the XIV century the word was also used as a medical term. In Dr. Barakat's "Hulasa" the term "öyken düdügi" is used in the meaning of the respiratory tract: "Eger ün yoğolmaq qatı çağırmaqdan olursa ya dexi öyken qurulığından olursa anun nişanları bellüdür ve öyken düdügi iri olur" [6, 61b.3]; "Qaçan ağızdan qan gelmek gögüzden ve öyken düdügi̇nen olsa anun nişanı oldur kim öksürmek ile qan ge-le" [6, 63b.2]. As can be seen the meaning of the word has extended and a new notion has

been expressed. Depending on the situation the word gained a new meaning. The word "tütek" which was used as a common word in the XI century became a term in the XIV century and its transformation into a term was formed as a result of repeated references to the same word to express an existing notion in medical literature. That is situational naming later became a permanent term. As can be seen historical development leaves different traces in the semantic structure of the word. The activation or loss of activity of one or another semantic features also determines the place of the word in the language; a new word is formed by quality or the meaning of the word is narrowed, or the word sometimes becomes a completely new meaning together with another word. All these processes which are the result of semantic conversion also cause the enrichment of the vocabulary of the language by quality as a branch of word formation in the language. Semantic changes in common words especially in the formation of scientific terms have always been one of the main creation methods of term formation. This process involved not only Turkish origin words but also borrowed words. For example, the word "dastan" is of Persian origin means story, epos etc. However as a musical term the word "dastan" is used as the name of a place that is tapped by finger on a stringed instrument to make a sound: "Destānlar diyü şol nesnelere dirler ki, qıl-ıla çalınur sāzlaruñ destesinde nişānlar iderler. Tā ki nice nişāndan nice nağme ḳopar, anı bileler kirişde. Ve şol nağmeler ki āvāzlar andan bellü olur, on yidi nağmedür ki cemi'si bir kirişden āẕhir olur, bilin ür [16, 16a/05]. In the XVI century Turkic the borrowed word "menzil" (apartment) in common meaning has expressed the meaning of home or distance also it has been used as a term in mathematics, Sufism and astronomy. In mathematics the word "menzil" has been used to denote levels in the decimal and hundred number systems. For example, "Bes bu siyaqati- arabi daxi menzili-evvelden ta menzili-dehüme kadar gelince vezi- müteqeddim üzre alet-tertib ve terkib zikr olundı" [12, 7b.11-13]. In the work the terms menzili- dehüm, menzili-evvel, menzili-heştüm, menzili- heftum, menzili-nühüm were used. In astronomy the word "menzil" has been used in the meaning of distance or orbit as well as a unit of imaginary division during the motion of astronomical objects. For example, in the XIV century work "Ajaibi-makhlugat" the term "menazili-Kamer" refers to "the distance orbited by the Moon during its motion around the earth and the components of that distance". "Bil ki, ayın yigirmi sekiz menzili var ve her gün gecesi bir menzil seyr ider" [4, 11 b.10]. In the XVI century astronomical work "Khulasatul-heye" it is written about these apartments of the month: "Menāzil-i kamer ki hamelden yigirmi sekiz menzildür ve her birinüñ miqdārı on iki derece ve elli bir dakika ve yigirmi altı saniyedür ve āsnısi serateyn ve buteyn ve süreyya ve deberan ve heqaa ve henaa ve zira ve nesre ve tarfe ve cebhe ve zübre ve sarfe ve avvā ve simāk ve ğafr ve zubana ve iqlil ve qalb ve şav le ve neayim ve belde ve zabih, ve bulaa, ve suu, ve axbiyye ve müqeddem ve muahhar ve reşadur ki zikr olındı" [2, 32 a. 3-9].

In the astronomical works of the that time the term "menzili-külli" was used in the meaning of one of the distance to defined point. "Menzili-can" was used in Ottoman sources as the name of the star Benatun-nash [3, p.715].

Or the word "acem" of Arabic origin means non-Arab. However the word "acem" is used in different meanings in the works of the time. For example, the word "acem" as a musical term has become a tone name in mugham: "Acem oldur ki āqı tamām göstere ve ine, dügāh karār ide." [16,120a/06]. Although the word "aşiq" was used as a common word in Arabic in the XV century Turkish music "aşiqi-nevaz" as the musical term meant a style of singing: "Ve eger xafíf-i remlden remle varsalar,"āşıq -nevāz"dirler [16, 80a/07]. The word "daire" (circle) is of Arabic origin and has been used in mathematics as the name of a geometric figure. But in music the word "daire" is a term that means "octave" in modern meaning. Shukrullah explained this term as follows: "Niteki źí'l-arba'anuñ bir cemāatın, źí'l -xamsuñ bir cemā'atı -y-ıla terkíb itseler bir cem'āğıl olur ki bu'd-ı źí'l-küll aña beñzer, ve ol terkíb olan nesneāyıred dirler [16, 39a/ 05]. The structure formed by the combination of four and five sounds or time groups was called a circle. Relating

to the word "daire" music terms such as "daireyi- evvel", "daireyi- xafifüs-saqi", "daireyi- xafifür-reml", "daireyi- hezeci-evvel", "daireyi- hezeci-sani", "daireyi- reml" were used. Or although the word "dövr" (period) as a borrowed word meant time but as a musical term was called "a distance between the first sound and the last sound in a line".

"The meaning of a particular form, for any speaker that he hears is nothing more than the result of the situation in which that the form is used" [1, p.142]. For example, the word "yürimek" is used in the old Anadolu Turkic language in the meaning of "to walk", the word "yürinmek" means "to disappear", "to be lost", and the word "yüritmek" means "to make somebody walk", "to animate" [9, p.790]. In the XVI century mathematical works the word "yürin" using in related to calculations became a mathematical concept as a result of the common word acquiring term character. In the work "Majmaul- kavaid" as a word reflecting the process of mathematical calculation in the meaning of calculation, application the words "yüri, yürit, yürin" were used: "Pes ol mertebeye vardugından sonra muhasibin- selef tüman ile ve lekk ile yürinir dimiş" [12, 15 b.11-12]. "Bu maalde sehv-i xane itmeyesin tā ki zerbü xalel gelüb noqsan üzre olmaya ve başlayasın dexi bu darb üzre yüridesin" [12, 27 a.5-7]. In all these examples an associative connection is established between the concept and the word according to the situation and as a result, the word first acquires a temporary shade of meaning. Regular use of the word at the same situation comes to a result that the meaning becoming part of the word's mental imaginations system. "The main process observed here is the influence on the word - "form" of the being updated of the "concept" and "meaning". A word that has other meanings and features related to the concept along with the main meaning begins to have a new semantic function at the moment of expression of similarities between objects and events, which occurs as a result of expressing new meanings and gaining new meanings of the language units" [7]. For example, although the word "yar" was used in ancient Turkic in the meaning of "pus, dirt" in Old Anatolian Turkic it was also used both as a meaning of a geographical term "uçurum" and "saliva". Both meanings are found in XVI century scientific works. "Amma balğam nişanları beñiz ağlığı ağızdan yar çoq aqmaq ve çoq uyqu" [5, 27a.7]. "Hazreti Resulullah sallallahu aleyhi ve sellem ol quyunun içine mübarek ağız yarlarından bıraqmışlardı" [19, 115 a]. "Derya kenarında bir büyük qaladur gün doğusı canibinda bir yüksek yarın altına vaqi olmuşdur" [19, 195 a 12]. But Piri Reis used this word as "cliff": "Ol burunun yanında bir aq yar var. Ol yarun üstünde bir burç var" [14, p. 1551].

3. 2 The Process of Terminalization of Common Words

Acquiring new meaning shades of words or the transformation of meaning shades into an expression means of a new concept in similar situations is in fact the result of an imbalance between the opportunities of human imagination and the opportunities of ability to express it. In some cases wideness of the human imagination system can not exceed the framework of expression opportunities and as a result new meaningful scientific units have been formed by giving new shades to existing words to express new concepts within the existing linguistic possibilities. "In the absence of sufficient words and word-formation means in the language to express this concept or another, the semantics of the polysemantic word corresponding to the content of the concept is used" [18, p.105-114]. For example, the word "ağız" (mouth) is a quite wide-spreaded word in the Turkic languages. This word which refers to a part of the body has historically acquired various new shades of meaning. M. Kashgari noted the polysemantic shades of the word such as the human mouth, the mouth of a river, a jug, a well [10, p.26]. In "Kitabi-Bahriya" the greatest work on maritime and geography of the XVI century the word "ağız" is used in expressions such as "limanın ağzı", "körfezin ağzı", "adanun ağzı": "Amma mezkur limanın ağzu dardur. Mezkura ağzun iki mil poyraz tarafında bir aq ada vardur" [14, p.1671]. However in the "Ibn-Kasir translation" written by Shirvanli Mahmud in the XV century the meaning "border" of the word was also noted: "Bu qalalar xub ve möhkem ve böyük qalalardı ve hem Derbend

ağzında idi" [17, 7a.8]. Or the word "boyun" (neck) is one of the body parts' name. It is also a polysemantic word. However this word has also been determined and used as a musical term in medieval Turkic languages: "Ammā ol yırqanaq ki aña boyun diyü ad qomışlardı, ol boynuñ yüzine raqq yapışduralar [16, 95b/13]. Here the "boyun" means the "upper part" of stringed instruments. In fact the original meaning frame of the words has been preserved in the new meaning too that has formed. According to the situation the meaning development took place in the word and the new concept appeared as a semantic reproduction.

Since the development of scientific language is directly related to the development of scientific fields it is very important for specialists to find the equivalent of new concepts. The use of ready-made language materials is the most common method in this case. However it should be kept in mind that this also causes to an increase in the number of words in the terminological sphere that have the same form and express different concepts, it contradicts the feature of accuracy in the concept which is the main requirement of the term. For example, the word "iç" is used in Turkic in the meaning of "inner", "inside". However in the XIV century monument Tutmaji's work "Tabiatname" the word "iç" was used as "a general name for internal organs" and in the meaning of "intestine": "Nefi bu kim arturur ademde qan; Kişinün içini bağlar bi-güman" [20, 71.b]. It should be noted that the word "içegü" was used in this meaning in M. Kashgari's work. In the work "Adviyeyi-mufrada" both the terms "iç" and "içegü" were used. The word "iç" was used in the meaning of abdomen, stomach and intestine, and the word "içegü" was used in the meaning of internal organs. Related to the word "iç". The expressions "içi bağlanmaq" - constipation, "iç geçürmek", "içi yörimek" - diarrhea were also reflected in the work [11, p.143]. Or the word "kesme" (cutting) is used as a result of the verb "kesmek" (to cut). In M. Kashgari's work it has been given different meanings of this word: "1. a thing which remnant cut with scissors; 2. Forelock; 3. a wide arrow tip" [10, p. 706]. In Old Anatolian Turkic it meant a large arrow with a cutting tip. However in XIV century the word was also used as the name of a medical disease. The disease that appears in the form of carving flesh on the body is called "kesme":"Qaçan bir kişinüñ endamında baş çıqsa ve çıqduğı yerüñ eti yense aña arabca ekile ve parsice xora derler ve türkce kesme ve göyündürme derler [11, 22b/4]. Piri Reis on the other hand used the word "kesme" in a different meaning as a unit of measurement: "Mezkur Hamamet şuluqa qarşu bir alçaq düz yirde deniz kenarında bir kesme nişanı qeder qarada bir küçük qaledür" [14, p.1395]. The concepts related to the fields science mainly naming by the semantic reproductions of common words has caused to the observation of different meanings of the same word in works of different centuries. For example, using of the word "kesme" in XVII century Ottoman as the name of an armor used for a horse and the fact that yellow solid soil is called "kesme" in modern Turkic dialects indicate that new shades of meaning continue to be activated in words. The word "kesme" in the Chankiri dialect also has the meaning of "kekil" is an example of the fact that the original sphere of meaning acquired by the word from the XI to the XX century has not been forgotten. In fact semantic differentiation according to the situation is the distinction of shades that arises in meaning. This distinction manifests itself in the form of semantic extension or narrowing. Sometimes the distinction in meaning remains connected to the main meaning and sometimes it acquires complete independence and completely away from the original initial meaning. For example, the word "burun" (nose) is a human organ and terms such as "bürün düdügü" – nasal, "burun sonağı" –nostril, "burun otı" have also appeared. As a geographical term a new language unit has been formed on the basis of the same system of meanings: "Mezkur burun heman adaya benzer ve anun qıbleden yanında bir adacuq da vardur"; "Ol burucuğun üzerinde San Balaqrini dirler bir xarab qala vardur [14, p.1397; 1529]. In general semantic extension manifests itself as an effect of the overall development process. "Most of the time, semantic extension is an active process that forming in parallel with the extension of the scope and function of the word. In different historical periods, the word expresses a

more wider group of things and events. For example, the common word "yataq" has been used as a geographical term to mean "coast" as a result of semantic extension: "Mezkur yataq yufqa sulu xub demür yirleridür"; "Veli şuluq eyyamının yatağı değüldür. Yaz yatağıdur. [14, p.1397, p.1651]. The word is used in the meaning of a suitable place for the ship to land on the shore. Another expression used in connection with this word is as follows: "Velikin ol adanun yılduz tarafında gemi yatacaq yir az vardur" [14, p.1617]. The word "yataq" is used in the old Anatolian Turkish in the meaning of "shelter". Or the word "bucaq" (angle) used as a mathematical term also means "künc" (corner), "kenar" (edge). However as a geographical term a place in the form of a ledge on the shore is called "bucaq". It should be noted that Piri Reis distinguished between the concepts of "burun" (nose) and "bucaq" (angle): "Ve badehu mezkur liman ağzından daşıra batı lodos terefinde olan Anadolu kenarında Yılanlı dirler bir bucaq var. Ol bucağın önünde bir qara yumru sarb ada vardur. Mezkur bucaq safı qumlu demür yerüdür" [14, p. 1667].

The word "burğu" (drill) is used in different meanings in the old Anatolian Turkish. The word "burğu" is both the name of the torture instrument and the deformed form of the musical instrument "borğuy" mentioned in M.Kashgari's work in the XI century. In the XVI century the word gained a different meaning as a musical term: "Ve sol elile burğudan yanını çalalar ve sağ el ile xerekden yanını çalalar [16, 103b/05]. In stringed instruments a piece of wood was added to tie the strings to the part of the neck was called "burğu".

The word "çanaq" is a language unit used since the XI century Turkic monuments. The initial meaning of this word, which has different meanings is pots and pans. However in the scientific works of the time the word was used not only as an ethnographic word but also as a term: "Bir avuç buğday kepegin ala üzerine bir çanaq su qoya" [6, 60a.7] in this sentence the word was used in the meaning of a household item. In another work "Tohfeyi-Mubarizi" by the same author the word is used as a term in the form of "baş çanağı" [5, 10b.]. This means that in the XIV century the word was used as both a common word and a term. In the work "Risale-i Ilmul-Adwar" that Shukrullah translated it seems the word also have a terminological meaning in music:"Ve muğninüñ çanağı rebb çanağından büyük gerekdür [16, 105a/06]. At that time the word "çanaq" was used to describe the part of a musical instrument that was covered by leather.

4 Conclusion

As can be seen the method of word formation which causes qualitative changes in the language on the basis of lexical-semantic features of words in the scientific style was widely used during this period. In this process not only the own words of language but also borrowings were used.

Extension of meaning, narrowing of meaning, transformation of common words into terms in the background of changing meaning, determination of terms were the main directions of lexical-semantic word formation. In the XIII-XVI centuries in the formation of terms in the fields of linguistics, literature, music, astronomy, geography, medicine of the Turkic scientific style there hasn't been only a quantitative increase in the vocabulary but also a qualitative enrichment and this allows to determine both the level of development of science and the level of coverage of this development of language.

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