On the Etymology and Word Formation of *Arıbeyi* 'Queen Bee': How did the Female Bee Become *Bey* 'Male Ruler' in Turkish?

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For Éva, my highly esteemed friend.

Introduction

The word *queen bee*, the name of the female bee, in numerous languages is *méhkirálynő* in Hungarian, *Bienenkönigin* in German, *Reine des abeilles* in French, all with the same meaning. In these compound words, next to the word for bee, is the word *queen* in English, *királynő* in Hungarian, *königin* in German, and *reine* in French, indicate her role in the hive as well as her gender. In encyclopedic dictionaries, the word *queen bee* is defined as 'the single reproductive female in a hive or colony of honeybees' (Soanes & Stevenson 2003: 1441). However, only in Turkish, this female creature is given the name *bey* 'male ruler' in the word *arı beyi* 'queen bee', and its definition in the dictionary is given as 'queen bee, that of which one is found in each hive and which has the ability to reproduce' (TDK 2019: 149).

It is interesting that the bee, known to be a female, is called *bey* in Turkish. How is it that the female bee is named with a title used for males?

Those whose professions are beekeeping in Turkey know this detail and are aware that this creature, which is called the *art beyi*, and which differs from other bees at a glance in its size and appearance, is the only reproductive female in the hive. However, it is not possible for those who have nothing to do with beekeeping to know this. In the television quiz show "Who Wants to be a Millionaire?", the question "What is a female bee, one of which is found in each hive and has the reproductive ability, called in Turkey?" was asked a few years ago. When the options *art hanımu* 'lady of the bees', *art sultant* 'sultan of the bees', *art beyi* 'queen bee', *art padişahu* 'king of the bees' were given, the competitor commented that it could be called the *art beyi* 'queen bee' or *art padişahu* 'king of the bees' since there is only one in a hive and since the Turks are a patriarchal society. However, considering that the bee was a female, the competitor said later that it could not be called a *bey* and that the right

option was the *arı sultanı* 'sultan of the bees', and he was eliminated from the competition with this wrong answer.

1. The word *artbeyi* 'queen bee' and its definitions in historical Turkish dictionaries

At the end of the last century, considering both its gender and function in the hive, the term *ana ari* 'mother of the bees' started to be used in Turkish. In recent years, with the influence of English, the words *ana kraliçe* 'queen mother' and *ana ari* 'mother bee' have also started to be used in Turkish. The word *ana kraliçe* 'the queen mother' was used in the seventh edition of the *Turkish Dictionary* in 1983 to name the female bee in question. The calque of the queen bee from English, *kraliçe ari*, however, has not been put into dictionaries so far. In short, although *ana ari beyi* is the only name used for female bees.

The oldest source on this subject is Mustafa al-Karahisarî's *Ahterî-i Kebir* (1545) Arabic-Turkish dictionary in 16th century. For the Arabic word آرينك بكي ya 'sūb, يعسوب arınuŋ begi 'male ruler of the bees' is given (Kırkkılıç & Sancak 2009: 1102).

Mütercim Asım Effendi in his dictionary named *el-Okyanusu'l-Basit fi Tercemeti'l-Kamusi'l-Muhit* (1814), defined the headword اليعسوب *el-ya'sūb* as *arılarıŋ begi* 'male ruler of the bees'. He stated that it is called \bar{J} *arı begi* 'queen bee' in Turkish, and then gave long encyclopedic information about the queen bee (Koç & Tanrıverdi 2013: 551–552). Mütercim Asım Effendi, stated that the Turkish equivalent of the Arabic word الخشرم *el-haşrem* is \bar{J} *arı begi* 'queen bee' (Koç & Tanrıverdi 2013: 4952).

In his dictionary *Lehce-i Osmanî* (1876), Ahmed Vefîk Pasha defined the word *beğ arı* 'male ruler bee' as "female bee, one in each hive" (Toparlı 2000: 21). In the dictionary's *beğ* item, the word *kılavuz* 'leader' was given in return for the word *beğ arısı*. 'the male ruler bee' (Toparlı 2000: 51).

Ebüzziya Tevfik, in his unfinished dictionary *Lügat-i Ebüzziya* (1888), similarly interpreted the word آري *arı* 'bee' in the headword of آري *arı beği* 'queen bee' as "female bee of which there is one in every hive" (Ebüzziya Tevfik 1888: 35).

Sami Frashëri, in his famous dictionary (1900) *Kamus-ı Türkî*, defines the words لا له beğ arı, أري بكي arı beği 'queen bee' as "female bee managing each hive" under the headword of أري بكي arı (Yavuzarslan 2010: 64) and the word أري بكي arı beği as arıların kulağuzu "guide of the bees" under the headword of beğ (Yavuzarslan 2010: 126).

In *Resimli Kamus-ı Osmanî* (1908), Ali Seydi defined the word أري بگي *arı beği* as "the bee that is the largest of the bees in the hive and is subject to others at the exit or entrance in the hive" in the item of أري *arı* (Ali Seydi 1908: 189), and he defines the words بك أوي بكي *beğ arı* and *j qı j arı* beği as "the female bee that commands each beehive, and is different from the others in terms of size" under the headword of J_{i} *arı* (Ali Seydi 1908: 21).

In addition to the dictionaries mentioned above, other dictionaries published in the same period contain the terms *arı beyi* or *bey arısı*. However, the words *ana arı* 'mother of the bees', *ana kraliçe*, and *kraliçe arı* are never included in these old dictionaries. The secondary name of this female bee, which is also called *arıbeyi* by those engaged in beekeeping, is the word *ana arı*. It begins to appear in dictionaries in the second half of the 20th century. For the first time in the fourth edition of the *Turkish Dictionary* in 1966, the word *ana arı* was included in its *ana* item. Its definition was made here by referring it to the *arı beyi* item. The use of the word *ana kraliçe* for female bee begins from the seventh edition of the *Turkish Dictionary* in 1983. All this information shows that, since the oldest dictionaries, the only female bee in the hive has been called *arı beyi* in Turkish, and names such as *ana arı* and *kraliçe arı* have emerged only in the last fifty years.

2. What is the reason for the female bee to be called aribeyi in Turkish?

This reason was given by Hasan Eren, who completed his higher education in Hungary, received his doctorate and an associate professorship in Hungary, and was educated by the famous Hungarian Turcologist Gyula Németh. One of the etymological studies that Eren devoted his life to is on the word *arıbeyi* 'queen bee'. In the *Eren Türk Dilinin Etimolojik Sözlüğü*, the new edition of which I have prepared, the following information is included under the headword *arıbeyi*:

Lexicographers, starting with Radloff, gave the name of the *aribeyi* (or *bey arisi*) under the headword *bey*.¹ However, this name, used to mean 'mother of the bees' or 'female bee' cannot be associated with the Turkish title *bey* (< *beg*). Even if the word *biy* (< *beg*) is used as the meaning of 'queen bee' in Nogai, Nogai dictionaries give the first meaning of this word as 'spider'. Other than that, Nogais also use the name *karabiy* 'spider; queen bee'. Karakalpaks also call the word *karabiy* as *miy* (< **biy*). Turkmens use the equivalent of $m \ddot{o} y$ (< **biy*) instead of *karabiy*. Turkmens also use the word *m öy* for *atayri* 'queen bee'. Ligeti wrote that the word *böğ* was defined as "a kind of poisonous spider". When these data are considered, it is easily understood that it is unnecessary to associate the name of *bey ari* (< *bey arisi*) or *aribeyi* 'queen bee' with the Turkish title *bey* 'male ruler' (Eren 2020: 22).

As Eren stated, the origin of the word *bey* in *arıbeyi* is based on the word *biy* in Nogai, *miy* in Karakalpak, and $m \ddot{o} y \sim b \ddot{o} y$ in Turkmen. While one meaning of this word is spider, another meaning is queen bee. This word is used today in the forms of $b \ddot{o} \ddot{g} \ddot{u}, b \ddot{o}, b \ddot{o}$, in the meanings of a 'large and poisonous spider; large scorpion; mole cricket' in the Turkish dialects (TDK 2009: 765). In the Nogai, Karakalpak, Turkmen languages, while the meaning of queen bee of this word is kept, this word was used in the past in Turkish to mean *queen bee* in the form *b \ddot{o} y*. When the meaning of 'queen bee' of this word began to disappear in Turkish, the form *arı b öyi* or maybe *arı b öğü*

¹ For example, the meaning of 'queen bee' in Gagauz, which is given as the 11th meaning of the article EEF in Sevortyan (1978: 99); the word *art beyi* is given under the headword *beğ/bey* in Tietze (2016: 634).

might have been used. The fact that this word, of which no written example has been determined, takes the form of a masculine name *aribeyi* for a bee of female gender is a recent development, and is a type of word formation that we have discussed with various examples in our previous headword.

3. Updating as a type of a word formation

Eventually, in the Turkish of Turkey, the meaning of the second word in the phrase $*art b \ddot{o}yi$ was forgotten, and it was replaced by the word *bey*. It was inevitable for the word *böy*, which is an obselete word, to be updated with a more widely known word *bey*, which was thought to be appropriate in meaning, even though the queen bee is female. Though it lays thousands of eggs every day, the only living thing in the hive which kills its rivals should a *bey*! It is understood that the form *artbeyi* appeared as a result of updating the old and forgotten word *böy* to the word *bey*. This process is of interest with regard to the update as a genre of word formation in Turkish, just like the many other glamorous examples in Turkish, such as the one in which the word *kulaktözü* has been updated with the word *toz* 'dust' as a result of forgetting the Old Turkic substantive *töz* 'root, basis, origin' in the compound word 'mastoid process'. I believe it would be useful to discuss our views on this genre of word formation here as well.

As in every language, words from various languages have been added to the Turkish vocabulary through borrowings. In addition to these ways of word formation, many words have been added to the Turkish vocabulary through localization, analogy, conversion, duplication, coinage and neologism, intonation, generalization, ellipsis, compiling and scanning, and backformation (Akalın 2014: 833–839).

One of the ways of word formation that we have dealt with is a kind of localization, but that differs from localization in terms of its sources and methods. We prefer to call this process as updating. As it is known borrowings can be localized under the influence of the characteristics of the recipient language in terms of phonetic features (Akalın & Mahmudova 2016: 9–10), meaning and structure. Borrowings can become similar to a word of the recipient language through folk-etymology, and these are frequently encountered in language (Akalın 2014: 835). A word with an unknown meaning is replaced with phonetically, phonologically, and morphologically known words and this process is called folk-etymology (İmer & Kocaman & Özsoy 2013: 185).

Folk-etymology can be defined as the process of consciously or unconsciously changing word structures into existing units of form within a language. This process usually requires some changes in the pronunciation and spelling, or both. Thus, if a word is borrowed from another language by changing its original form and the meaning of that word is reinterpreted, it is called folk-etymology. Generally, there are two main types of folk-etymology depending on whether there is a formal relationship in word formation and word coinage, or whether it is influenced by word meaning and logical association. The transformation that words undergo to resemble other words is usually seen in unusual things such as names of flowers, diseases, or medicines (Castillo 2007: 8).

In addition to borrowings, words originating in Turkish, but which have lost their frequency of use and have also been deleted from the mental dictionary cannot be resolved, and are replaced by transparent words that are commonly used, spoken, meaningful, structurally familiar and more widely known. However, this change is a long process. First, words that are not known and understandable, and cannot be resolved despite being of Turkish origin, are replaced with words that are similar in terms of phonetics, meaning, and structure and are more widely known. In the meantime, there are some justified reasons for the use of the transparent word which has the opaque word through folk-etymology. The speaker makes explanations, or even rumors, and repeats the rumors when they use replaced words that are similar in terms of phonetics, meanings they know better instead of words which are of Turkish origin, but which are obsolete and whose meanings are unknown.

Updating is therefore different from other word formation methods. First of all, updating is a word formation process. It is not like other word formation processes in which words are derived by means of word formation methods as a result of necessity such as the derivation of a new word or a new term. It is the replacment of part or the whole word, which is already in a language and in use, and which has become opaque over time, with another word that is similar in pronunciation, meaning and structure.

It is a long process for this to happen, even several centuries. As the presence and use of the old form continues, the word that takes its place comes into use. During this word formation, usual word formation methods of a language are applied. These are mostly affixation and compound in Turkish. The new word, which is in the vocabulary of a language and is more widely known, is similar to the old word in pronunciation, meaning and structure.

Speakers who do not know the old word also form narratives for the origins of the new word. For the period in which it is produced, these narratives are as convincing as possible for the listener. In this respect, it shows similarity with the word formation from borrowings through folk-etymology. In localization, unresolved and incomprehensible words of foreign origin start to be used by folk-etymology. In updating, on the other hand, when the words within the historical vocabulary of a language have become opaque, they are replaced with the words within that language's current vocabulary that have similar form, meaning and structure. For a while it seems that the old and new form are used in the same period, but the new word quickly increases its frequency of use and time runs against the old word. As a result of this, the word loses its meaning completely, and the new word takes its place.

Conclusion

Today, the reason why a masculine word is used in Turkish for the only female bee in the hive, despite the words that determine femininity, such as queen and mother, requires an etymological explanation. However, at the same time, it is a necessity to focus on the type of word formation. After all these explanations, the word written separately in the *Turkish Dictionary* in the form as *arı beyi* 'queen bee' should be written without a space, according to the spelling rule in Turkish as *arıbeyi* (TDK 2019: 149). It should be indicated that in some dictionaries, the word *arıbeyi* is included under headword *bey*, but it should be excluded from these headwords, and an independent *arıbeyi* headword should be included. Also, it should be stated that the item *bey* in this compound word does not mean *bey* (male ruler).

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