## ARTICULATORY EVIDENCES FOR THE EXISTENCE OF THE SOFT-g PHONEME FROM THE ORKHON MONUMENTS TO THE MODERN STANDARD TURKISH

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#### Abstract

The existence of the soft-g phoneme as a voiced velar fricative in Turkish is a matter of heated discussion. Some language scientists insist that there is no such phoneme like soft-g in Turkish, and then claim that the letter ğ only compensatorily lengthens the vowels that take place before it. The application of the current phonemic analysis techniques on the words that have the soft-g indicate the fact that it has been in existence since the time of Orkhon Monuments. In this study, the existence of the soft-g phoneme, from the 8<sup>th</sup> to 13<sup>th</sup> centuries, will be analyzed by the application of such phonemic analysis techniques like minimal pairs, contrastiveness, and free variation. The current status of this phoneme in modern standard Turkish will also be investigated.

**Key words**: voiced velar fricative, phonemic analysis, minimal pairs, contrastiveness, free variation.

#### Ötümlü Gırtlaksıl Sızıcı –g Sesbiriminin Türkçede Orhon Anıtlarından Beri Varlığına Kanıtlar

#### Özet

Türkçede yumuşak-g olarak ötümlü gırtlaksal sızıcının bir sesbirim olarak varlığı bir tartışma konusudur. Bazı bilim adamları bu sesbirimin Türkçede olmadığını iddia etmekte, ğ harfinin sadece bir önceki ünlüyü uzattığını ileri sürmektedir. Çağdaş sesbiliminin sesbirim çözümlemesi tekniklerinin içinde ğ harfinin geçtiği sözcüklere uygulanması, yumuşak-g sesbiriminin aslında Türkçede Orhon Anıtlarının zamanından beri var olduğununa işaret etmektedir. Bu araştırmada, sesbirim çözümlemesinin en küçük çift, sesbirimsel kıyaslama ve serbest değişim gibi teknikleri yoluyla, yumuşak-g sesbirimin varlığı veya yokluğu 8. yüzyıldan 13. yüzyıla kadar incelenecek, çağdaş Türkçedeki konumu saptanacaktır.

Anahtar kelimeler: ötümlü gırtlaksal sızıcı, sesbirim çözümlemesi, en küçük çift, sesbirim kıyaslaması, serbest değişim.

#### Introduction

This paper argues, contra many in the field of Turkish phonetics and phonology, that there exists no soft-g phoneme in modern standard Turkish. The phonemic existence of the so-called soft-g, whose orthographic symbol is  $\mathbf{\breve{g}}$  in modern standard Turkish, is still a hotly disputed issue among many linguists on the case of its phonemic status. Many of the linguists and phonologist, who were negligent in looking at the principles of phonemic analysis, claimed that there is no such a phoneme like soft-g / / in modern standard Turkish: This statement, which is extremely misleading, indicates that the soft-g constitutes an overlooked phonemic case. By nature, the soft -g is a voiced dorso-velar fricative, not a stop, in modern standard Turkish whose orthographic system has obscured the phonemic status of the soft-g because the orthographic sign  $\mathbf{\breve{g}}$  was used to indicate the status of both / / and /j/ together, which was an orthographic mishap for modern standard Turkish. In this paper, the phonemic status of the soft-g as a phoneme will be analyzed in relation to back vowels in details and its phonemic status will be proven through the principles of phonemic analysis.

# Some Views on the Existence of the Soft-g Phoneme in Modern Standard Turkish

## A Brief historical Background of Soft-g

The traces of the existence of soft-g as an independent phoneme goes back to the beginning of Turkish, the scripts of the Orkhun Monuments which were erected in 732-735 A.D. E. in Mongolia in the middle of Asia. The following word-final and word-medial occurrences in terms of minimal pairs Old Turkish in the Orkhun Monuments (Ergin 1984: 101-142) testify, right from the beginning, the phonemic existence of the soft-g as an independent phoneme in Turkish:

## Word-final Occurrences in the Orkhon Monuments:

In the old scripts of the Orkhun Monuments the soft-g / / is very common and is many in number, certifying the phonemic states of the soft-g / /, some of which are cited below:

ağ-/a / "to rise; to go up"	ağ-/a / " to rise; to go up"
ay /aj/ " month"	az / z / " little, insufficient"
ağ-/a / "to rise; to go up" aş / t / "hungry"	ağ- /a / " to rise; to go up" aş / t / " food"

yağ- /ja / "to rain"	yağ- /ja / "to rain"
yay /jaj/ "summer"	yan- /j n/ " side "
yağ-/ja / "to rain"	yağ- /ja / "to rain"
yaş- j / "age"	yaz- /j z/ " spring"

There are many more phonemic contrastive nesses of the soft-g phoneme as shown above, the minimal pairs constituting only some of the possibly related instances. It is an obvious case that even in the scripts of the Orkhun Monuments in between 732-735 A.D. E., the / / phoneme holds a phonemic status and also lengthens the preceding vowel in the structure of words.

Word-medial Occurrences in the Orkhon Monuments:

This type of occurrence is possible but less common than the word-final cases:

kağan /ka n/ "king"	yağız /ja 1z/ "black, a tone of red
kaçan /k t n / "when "	yabız /j bız/ "bad; devastated"
yağ- /ja / "to rain"	yağ- /ja / "to rain"
yay /jaj/ "summer"	yan- /j n/ " side "
yağ- /ja / "to rain"	yağ- /ja / "to rain"
yaş- /j / "age"	yaz- /j z/ " spring"

There are so many occurrences of this type, as mentioned above, the minimal pairs constitute only some of the possible related instances. It is an obvious case that even in the scripts of the Orkhun Monuments in between 732-735 A.D. E., the / / phoneme holds a phonemic status and also lengthens the preceding vowel in the structure of words.

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In 1972 a book entitled **Divanü Lüğat-it-Türk Dizini** was published by the Turkish Linguistic Society. This book was actually a dictionary and was written to teach Turkish to Arabic people in the 11th century A. D. E. by Kaşgarlı Mahmut. In this dictionary, hundreds of minimal pairs can be singled out to ensure the independent phonemic status of soft-g in the eleventh century A. D. E, as testified in the following minimal pairs:

bağ /ba / "vineyard; vine tree" bal /bal/ "honey" bağ /ba / "vineyard; vine tree" bar /bar/ "There exist; there is " çoğ /t o / " flame; saddle-bag, wallet ; bundle; square shawl " cok/t k/ "bad ; villain" cog /t o / flame; saddle-bag, wallet; bundle; square shawl " çor/t r/"ivy" bağ /ba / "vineyard; vine tree" bay /baj/ " rich; wealthy " koğ /ko / " dirt in the eye or in the food" koy /koj/ " sheep; lap" sağ/sa / " brain, mind; left; sweet; good; clean; strong" say /saj/ " a place with pebbles; armor" sag /sa / " brain, mind; left; sweet; good; clean; strong " saw /saw/ "fame: utterance; news, letter; proverb"

yağ /ja / "oil; animal fat" yay /jaj/ "spring, summer"

yağ /ja / " oil; animal fat " yah /jah/ " yes; all right "

By the 11<sup>th</sup> century most of the Turkish tribes in Asia and Asia Minor were converted into the Islamic religion, which brought in thousands of the Arabic and Persian words into the Turkish language. This time Arabic and Persian words got into minimal pairs and further strengthened the independent

phonemic status of the soft-g in Turkish. Here are some examples in modern standard Turkish:

ağır /a ır/ "heavy"	sığır /sı ır/ "cattle"
ahır /ahır/ "stable"	sıfır /sıfır/ "zero"
sığır /sı ır/ "cattle"	mağara /ma r / "cave"
sınır /sınır/"border"	makara /m k r / "wheel"

Thus, diachronic existence of the soft-g phoneme / /in Old Turkish is a truism, owing to plenty of phonemic oppositions cited in this study.

### Current Situation of the Soft-g Phoneme

But right from the early times of modern standard Turkish, the phonemic existence of the soft-g was suspiciously regarded. For instance, according to Özdem (1937:15) standard Turkish no longer has this sound. Lees (1961: 8) states that it appears to be a new phoneme, and it occurs in just these positions in which a voiced velar fricative is found in old Turkish and in contemporary Anatolian or Western Turkic Dialects. As for Swift (1963: 12) soft-g is a voiced fricative made by friction of air between the back of the tongue and the velum. Underhill (1987: 10) states that the Turkish "letter g does not occur after vowels or between vowels, except for a very short list of exceptions, mainly words of European origin (sigara'cigarette', sigorta 'insurance,' gaga 'beak''). What occurs instead of g in this position is the letter called yumuşak-g or "soft-g " -the letter ğ ". The sound that this letter represents is thus simply a variant of the phoneme /g/. Because its pronunciation is very different from the normal sound of the letter g, however, it was given a separate letter in the Turkish alphabet."

Conversely, Conrot (1981: 20) states that the phonetic value of the socalled 'soft-g' cannot be said to be zero totally. According to Demirezen (1987; 1992), the soft-g holds a phonemic status in modern standard Turkish. Thus, it is obvious that there is no total agreement on the phonemic existence the soft-g phoneme in modern standard Turkish. Therefore, so as to unearth the present position of soft-g a thorough examination of the status of it in modern standard Turkish is required.

### The /k/ and / / Relationship

The /k/ phoneme in modern standard Turkish, which is a voiceless velar stop, undergoes a voicing shift through which it also changes its natural class and becomes a fricative, indicated by / /. While being a stop, it shifts into a voiced fricative in intervocalic position and at also morpheme or syllable

boundaries before voiced consonants. In the meantime, its place of articulation, which had a velaric place of articulation before the change, gets into a dorsovelar area during the production of which not only the dorsum but also the earlier velar positions are activated in the process of its articulation. That's why the pronunciation of the soft-g in modern standard Turkish is relative hard because the muscles of the dorsum and the velar area are held tight for a time to give its fricative pristine beauty articulatorily and acoustically. Obviously, this kind of articulation requires extra energy from which many speakers of modern Turkish escape in tending to slightly pronounce it, or in a manner of dorsal laziness do not articulate it at all. Thus, in this way, because it is not articulated in two specific environments it lengthens the preceding vowel via compensatory lengthening and obtains somewhat like zero-like value in articulation, just like the British /r/ does in colloquial British articulation. But even in this position of articulation it cannot be claimed that there is no phoneme like soft-g in modern standard Turkish, just as we cannot say that there is no /r/ phoneme in modern standard English owing to its unarticulated position postvocalically and wordfinal positions.

Specific Environments of the Soft-g Phoneme in Modern Standard Turkish

Soft-g does not occur word-initially, but it exhibits a clear-cut phonemic status in word-medial and word-final positions. In the Southeast and East dialects of modern standard Turkish it is audibly heard (Ercilasun 1983; Edip 1991).

# Word-initial Position

Soft-g cannot begin a word in Turkish. This inclination is very strong and unchangeable, and that's why there has been a strong rejection of soft-g that takes in the borrowed words. For example, all of the Arabic-originated borrowed words that begin with soft-g have been word-initially converted into /g/ in modern Turkish. This fact is clearly detected by Lewis (1967:5), who gives the following examples: "In sum, in Arabic-originated words, initial **gh** becomes **g** as seen in **ghäzi** "warrior for the faith > **gazi**, and **ghäfil** " heedless" > **gafil**. It is clear that all of the word-initial **gh** forms in words that correspond to **ğ** as a letter have been converted to **g** /g/ in word-initial positions in borrowed words in modern Turkish.

Similarly, in the Arabic articulations of the following words there is an audible / / while in their Turkified forms there is no / / but /g/ in word-initial positions:

Arabic form	Turkified form	Glossary
ğayr / ajrı/ ğamm / am / ğaile / aIle / ğaita / aIta/ ğalib / alê b / ğamze / amze / ğaye / a:ye/ ğayret / ayret /	gayri /gajrê/ gam /g m/ gaile /gajIle/ gayta /gajt / galip /ga:IIp / gamze /g mze gaye /ga:je / gayret /gajret/	henceforth; finally dispair sorrow human waste winner / dimple purpose; aim zeal; perseverance

# Word-final Position

There can be no voiced consonants word-finally in modern Turkish, and therefore /g/ phoneme is realized as  $\check{g}$  in the orthography but phonemically as / /; moreover, final postvocalic /k/ in polysyllabic syllables is converted into  $\check{g}$  / / if a vowel, no matter front or back, is added right after it an intervocalic position comes into being, and it is this position where soft-g gets to be very vulnerable in being slightly articulated or not articulated at all in many idiolects, and it is this intervocalic position that gives support to those scholars who say that there is no soft-g phoneme in modern standard Turkish, as testified by the following instances:

# Postvocalic /k/ / / Intervocalically Glossary

dudak /dud k/	dudağı /dud 1/	accusative 'lip'
tarak /t r k/	tarağa/t ra /	allo-dative 'comb
bıçak /bıt k /	bıçağı/bıt a ı/	accusative 'knife'
kulak /kul k /	kulağa /kula /	allo-dative 'to the ear'

It would be unfair to the soft-g sound to claim that it does not exist in modern Turkish without giving any tangible proof of its phonemic existence or non-phonemic existence in terms of phonemic analysis. The principles of phonemic analysis embody the proofs or disproofs on this matter.

### Conclusion

In accordance with the principles of phonemic analysis, there is abundant evidence for the phonemic status of the soft-g phoneme / / in modern standard Turkish, and this phonemic truth is clearly articulatorily testifiable in hundreds of minimal pairs in word-medial and word-final positions in modern standard Turkish. Moreover, through both spectographic analysis, synthetic speech approach, and recognition tests via speech analysis conducted by (Konrot 1981: 22) indicate that "in action, the brain is sending signals for an articulatory gesture parallel to the demands of phonology. Therefore, it can hardly be claimed that the so-called soft-g has no phonetic manifestation (Konrot 1981: 22). In the idiolects many citizens of modern standard Turkish it just phonetically gets weakened and is not audibly articulated, owing to dorso-velar softening of many lazy throats of Turkish people. It must be noted that, using only the letter  $\tilde{g}$  for // phoneme and /j/ phoneme, the lack of two independent letters for each of them in the orthographic system of Turkish not specifying the case of soft-g as a separate phoneme, has been an orthographic mishap for modern standard Turkish. Such an inadequate orthographic demonstration has obscured the two phonemic existences, namely soft-g phoneme / / and /j/ phoneme in an overlapping case in the phonemic inventory of modern standard Turkish.

This way of consonant erosion is an explainable, plausible situation within the Least Effort Theory. Another reason in its phonetically weakening process in the idiolects of many Turkish speakers is that in the articulation of soft-g / / dorsal and velar muscles of the mouth have to activate cooperatively, but such an articulational case happens to be hard for the Turkish people, yet still it cannot be claimed that there is no phonemic status for soft-g in modern standard Turkish, just as is the case with British English in which word-final and postvocalic "tap-r" is not pronounced and thus it cannot be claimed that there is no phonemic status for Jr/ in modern British English. It must be noted that soft-g is still a very audible phonemic reality in the Southeast and East dialects of modern standard Turkish (Ercilasun 1983; Edip 1991).

Finally, the allophones of the soft-g phoneme in modern standard Turkish can be summarized as follows:



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