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Consonant Lenition in Central Kurdish: A Generative Phonological Study

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Abstract:

This paper looks into the phonological process of lenition in Central Kurdish and (CK henceforth). Lenition is the sound change that alters a consonant to a more sonorous one in the sonority hierarchy. It is also assumed to be a universal process in the sense that it is found in all languages. The study researched the question of what triggers lenition in languages. Moreover, different parts of speech are said to react differently in terms of lenition. However, this phonological process is not well-studied in terms of CK data. Even though CK lenition is cited in some studies, to the best of the researchers' knowledge, none of those studies exclusively focused on lenition. Therefore, this paper tries to fill this gap in the literature of CK phonology. It also tries to examine what types of lenitions are found in CK data and what are those types that are not attested. The study has arrived to the conclusion that some types of lenitions are found in CK whereas other types are not attested: the processes of degemination, deletion, debuccalization, flapping, gliding, and voicing are present in CK. While the processes of deaspiration and spirantization are absent in CK. As far as the relation of parts of speech to lenition is concerned, it was found out that nouns are more likely to be lenited than other parts of speech. It is also found out that ease of articulation and minimizing both cognitive and physical effort trigger lenition provided that contrast is preserved between lexical items.

Keywords: Lenition, Softening, Weakening, Deletion, Debuccalization, Degemination, Spirantization.

الملخص:

يتناول البحث الحالي عملية النطق الصوتي للضعف في اللغة الكردية الوسطى (CK من الآن فصاعدًا). التضعيف هو التغيير الصوتي الذي يغير الحرف الساكن إلى آخر أكثر رنانًا في التسلسل الهرمي للصوت. من المفترض أيضًا أن تكون عملية عالمية بمعنى أنها موجودة في جميع اللغات. تناول البحث مسألة ما الذي يثير التضعيف في اللغات. علاوة على ذلك ، يقال إن أجزاء الكلام المختلفة تتفاعل بشكل مختلف من حيث التساهل. ومع ذلك ، فإن هذه العملية الصوتية ليست مدروسة جيدًا من حيث بيانات CK. على الرغم من الاستشهاد بالتضعيف في بعض الدراسات ، على حد علم الباحثين ، لم تركز أي من تلك الدراسات حصريًا على التضعيف. لذلك ، تحاول هذه البحث سد هذه الفجوة في أدبيات علم الأصوات في اللغة الكردية الوسطى. كما يحاول أيضًا فحص أنواع التساهل الموجودة في بيانات CK وما هي الأنواع التي لم يتم توثيقها. توصلت الدراسة إلى استنتاج مفاده أن بعض أنواع التضعيف توجد في CK في حين أن الأنواع الأخرى غير موثقة: عمليات الحذف ، إزالة التحمل ، التنميل، الخفقان ، الانزلاق ، والتعبيرتوجد فى CK. بينما ، عمليات الندقة والحيوية غائبة في CK. وبقدر ما يتعلق الأمر بعلاقة أجزاء من الكلام مع التضعيف، فقد وجد أن الأسماء أكثر احتمالا أن تكون مستقيمة أكثر من أجزاء أخرى من الكلام. وجد أيضًا أن سهولة التعبير وتقليل كل من الجهد المعرفي والجسدي يؤدي إلى التساهل بشرط الحفاظ على التباين بين العناصر المعجمية.

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الكلمات المفتاحية: تساهل، حذف، التحمل، إزالة الصبغة، الانزلاق.

پوختە:

ئەم توێژینەوەیە لە پرۆسە دەنگییەکانی ئاسان بوونی نەبزوێنەکان دەکۆڵێتەوە لە کوردی ناوەندیدا(لێرەبەدواوە CK). ئاسانبوون گۆڕانکاریە لە دەنگەکاندا کە دەنگێکی بەربەستدار دەگۆڕێت بۆ دەنگێک کە کەمتر بەربەست لە بەردەم گۆکردنیدا هەبێت بەپێی ڕیزبەندی هەرەمی دەنگە بێبەربەستەکان. وا دا دەنرێت کە ئەم دیاردەیە دیاردەیەکی جیهانییە واتە لە هەموو زمانە جیهانیەکاندا هەیە. توێژینەوەکە لەو پرسیارە دەکۆڵێتەوە کە چی هۆکارێک لەپشت ڕودانی ئاسانبوون هەیە. سەرباری ئەوەش، دەوترێت کە بەشە جیاوازەکانی ئاخاوتن بەشێوەیەکی جیاواز کاردانەوەیان هەیە بۆ ئاسانبوون. لەگەڵ ئەوەشدا، ئەم دیاردەیە لە CK دا بەشێوەیەکی باش لێکۆڵینەوەی لەسەر نەکراوە، هەرجەندە لە هەندێک لێکۆڵینەوەدا ئاماژە بە ئاسانبوون دراوە، بەڵام بە پێی زانیاریەکانی هەردوو توێژەر، هیچ یەکێک لەو لێکۆڵینەوەیانە تایبەت نەکراون بە باسی ئاسانبوون. لەبەر ئەوە ئەم توێژینەوەیە هەوڵدەدات ئەو بۆشاییە لە مێژووی دەنگسازی زمانی کوردی ناوەندیدا پڕبکاتەوە. هەروەها هەوڵدەدات ئەوە تاقی بکاتەوە کە کام جۆر لە جۆرەکانی ئاسانبوون لە زمانی CK دا بوونی هەیە و کام جۆرانەش تا ئێستا نە سەلمێنراوە کە هەبێت؛ هەریەک لە پرۆسەکانی دیارنەمان، بە قوڕگی کردن، بە نەرمی بەرکەوتن، گۆڕینی فۆنیم بۆ(و) یان (ی)، گڕکردن و تاک گۆگردنی جووت دەنگەکان.لەکاتەکدا پرۆسەکانی بێ هەناسەکردنی دەنگ و بە خشەکردنی دەنگ لە CK دا نین. ئەوەی پەیوەستە بە پەیوەندی نێوان بەشەکانی ئاخاوتن و ئاسانبوون، ئەوە دۆزرایەوە کە ناو زیاتر ئەگەری هەیە ئاسانبوون تێیدا ڕووبدات وەک لە بەشەکانی تری ئاخاوتن. هەروەها ئەوەش دۆزرایەوە کە ئاسانکردنی دەربڕین و کەمکردنەوەی توانستی دەربڕین هۆکاری سەرەکین لە پشت ڕودانی ئاسانبوونەوە بەمەرجێک دژیەکی واتایی دروست نەبێت لە ئەنجامی ئاسانبوونەکە.

کلیلە وشە: ئاسان بوونی نەبزوێنەکان، بە قوڕگی کردن، تاک گۆکردنی جووت، بە خشکە کردن.

1. Introduction

In spoken languages, several different phonological phenomena take place due to their broad usage by users of it. Among those many processes, Consonant lenition has piqued the interest of phonologists (Hock, 1991; Kirchner, 2013; Lavoie, 2014). The study of lenition is intended to investigate its types, determine the exact trigger of such a sound change, and distinguish it from other phonological processes such as assimilation. Many different terms have been suggested by phonologists to label this phonological phenomenon such as *softening, weakening, and lenition.* Carr defines lenition as any phonological process that causes the air stream of a sound to become less obstructed or more sonorous (2008, pp. 88,89). The softening of a consonant usually takes time to establish so lenition is a process of diachronic and synchronic sound shift from less sonorous consonants to more sonorous ones, and it may be classified into different kinds based on the affected and targeted consonants.

The importance of lenition comes from the fact that understanding the nature of these phonological processes helps the language users easily recognize, understand, and interpret what is said, and hence the communication flow naturally without failure. The questions this paper tries to answer are to find out where, when, how, and why it happens, and also what part of speech is more likely to embrace the processes of lenition. Answering such questions paves the way to find out the shared properties and the differences among languages all over the world. It is hypothesized that among the parts of speech, the nouns undergo lenition more than any other parts of speech, and lenition cannot be restricted to certain positions. Being aware of the importance of lenition, many phonologists have investigated its processes from many angles in English (Kirchner, 2013; Gurevich, 2011; Honeybone, 2012; Kingston, 2008).

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However, lenition in CK is poorly investigated in general. The only available studies, to the best of the researchers' knowledge, are (Soane, 1912; McCarus, 1958; Ahmed, 2019). Such studies can be seen as either attempts to examine part of the processes of lenition or as attempts within the context of other studies. The lack of a study that purely focuses on lenition in CK requires the attention of the researchers to fill this gap in Kurdish literature.

In lenition two layers of representation are assumed: before a consonant undergoes lenition and after it undergoes lenition. The present study is within generative phonology which acknowledges two layers of representations: underlying representation and surface representation. The sections of the present study are designated in the following order; it starts with the causes of lenition (section 2), moving on to the types of lenition in CK (section 3), lenition across parts of speech (section 4), and conclusion and findings of this study follow in (section 5).

2. Causes of lenition

Lenition is a set of some processes that alter consonants in the direction of being more sonorant. Sonority is defined as a type of prominence connected with a sound as a result of the way that sound is naturally articulated (Davenport & Hannahs, 2020, p. 252). The louder, more durable, and more open a sound is, the more sonorant it would be. As a result, the most agreed-upon types of lenition in the literature are (degemination, deletion, debuccalization, flapping, gliding, voicing, final devoicing, deaspiration, and spirantization) (Gurevich, 2011, pp. 1560- 1567).

It is crucial to start the discussions by answering the question 'Why does lenition happen?' There is no universal agreement among phonologists on the causes of lenition, which is a fairly prevalent phenomenon in some languages, including English. Some phonologists as (Thurneysen, 1990; Hock, 1991; Kirchner, 2013) agree with the idea that lenition is the result of reducing articulatory efforts by the speakers. To support their idea, they argue that it is one of the natures of humankind that speakers seek to minimize the effort used in casual speech. Moreover, Hock emphasizes the concept of effort minimization by stating that turning off the vocal cords during intervocalic obstruent and then turning them back on is a complicated process that requires more energy, therefore leniting the obstruent will reduce this effort (Hock, 1991, p. 81). When voiced and voiceless obstruents are neutralised into voiced sonorants, there would be a less cognitive burden and weaker obstruction in the organs of speech.

To Kirchner (2013), speakers desire to weaken consonants when in casual speech they have insufficient time to reach the target sound. So speakers can reach the target sound if the articulators are forced to move faster but this requires effort as well. His illumination might go well for instance in the case of deletion since speakers tend to remove a consonant in rapid speech when they do not have enough time to reach that target. But this is not going flawlessly with other processes of lenition as in the case of voicing, since the voiced and voiceless sounds have the same place of articulation.

Besides, another reason that rejects effort minimization as a trigger behind lenition is the variations of effort minimization of articulatory movement between lenited and unlenited consonants which are not enough to be counted as a case (Kingston, 2008, p. 1). Another key problem with the explanation of effort reduction is that, if the speakers are going to lenite every single effortful consonant due to

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relaxation there would be no more phonemic contrast between the minimal pairs and this adds more homonyms to the language which is undesirable in every language since it reduces contrast and therefore meaning would be in jeopardy. As a result, ease of articulation may trigger lenition (mostly) of obstruent consonants but it is constrained by the preservation of contrast of lexical items. This could be a reason the lenition is attested in a very restricted way.

3. The processes of lenition in CK

Among the basic questions to understand the nature of lenition is where, when and how lenition happens. The answer to these questions is provided within the following sections which discuss the main types which are characteristically classified as types of lenitions. Not necessarily all types of lenitions can be attested in all languages, phonological processes such as lenition are assumed to be demonstrated in all natural languages in different forms.

In terms of the positions where lenition happens, Honeybone states that intervocalic and coda situations can be regarded as weak positions which facilitate the processes of lenition thus in such positions lenition takes place easily. Whereas, the initial and post-coda positions are considered as strong positions where lenition is disfavored in English (2012, p. 774). However, in CK such claims are neither attested nor denied since it has not been tested yet.

From this perspective, Lenition and its processes are described in the following sections to determine the extent of the presence of the sound shift in CK. Note that only CK-origin terms are used to discuss the existence of the phenomenon, the borrowed and cognate words are excluded.

3.1. Degemination

While gemination is pronouncing a series of two similar adjacent consonants inside a single morpheme as a long consonant, not as a single or a short one (Crystal, 2008, p. 206), reducing two identical adjacent consonants into a single consonant is called degemination as when *immature* is pronounced with one /m/. In CK, the occurrence of two identical consonants in the same domain is somehow rare since the phonotactic of CK does not allow such a cluster (Hamad & Aziz, 2022, p. 360). However, there are few words with double identical consonants that cannot be shortened (degemination) since it makes a phonemic variation, as the instances of 1.

1.

a.	/kalla/	‘skull’ →		/kala/	‘broken’
b.	/ziɬla/	‘slap’ →		/ziɬa/	‘it is big’
c.	/gulla/	‘bullet’→		/gula/	‘leprous’

Regardless of such words shown in (1), two identical consonants can meet via affixation (2. A, and B) and assimilation (2. C) in CK. Because the two identical consonants in (2. A and C) are not in the same syllable, they cannot be degeminated. Nevertheless, when the two identical consonants are flap rhotics, they degeminate. In passive formation, the /ɾɑ/ for past and / ɾe/ for present tense are suffixed to the root of verbs. When a verb with a root ending with a flap rhotic is passivized, it results in two adjacent flaps which are degeminated into one as in (2. B).

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2. A. (two identical consonants meet via adding suffixes)

i. kurt + tir → /kurt.tir/ 'shorter'
ii. Ćewt + tirin → /tʃawt.trin/ 'wronggest'
iii. Kam + man → /kam.man/ 'which one of us'

B.

i. birdin (infinitive) 'take' bir (root) + ra= bira (passivized) 'taken'
ii. kirdin (infinitive) 'do' kir (root) + ra= kira (passivized) 'done'

Note that the resultant passivized form of the verb has only one flap rhotic even though it consists of a root ending with a flap and a suffix beginning with a flap.

C. (two identical consonants meet via assimilation)

		UR	SR	
i.	handan	/han.dan/ →	/han.nan/	'motivation'
ii.	guldan	/guł.dan/ →	/guł.łan/	'vase'
iii.	dldar	/dił.dar/ →	/dił.łar/	'lover'

The instances of (2. A) show that two similar consonants join through adding suffixes, (B) demonstrates the only environment in which degemination takes place in CK, and the examples in (2. C) clarify how assimilation is the cause behind meeting two identical consonants. But, these identical consonants in 2 (A and C) cannot be degeminated since they belong to different domains. To summarize, gemination and degemination do not have a wide distribution in CK., and the only case of degemination is found through affixation of passive forms shown in (2. B) .

3.2. Deletion

Because of the one-to-one relationship between sounds and letters in CK i.e., what is written is read, the sort of deletion that occurs in numerous languages, including English, as a result of deviant spelling, does not exist in CK. However, the type of deletion that stems from structure simplification is a very common phenomenon in spoken language. In CK, stop consonants, among others, are the most often deleted consonants. The most frequently deleted consonants in CK are /t, d, b, k, ʔ, ŋ, and h/.

3.

a.	mebest	/mabast/	/mabas/	'aim'
b.	yadaşt	/jadaʃt/	/yadaʃ/	'recommendation'
c.	dexoyt?	/daxojt/	/daxoj/	'would you eat?'
d.	derečit	/ daratʃit/	/daratʃi /	'you will pass'
e.	dest + kurt	/dastkurt/	/daskurit/	'poor'
f.	set + hazar	/sathazar/	/sahazar/	'one hundred thousand'

The examples in (3) show the cases in which /t/ is deleted. The cases of /t/ deletion are the final position after /ʃ/, and /s/ as shown in the examples of (3. a, and b). Another environment of /t/ deletion is when a word with final /t/ is attached to a suffix or another word as in the examples of (3) (c and

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d). Nevertheless, the above two cases for deleting /t/ should not be overgeneralized as they are not without exception since there are identical situations in which /t/ is not deleted, consider the examples in (4) Finally, /t/ is also deleted in the pronominal clitics in (it and (é)t) for second and third person singular as in the two final examples in (3).

4.

a.	xiṣt	/xiʃt/	‘brick’
b.	piṣt	/piʃt/	‘back’
c.	kert +bun →	/kaɾitbun/	‘partition’
d.	bext + yar →	/baxtjaɾ/	‘lucky’

Another stop consonant that undergoes deletion is /d/ which accounts for the majority of deletion in CK, most notably in the Sulaimany sub-dialect. It can be deleted in initial, medial, and final positions, as shown in the instances of 5.

5.

		UR	SR	
a.	ḍidan	/ddɑn/	/dɑn/	‘tooth’
b.	mindal	/mndɑł/	/minɑł/	‘child’
c.	hunermend	/hunaɾmand/	/hunaɾman/	‘artist’
d.	dawlamand	/dawlamand/	/dawlaman/	‘rich’
e.	hoşmand	/hoʃmand/	//hoʃman/	‘thinker’

The above examples show the possibility of deleting /d/ in all the positions. Moreover, it is believed that /d/ is deleted whenever it comes after /n/ as shown in the works of (McCarus, 1958, p. 43; Ahmed, 2019, p. 144).

6.

		UR	SR	
a.	čewender →	/tʃawandaɾ/	/tʃawanaɾ/	‘beet’
b.	rewend →	/rawand/	/rawan/	‘immigrants’
c.	dewłemend →	/dawłamand/	/dawłaman/	‘rich’

In contrast, this view cannot be over-generalized since similar conditions exist yet, /d/ cannot be deleted as it makes a phonemic variation. This may be to keep the contrast between two different lexical items. Deletion of /d/ in (7.A) examples result in the words in (7.B). The examples in (7.A.) are form minimal pairs with the examples in (7.B).

7. A.

i.	şand	/ʃɑnd/	‘delegation’
ii.	sonde	/sonda/	‘hose’
iii.	xende	/xanda/	‘smile’

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B.

i. /ʃɑn/ ‘shoulder’

ii. /sona/ ‘duck’

iii. /xana/ ‘henna’

Besides, there are two more environments in which /d/ is deleted in CK: the postposition /dɑ/ such as the examples in (8 A, B, C). The other point where /d/ is supposed to be deleted is in numbers with the last /d/, and occasionally /n/ is substituted for /d/, but the nasal swaps its sequence with /z/, as in (8. C, D, E).

8.

		UR	SR	
a.	**be**dwam**da**	/badwɑmdɑ/	/badwɑmɑ/	‘following me’
b.	**le**şew**da**	/laʃawdɑ/	/laʃawɑ/	‘at night’
c.	dwaz**de**	/dwɑzda/	/dwɑ**n**ɨza/	‘twelve’
d.	paz**de**	/pɑzda/	/pɑ**n**ɨza/	‘fifteen’
e.	şaz**de**	/ʃɑzda/	/ʃɑ**n**ɨza/	‘sixteen’

Furthermore, the voiced bilabial stop consonant (b) undergoes deletion too, when is used as affixes to attach verbs for denoting imperative and subjunctive mood as shown in (9).

9.

		UR	SR	
a.	da + **b** + nişe →	/dɑbniʃa/	/dɑniʃa/	‘sit’
b.	hel + **b** + wase →	/helbwɑsa/	/həɬwɑsa/	‘hang’
c.	bču + **ba** + maye	/btʃubɑmɑja/	/btʃumɑja/	‘if I went’
d.	bnust + **ba** + maye	/bnustbɑmɑja/	/bɨnustmɑja/	‘if I slept’

The first two examples in (9) display the deletion of /b/ when it is used as an infix to denote imperative. Though, it is notable that the imperative marker cannot be deleted if it is used as a prefix for instance (bnuse /bɨnusə/ ‘write’*/nuse/). The last two examples show the deletion of /b/ when is used as an infix to denote subjunctive mood.

The voiceless velar plosive /k/ also undergoes the process of deletion in CK, particularly in the inflectional indefinite article (ek, ék, and jek) (Abdullah, 2021, p. 81; Ahmed, 2019, p. 146) such as the examples in (10 a and B). Furthermore, the final position that /k/ is believed to be deleted is in the word *kak* ‘Mr.’ whenever is used before proper names such as the examples (10. C and D).

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10.

		UR	SR	
a. roj + ék	→	/roʒek/ →	/roʒe/	‘a day’
b. wane + yek	→	/wanajak/	/wanaja/	‘a lesson’
c. Kak Omer		/kakʕumaɾ/	/kaʕumaɾ/	‘Mr Omer’
d. Kak Ali		/kakʕali/	/ kaʕali /	‘Mr Ali’

Moreover, the glottal stop /ʔ/ is the final stop consonant that is deleted in CK. This deletion mostly occurs in those words that have the initial /ʔ/ when it is attached to a prefix or another word like the instances in (11). Whereas the deletion of /ʔ/ is the consequence of the fact that CK phonotactic does not let /ʔ/ to come in the medial position since the glottal stop has a defective distribution in CK (Hamid, 2015, p. 14).

11.

	UR	SR	
a. /mast/ + /ʔaw/ →	/mastʔaw/	/baw/	‘butter milk’
b. /la/ + /ʔéra/ →	/laʔera/	/lera/	‘here’
c. /baɾ/+/ʔaw/ →	/baɾʔaw/	/baraw/	‘irrigatable (land)’

Another consonant that is being deleted in CK is the voiced velar stop consonant /g/ when it follows /n/ and together they form /ŋ/, as illustrated in example (12). However, it is worth noting that /g/ is not deleted in all variations of CK dialect, but rather is pronounced in most variants while it is deleted in the Sulaimany variety.

12.

	UR	SR	
a. čngal	/tʃŋaɬ/	/tʃɨnaɬ/	‘fork’
b. reng	/raŋ/	/ran/	‘colour’
c. deng	/daŋ/	/dan/	‘voice’

The last consonant that goes through deletion in CK is /h/. Regarding the positions in which it is deleted, it is believed that when a verb with an initial /h/ is attached to a prefix or another word, the /h/ is deleted (Abdullah, 2021, p. 81) see the examples in 13. This claim is further supported by McCarus who believes that /h/ is deleted before vowels (1958, p. 43) such as *bihénet* /bihena// □/bena/ ‘bring it.

13.

	UR	SR	
a. hel + hat (v) →	/haɬhat/	/haɬat/	‘escaped’
b. b+ héne (v)→	/bɨhena/	/be:na/	‘bring’
c. xor + hetaw (n)→	/xoɾhataw/	/xoɾataw/	‘sunny’

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One point should be highlighted here which is that the same thing occurs even when the form is not a verb as in the last example of (13). Again this is not without exception as in the word (şahana) 'royal' (h) is preceding a vowel but it cannot be deleted as it makes phonetic variation (şane)'comb'.

3.3. Debuccalization

Debuccalization or glottalization is the reduction of the oral features or place of articulation. Oral gestures are lost as a result of this weakening process, leaving only laryngeal movements (Crystal, 2008, p. 130). This process is another notable and frequent kind of lenition in CK mainly in the Sulaimany variety. The only environment in which debuccalization is seen in the Sulaimany dialect is the initial /d/ of the aspect marker /da/, which is used as a present tense indicative prefix. It is often debuccalized by speakers such as the instances in (14). It is important to say that present tense indicative is never debuccalized by Hewler and Koye speakers (Ahmed, 2019, p. 151). It is worth noting that this phenomenon only happens with the present tense indicative prefix, not with other forms that start with /d/.

14.

	UR	SR	
a. dexom	/daxom/	/ʔaxom/	'I eat'
b. denusét	/danuset/	/ʔanuse/	'he/she writes'
c. deron	/daron/	/ʔaron/	'they go'

3.4. Flapping

Flapping also called tapping, is a form of lenition by which the sound segment becomes a flap, and when an articulator is pulled from its rest position and then quickly returned to its rest position in such a way that it impacts another articulator throughout its journey makes flap (flick) consonant (Trask, 1996, pp. 145-146). Flapping can be used as a feature to differentiate between the varieties spoken in Hewlér and Sulaimany because Hewlér and Koye speakers frequently flap /ɬ/ in the final and medial position, but Sulaimany speakers never do this (see the instances in 15).

15.

		UR	SR	
a.	xol 'dust'	/xoɬ/	/xoɾ/	'sun'
b.	mal 'home or house'	/maɬ/	/maɾ/	snacke
c.	sal	/saɬ/	/saɾ/	'year'
d.	dl	/diɬ/	/diɾ/	'heart'
e.	qela	/qaɬa/	/qaɾa/	'castle'
f.	delém	/daɬem/	/daɾem/	'I say'
g.	qerebalx	/qaɾabaɬix/	/ qaɾabaɾix/	'crowded'

In spite of the occurrence of such a phenomenon by Hewlér speakers, sometimes it makes a phonetic variation such as in the case of the first and second examples in (15), /maɬ/ 'home or house' /maɾ/ 'snake', /xoɬ/ 'dust' /xoɾ/ 'sun'. To avoid this, sometimes Hewlér speakers use alternative words

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for instance roj /roʒ/ ‘sun instead of /xoɾ/ ‘sun’, and sometimes the context differs between the hyponyms such as the utterances in (16).

16.

a. Malakam pak krdewe. /mɑɾakam pɑkiɾdawa/ ‘I have cleaned the house’
b. Marakam kuşt. /mɑɾakam kuʃɨt/ ‘I killed the snake’

3.5. Gliding

Gliding is the substitution of a certain consonant with /w/ or /j/, or it is the use of a homorganic glide in place of stops or spirant consonants (Gurevich, 2011, p. 1565). Gliding is also one of the most common processes of lenition in CK. It occurs in the initial, medial, and final positions. The modification from other consonants to glide is more commonly sourced from /d/, (such as the examples in 17).

17.

		UR	SR	
a.	dém	/dem/	/jem/	‘I will come’
b.	badem	/bɑdam/	/bɑjam/	‘almond’
c.	qadr	/qɑdɾ/	/qɑjɾ/	‘proper name'
d.	qebr	/qabɾ/	/qawɾ/	'grave'
e.	bed	/bad/	/baw/	‘evil’

The above examples show the process of gliding in CK. The first example displays gliding in the initial position, while the second and third examples show gliding in the medial position. Whereas the occurrence of gliding in the final position is shown in the last example.

Besides, it is believed that gliding occurs initially and medially in the modification of the verb base pédan ‘giving’ when it is attached to the continuant indicative prefix /ʔ/, again, the same thing happens when the morpheme (d) comes initially (Ali, 1989, pp. 73-74) consider the examples in 18.

18.

		UR	SR	
a.	adem	/ʔɑdam/	/ʔajam/	‘I will give’
b.	dedey	/dadaj/	/dajaj/	‘you will give’
c.	adat	/ʔadɑt/	/ʔajɑt/	‘he/she will give’
d.	day be ké	/dɑjbake/	/jɑjbake/	‘whom did he/she give

The first three examples in (18) show gliding in the base form of the verb pédan ‘giving’ for the first, second, and third-person singular. But the last example demonstrates gliding in the initial position.

Likewise, the pronoun /t/ for the second person singular undergoes gliding like the examples in (19). In the first three examples of (19), two processes of lenition are shown.

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19.

		UR	SR	
a.	bo**t**dénusm	/botdanusɨm/	/bowʔanusɨm/	‘I will bring it for you’
b.	botdekem	/botdakam/	/bowʔakam/	‘I will do it for you’
c.	Pétdelém	/petdałem/	/pewʔałem/	‘I will tell you’
d.	natkujm	/nɑtkuʒm/	/nɑwkuʒɨm/	‘I will not kill you’

3.6. Voicing

Voicing is a typical lenition process that entails switching from a voiceless to a voiced sound (Gurevich, 2011, p. 1561). Voicing as a feature spreading phenomenon (assimilation) is a quite common sound alternation in CK like (beş + dar) □/baʒɨdɑr/ ‘participant’, (heşt + de) □/haʒɨda/ ‘eighteen’. Though this modification should not be confused with voicing as a process of lenition which is context-free. Nevertheless, voicing context-free sound alternation exists in CK too, as in the examples of (20).

Alongside the instances of 20 (A, B, C), context-free voicing occurs when the present tense indicative prefix (de) is added to some verbs, the target voiceless consonant gains an intervocalic position and it will become voiced as the instances of (20. d and e).

20.

		UR	SR	PS
a.	serdeşt	/sɑrdaʃt/	/zɑrdaʃɨt/	‘proper name’
b.	melashu	/małɑʃu/	/małɑʒu/	‘palate’
c.	sk	/sk/	/zɨk/	‘stomach’

The first example in (20) is a city name from eastern Kurdistan that is also used as a male given name, while it is pronounced differently among CK speakers. Nonetheless, in the second example, the /ʃ/ is voiced and pronounced as /małæʒu/ among speakers of Derbendikhan and Warmawe. The third example shows voicing among Hewlér speakers, as they pronounce the word with the initial /z/.

3.7. Final devoicing

Final devoicing is the process of converting a voiced segment into a voiceless at the end of some phonological domains. Before discussing the phenomenon, it is critical to differentiate final devoicing from voicing assimilation. which is triggered by the adjacent sounds. In contrast, final devoicing is context-sensitive and context-free at the same time. It is sensitive since devoicing occurs only in the coda position or word-final and it is free in a way that is not caused by the neighboring sounds. Also, final devoicing is a phonological distribution pattern in which a language has both voiced and voiceless obstruents, but only voiceless obstruent at the end of a certain prosodic domain is realized. Many languages dislike having voiced obstruents at the end of words or codas, therefore they either eliminate them or devoice them (Hamid, 2014, pp. 17,19).

The assignment of final devoicing to a phonological domain is a contentious issue. For some, it is a matter of assimilation, Meanwhile, for others, it is a matter of lenition or fortition. As mentioned above, if the modification is a feature spreading, it is regarded as a case of assimilation. Nevertheless,

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some phonologists such as (Harris, 2009; Szigetvari, 2008) regard final devoicing as a process of lenition. They claim that devoicing is a loss of a feature since (+voiced) changes to (-voiced) and lenition involves losing a feature thus final devoicing is a type of lenition.

Conversely, it wouldn't be logical to treat final devoicing as a process of lenition because fortition occurs on the borders of prosodic components to inform the listener that the speech is coming to a close, but lenition occurs within those elements to inform the listener that the discourse is still going on. In addition, according to Smith, final devoicing occurs in several languages to denote finality (2003, pp. 178,191). Furthermore, concerning the definition of lenition, final devoicing is not a trend toward becoming more sonorant in the sense that it is perceived as lenition, but rather the polar opposite. As a result, final devoicing needs to be treated within the scope of fortition.

Concerning the phenomenon in CK, Final devoicing is one of the most common sound alternations in CK. The existence of final devoicing in CK is first attested by (Hamid, 2014). He shows that stops, fricatives, and affricates undergo coda devoicing, and it is neither coda condition nor assimilation. In the instances of (21 A, B, and C), the last voiced consonants are heard devoiced as the voiceless equivalent of the same phoneme. However, the consonants regain their voice whenever the words are attached to a suffix or another word because the consonants are no longer in the final position. See the examples in (21 d and e).

21.

		UR	SR	
a.	bnyad	/bnjɑt/	/bɨnjɑt/	'construct'
b.	ktéb	/kteb/	/kɨtep/	'book'
c.	seg	/sag/	/sak/	'dog'
d.	bnyadnanewe	/bɨnjɑdnɑnawa/	'construction'	
e.	ktébekan	/kɨtebakɑn/	'the books'	

3.8. Spirantization and Deaspiration

Spirantization, also known as fricativization, is a kind of lenition in which stop (plosive) consonants become fricatives (Carr, 2008, p. 163). This sound alternation is a frequent lenition process in many languages, including English, nevertheless, it is an absent lenition process in CK.

Deaspiration, on the other hand, is a weakening process in which voiceless stop consonants are unaspirated while being followed by vowels in a domain with another aspirated consonant. This occurrence is common in several languages, such as the Indo-Aryan language spoken in Rajasthan, Harauti, and India (Kurabe, 2018, p. 43). Stop consonants are aspirated when followed by vowels in CK, even if they are in the same domain as another aspirated consonant; as a result, deaspiration is a non-existent process in CK. (consider the examples in 22).

22.

a.	pépeti	'barefoot'	/p ʰep ʰati/
b.	petate	'potato'	/pʰatʰɑta/

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In summary, it can be concluded that spirantization is not attested CK as a lenition process. The process is not demonstrated either in contexts such as intervocalic or context-free such as at the edges of certain phonological domains.

4. Lenition in parts of CK speech

Regarding the question of which part of speech is more likely to bear lenition, it has been found out that phonological processes indicate a significant variance across parts of speech (Inkelas, 2014, p. 13). Smith, also, demonstrates that nouns have more phonological flexibility than verbs (2011, p. 5). Though the purpose of this section is to explore the sensitivity of lenition to parts of speech, the regularity of lenition across word classes is measured to determine which parts of speech are more privileged to be lenited in CK. To do this, some more data is added to the previously shown lenited data, and what has been stated in the literature on the subject is utilized as a small corpus to determine in which class lenition is more common.

The above investigation about the absence and existence of the lenition processes in CK explains the sensitivity of the processes on word classes as well. The CK lenited terms used in this section to test the sensitivity of lenition towards parts of speech, in addition to the new ones, are 86 terms. According to this small corpus, 40 nouns, 23 verbs, 10 adjectives, 8 pronouns, 2 articles, 2 affixes, and 1 adverb are lenited. This clearly shows that nouns are more liable to be lenited than other parts of speech. Following Smith's classification of languages according to which part of speech is more open to accepting the phonological processes, the evidence presented in table (1), CK can be placed among the languages in which nouns are more likely to be lenited.

One important thing to be considered is that according to the data, verbs show more flexibility than adjectives to be lenited. This finding contradicts Smith's (2011) suggestion. The main reason behind this contradiction is that, in CK, verbs take affixes and pronouns more than any other parts of speech, therefore, the result of these combinations is encountering numerous sounds which may create a suitable ground for lenition to happen. Such pronouns and affixes represent those to indicate modality and tense which are attached to the verbs in the form of clitics. When these clitics are attached to verbs, they induce specific sound modifications in the verb (i.e., present indicative de+rştn /rʃtin/+ m (first person singular pronoun) deréjm /dareʒim/) or, in certain cases, they are the impacted place to be lenited (i.e., detbem dewbem).

The absence of prepositions in lenition processes is another observation. The data presented in this study do not show any lenition processes involving prepositions. The fact that prepositions are not lenition-competent has two main reasons. The first reason is related to the prepositions (le and y(i)), which have only one sonorant consonant in their structure, hence it does not permit lenition. The second reason is related to (be and bo) which are made up of (vowel+ voiced stop consonant), if the consonant goes through any of these processes of lenition (deletion, gliding, flapping, and debuccalization) the result will be a meaningless word. Also, final devoicing seems to be impossible to be applied on (bo and be) since the consonants in both prepositions do not come in the coda position. Even the consonants cannot undergo voicing because they are already voiced.

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To summarize, CK is similar to the languages studied by Smith in the sense that nouns are the best parts of speech to be lenited. On the other hand, CK contradicts the under-investigated languages since verbs are more favored by the lenition process than adjectives. Finally, CK prepositions exhibit no flexibility toward processes. Yet, to further prove this finding, this paper recommends a bigger corpus and more languages to be included to find out to what extent this finding is generalizable since the data used in this paper is restricted to CK.

Table (1) Lenition of CK words according to different parts of speech

Word class / **Processes of lenition**	**Nouns**	**Verbs**	**adjectives**	**adverbs**	**clitics**	
					Pronouns	**articles**
deletion	1. yadaşt 2. padaşt 3. mebest 4. rast 5. destkewt 6. ddan 7. xuda 8. mndal 9. hunermend 10. swéndxwardn 11. pesendkrdn 12. čewender 13. rewend 14. dewłemend 15. bermde 16. bedwamda 17. beseriyanda 18. leşewda 19. lenawda 20. Kak Omer 21. Kak Azad 22. /mɑstʔɑw/ 23. /bɑrʔɑw/ 24. čngal 25. reng 26. deng 27. brjang 28. sng	1. da**b**nişe 2. hel**b**wase 3. bču**b**amaye 4. bnust**b**amaye 5. hel**h**at 6. b**h**éne	1. des**t**kurt 2. se**t**hazar 3. pes**t**bun 4. čen**d** 5. dwaz**d**e 6. paz**d**e 7. şaz**d**e 8. hev**d**e 9. xor**h**etaw	1. /laʔéɾa/	1. Dexoy**t** 2. dereči**t** 3. roştj**t** 4. denwsé**t**	1. roj**é**k 2. waneye**k**
debuccalization		7. dexom 8. denusét 9. deron				

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gliding	29.bademˈ 30.qadr 31.qebr 32.befr	10. badan 11. adem	10. bed		5. bo**t** dénusm 6. bo**t** dekem 7. pé**t** delém 8. na**t**kujm	
flapping	33.xol 34.mal 35.sal 36.dl 37.qela	12. delém				
voicing	38.serdeşt 39.melaşu 40.sk	20.de /gastn/t 21.de/xwɑstn/ m 22.de/rʃtn/t 23.de /naʃtn/t				

Conclusion

The existence of lenition is manifested through the processes of degemination, deletion, debuccalization, flapping, gliding, and voicing in CK, while the processes of deaspiration and spirantization are absent in CK.

Regarding the questions where, when, and why lenition occurs, the processes of lenition have a wide distribution in CK since they alter consonants in the initial (debuccalization, gliding, and voicing), medial (deletion, flapping, voicing, degemination and gliding), and the final position (deletion, flapping, and gliding). Meanwhile, similar to other languages, lenition in CK is more frequent in casual speech than in formal speech. Lastly, it has also been discovered that ease of articulation and decreasing both cognitive and physical effort prompt lenition when the contrast between lexical components is preserved.

As far as the question of which part of speech show more flexibility to be lenited is concerned, the findings of this study approve Smith's claim that nouns are more lenition-compatible than any other parts of speech, while there seems to be a fair regularity in lenition occurrence in pronouns. At the same time, it has been found out that the processes of lenition are more probable to occur in verbs in comparison with adjectives, this contradicts the claim that lenition occurs more in adjectives than verbs.

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