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Does Turkish Have Infixes? *Why not?*

Türkçede İçeklerin Varlığı Mümkün mü? Neden Olmasın?

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Abstract

Compared to suffixation and prefixation, infixation is an uncommon morphological process in which a bound morpheme is inserted into a base. Most of the grammatical infixes are accepted as false infixes in the literature since they are originally either prefixes or suffixes but they surface as infixes due to some phonological reasons. However, there are also true infixes, which come with language games, disguises and iterative infixing ludlings. In the present study, following Yu (2007), we argue that Turkish has true infixation in iterative ludlings known as *Kuş Dili* (the Bird Language). Accordingly, we have three basic claims: (i) The true infixes in Turkish has *-Vg-* pattern not *-gV-*, contrary to the previous ludling observations. (ii) The iterative infix *-Vg-* interrupts the base preceding and copying every source vowel from right-to-left not from left-to-right, as opposed to the previous accounts. (iii) The Turkish iterative infixes have a fixed (unchanging) phonological template (NO) in which there is no way of branching. Our *-Vg-* pattern analysis and templatic account can explain why long vowels are shortened and why the coda consonant is displaced in the copied form. Accordingly, since there is no possibility for branching of the rhyme or nucleus on the infix template, only the vowel content is copied from the source nucleus to the infix, not the vowel length or coda consonant. Note that our *-Vg-* infixation pattern also finds empirical support from various languages such as Basque and Tagalog, which are also argued to have *-VC-* infixal pattern in their ludlings. As a result, we argue that the fixed template analysis for Turkish iterative infixes minimizes the cognitive burden since all one can do is limited to the template (no complex operations in the system).

Keywords: Iterative infixation in Turkish ludlings, infixes, the bird language, phonological templates, phonology-morphology interface.

Öz

Sonekleme ve önekleme işlemleriyle karşılaştırıldığında içekleme, bağımlı bir biçimbirimin bir tabanın içine yerleştirildiği nadir bir biçimbilimsel süreçtir. Dilbilgisel içeklerin çoğu esasen önek ya da sonek oldukları için alanyazında gerçek içek olarak kabul edilmemekte, sesbilimsel sebeplerden ötürü içek biçimiyle karşımıza çıktıkları söylenmektedir. Biz bu çalışmada, Yu'yu (2007) temel alarak, Türkçedeki yinelemeli söz oyunlarında gerçek içek bulunduğunu ileri sürmekteyiz. Buradan hareketle çalışmamızın üç temel iddiası bulunmaktadır: (i) Türkçe söz oyunlarındaki gerçek içekler, önceki çalışmaların yaptığı gözlemlerin aksine, *-gV-* değil *-Vg-* kalıbına sahiptir. (ii) Yinelemeli *-Vg-* içeki, önceki açıklamaların aksine, tabandaki her kaynak ünlüyü soldan sağa değil, sağdan sola kopyalayıp bu ünlünün öncesine yerleşerek tabanı bölmektedir. (iii) Türkçedeki yinelemeli iç ekler, dallanmanın mümkün olmadığı sabit (değişmeyen) sesbilimsel bir şablona (NO) sahiptir. Yaptığımız bu *-Vg-* kalıbı çözümlemesi ve

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şablon açıklaması uzun ünlülerin kopyalanmış oldukları formda neden kısaldıklarını ve ünsüz çiftlerindeki ikincil ünsüzün (son ünsüz) neden kaybolduğunu açıklayabilmektedir. Buna göre, sabit şablon analizimizde uyak veya çekirdeğin dallanma olasılığı olmadığından, çekirdekten içeke sadece ünlü içeriği aktarılırken, ünlü uzunluğu veya son ünsüz bu pozisyona kopyalanamamaktadır. Ayrıca *-Vg-* içekleme kalıbının Baskça ve Tagalogca gibi çeşitli dillerden örneklerle de desteklendiği ve bu dillerin de söz oyunlarında *-VC-* içekleme kalıbına sahip olduğu belirtilebilir. Çalışmada ayrıca, sistemde karmaşık işlemlere izin verilmemesi ve tüm işlemlerin sadece şablonla sınırlı olması nedeniyle Türkçe yinelemeli içekler için sabit şablon analizinin bilişsel yükü en aza indirdiği savunulmaktadır.

Anahtar kelimeler: Türkçe söz oyunlarında yinelemeli içekleme, içekler, kuş dili, sesbilimsel şablonlar, sesbilim-biçimbilim arayüzü.

1. Introduction

Infixation is an unusual morphological process given that a bound morpheme is embedded into the base, as opposed to prefixation and suffixation, in which a suffix or prefix attaches to the end or beginning of the base, respectively (Greenberg, 1968; Ultan, 1975; Marantz, 1982; McCarthy, 1982; Payne, 1997; Yu, 2007, 2008, 2015 among the others). As an instance of infixation, consider (1a-c) from Leti, an Austronesian language spoken in the Leti Islands (Blevins, 1999). The infix *-ni-* interrupts the base, i.e. it precedes the first base vowel.[1]

(1) Nominalizing Infix *-ni-* in Leti

a. kaati	'to carve'	k-ni-aati	'carving'
b. kasi	'to dig'	k-ni-asi	'act of digging'
c. kakri	'to cry'	k-ni-akri	'act of crying'

Adapted from Yu (2007, p. 29)

Infixation has been on the research agenda of linguistics for many decades and many studies have questioned the exact nature of infixation and how it appears in languages. In this regard, Yu (2007) argues that most of the grammatical infixation (the ones with a grammatical function) tend to be edge-oriented among languages because they are underlyingly adpositional (p. 188): i.e. the infixes close to the left edge are originally/historically prefixes while the ones near right edge of the base are originally suffixes. Accordingly, these edge-oriented ad-positional infixes are drawn inside of the bases so as to prevent phonologically/phonotactically ill-formed outputs in language. Then, infixation seems to be the result of the mismatch between morphology and phonology (Yu, 2007, p. 22).

On the basis of this phonology-morphology mismatch, Yu (2007) classifies infixes into two categories as the true infixes and false infixes (p. 184), by developing a hybrid model of diachronic and synchronic analyses as the synthesis of the previous accounts (Moravcsik, 1977; Kiparsky, 1986; McCarthy & Prince, 1986; Inkelas, 1990; Cohn, 1992; Prince & Smolensky, 1993; Halle, 2001 among the others). Accordingly, the originally adpositional infixes are "fake" (Yu, 2007, p. 193) as in the case of the nominalizing infix *-ni-* in Leti, which lodges near the left edge and is assumed to have been originally a prefix (Yu, 2007, p. 92). Certain phonological affixes, on the other hand, are literally "true" infixal, which cannot appear adpositionally under any circumstances and which can never be implemented without disrupting their morphological host. Language games and disguises that involve infixation such as Homeric infixation (*-ma-* insertion) (*saxophone* vs. *saxo-ma-phone*) (Yu, 2007, p. 184), diddly-infixation (*-diddly-* insertion) (*welcome* vs. *wel-diddly-élcome*)

[1] See Blevins (1999) and Yu (2007) for the details of the infixation in Leti.

and iterative infixal ludlings among languages are the most typical examples of true infixation (Yu, 2007, p. 198). Consider the examples in (2a-d) from Hausa.

(2) Iterative Infixal Ludling in Hausa (-gVdV)

a. kàasúwáa	'market'	→	kà-*gàdà*-sú-*gúdú*-wáa
b. búuláalàa	'whip'	→	bù-*gùdù*-lá-*gádá*-làa
c. tàakàlmíi	'shoe'	→	tà-*gàdà*-ká-*gádá*-lmíi
d. màimúnàa	'person name'	→	mà-*gàdà*-imú-*gúdú*-nàa

Yu (2008, p. 517)

Given in (2a-d), the inserted string *-gVdV-* is argued by Yu (2007, 2008) to copy every nucleus of the original syllable except the final one as an instance of true infixation in Hausa, a Chadic language spoken in the northern half of Nigeria (Alidou, 1997).

In line with the definition and analysis of infixation given in Yu (2007, 2008), the present study argues that Turkish has true infixation which is known as *Kuş Dili* (the Bird Language), a language game to disguise the conversation (3a-b).

(3) a. Ben sen-i sev-iyor-um. 'I love you.'
I you-Acc love-Prog-1stAgr

b. Be-*ge*-n se-*ge*-ni-*gi* se-*ge*-vi-*gi*-yo-*go*-ru-*gu*-m.
-gV- *-gV- -gV-* *-gV- -gV- -gV- -gV-*

The ludling version of the sentence in (3a) is assumed to be as given in (3b) by Şahin (2008) and Suzuki (2021). Accordingly, each vowel in the word is repeated (copied) by adding the velar consonant /g/ before this vowel and hence a new syllable is created (*-gV*).

We propose that the *-gV-* segmentation given in (3b) for the copied part is only an assumption which is merely a result of dividing the syllables as in orthography as the native speakers of Turkish intuitively tend to do. When we consider the constituent structure of these iterative ludlings, on the other hand, we observe that *-gV-* segmentation falls short of explaining the facts observed with respect to long vowels and consonant clusters. What we offer instead is that the copied part is NOT *-gV-* but *-Vg-* as given in (4).

(4) B-*eg*-en s-*eg*-en-*ig*-i s-*eg*-ev-*ig*-iy-*og*-or-*ug*-um.
-Vg- *-Vg- -Vg-* *-Vg- -Vg- -Vg- -Vg-*

Given in (4), every base vowel (V) is copied iteratively with the insertion of /g/ in this iterative infixal ludling. As a novel attempt, we argue that: (i) the iterative part in Turkish ludlings is the true infix in the sense of Yu (2007); (ii) the true infix has *-Vg-* pattern as in (4) not *-gV-*, contrary to Şahin (2008) and Suzuki (2021). Accordingly, we claim that the iterative infix *-Vg-* interrupts the base before every vowel by copying the relevant source vowel. In other words, our claim is that the copying is not from left-to-right as opposed to the previous accounts but from right-to-left in Turkish iterative infixal ludling similar to the ones in Tagalog (Nagaya & Uchihara, 2021) and Basque (Ishizuka, 2021). The reason why we adapt this novel *-Vg-* analysis instead of *-gV-* comes with the presence of long vowels (5a) and consonant clusters (5b) on the bases.

(5)

	-Vg- Analysis (right-to-left copying)	*-gV-* Analysis (left-to-right copying)	
a. a:hiret	<*a*.g>**a:**h<*i*.g>**i.**r<*e*.g>**e**t	? **a.**<*ga:*>h**i.**<*gi*>r**e.**<*get*>	'afterlife '
b. kurt	k<*u.g*>**u**rt	? k**u.**<*gurt*>	'wolf'

According to the facts observed in (5a-b), there are two points that must be addressed regarding *-gV-* analysis of Suzuki (2021). First, given in (5a), the initial vowel of the original form appears as the second one in the case of iterative infixation according to the *-gV-* analysis given in the last column in (5a) (left-to-right copying). If the second vowel (the long one) were the copy (*a-**ga:**-hi-gi-re-get*) as predicted by *-gV-* analysis of the previous studies, it must be accounted why the original vowel (the first one) is shortened in the ludling (***a:**hiret* → ***a**-ga:-hi-gi-re-get*). Second, given in (5b), the rhyme has a coda /r/. If the first vowel were the original one (***ku**-gurt*) as noted in the *-gV-* analysis given in the last column of (5b), then it must be explained why the coda /r/ appeared on the copied part (*ku-**gurt***) and why it was deleted from the original one (*ku[ø]-gu[r]t*). Regarding iterative infixal ludlings, Yu (2007) claims that repetitive ludling infixation tends to correlate with a reduction in phonological complexity to minimize the cognitive load of understanding concealed words (p. 216). However, the *-gV-* analysis increases the cognitive burden with some additional deletion and insertion operations.

Following Yu's (2007) minimal cognitive burden proposal for the iterative infixes, the present study has two claims: (i) *-Vg-* is copied from right-to-left iteratively in Turkish infixal ludlings; (ii) the copied *-Vg-* has a fixed (unchanging) template in terms of constituent structure (6).

(6)

Given in (6), the shape of the infixal *-Vg-* template is strictly unchanging in terms of timing tiers and non-branching of constituents in our analysis. This comes with the nature of the template in (6) where there is only one timing slot under each constituent and no constituent is *branchable*. This explains why long vowels are shortened and why the coda consonant is displaced in the copied form. Accordingly, since there is no possibility for branching of rhyme) or nucleus, only the vowel content is copied from the nucleus, not the vowel length or coda consonant. We argue that the fixed template analysis for Turkish iterative ludlings minimizes the cognitive burden since all one can do is limited to the template (no complex operations in the system).

The structure of the article is as follows: section 2 will provide background information for infixation, true vs. false infixes, ludlings and iterative infixes in order to present the details of infixation. In section 3, we will present a constituent structure analysis and template account for the iterative infixes in Turkish. Then, section 4 will summarize the article.

2. True vs. False Infixation, Ludlings and Iterative Infixes

In the past literature, there are many studies on infixes and infixation which focus on both empirical and theoretical aspects of the issue. For instance, recall from the previous section that infixes have been argued to be prefixes or suffixes on their origin. This argument stems from the *Phonological Readjustment Theory* according to which infixes are underlyingly prefixes or suffixes which are obscured by synchronically motivated morpho-phonological factors (Moravcsik, 1977; McCarthy & Prince, 1993a; Prince & Smolensky, 1993; Halle, 2001). For another theory on the origin of the infixes, -*Phonological Subcategorization theory*- infixes subcategorize for a phonological unit, but not for a morphological one (Broselow & McCarthy, 1983; Kiparsky, 1986; McCarthy & Prince, 1986; Inkelas, 1990; Cohn, 1992; Anderson, 1992). According to this view, infixes seem to be the phonological result of the mismatches between boundaries of phonological and morphological categories. In contrast to these two theories, Yu (2007) offers a study of infixation by adopting a hybrid and more comprehensive analysis (diachronic and synchronic). Regardless of their differences in details, these three approaches all share three common views that on infixation: (i) the majority of infixes are prefixes or suffixes originally; (ii) they appear as infixes as a result of certain phonological/phonotactic restrictions; and (iii) there must be some pivots on the base for infixation that only attract infixes and not simple prefixes or suffixes.

Recall from section 1 that there are some cases in which the occurrence of infixation is triggered by the edge asymmetry between phonology and morphology. Accordingly, Yu (2007) calls the affixes appearing in such infixation processes as "fake" infixes since are originally adpositions (prefixes or suffixes) (p. 192). Then, the relevant question is if there is any true infixation. Yes, there are true infixes as well. While the majority of infixes are "fake" in the sense that their subcategorization limitations do not need an essentially intramorphemic distribution, "true" infixes do exist (Yu, 2007, p. 198). Language games and disguises that involve infixation such as Homeric infixation, *diddly*-infixation in English and iterative infixal ludlings are considered the instances of true infixation (Yu, 2007, 2008; Elfnerand & Kimper, 2008; Mattiello, 2103).

Let us first provide the details regarding the distinction between true vs. false infixation in section 2.1 and then discuss the connection between ludlings and iterative infixes in section 2.2, which builds the basis for our analysis of Turkish iterative infixes.

2.1. True vs. False Infixation

Though usually appearing in Austronesian, Austroasiatic and several Native American languages such as Tagalog, Khmer and Malay (Ultan, 1975; Moravcsik, 2000; Halle, 2001; Goudswaard, 2004; Wilson, 2014; Bacovcin & Freeman, 2016; Harizanov, 2017), infixation may also appear in languages such as English (7a-c) as a special and easily identifiable morphological process in that a morpheme is placed in the middle of a word (McCarthy, 1982; Yu, 2007, 2008, 2015).

(7) Expletive Infixation Examples from English

a. perháps	per-*bloody*-haps
b. fantástic	fan-*fuckin*-tástic
c. Kalamazóo	Kalama-*goddamn*-zoo

Adapted from Yu (2007, p. 1)

Regarding (7a-c), Yu (2007) claims that the expletives *-bloody-*, *-fuckin-* and *-goddamn-* interrupt the bases, which turn into meaningless parts after infixation. Note that these parts belong to meaningful non-discontinuous bases (*perhaps*, *fantastic* and *Kalamazoo*) before infixation. Accordingly, *-bloody-*, *-fuckin-* and *-goddamn-* are considered as infixes by Yu (2007, p. 2). However, these expletives can also be formed using both "infixing" and "prefixing" variations (8a-c).

(8)

	Infixation	Prefixation
a. fantastic	fan-*bloody*-tastic	*bloody*-fantastic
b. Minnesota	Minne-*bloody*-sota	*bloody*-Minnesota
c. Alabama	Ala-*bloody*-bama	*bloody*-Alabama

Adapted Yu (2007, p. 198)

Regarding the examples given in (8a-c), Yu (2007) argues that the expletive comes up as a prefix when the stressed foot's left edge and the left edge of a base meet. The expletive appears infixing if the left edge of the stem is positioned to the left of the stressed foot (e.g., *fan-bloody-*(*tástic*)).

In relation to this infix-prefix dichotomy, Yu (2007) gives another example from Toratan (Ratahan), an Austronesian language in Sulawesi (Himmelmann & Wolff, 1999), in that an infix (9a-c) is prefixing to the first vowel of the base (9d).

(9) The Past Agent Voice Marker in Toratan

a. kukuk	'cry out'	k-*um*-ukuk
b. suq	'enter'	s-*um*-úq
c. lompuq	'go out'	l-*um*-ompuq
d. empo	'sit'	*m*-empo

Yu (2007, p. 91)

Given in (9a-d), the past tense agent voice marking infix *–(u)m-* must fall before the first vowel in Toratan. If the bases begin with a consonant, *-um-* follows the initial consonant and it is infixed as in (9a-c). However, the allomorph *m-* is prefixed if there is a vowel-initial base (9d).

Now, let us introduce another conflict which comes with the infixation in Latin (10a-b).

(10) Imperfective Form in Latin

a. rup	ru-m-p	'break'
b. si	si-n	'allow'

Adapted from Yu (2007, p. 6)

Given in (10a-b), the imperfective infix in Latin *-m-* (10a) has the suffixal allomorph *-n* (10b), which is an instance of the infix-suffix dichotomy similar to prefix-infix dichotomies in English and Toratan. The nasal occurs as suffixing (10b) once the base ends in a vowel. In this regard, if *-n-* was suffixed in consonant final bases as in (10a), the output would be ineligible because of the ill-formed coda-onset cluster (**rup-m*).

To elaborate on this prefix-infix vs. suffix-infix dichotomies, Yu (2007) shows that grammatical infixation appears near edges, -right or left edge of the base- in many languages which employ infixation. Yu (2007) takes this fact as an indication of prefixal and suffixal nature of infixes, i.e. what seems to be an infix was actually a prefix or a suffix

in the origin. They develop as infixes, i.e. they are drawn inside the bases in order to prevent phonologically/phonotactically ill-formed outputs in a particular language. Then, infixation seems to be the result of the mismatch between morphology and phonology. According to Yu (2007), such grammatical infixes are "false" infixes, which are originally (or historically) either prefixes or suffixes that locate at the edges as their prefixal or suffixal equivalents. However, the true infixes have no prefixal or suffixal versions (both in synchronic and diachronic senses) but they always interrupt the base.

See Homeric *-ma-* infix in (11) as one of the most prominent examples of true infixation in American English.

(11) Homer: Well, honey, what do you like? Tuba-*ma*-ba? Oba-*ma*-bo? That one?
Saxa-*ma*-phone?
Homer: A hundred bucks? For a comic book? Who drew it, Micha-*ma*-langelo?

Adapted from Yu (2007, p. 184)

The infix *-ma-* used in (11) is known as a Homeric infix because it was created and made popular by Homer Simpson, the main character of the cartoon *the Simpsons* (Yu, 2007). According to Yu (2007), *-ma-* is one of the particular instances of real infixation because it never surfaces at the edges of a base. Instead, it must interrupt it. See (12a-d) for further examples of the Homeric infix *-ma-*.

(12)

a.	ˈσσˌσ	ˈσσ-*ma*-ˌσ	c.	ˌσσˈσσ	ˌσσ-ma-ˈσσ
	saxophone	saxo-*ma*-phone		Mississippi	Missi-*ma*-ssippi
	telephone	tele-*ma*-phone		Alabama	Ala-*ma*-bama
b.	ˈσσˌσσ	ˈσσ-*ma*-ˌσσ	d.	ˌσσˈσσσ	ˌσσ-*ma*-ˈσσσ
	feudalism	feuda-*ma*-lism		hippopotamus	hippo-*ma*-potamus
	secretary	secre-*ma*-tary		hypothermia	hypo-*ma*-thermia

Adapted from (Yu, 2007, p. 193)

Given in (12a-d), the infix *-ma-* chooses a disyllabic trochaic foot to the left. For instance, regardless of whether the primary emphasis is on the first or the third syllables (12a-b) or (12c-d), the infix, *-ma-*, always follows the second unstressed syllable on bases. Regarding the Homeric infixation, Yu (2007) questions if *-ma-* is still likely to appear after the second syllable when the input is disyllabic as in (13a-d).

(13)

a.	party	*party-*ma*	c. purple	*purple-*ma*
b.	piggy	*piggy-*ma*	d. table	*table-*ma*

Adapted from Yu (2007, p. 195)

As seen in (13a-d), the suffixal occurrence of *-ma* gives an ill-formed output. Accordingly, Yu (2007) argues that *-ma-* is a true infix in English, which has no prefixal or suffixal versions (both in synchronic and diachronic senses) but they always interrupt the base.

Another true infix example is again from the TV show *the Simpsons*: Diddly-infixation, which is an expletive infix popularized by Ned Flanders on the Simpsons (Elfnerand & Kimper, 2008; Mattiello, 2013). Consider (14a-b).

(14) a. wélcome → wel-*diddly*-élcome

b. áction → ac-*diddly*-áction

Elfnerand & Kimper (2008, p. 150)

Given in (14a-b), Elfnerand & Kimper (2008) describe *-diddly-* infixation as including reduplicating the rhyme of the stressed syllable and infixing the meaningless form *diddly* into a base with initial stress. Note that *-diddly-* is a true infixation since it has no suffixal or prefixal form (Elfnerand & Kimper, 2008) as (15a-b) show.

(15) a. wélcome → **diddly*-wéllcome

b. áction → **diddly*-áction

Elfnerand & Kimper (2008, p. 150)

To sum up, *-diddly-* is also a true infix similar to the Homeric *-ma-* in English, which always interrupt the base. Note that these infixes are not the only examples of true infixes. Yu (2007) also considers iterative infixes as true infixes. The next section will be discussing iterative infixal ludlings as the instances of true infixation.

2.2. Ludlings and Infixation

As language games which are used to hide conversations between kids, teens, and/or parents, ludlings are defined as systematic processes that change the phonological forms of genuine words to their ludling counterparts (Laycock, 1972; Davis, 1994; Bagemihl, 1995; Nevins & Vaux, 2003; Nevins & Endress, 2007; Vaux, 2011). Bagemihl (1988, p. 181) classifies ludlings into three groups as templatic, reversing and infixing.

Infixes in ludlings occasionally apply iteratively, which distinguishes infixing ludling from grammatical infixation (Yu, 2007, p. 203). Accordingly, Yu (2008) argues that infixation does not have to be iterative but if an affix is iterative, it must be an infix: there is no iterative prefixation or suffixation game in any language (p. 517). Let us illustrate three instances of iterative infixal ludlings from Albanian, Colombian and Tigrinya in (16), (17a-c) and (18a-d) respectively so as to exemplify the true iterative infixation pattern.

(16) Albanian Iterative Infixal Ludling

ruga ‘street’ → *xh*ru*xh*ga [dʒrudʒga]

Adapted from Yu (2008, p. 516).

Given in (16), the infix “*xh*” [dʒ] is inserted before each source syllable in the Albanian ludlings (Pound, 1963), which is called as “gjuha e zoqve” (the tongue of the birds) (Yu, 2008, p. 516).

Another instance of the infixal ludling is from the Colombian dialect of Spanish (17a-c) in which *-pV-* infixes after every syllable of the word, which is known as the Jerigonza word game (Piñeros, 1998).

(17)	Source	Gloss	*-pV-* Infixation
	a. can.ción	‘song’	càm.*pa*.cióm.
	b. ma.és.tro	‘teacher’	mà.*pa*.ès.*pe*.tró.*po*
	c. pájaro	‘bird’	pà.*pa*.jà.*pa*.ró.*po*

Adapted from Yu (2008, p. 518).

In the Colombian Spanish dialect, *-pV-* appears after every syllable of the word by copying the previous vowel (17a-c). Yu (2008) notes that the outputs in the Colombian

ludling display a rhythmic alternation of stressed and unstressed syllables in that every source syllable has a main or secondary stress while the contrastive stress pattern of the source word is neutralized (p. 518).

As the third example of the iterative infixes, see (18a-d) for two patterns of ludlings in Tigrinya (an Ethio-Semitic language) (Bagemihl, 1988).

(18)	Tigrinya Natural Lg	Play Lg 1	Play Lg 2	
	a. s'ähifu	s'ägä-ħigi-fugu	s'ägä-ħigi-fugu	'he wrote'
	b. bïč'a	bïgï-č'aga	bïgï-č'aga	'yellow'
	c. ʔïntay	ʔïgïn-tagay	ʔïgï-nïgï-taga-yïgï	'what'
	d. k'arma	k'agar-maga	k'aga-rïgï-maga	'gnat'

Adapted from Yu (2007, p. 203)

Yu (2007) points out that there are two types of language game in Tigrinya (18a-d) both of which entail inserting *-gV-* after each vowel, where V is a copy of the preceding vowel. However, the output specifications for these two language games differ when there is a coda consonant. On the one hand, the word-internal consonant clusters and word final consonants are preserved in Play Language 1 (as in (18c-d) for Play Lg 1). In Play Language 2 (Play Lg 2), on the other hand, all closed syllables are removed from the source word by inserting /ï/ after the final consonant of the closed syllable. In (18c-d) this occurs after the /n/ and /y/ respectively and the new syllables are again followed by the *-gV-* infix (Yu, 2007, p. 203).

In sum, iterativity is directly related to infixation but not prefixation or suffixation. Therefore, the iterative infixal ludlings are instances true infixation although iterative infixes appear in different phonological shapes and locations on the base as given in the examples (16-18a-d).

After having discussed the basic characteristics of the iterative infixal ludlings and how they are positioned inside the bases among different languages, in the next section we will provide Turkish data consisting of an iterative infixal ludling known as *Kuş dili* (The bird language).

3. An analysis of Iterative Infixal Ludlings in Turkish

Recall Yu's (2007) division between false vs. true infixation given in section 2.1 in that true infixes are claimed to be inherently infixal, and they never appear adpositionally. Following the definition of the true infixation provided by Yu (2007), the present study makes the following argument: (i) Turkish has true infixation in iterative infixal ludlings. (ii) The infix in Turkish iterative ludlings has *-Vg-* pattern not *-gV-* one. (iii) This iterative infix in -Vg- pattern is represented via a fixed, non-branching phonological template (NO) on the constituent structure.

Let us first introduce Turkish iterative ludlings and present Suzuki's *-gV-* account based on the prosodic analysis of the iteratives in section 3.1. Then, in section 3.2 I will discuss the novel idea of *-Vg-* pattern and a fixed NO template for Turkish infixes in the light of the constituent structure analysis. We provide empirical evidence for our analysis based on the facts coming with the consonant clusters and long vowels. In section 3.3, we will finally present cross-linguistic support for our claim on *-VC-*[2] infixation and its fixed

[2] The capital letter C stands for the languages specific consonant that occurs with the copied vowel in the iterative infixation.

NO template from the Tagalog and Basque languages, which also have the *-VC-* structure instead of *-CV-*.

3.1. *-gV-* Account for Turkish Iterative Ludlings

As an agglutinative language with high degree of suffixation, Turkish mostly uses suffixes, but not prefixes[3] or infixes, for conveying grammatical meaning (Göksel & Kerslake, 2011; Kornfilt, 2013). However, there is an exclusive linguistic context in which infixation appears in Turkish: *the iterative infixal ludlings*.

Similar to the languages such as Albanian, Colombian, Tigrinya, Basque and Tagalog (Yu, 2007, 2008), Turkish iterative ludlings are created by changing words in various ways - adding sounds or syllables, reversing etc. These ludlings, which are also called *Kuş Dili*[4] (the Bird Language), are defined as a private and secret means of communication that is meaningless to those other than the speakers (Kaymaz, 2003; Şahin, 2008). Turkish g-type iteratives (19b) are one type of these ludlings in Turkish, for which we argue as an instance of true infixation.

(19)	a. Ben	sen-i	sev-iyor-um.	'I love you.'
	I	you-Acc	love-Prog-1stAgr	
	b. Be-gen	sege-nigi	sege-vigi-yogo-rugum.	

Adapted from Şener (2008, p. 12)

Given in (19b), the g-type iterative ludling is the most common ludling in Turkish among others formed with other consonants such as /f/, /b/ and /p/. Şener (2008) suggests a *-gV-* segmentation for the Turkish iterative ludlings in line with the syllabification intuitions of many native speakers of Turkish.

As another study on Turkish ludlings, Suzuki (2021) labels g-type ludlings as infixation without going into the details of the infixes or infixation process. She particularly focuses on the prosodic domain and pitch of the constructions in which the iterative infixes exist. For Suzuki (2021), the iterative pattern is *-gV-* in Turkish infixal ludlings similar to Şener (2008) as represented in (20).

(20)	Be.<ge>n		se.<ge>.ni.<gi>			se.<ge>.vi.<gi>.yo.<go>.ru.<gu>m[5].		
	-gV-		-gV-	-gV-		-gV-	-gV-	-gV-	-gV-

In her prosodic analysis of iterative ludlings, Suzuki (2021) basically argues that iambic feet exist in Turkish which is produced via the *-gV-* ludling.

(21)	*-gV-* Insertion	Original	Gloss
	a. (a.*ga:*)(bi.*gi*)	a:bi	'big brother'
	LH LH		
	b. (si.*gir*)(ke.*ge*)(ci.*gi*)	sirkeci	'Sirkeci (place noun)'
	LH LH LH		

Adapted from Suzuki (2021, p. 45)

[3] See Kelepir (2000), Göksel & Kerslake (2011) and Kornfilt (2013) for the discussions on the emphatic reduplication and prefixation in Turkish.

[4] In the present study, *Kuş Dili* means verbal ludlings not the whistled language used in Kuşköy (Giresun), Turkey (see Aksan, 1968; Başkan, 1968; Akalın, 2000 among the others for the whistled language in Turkey).

[5] The symbols <> indicates the parts that are assumed to be repeated.

Given in (21a-c), Suzuki (2021) claims that source syllables (non-italic), which are on the left side of the domain indicated between parenthesis (), are assigned a falling contour (L), and inserted syllables (*-gV-*) (given as italic on right side of the domain) are assigned a rising contour (H) according to her waveform and spectrogram analyses. Then, she also claims that the vowel in the source syllable is shorter than the vowel of the inserted *-gV-* sequence as in (21a). This implies that the source vowel is shortened but the copy one is lengthened in the case of infixation if the source vowel is long before infixation as in (21a).

Although she (2021) provides a significant account showing that Turkish has iambic foot in which iterative infixes occur, Suzuki's analysis of infixation is not without problems. The segmentation of the iterative infixal ludling, as *-gV.* falls short of explaining the empirical facts with respect to the vowel length and consonant clusters in the iterative ludlings. As a counter-argument to Suzuki (2021), we argue that iterative infixes in Turkish have a *-Vg-* pattern with a fixed non-branching NO constituent structure. The evidence for this comes with the fact that the *-gV-* pattern cannot explain the iterative ludlings with consonant clusters and long vowels in an economic and natural way as will be discussed in 3.2.

3.2. Turkish Iterative Infixation: -Vg- Pattern

As pointed out in the previous section, we propose that the iterative infix in Turkish g-type ludlings has *-Vg-* pattern as given in (22b) but not *-gV-*.

(22) a. Ben sen-i sev-iyor-um 'I love you'
I you-Acc love-Prog-1stAgr

b. B<*e.g*>en s<*e.g*>e.n<*i.g*>i s<*e.g*>e.v<*i.g*>i.y<*o.g*>o.r<*u.g*>um.
-Vg- *-Vg-* *-Vg-* *-Vg-* *-Vg-* *-Vg-* *-Vg-*

Given in (22b), which is the iterative infixal ludling form of (22a), we do not take the syllabification conventions (noted with a dot) into the consideration to identify the infix pattern in Turkish since a syllabification-based analysis as in Suzuki (2021) is under the influence of orthographic syllabification, and makes it impossible to explain what the true infixation pattern is and how infixation is formed in phonological terms. Instead, we argue for an infixation pattern (<-*Vg*->) based on the constituent structure analysis which is made up of onsets (Os), rhymes (Rs) and also nuclei (Ns) as we will discuss in the following steps.

Going back to our iterative infixation analysis given in (22b), we argue that *-Vg-* is inserted before every vowel on the base by copying the source vowel. The reason why we adapt a *-Vg-* analysis instead of *-gV-* is that the bases with long vowels and/or consonant clusters imply that the direction of the copying must be from right-to-left not from left-to-right in Turkish iterative infixes. Compare *-Vg-* and *-gV-* analyses for Turkish iterative infixal ludlings given in (23a-d).

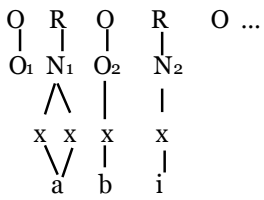
(23)

	-Vg- Analysis (right-to-left copying)	*-gV-* Analysis (left-to-right copying)	
a. a:bi	<*a.g*>**a**:.b<*i.g*>**i**	? **a.**<*ga:*>b**i.**<*gi*>	'big brother'
b. sirkeci	s<*i.g*>**i**r.k<e.*g*>**e**.c<i.g>**i**	? s**i.**<*gir*>.k**e.**<*ge*>c**i.**<*gi*>	(a place name)
c. a:hiret	<*a*.g>**a:**h<*i*.g>**i.**r<*e*.g>**e**t	? **a.**<*ga:*>h**i.**<*gi*>r**e.**<*get*>	'afterlife '
d. kurt	k<*u.g*>**u**rt	? k**u.**<*gurt*>	'wolf'

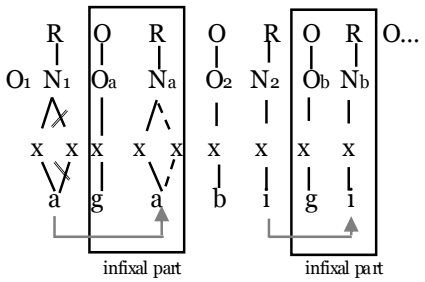
Given (23a-d), there are two points that must be addressed regarding the *-gV-* pattern analysis of Suzuki (2021). The first one is shown in (23a and c). In the second column of these examples, the initial long vowel of the original (source) form (bold) appears to be copied to the second vowel position in the case of iterative infixation according to the *-gV-* analysis (left-to-right copying). See (24a-b) for the constituent structure representation of **a.**<*ga:*>b**i.**<*gi*> for a deeper understanding of the problem in *-gV-* pattern.

(24) *-gV-* Analysis

a. /a:bi/



b. **a.**<*ga:*>b**i.**<*gi*>



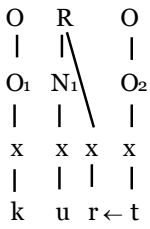
In (24a-b), we represent *-gV-* analysis of Suzuki (2021) following the constituent structure offered in Kaye, Lowenstamm and Vergnaud (1990) and Baturay-Meral (2020), which always begins with an O (onset) even for the vowel initial words as in (24a)[6]. The first vowel (N_1) is long in the bare form in (24a). In the iterative form presented in (24b), on the other hand, the second tier under N_1 is delinked and as a result of this, the source vowel is shortened. However, the copy vowel which is hosted in N_a, is still long, i.e. which has two timing tiers. Accordingly, if the second vowel (the long one) in N_a were really the copy (*a-**ga:**-bi-gi*) as predicted by *-gV-* analysis of Suzuki (2021), it must be accounted why the original vowel (the first one) (***a:**bi*) is shortened in the iterative form (**a.**<*ga:*>b**i.**<*gi*>). Note that the same discussion is also valid for (23c) (**a.**<*ga:*>h**i.**<*gi*>r**e.**<*get*>) where the original vowel is shortened although the copy one is still long.

As the second problematic point of *-gV-* analysis comes with the medial and final consonant clusters in (23b and 23d) respectively, where the rhyme has a coda /r/ in both cases. Consider (25a-b) for the constituent structure of (23d) *kurt* vs. *kugurt*.

[6] In Baturay-Meral (2020), the constituent structure always end in an O while it ends in an N in Kaye, Lowenstamm and Vergnaud (KLV) (1990), which is not relavant to the present disccusion. See Baturay-Meral (2020) and KLV (1990) for the details.

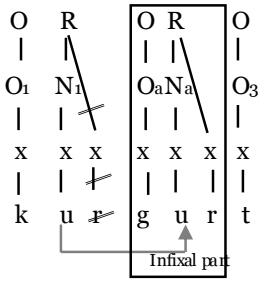
(25) *-gV-* Analysis

a.



/kurt/

b.



k**u**.<*gurt*>

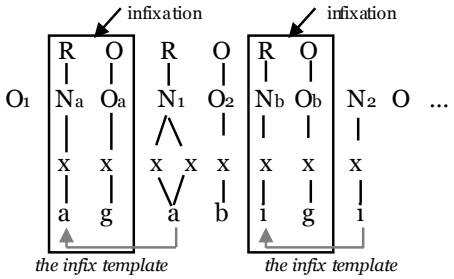
Given in (25a), the vowel /u/ and the consonant /r/ are under the same rhyme, /*kurt*/. According to the Coda Licensing Principle (Kaye, 1990 p. 311), post-nuclear rhymal positions must be licensed by a following onset. Then /t/ (O_2) licenses /r/, which means that /t/, /r/ and /u/ in (25a) are phonologically related to each other. In the iterative form k**u**.<*gurt*> (25b), in which the fist vowel (N_1) is assumed to be the original one, it seems that not only the nucleus (N_1) but also the whole rhyme with the coda /r/ is copied from left-to-right. Then, /r/ under the right branch of the source rhyme is deleted as in (25b). If the first vowel under the N_1 in (25b) were the original one in k**u**.<*gurt*> as predicted in the *-gV-* analysis, then it must be explained why the coda consonant /r/ appeared on the copied part (*ku-**gurt***) and why it was deleted from the original one (*ku[ø]-gu[r]t*). These questions are also valid for the *-gV-* analysis of s**i**.<*gir*>.k**e**.<*ge*>c**i.**<*gi*> given in (23b).

According to Yu (2007), repetitive ludling infixation generally correlates with a decrease in phonological complexity to minimize the cognitive load of understanding the encoded words (p. 216). Contrary to this, the *-gV-* analysis adds some additional deletion and/or insertion processes to the cognitive load as given in (24a-b) and (25a-b). The present study, on the other hand, has two claims following Yu's (2007) minimal cognitive burden proposal for the iterative infixes: (i) Turkish iterative infixes has *-Vg-* pattern, which is copied from right-to-left iteratively in ludlings; (ii) the copied *-Vg-* has a fixed (unchanging) template in terms of constituent structure. This is given in (26).

(26)

Given in (26), the shape of the infixal *-Vg-* template is strictly unchanging in terms of timing tiers and branching of constituents in our analysis. In the *-Vg-* template, there is only one timing slot under each constituent and there are no branching constituents, and this can explain why long vowels are shortened and why the coda consonant is displaced in the copied form. See the constituent structure representation of our *-Vg-* infixing pattern for /a:bi/ in (27): <*a.g*>**a**:.b<*i.g*>**i**.

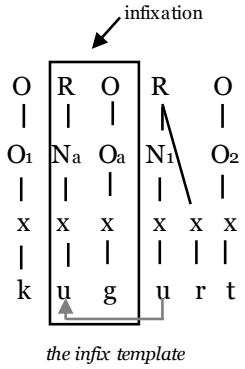
(27)



In our novel *-Vg-* infixing account for Turkish iterative ludlings, the fixed infix template RO (rhyme/onset) interrupts the base by preceding and copying every base N (nucleus) iteratively from right- to-left. In (27), for instance, the infixal N_aO_a and N_bO_b pairs interrupt the base by infixing before the source nuclei, N_1 and N_2 respectively[7]. Since there is no possibility for branching rhyme or nucleus in the fixed infix template, only the vowel content is copied from the source nuclei to the infixal nuclei (from N_1 to N_a and N_2 to N_b). It means that neither length nor a coda consonant can be copied to the infix template since there is no place for branching nucleus or rhyme on the structure: The copying process is limited to what is permitted by the fixed template.

Let us analyze the infixal ludling form of /kurt/ in our *-Vg-* pattern (k<*u.g*>**u**rt) in (28).

(28)



As given (28), the infix template N_aO_a attaches to the base by preceding the first vowel (N_1). Then the content of the vowel /u/ is copied from right-to-left (N_1 to N_a). Since the infix template is fixed – no way of rhyme or nucleus branching-, the coda consonant /r/, which occurs under the right branch of the source rhyme, cannot be copied to the infix. Then, we get the correct output without any stipulative deletion and/or insertion processes.

To sum up, iterative ludling infixation must be associated with a corresponding reduction in phonological complexity in order to minimize the cognitive strain of processing the encoded words since disguising the content in the conversation is cognitively burdensome (Yu, 2007 p. 216). The *-gV-* analysis, on the other hand, adds some additional deletion and insertion procedures to the cognitive burden. As a result, we offer a *-Vg-* pattern in Turkish for these iterative infixes, in which the direction of copying is from right-to-left rather than left-to-right. In our system, each constituent in iterative template (rhyme, nucleus and onset) has only one tier so there is no way of coda or length copying. Accordingly, we argue that the fixed template analysis for Turkish iterative ludlings

[7] Note that the first *-ag-* in <*a.g*>*a:.b*<*i.g*>*i* might look like a prefix in a misleading way since it appears word initially. However, it is not a prefix. The vowel initial words must begin with an O on the constituent structure due to some phonological reasons even if they have no initial consonants (KLV, 1990; Baturay-Meral, 2020). Also, it is obvious when attached to consonant initial words that the *-Vg-* infix interrupts the base of the word, acting like an infix (*k*<*u.g*>*urt*).

minimizes the cognitive burden since all one can do is limited to the template (no complex operations in the system).

Note that our *-Vg-* infixation pattern also finds empirical support from various languages such as Basque and Tagalog, which are argued to have *-Vg-* infixal pattern in their ludlings (Ishizuka, 2021; Nagaya & Uchihara, 2021). We are going to discuss these cases in section 3.3.

3.3. *-Vg-* Pattern in Other Languages: Evidence from Basque and Tagalog

The *-VC-* analysis of iterative infixation is not new given that there are some studies which independently argue for the favor of *-VC-* pattern instead of *-CV-* for the iterative infixation in ludlings. Basque and Tagalog are two examples of such languages which have been argued to have *-VC-* pattern. In this section, we will discuss two more instances of the iterative infixation and check if our analysis is applicable to those cases. Let us first begin with the Basque case.

Similar to the Turkish iterative infixation, the iterative infixation of *-Vp-* in the Basque ludlings is argued to occur before every source vowel of the base (V represents a copy of the first vowel of the source nucleus) (Ishizuka, 2021). If there are some vocoid sequences of rising sonority that are tautosyllabic, only the first vowel is copied to the infix (from right to left in the *-Vp-* analysis) as in (29a-d).

(29) Iterative Infixation in Basque

			-Vp- Analysis	*-pV-* Analysis
a. hitz lauz	'by plain words'	→	h<ip>itz l<ap>auz	*hi<pitz> l**a**<p*au*z>
b. hauts	'break'	→	h<ap>auts	*ha<p*au*ts>
c. eu.ri	'rain'	→	<ep>eu.r<ip>i	*e<pei.r>i<pi>
d. ai.re	'air'	→	<ap>ai.r<ep>e	*a<pai>.re<pe>

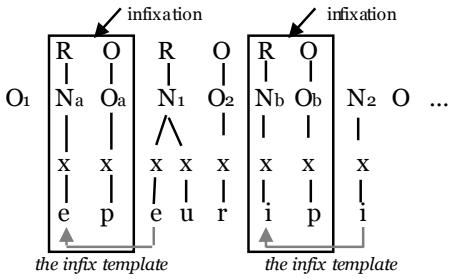
Adapted from Ishizuka (2021, p.27)

Given in (29a-d), *-Vp-* pattern of infixal ludlings in Basque is similar to Turkish. Accordingly, we propose a fixed template for the Basque iterative infixes, which has no branching rhyme or nucleus (30).

(30) The Fixed Infix Template in Basque

The fixed template analysis of *-Vp-* infixes explains why the second vowel of the original nucleus is not realized in the Basque infixation. See (31) for the representation of <ep>eu.i<ip>i (ludling form of *eu.ri*) (in 29c).

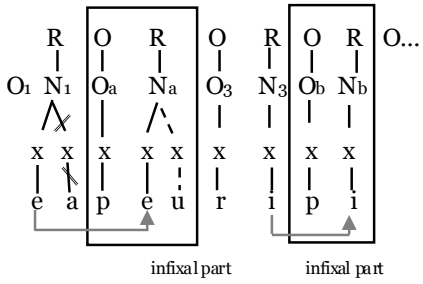
(31)



Notice that the representation in (31) which includes the fixed template analysis of the iterative infixes in Basque, <*ep*>eu.i<*i.p*>i is very similar to that of Turkish <*a.g*>a:.i<*i.g*>i given in (27). The only difference between Basque <*ep*>eu.r<*i.p*>i and Turkish <*a.g*>a:.b<*i.g*>i is that N_1 is branching for two vowels in the former case (31) while N_1 is branched only for length in the latter (27). Since the fixed infix template has no place for branching neither for nucleus nor for rhyme, only the first vowel of the base (N_1) is copied to the infix (N_a) in (31). Also, another copying occurs from N_2 to N_b under the same conditions.

If the infixal pattern were *-pV-* instead of *-Vp*, on the other hand, (provided by me as the last column of (29a-d), there would be deletion and insertion operations in infixation as represented in (32): i.e., deletion of /a/ from the N_1 and insertion of it to the copied N_a, which is not easy to process cognitively.

(32)



Note that this complicated pattern of infixation requires a lot of processing as opposed to Yu's (2007) minimal cognitive burden analysis. Then *-Vg-* analysis of Ishizuka (2021) supports of our *-Vg-* infix pattern and fixed template analyses.

Another crosslinguistic support for our *–Vc-* analysis of the iterative infixation in ludlings comes from Tagalog, an Austronesian language of the Philippines (Yu, 2007, 2008; Nagaya & Uchihara, 2021). Consider (33a-d) where the *-Vg-* sequence is used after every onset.

(33)

		-Vg- Analysis	Iambic Disyllabic Strings
a. sa	'LOC'	→ s<a.g>á	(s<a.g>á)
b. ma.hál	'expensive'	→ m<a.g>á.h<a.g>ál	(m<a.g>á) (h<a.g>ál)
c. naŋ.yá.ri	'happened'	→ n<a.g>áŋ.y<a.g>á.r<i.g>í	(n<a.g>áŋ)(y<a.g>á)(r<i.g>í)
d. grú.po	'group'	→ ʔ<u.g>rú.p<o.g>ó	(ʔ<u.g>rú) (p<o.g>ó)

Adapted from Nagaya & Uchihara (2021, p.15)

Given in (33a-d), Nagaya & Uchihara (2021) propose that the sequence of *-Vg-* follows every onset rather than the infixation of *-gV-* in the Tagalog *g-word ludlings* as shown in (34a-d). Nagaya & Uchihara (2021) note that g-type of infixation is highly productive in Tagalog that it even takes place in loan words such as *grupo* 'group' (33d) (p. 9-14).

Now, let us see why Nagaya & Uchihara (2021) argue that *-gV-* analysis is inappropriate for the Tagalog iterative infixal ludling and instead of it they makes use of *-Vg-* pattern. Consider (34d) where the word begins with an initial consonant cluster '*grupo* 'group'.

(34) The G-word Ludling in Tagalog *-gV- Analysis*

a. sa	'LOC'	→	sa.*gá*	sa.<*gá*>
b. ma.hál	'expensive'	→	ma.*gá*.ha.*gá*l	ma.<*gá*>.ha.<*gá*>l
c. naŋ.yá.ri	'happened'	→	na.gáŋ.ya.gá.ri.gí	na.<gáŋ>.ya.<gá>.ri.<gí>
d. grú.po	'group'	→	ʔu.grú.po.gó	*ʔru.<gú>.po.<gó>[8]

Adapted from Nagaya & Uchihara (2021, p. 13-15)

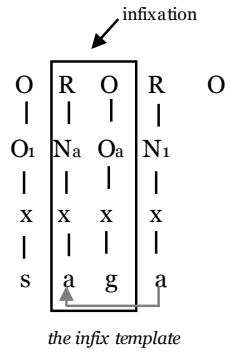
Nagaya & Uchihara (2021) argue that the *-gV-* infixation analysis of *grú.po* yields *[ʔru.gu.po.go], which does not correspond to the attested form. However, the form *ʔ<u.g>r.po.g>ó* is correctly anticipated by the *-Vg-* infixation analysis. Also, as the second point, stress remains on the original nucleus not on the copied one as predicted by the *-Vg-* infixation analysis. Accordingly, stressed nuclei occur as the iambic disyllabic strings (33a-d). Nagaya & Uchihara (2021) note that the original stress contrast is neutralized, and the stress is assigned to every second syllable counting from the beginning in the formation of G-words.

In the light of Nagaya & Uchihara's claims on Tagalog iterative infixes, we propose an unstressable fixed template for the iterative infixes in Tagalog.

(35) The Unstressable Fixed Infix Template in Tagalog

Similar to Turkish and Basque, we argue that the infix template is fixed – unstressable and no branching constituents given in (36).

(36)



[8] See Nagaya & Uchihara (2021) for appearance of the word initial ʔ.

As given in (36), the infix template (N_aO_a) interrupts the base after the onset. The stress on the source nucleus N_1 is not copied to N_a since it is not a stressable nucleus. Then, the iambic stress appears in the disyllabic string (s<a.g>á), which is claimed to be a phonological word, in which only one infix can occur (Nagaya & Uchihara, 2021).

As discussed in the present section, our *-Vg-* infix pattern and fixed template proposal find cross linguistic support from Basque and Tagalog which employ similar iterative infixal ludlings.

4. Conclusion

Following Yu's (2007) true vs. false infixation account, the present study argues that Turkish has true infixation in iterative ludlings.

(37) B-*eg*-en s-*eg*-en-*ig*-i s-*eg*-ev-*ig*-iy-*og*-or-*ug*-um.
-Vg *-Vg- -Vg-* *-Vg- -Vg- -Vg- -Vg-*

The proposal is that the true infix has *-Vg-* pattern as in (37) not *-gV-*, contrary to Şahin (2008) and Suzuki (2021). Accordingly, the iterative infix *-Vg-* attaches to the base by preceding and copying every vowel on the base. It means that the copying is not from left-to-right as opposed to the previous accounts but from right-to-left in Turkish iterative infixal ludling as in Tagalog (Nagaya & Uchihara, 2021) and Basque (Ishizuka, 2021). The reason why we adapt this novel *-Vg-* analysis instead of *-gV-* for Turkish comes with the facts regarding to the long vowels and consonant clusters on the bases. Following Yu's (2007) minimal cognitive burden proposal for the iterative infixes, we claimed that the infix pattern *-Vg-* has a fixed template (38), which has only one timing slot under each constituent and no *branching* constituents.

(38)
```
R O
| |
N O
| |
x x
| |
V g
```

According to the infix template, all one can do is limited to the template since there is no room for length or coda consonant on it. In line with our *-Vg-* analysis for Turkish iterative infixation, we also offered a fixed template account for Basque and Tagalog iterative infixes as well.

As a final point to be noted about Turkish infixes, the iambic foot mentioned by Suzuki (2021) might be suggested as the pivot (attracting point in the sense of Yu, 2015) for Turkish iterative infixes. Consider (39a-b).

(39)	*-Vg-*	Original Form	Gloss
a.	(<a.g>a:)(b<i.g>i) L H L H	a:bi	'big brother'
b.	(s<i.g>ir)(k<e.g>e)(c<i.g>i) L H L H L H	sirkeci	'Sirkeci (place name)'

Given in (39a-b), the infix occurs on the left part of the iambic foot as opposed to Suzuki's (2021) analysis. In the *-Vg-* analysis, the low pitch zone seems to attract the infix, which could be analyzed in detail as a future study.

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