On the Process of Prefixization and Prefixoids in Turkish

Türkçede Önekleşme Süreci ve Önekimsiler Üzerine

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ÖZ

Önekimsiler, sözcükbirimlerden ortaya çıkarak kök ya da gövdelere eklenip en sola bitişen ögelerdir ve türetkenlikte bir artış göstererek sınırlı ölçüde kısmen dilbilgiselleşme eğiliminde olan türetim ya da çekim ekleri gibi davranırlar. Modern Türkçede *ana(-)fikir, başkent, ön(-)basım* gibi sıfat+ad tipi birleşiklerin bazı sıfat bileşenleri bu eğilimi gösterir ve bu bileşenler sözlüksel boşlukları doldurmak için anlık adlandırma ihtiyaçlarında önekler gibi işlev görerek kavramları adlandırmak için türetken bir şekilde kullanılırlar. Dolayısıyla Türkçe tipolojik olarak yerleşik bir önekleme mekanizmasına sahip olmasa da bu unsurlar birleştirme ve önekleme arasında bulanık ve tartışmalı bir alan ortaya çıkarmaktadır. Bu çalışmada, bu tür bileşenler birleşme ve ekleşme arasındaki süreklilik içinde incelenecek ve bu bileşenlerin bir biçimbilgiselleşme/dilbilgiselleşme sürecinin en başında olduğu savunulacaktır.
Anahtar Kelimeler: Ekimsi, Önekimsi, Önekleşme, Birleştirme, Türkçe.

ABSRACT

Prefixoids are the left-most elements attaching to roots or stems, which emerge from lexemes, and behave like derivational or inflectional affixes, tending to slightly grammaticalize to a limited extent, showing an increase in productivity. In Turkish, certain adjectival constituents of the adj+n type compounds like *ana* 'lit. mother=PFmain, PFprimary' as in *ana(-)fikir* 'gist', *baş* 'lit. head=PFmain' as in *başkent* 'capital', or *ön* 'lit. front=PFpre-' as in *ön(-)basım* 'pre-edition' show this tendency and are used productively to name concepts by behaving like prefixoids in spontaneous naming needs to fill the lexical gaps. Thus, though

Turkish does not have an established prefixation mechanism typologically, these elements give rise to a blurry and controversial territory between compounding and prefixation. In the present study, such adjectival constituents will be investigated within the continuum between compounding and affixation, and it will be advocated that these constituents are at the very beginning of a morphologization/grammaticalization process.
Keywords: Affixoid, Prefixoid, Prefixization, Compounding, Turkish.

0. Introduction

The notion *affixoid* covers the elements that are in transition from a free constituent of a compound to a bound morpheme (Fleischer 1969; Stepanowa & Fleischer 1985: 141-147; Olsen 2000: 902). Some scholars even distinguish affixoids as a third category and place them between affixes and lexical units (Elsen 2009; ten Hacken 2000: 355; Ralli 2020). For others, affixoids are "affixes that originally came from independent words and often still have the status of a phonological word" (Chaves 2008: 263) and they are occasionally compared to combining forms like *tele-, geo-, mini(-)* etc. which can be found in the compounds named *neo-classical*. To sum up, affixoids can be considered a tool to bring out a mechanism that constitutes new word-forms or lexical units whose statuses are vague and controversial. In this respect, defining and designating an intermediate category between lexical and grammatical poles seems like a requisite.

Adapted from the hyperonym *affixoid,* a *prefixoid* is considered a left-hand constituent of a compound with a prefix-like behavior (Hüning & Booij 2014: 591-592). From a typological perspective, Turkish does not have an established prefixing mechanism. However, when digging through its lexicon, it can be easily seen that there are some constructions formed with constituents that behave like prefixes or at least prefixoids to a limited extent. These constituents may seem like modifiers of compounds and therefore they are subject to compounding at first glance. Considering the loss of semantic link of the compound's leftmost constituent and its free lexical equivalent(s) besides metaphorical extensions on them, however, prefixoidization or at least prefixoidal implication can be observed in a very limited number of cases. Thus, though Turkish does not have an established prefixization mechanism, some adjectival constituents found on adj+n type compounds tend to develop to prefixes by acting like prefixoids by the essential parameters of grammaticalization in present-day Turkish. The fundamental principle in this process largely depends on the analogy of the relevant semantic and formal patterns. Therefore, novel formations containing prefixoids are possible in Turkish due to an increase in productivity even they emerged by some neologisms inspired or imitated from (Indo-)European languages in 1930s within language reforms by neologists or language amateurs. In this respect, semantic changes through an extension to a more general and mostly metaphoric meaning is an indicator of prefixoidization on the grounds of

grammaticalization, and partial or full productivity can be observed along with an increase in the usage of such elements.

In this paper, the focus will be on the constituents functioning as modifiers of compounds like *ön* 'lit. front=_{PF}pre-', *baş* 'lit. head=_{PF}main', *ana* 'lit. mother=_{PF}main, _{PF}primary', *eş* 'lit. partner=_{PF}co-' and others, some of which emerged due to the efforts to establish an affinity between Turkish and (Indo-)European languages but later tended to develop into derivational prefixoids in the course of time while retaining their lexical status to a degree. These elements will be evaluated in a nutshell by a holistic approach on some criteria with respect to various aspects of grammaticalization like semantic bleaching, persistence, divergence, and decategorialization that concern the above-mentioned elements in the context of the differences between compounding and affixation also with relevant principles of morphologization to some extent. Other aspects of grammaticalization, like phonological attrition or layering, will not be discussed as separate titles since they are not relevant to the topic. Some other complementary mechanisms, however, such as frequency and productivity, will be touched upon in appropriate contexts.

1. Fundamentals of word-formation process in Turkish: affixation and compounding

Though some marginal word-formation processes to Turkish such as back-formation (e.g. *manya-* 'go wilding' from *manyak* (< French *maniaque*), blending (e.g. *bilişim* 'informatics' from *bilgi* 'information' + *iletişim* 'communication'), clipping (e.g. *entel* 'intellectual' from *entelektüel*), or conversion (e.g. *kaykay* 'skateboard') have started to be productive in the language due to "globalization" and intensive contact via various medium with other languages, from a typological perspective, Turkish is intrinsically an agglutinative and suffix-employed language in which new words and word-forms are created via affixes attaching to the right. In other words, the prevailing word-formation and also inflection process is realized by suffixation in Turkish. Mostly, a grammatical category or derivational semantic content is matched to a certain suffix. Thus, it shows a systematic relationship between functions or meanings and suffixes over roots or stems. Both derivation and inflection are carried out by suffixes and there are hundreds of them along with their allomorphs (see Hatiboğlu 1981 for the list of affixes together with their examples in Turkish). Synharmonism is applied in suffixation with a small number of exceptions like the suffixes *-Daş, -leyin, -ki,* etc. which have been explained through some morphonological developments diachronically.[1]

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[1] Still, formations like *iş-teş* (work-SAM 'reciprocal; co-functional') can be attested, but very few of them are in use in modern Turkish. On the other hand, hypercorrected forms adapted to vowel harmony like *ordakı* (instead of *oradaki* 'over there') or *alırkan* (instead of *alırken* ' when taking') can be attested in some Turkish dialects in Turkey (Akca 2012: 54; Karahan 1996: 7).

Compounding is another dominant word-formation process, whose examples were attested from the very first written records of Turkish and other Turkic languages (Tekin 1968: 118; Johanson 2022: 44). Many examples of ADJ+N or N+N schemes of compounding,[2] both semantically endocentric, exocentric, semi-exocentric or sem-endocentric types, expand the lexicon of Turkish as in (1a), (1b) or (1c):

(1) a. *ak-ar-su*
    flow-AOR.PTCP-water
    'river'

   b. *demir-baş*
    iron-head
    'fixture'

   c. *buz-dolab-ı*
    ice-cupboard-3SG.POSS/CM
    'refrigerator'

Here, it will be appropriate to elaborate the primary N+N compounds. This primary compounding scheme consist basically of two nouns, the latter with the element *-(s)I* which is named *linking element, compound marker* (CM) or *third person singular possessive suffix* (3SG.POSS), morphologically, as in (2c) above and that formal pattern can be formulized as N+N-CM or N+N-3SG.POSS. However, some schemes of compounding, more precisely, some constituents of compounds show a tendency to be productive in creating novel forms for instantaneous naming needs or to fill the lexical gaps spontaneously, e.g., a construction like *ön yazma* 'pre-writing' can be attested in *öğrencilerin ön yazma aşamaları* 'pre-writing periods of the students' and this leads to the process of prefixization (or more precisely prefixoidization), which can be found on some examples of N+N or ADJ+N patterns. Since adjectives and nouns cannot be distinguished from each other with clear boundaries in many cases, no sharp distinction can be presented regarding the compounds without compound marker as in *taş ev* 'stone house, house made of stone'. This has led some constituents found on compounds formed with this pattern adequate to be interpreted as prefixoids, especially if a semantic abstraction is evident, though many of the researchers oppose.

2. The debate of prefixes in Turkish

Discussions on whether Turkish has prefixes goes back to Turkish language reforms. Some language amateurs uphold the idea that Turkish has some genuine prefixes and prefixing is a common method for derivation in Turkish (see Frankle 1948: 115 for a brief introduction to the issue). Even İbrahim Necmi (Dilmen) believed that creating prefixing was necessary[3] and Atalay tried to prove that

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[2] See Dede (1978), van Schaaik (2002), and Göksel & Haznedar (2007) for more details on compounding in Turkish.

[3] He created some neologisms like *yantısüel* (< *yantı* [< *yâd* 'foreign'] + *süel* 'military') in place *antimilitaire* 'antimilitary'.

Turkish has prefixes by offering *aşmak, taşmak, şaşmak* or *olmak, solmak, dolmak, yolmak* (which are free lexemes in fact) as proofs[4] (Levend 1960: 422-423). At about the same years, at *Birinci Türk Dili Kurultayı* [The First Turkish Language Congress], Fuat Köseraif considered the absence of prefixes in Turkish as a major deficiency and thought that words such as *ileri* 'fore, forward', *geri* 'back, backward', *iyi* 'good' etc. can be made prefixes by processing them (TLC₁ 1932). Moreover, many attempts were made to create "prefixed" words by the implements of Turkish in 1930s. In this respect, *ast* 'sub-', for instance, was imported from Central Asian Turkic dialects, and formations like *asteğmen* 'second lieutenant' or *astsubay ~ assubay* 'noncommissioned officer', which are being used in present-day Turkish too, were created using this "prefix" (Lewis 1999: 94). Formations like *anayasa* 'constitution, lit. mother+law', *başkent* 'capitol, lit. head+city' were also created and have been used since. Other prefixing attempts like *arsı-* 'inter-' (<~ *arası* 'between') were not successful, and only remained in *arsıulusal* 'international' (Lewis 1999: 94), and even that word-form is not used by any speaker of present-day Turkish. Instead, people use the 'more natural' and lexicalized form *uluslararası* (< *ulus-lar* 'nation-PL' + *ara-sı* 'between-CM') for Turkish. Some shortened forms of lexical items like *uz* 'fore-' from *uzak* 'far' or *yar-* 'sub-, vice' from *yardım(cı)* 'support(er), help(er), assistant etc.' have also been tried to be established by language amateurs or some neologists as "prefixes", as attested in *uzgörür* 'foresighted' (< *uz*[ak] 'far' + *gör* 'to see'-*ür*[AOR] or *yarkurul* 'subcommittee' which are substantially semantic copies of Latin or French equivalents (see Lewis 1999:94-95 and Röhrborn 2002 for more).

Apart from these non-academic assertions, it is possible to start the scientific treatment of prefixes in Turkish with Deny (1938). He believed that prefixes exist in Turkish and considered intensifying particles like *kap-* as in *kap-kara* 'INT-dark=coal black' or *büs* as in *büs-bütün* 'INT-complete=entirely' (1938: 59) prefixes. Even he corresponded *iç* 'interior' to prefixations in examples like *iç-kur* 'interior strap' (attested in the form *uçkur* in present-day Turkish) or *iç-don* 'interior pants' (1938: 60). Gencan (1979: 181) emphasizes that forms like *kıp-* and *ter-* at the leftwards of the formations *kıpkırmızı* 'crimson red' [*kırmızı* 'red'] and *tertemiz* 'clean as pin' [*temiz* 'clean'] takes the form of a prefix and is added to the beginning of the adjective. In relation, suggesting the idea that the gap of prefixization is mostly filled with monosyllabic words, Hatiboğlu (1981: 9) also states as follows, but does not accompany the idea that Turkish has prefixes: "Türkçede de 'öz, iç, dış' gibi tek heceli bazı sözcüklerle kurulan birleşikler, önek gibi etkili olmaktadır. [Compounds formed with some monosyllabic words such as *öz, iç, dış* are effective as prefixes in Turkish too.]". Underhill (1985: 437) also (implicitly) supports the idea that *bes-* in *besbelli* 'obvious' [*belli* 'apparent'] or *m-* in reduplication *kitap mitap* 'books and stuff' [*kitap* 'book'] are prefixes, indicating "There is one other pattern of reduplication involving a prefix." for the latter. König (1987: 176-179) discusses the existence or absence of prefixes in Turkish

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[4] Later, he quit this attitude and even opposed his previous idea: "[...] Türkçemizde önek yoktur; bunu yaratmıya çalışmak da boş bir iştir. [[...]" (Atalay 1946: 27).

through various examples and arguments. He states that at least some of the elements such as *ön, son, alt, üst, iç* which found in Turkish, behave like prefixes in German, but he also emphasizes that they cannot overlap with prefixes in some respects. He argues that such elements should be given a privileged position in Turkish because of their status, and that there are good reasons for integrating prefixes in Turkish, such as their productivity and usefulness. Kornfilt (1997: 108, 419) suggests that "intensive adjectives" are formed by prefixation as in *boş* 'empty' > *bomboş* 'utterly empty' or *uzun* 'long' > *upuzun* 'very long'. She accepts *bom-* and *up-* as prefixes by considering such examples. On the other hand, Göksel & Kerslake (2005: 88-89) discuss *anti-, post-, gayri-, bi-, na-* as prefixes occur only with loan words. They suggest that among these prefixes, *anti-* has some degree of productivity. Besides, they also consider intensifying particles like *ip-* or *ter-* as in *ip-ince* 'very thin' [*ince* 'thin']*, ter-temiz* 'clean as pin' prefixes (Göksel & Kerslake 2005: 90) like Kornfilt and others. They also evaluate *m-* components of reduplications as prefixes as in *etek metek* 'skirt(s) and the like' [*etek* 'skirt'] by stating that "the modifying consonant 'm' is prefixed to its second occurrence" (Göksel & Kerslake 2005: 91).

Şahin (2006) strictly defends the idea that Turkish has no prefixes at all though it has a long history of contact with other languages like Arabic, Persian, French and English, which have prefixes inherently. This situation, however, has led to the use of prefixed words in Turkish (this is via copying prefixed word-forms as a whole, like *bi-vefa* 'disloyal'). For her, in addition to this, to create equivalents of foreign words in Turkish, and when calquing the prefixed words into Turkish, forming compounds was also preferred. These compounds in Turkish were sometimes perceived as prefixed words and brought up the question of whether there is a prefix in Turkish (Şahin 2006: 65). In addition, according to her the idea that phonetic component *m-* in reduplications as in *elbise melbise* 'dress(es) and the like' [*elbise* 'dress'] or *sandalye mandalye* 'chair(s) and the like' [*sandalye* 'chair'], as well as intensifying particles like *bem-* as in *bembeyaz* 'extremely white' (< *bem-beyaz* '$_{INT}$-white') are prefixes is untenable. She defines such elements as *ön ses* [pro-sound], 2006: 72).

By contrast with this opinion on the intensifying particles, Lewis, in his *Turkish Grammar,* takes the matter one step further and states the following: "The only regular use of prefixation is to intensify the meaning of adjectives and, less commonly, of adverbs." (2000: 52). By doing so, he accepts Turkish having prefixes. Similarly, van Schaaik considers such elements as prefixes by indicating that "[…] reduplication is based on copying (a part of) the first syllable of an adjective and using it as a *prefix,* an element that comes *before* the adjective." (2020: 456). On the contrary, Korkmaz, in her Turkish grammar, opposes the idea that particles like *ap-* as in *ap-açık* 'obvious' [*açık* 'clear, open'] are not prefixes (2009: 20).

In this respect, it can be easily seen that there is not a consensus on defining the intensifying particles attaching before adjectival roots and stems as well as reduplicative particles such as *m-* as in *kitap mitap*. One group of researchers evaluates them as prefixes, while others identify under other names and terms. A

crucial point is that contrary to words such as *ön, iç, dış, ana, baş* and the likes, the elements used in syllable reduplication, have no meaning of their own. Their only effect is to intensify the overall meaning of the word. With *m*-reduplication a new stem is composed to create a picture of a similar item. This new stem is open to inflection, e.g. *evi mevi yok*.

In addition to all the debates, it is a fact that Turkish has some *en bloc* (lexically integrated) prefixed words copied from the languages it has intensive contact in the past like Arabic, Persian etc. In this respect, *hem* acts as a prefix in Persian and some words are copied into Turkish like *hemşehri* 'countryman' or *hemzemin* 'on the same level'. On the other hand, formations which consist of two different elements from two different languages such as *hemfikir* 'likeminded' (< Persian prefix *hem-*+Arabic *fik(i)r* 'opinion') are also possible. Similarly, Persian *bi-* 'without' is copied *en block* in word-forms as in *bi-vefa* 'without loyalty=disloyal', and it can be seldomly attested in formations combined with Turkish roots as in *bi-gönül* 'unwilling' [*gönül* 'heart']. The amount of such formations, however, is very limited in Turkish lexicon. That is to say, foreign prefixes have no overall influence on the internal structure of Turkish and they do not involve productivity as prefixes except a few infrequent and lexically integrated or fossilized examples.

When it comes to the main issue taken in this study, the situation does not change on consensus. For some researchers, constituents like *ana, baş, ön, öz* etc. are prefixes but for the most, these are formed by juxtaposition and should be treated within the boundaries of compounding (Wilkens 2016: 3369). However, although those formations are just simple representatives of juxtaposition, and the use of such elements emerged by analogy to the prefixation in Indo-European languages, or they are simply semantic copies of prefixed elements in some "prestigious" languages like French, during the Turkish language reform, as in *öngörmek* 'to foresee' or *öngörü* 'foresight' which is a semantic copy of French *prévoir* 'foresee', such copies or analogies triggered a mechanism to create novel formations in Turkish. Today, such elements have become viable to various instantaneous needs by overflowing the limits of compounding, as shown above. In this respect, without going into details, Balcı & Kanatlı (2000) support the idea that constituents like *baş, ön, öz* etc. behave like prefixoids and thus these constituents of nominal compounds largely spelled adjacent instead of being written separately. Yüceol Özezen also states that prefixoids tend to develop in Turkish, although they are not prefixes for now. At this point, she argues that the changes and developments in Turkish should be evaluated with an objective attitude away from romanticism. She also points out that adjacent spelling may be an indication of prefixoidization (2014: 751).

To sum up, even though the constituents discussed in the present study emerged as the result of the efforts to create prefixes in Turkish artificially to bring it closer to (Indo-)European languages and establish an affinity with them even though it has no prefixation mechanism at all, such constituents have gained productivity to a degree and started to fill lexical gaps on various discourses in modern day's Turkish. They also have the function to bring Turkish equivalents to some Arabic or Persian words and even create neologisms which are equivalents of prefixed

words in western languages. Therefore, while the idea that "There are no prefixes in Turkish." is still valid, at least it is possible to argue that "Why shouldn't there be prefixoids?".

3. The blur between compounding and derivation via affixation

Functional, grammatically "contentful", but bound morphemes that attach to free ones are subject to affixation. Affixation results in new semantic limitations, transformations or variations related to the root or stems in grammatical or lexical grounds. This process has subtypes like suffixing, infixing, prefixing, or circumfixing and aspects as derivational or inflectional. In compounding, however, one free morpheme is attached to the other one in a relation of subordination (*kamyon şoförü* 'truck driver'), attribution (*beyaz perde* 'lit. white curtain, cinema') or coordination (*taksi(-)dolmuş* 'taxi-dolmush') relation to form new lexical units. Notwithstanding, both derivation via affixation and compounding have the same function in languages: to name concepts and to expand the vocabulary, and these two mechanisms are constituted inherently on the basis of a principle: concatenation. In affixation, concatenation requires both free and bound items at the same time, while in compounding, at least two free but lexical items are required. Thus, 'the box or case in which pens or pencils are put' can be identified in Turkish via affixation witl *-lIk* (though it is capable of establishing different semantic relations) as in (2a) or via compounding as (2b):

(2) a. *kalem-lik*
pen-DER
'penholder'

b. *kalem kutu-su*
pen box-3SG.POSS
'penholder/pencil case'

From this point of view, it is the morphological quality of the concatenated items which designates the underlying mechanism, and both the internal structures of affixation and compounding are accessible through similar abstract patterns like $L_1+L_2+(L_3)$... in compounding or $L+S_1+S_2+$... etc. in affixation.

The demarcation between affixation and compounding, however, may sometimes be blurry. In this respect, *hane* 'household' in Turkish, which is a copy from Persian, used mostly as a compound constituent, exhibits some features of affixoidization. This item has gained sufficient productivity, showed semantic expansions, and even undergone phonological attrition, which are some of the principles of grammaticalization and characteristics of affixoidization. Using this lexeme, constructions like *postane* 'post office' (< *posta* 'post' + *hane), eczane* 'pharmacy' (< *ecza* 'drug' + *hane), pastane* 'pastry shop' (< *pasta* 'pastry' + *hane*) or *hastane* 'hospital' (< *hasta* 'patient' + *hane*) are formed. Besides, there emerged some recent examples like *birane* 'beer house' (< *bira* 'beer' + *hane), doğumhane* 'delivery room' (< *doğum* 'birth' + *hane*) etc., some of which are the results of concatenation of native and foreign items together. Thus, the productivity of -

hane as an affixoid is well established due to its frequent use, and this can be attested with some extraordinary formations like *aşkhane* 'love + *hane*' or *mantıhane* 'a restaurant where people eat dumpling' and even some proper names like *Balıkhane* 'a fish restaurant located in Istanbul and other cities in Turkey'. As a result, -*hane* is started to function like an affixoid with the semantics of 'a place related to X' due to its productivity and frequency, and possible constructions can be formed by attaching it to any nominal root or base. Such attributions involve one of the characteristics of affixoids (Marchand 1967: 326), and formations formed with *hane* involve a semantically and mostly formally transparent pattern as shown in Figure 1:

$$[[X]_{n+}[\textit{hane}]]_n \rightarrow \textit{/Xhane/}_n \mid \textit{/X<>ane/}_n = \textbf{'a place related to X'}$$

Figure 1. the transparent pattern for the affixoid hane.

By this means, words like *bilgisayarhane* 'a place related to computers' or 'a shop where computers are sold' (< *bilgisayar* 'computer' + *hane*) more specifically, or *saatane* 'a place related to clocks' or 'a shop where clocks, watches etc. are sold or even repaired' (< *saat* 'clock, watch' + *hane*) are possible, and they are analyzable for the hearers even if they hear these formations for the first time. In this respect, -*hane* (with its phonologically attrited form -*ane*) should be treated as an affixoid and thus be placed on a cline as shown in Figure 2:

hane		*X+hane*		*-hane ~ -ane*
fully lexical item	**>**	**compound item**	**>**	**affixoid**
hane 'household'		*hasta+hane* 'h. for the sick'		*hastane* 'hospital'

Figure 2. the cline of the affixoidization of -hane.

This case clearly indicates the blur between compounding and affixation. That is to say, some compound items may start behaving like an affix and such items shall be considered affixoids since they show some features of established affixes. However, they don't exhibit every exact feature of affixes, like vowel harmony. Turkish is a language having vowel harmony (synharmonism to a greater extent), but this harmony is not applied to the formations with the affixoid -*hane*. This is one of the foremost reasons for identifying this element as an affixoid, instead of a proper affix, since almost every affix shows vowel harmony with regard to the roots or bases they attach. However, some established affixes like -(*X)yor, -Daş, -ken, -mtrak* or -*leyin* in Turkish, as noted earlier, do not exhibit such harmony and this is another problematic aspect of proper Turkish affixes, but this case is not relevant for our scope.

Some left-most elements in compounding show semantically similar developments and patterns as in above-mentioned case for -*hane*. The position of such elements is fixed (on the left) and they function as modifiers in general terms. Thus, the rightmost element is a head and the elements on the left side of it is modificatory, inherently. Due to some factors like change in semantics and increase in frequency, however, these elements tend to expand their area of usage

by gaining productivity in time. The left-most lexical elements that take part in nominal (and occasionally in verbal) compounding like *ön, ana, öz* or *baş* and the others not mentioned here, behave like prefixes by semantic divergences and generalization, thus developing abstract meanings, but analyzable patterns. These patterns gave the way for these elements for their increased usage and to fill lexical gaps by abstraction. Some aspects of the morphologization and grammaticalization are relevant for explaining such cases. So, these lexically contentful words tend to gain some partially grammatical features and begin to act like prefixes, subject to the realms of morphology. However, no phonological attrition or conformity to vowel harmony can be observed, and from that perspective, they look like ordinary nominal compound constituents. In section 6, the relevant aspects of grammaticalization and then principles of morphologization will be implemented to the related elements in Turkish, which behave like prefixes, to be more precise, prefixoids.

Differences and similarities between compounding and derivation are highly discussed under different perspectives (see ten Hacken 2000; Bauer 2005; Kenesei 2007; Ralli 2010 for such discussions). Thus, other issues between two mechanisms will not be covered here anymore. Pointing out to affixoids in a broad perspective is an important fact in order to understand the nature of prefixoids and/or relevant elements in Turkish.

4. The characteristics for affixoids[5]

Regarding the affixoids, Booij suggests as follows:

> "In addition to productive affixes, there is also a large class of productive affixoids, morphemes that sometimes also exist as independent words, but always have a specific meaning when used in a complex word." (2003: 256)

In this respect, productivity and a variation in semantic content are the prerequisites for an element to be considered an affixoid. When combined with other "contentful" morphemes, such elements denote a special meaning, apart from its parent content, and thus gain productivity from an analogical perspective by allowing to create new lexical items and consequently to name concepts. In the case of *ön* 'front'*,* it should be mentioned here that this pattern was emerged in Turkish as a "selective copy" (Johanson, 2007: 33) from French *prévoir* 'foresee' as *öngörmek* and later its variants are formed such as *öngörü* 'foresight' or *öngörüş* 'prevision'. Later it gave predictability to the language speakers and thus analyzed to its constituents, then gave way to new formations through the pattern. Thus, *ön* 'front' for example, when used together with relevant lexical items, denotes a more generalized and abstract concept like 'pre-' or 'before' as in *ön(-)görüşme* 'pre-interview' or *ön(-)tetkik* 'pre-examination' or even in not attested but semantically analyzable and predictable constructions like *ön(-)yürüyüş* 'pre-walking'. Thus, a pattern is formed in Turkish with the element *ön* 'front', and it has predictable semantics and analyzable formal properties for the hearer, instead of its literal

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[5] Affixoids are also called *semi-words* for some researchers. See Bauer (2014: 121).

meaning as can be seen in *ön cephe* 'front side'. Similarly, *baş* 'head' has gained a more general and abstract semantics as 'main' or 'prime', etc., when used in compounds like *başkent* 'capital', *başbakan* 'prime minister' or *başbayi* 'main dealer' etc. instead of its literal meaning 'head' as in *baş taraf* 'head (front) side' or *baş ağrısı* 'headache' etc. Comparably, the equivalent of Turkish *baş* is *Haupt* in German, which is developed to a derivational form from its literal meaning, as can be observed in examples like *Hauptbahnhof* 'central station' or *Hauptstadt* 'capital' though *Kopf* is used for the concrete concept and thus *Haupt* is considered a prefix in Fleischer and Barz (2012: 257) as cited in Hüning and Booij (2014: 591). In Turkish, such a development cannot be observed, but the metaphorical and more generalized usage of *baş* makes it possible to interpret it as a prefixoid in some respects along with similar elements as *ön*, *ana, öz* or *eş*. The metaphorical extensions and thus abstractness of *ön, ana, baş, öz,* or *eş* are available only when they form compounds. Thus, they may be considered bound morphemes in this respect. In other words, the semantic expansions of those elements are only due to their bound forms. This indicates the shift from lexical towards the affixial pole within semantic grounds and can be considered evidence that some derivational affixes may have been developed from constructions of full words, possibly via a compound to an intermediate stage (Hamans 2013: 302). Thus, the case reflects such progress that can be placed on an intermediate stage.

Formally and phonologically, there is no reduction on prefixoids when compared to fully grammaticalized affixes, but from the semantic perspective, primarily, there is an obvious abstraction, and thus, bleaching and expansion occur. Ten Hacken (2000) proposes three criteria on the emerge of affixoids: "(i) an increased productivity, (ii) a decreased semantic specificness, and (iii) an etymological and formal link to an existing free stem". Prefixoids in Turkish meet these criteria. Regarding the productivity, it is possible to create new transparent and predictable, analyzable word-forms with aforementioned prefixoids in Turkish. Secondly, semantic generalization is obvious as mentioned and explained before. Finally, semantic and formal ties with the parent lexeme to the prefixoids is apparent. The lexical items functioning as prefixoids are always polysemous. Thus, these lexical units show a tendency to develop abstract semantic contents and then grammaticalization to a degree. In this respect, it is possible to state that polysemous words tend to form compounds.

As for the differences between established prefixes and prefixoids, the following evaluations can be made: Prefixoids should be distinguished from prefixes, which have not free semantic meanings and equivalents as well as not gaining phonological attritions. For some scholars, prefixoids can be evaluated as initial combining forms, formants, neo-classical elements or confixes, and their combinations are due to the compounding rules, not affixation (Iacobini 1999: 132-133). Combining forms, however, may be differentiated due to their semantic properties since they do not tend to involve free semantic content and an equivalent in the lexicon, though there are some examples like *burger* from German *Hamburg-er >= ham-burger. Burger* has developed to a free lexical item coded in the lexicon, and a possible "combining form". In this respect, *-kolik* (<

via analogic parsing from *alkolik* 'alcoholic') in Turkish may be considered a suffixoid that can be attached freely to any noun as in *çaykolik* (tea+*kolik*), *işkolik* (work+*kolik*), *aşkkolik* (love+*kolik*) or *parakolik* (money+*kolik*) etc. denoting a person addicted to the relevant noun through a pattern as shown in Figure 3:

$$[[X]_N\text{-}[kolik]]_N \rightarrow Xkolik_N = \text{'a person addicted to X'}$$

Figure 3. the transparent pattern of -kolik which behaves as an affixoids.

As to our topic, constituents behaving like prefixoids subject to this paper are in a subordination relation to a degree. In other words, they denote hyponyms of the head and act as a modifier, but these modifying functions are metaphorical and thus abstract. The semantic content of the bases they attach must be suitable to the constituents behaving like prefixoids. They can be easily predicted when they combine with the stems which meet this semantic criterion, even if they are not listed in the dictionaries or in the mental lexicon of the speakers, as explained before.

5. The relevant aspects of grammaticalization and their implementations to prefixoids in Turkish

Prefixization of adjectives through grammaticalization is not unusual for world languages. In this respect, van Goethem (2008), for example, has attested and investigated adjectives grammaticalizing into prefixes in Dutch and French. She argues that "there is a continuum between syntax and morphology, and more specifically, between compounding and derivation." and deals with the subject in terms of "hybridity", considering the relevant phases of grammaticalization (2008: 27-28). Here, a similar method will be used to discuss the developmental stages of prefixoidization in Turkish.

The quotation below, which is also quoted by van Goethem (2008), is important with respect to the grammaticalization process and affixoids:

"The rise of affixoids is a typical case of grammaticalization, content words becoming grammatical morphemes. As is well known from grammaticalization studies, semantic change precedes formal change. In the case of affixoids semantic change has already taken place, but there is no formal change yet: formally there are just like (real) compounds, there is usually no phonological weakening involved. We also observe the layering that is characteristic of grammaticalization: besides the bound use of these words, their use as independent lexemes, with a greater range of meanings is still possible." (Booij 2005: 117)

The status of the prefixoids in Turkish exactly matches the points and considerations with Booij's, even though the prefixoids examined here like *ön* seem as the results of intensive language contact with English and French, and "internationalisms" as suggested in Faust (2021: 26). Prefixoids in Turkish, at first, show semantic diversification, or more precisely semantic bifurcation by bleaching of the relevant constituent. The first elements *ön* or *baş* of adj+n

compounds as in *önbalayı ~ ön(-)balayı* ('pre-honeymoon', lit. front honeymoon') or *başparmak* ('thumb, lit. head-finger') can serve as examples of such a prefixoidization or *pre-prefixization* process. Though they apparently have the impression of a modifying element of a compound, some hints can be found for those semantic changes, for example, writing adjacently instead of separately, which is a tendency for Turkish speakers and for "legislatives" like Turkish Language Association (=Türk Dil Kurumu, TDK) as in *önsezi* 'foresight' or *başkahraman* 'protagonist' (GTS, 2023) or with a hyphenation as in *ön-görüşme* 'pre-interview' (Int.Düzce). Therefore, the constituents tend to prefixize have also a tendency to be written adjacently and this is a prevalent sign for the process to be addressed here. Phonological changes, on the other hand, may not be observed in the process of prefixization, and this applies in Turkish too, since phonologically no attrition, no conformity to vowel harmony or no stress loss is observed in the process.

5.1. Semantic bleaching

Semantic bleaching, desemanticization, or abstraction is generally considered the first step of grammaticalization and a prerequisite for it (Heine & Reh 1984: 15; Haspelmath 1999: 1062). Loss of semantic integrity and transition to a more general/abstract meaning is considered a signal for the grammaticalization. When this occurs, the semantic content of the item in question starts to loosen and shifts towards metaphorical usages and, thus, more abstract meaning. This abstractness causes the item to be used more frequently and makes it preferred more by speakers of the language. The situation can easily be observed when considering the constructions with prefixoids in Turkish, as shown in (3):

(3) a. *ön( ) / (-)izin*
         front   permission
         'prior consent'

     b. *ana+hat*   *ana+yol*
         mother line   mother road
         'outline'   'main road'

     c. *baş( )asistan*
         head assistant
         'chief intern'

As can be observed from the examples, a metaphorical usage of the free lexemes causes generalization on semantics and this makes it possible to extend the usage for similar concepts and expand on more right-most elements of compounds. That is, lexically contentful words tend to develop to derivational morphemes with a more general semantics and the content of this semantics is bleaching. However, the equivalent parent lexical items hold their status. So, *ön* 'front', *ana* 'mother' or *baş* 'head' can be used freely in relevant contexts.

Hopper & Closs Traugott (1993) suggest that the lexical items tending to grammaticalize are mostly known as "basic words". In this respect, the prefixoids in Turkish, which tend to grammaticalize, are of such basic words. As might be

expected, the more a word is "basic" the more it is used frequently. In other terms, basic words tend to undergo more transformations in terms of grammatical levels, but especially in terms of semantics at first. Frequency and occurrence bring out semantic alteration and diversification, and this is observable in the present case because the elements in question are basic words for.

Considering the semantic bleaching, the shift towards the metaphorical usages of the prefixoids or from a more cautious perspective, some prefixoids in Turkish mentioned in this paper can be schematized as follows:

	CONCRETE		ABSTRACT
ön	'front side, anterior'	>	'pre-, before period, prior'
baş	'the upper part of a body, head'	>	'main, chief, prime'
ana	'mother'	>	'main, fundamental'
öz	'essence, core'	>	'self'
	...	>	...

In almost every new formation with those elements involved, the abstractness is deployed. Thus, in a novel construction like *ön buluşma* 'pre-dating' or *öz( )beğeni* 'self-rating', this abstract and generalized semantics can be analyzed and understood by the hearer even if they didn't hear such a formation before. In other words, such possible constructions do not have to be coded in hearers' mental lexicons, only the coding of the abstract meaning of the first constituents will be enough, as this is the general case and characteristics with affixes in languages.

The notion *loss of the semantic content* is not adequate since at least no complete loss is observed in our cases. What is observed from a semantic perspective is meaning generalization and abstraction through metaphoric alteration. In other words, semantically there is no loss, but a variation and an expansion on the background in a synchronic perspective have been observed when considering prefixoids in Turkish. They do seem like parts of adj+n class compounds, but they create more metaphoric semantic content and have the potential to analogically create new analyzable formations just like any productive affix. In this respect, (4a) is considered an adj+n compound, since *ön* is completely used as an adjective, marking a façade here. In a formation like (4b) however, *ön* designates neither attribution nor quality, but creates detached semantic content for *eleme* 'selection' like 'a selection before actual selection'. Emergence of a more abstract content rather than observable concrete content is apparent on the latter.

(4)   a.   *ön yüz*
               front side
               'façade'

        b.   *ön( )/(-)eleme*
               pre-selection
               'qualifier'

The prefixoidal constituent *ön(-)* is attached mostly to inanimate nouns and concepts, but also to some verbs or deverbal nouns which denotes a continuum. In this respect, *it* can be added to deverbal nouns like *ön(-)koşu* 'pre-running', *ön(-)yazı* 'pre-writing', etc. Here, semantic differentiation is observable between the prefixoidal usage and the usage related to compounding. In (5a) the compound has the semantic content 'the writing on the front (side) or façade', while (5b) indicates 'pre-writing' or 'cover letter' with its institutionalized prefixoidal usage to some extent.

(5)   a.   *ön yazı*
              front writing
              'writing on the front (side)'

          b.   *ön(-)yazı*
              pre-writing
              'pre-writing; cover letter'

5.2. Persistence

Even if a semantic shift from concrete to more abstract and general meaning occurs, the "traces" of the parent lexeme might still be observed in the grammaticalized form or the lexeme tending toward grammaticalization (Hopper 1991). In other words, a semantic tie can be preserved and perceived between the parent lexemes and its grammaticalized equivalents. This can be applied to the Turkish prefixoids too. In *ana* for example, the non-metaphorical, concrete meaning 'mother' (as in *ana kadın* 'mother woman') is observed in its prefixoidal usages like *ana( )sayfa* '*home page*' related to 'being on the front, preceding etc.' and the semantic tie 'maternity' is implicitly added to its semantics since a home page of a web site can give "birth" to other pages. That is, with the semantic relation of 'be derived or be born from' remains on the background with semantic ties.

It is also possible to assume a semantic unification for some of the cases in which both the meanings are possible to postulate, as in *ön( )söz* 'foreword' since both concrete and abstract meanings are possible. As to concrete meaning, an *ön söz* is physically the first statements of a book that are at the front or at the beginning of it etc., while as to abstract meaning, it is possible to consider an *ön söz* in a metaphoric usage. In other words, polysemous usages of the elements are available on the ground, and this may be sensed with two meanings at the same time. In orthography, users tend to write abstract meaning adjoined or hyphenated as *<önsöz>* or *<ön-söz>* though it is advised to write separately as *<ön söz>* in *Up-to-date Turkish Dictionary* (=GTS) and *Spelling Guide* (=YK). This indicates the tendency to prefixization and constitutes a strong indicator supporting the progress on the grounds of orthography.

5.3. Divergence

"When a lexical form undergoes grammaticalization to a clitic or affix, the original lexical form may remain as an autonomous element." (Hopper & Closs Traugott 1993: 118). In other words, when considering the elements in our scope, divergence is the co-existing of the semantically abstract prefixoids and their

concrete, parent equivalents in the lexicon. Such elements and the source lexemes may exist together, and they can be encoded in speakers' mental lexicon separately. In this respect, Lightfoot (2011: 273) states that "one variant must be an unbound form, and another variant shares the same form, but is bound, productive, and has a more generalized meaning."

In Turkish, *ön* 'front' for example, can be freely used in compounds as in (6a) while it functions as a prefixoid in (6b) and (6c):

(6) a. *ev   ön-ü*
         house   front-3SG.POSS
         'front side of a/the house'

     b. *ön (-)/( ) ısıtma*
         front   heating
         'pre-heating'

     c. *ön (-)/( ) seçim*
         front   selection
         'pre-election'

Semantic differentiation can easily be observed In (6b) and (6c). In (6a) constituent *ön* is used with its literal meaning while in (6b) and (6c) same constituents have more abstract meaning. In other words, both source lexemes and prefixoidized equivalents may remain phonologically same, thus no phonological attrition might be observed, while semantic abstraction is found. This is the case for other Turkish prefixoids *ana, baş, öz* etc. The cases for *ana* and together with *ön* is schematized as shown in Figure 4:
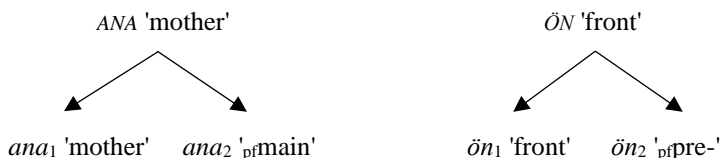

Figure 4. the semantic divergences (bifurcations) of ana and ön respectively in Turkish.

In addition, in *ön cephe* as an adj+n compound, *ön* is realized with its literal meaning, involving the semantic content [+front] and this is possible and expected case for compounds. In *ön seçim,* however, it is not possible, in other words, a meaning 'front election' is non-compliant due to semantic abstraction and generalization. This, in turn, stands out as an indicator of prefixoidization.

5.4. Decategorialization

Hopper & Closs Traugott assume two main categories and an intermediate category between them as follows (1993: 107):

major category (> intermediate category) > minor category

The major category consists of nouns and verbs, while the minor category involves prepositions, pronouns, conjunctions, etc. On the other hand, adjectives or adverbs constitute the intermediate category, and thus a shift from *baş* 'head' to

baş 'main, prime' or *ana* 'mother' to *ana* 'main' reflect the shift from major category to intermediate category both semantically and syntactically. To the extent that, Hopper (1996: 231) points out the development of "minor" categories from the prime (major) categories. For Haselow, a lexical morpheme can be classified as a suffix or fulfilling suffix-like functions (2011: 84), and this can be considered a tendency to decategorialization. Prefixoids basically have a syntactic category. When they combined to other lexemes, however, the traces of this syntactic category may not be predicted, and they may not reflect the original category. In this point of view, they may be considered among category changing elements when they form compounds. On the other hand, they can still be used as free lexemes.

Explicit shift is apparent from the category noun to adjective, but this shift does not occur towards the close set items. That is to say, a shift from open set to close set items is not observed. When prefixoids are used together with free items, lexical integrity is observed. In other words, the new construction functions like a new lexeme and does not accept other items between its constituents. Syntactically, they do not include other elements between the constituents as can be seen on basic adj+n compounds. In this respect, *geçmiş duruşma* 'former trial' and *ön duruşma* 'pre-trial' are both adj+n compounds intrinsically in Turkish. However, **ön hızlı bir duruşma* '*a pre-rapid-trial' is not possible while *geçmiş hızlı bir duruşma* 'a former rapid trial' is. This shows that prefixoided formations are subject to lexical integrity apart from syntax. They do not accept other elements between their constituents just like any lexicalized formation, and syntactic rules cannot access to the internal structures of such constructions. Thus, constructions with such prefixoids involve some degree of morphologization (see Joseph 2003 for the process of morphologization).

Besides these main parameters of grammaticalization applied above, prefixoids in Turkish evaluated in the present study conform with the five "tests" proposed by Stevens (2005: 73f) (except the fourth one here since it's correlated with suffixes at large) which can be summarized as follows: (i) existence alongside their parent morphs, (ii) having/gaining more generalized and abstract meaning, (iii) determination of the basic meaning depends on the free morph, (iv) being in competition with or in complementary distribution with affixes, (v) seriality and productivity especially in spoken registers. These "test" parameters can easily be paired to the relevant parameters of grammaticalization.

6. Discussion and Conclusions

In this paper, it is argued that some elements functioned as compound constituents such as *ön, ana, öz* or *baş* behave like prefixes due to frequent use and increased productivity, and they tend to grammaticalize to some degree over time due to certain semantic facts such as bleaching, abstraction etc. On the basis of the examples and the parameters given, it can be said that there is evidence to consider *ön, ana, öz, baş* and other similar items as at least "prefixoid-like elements" or even prefixoids. However, it will be highly controversial to consider these

elements as exact prefixes, yet they will morphologize. Moreover, some combining forms, e.g., *tele-,* have been used for decades in Turkish and acted like prefixes by attaching to native lexemes of Turkish as in (7a) or (7b), which are a subject for another research.

(7) a. *tele-kulak*
          tele-ear
          'phone hacking'

     b. *tele-kız*
          tele-girl
          'call girl'

Prefixoids may act as lexical gap fillers in spontaneous conditions. In other words, if there is a need to name the concepts and a function, relevant prefixoids may fill this gap and serve the purpose. Language users may potentially create novel forms by using those elements in proper contexts. They form new nouns from nouns by combining with them, for example, from the calques like *öngör-* 'to foresee' to related forms like *öngörü, öngörüş,* or even *öngörme* 'foresight' etc.

Many of the *neologisms* formed during the Turkish language reform in the 1930s were to a great extent semantic copies from (Indo-)European languages, in particular, French. The emergence of the prefix-like usages of *ön, baş, ana* and others is not due to a language-internal process at beginning although this construction pattern can be attested with a few examples diachronically. Many aspects of grammaticalization, and also morphologization, however, can be applied to the mentioned prefixoids and thus, they are subject to grammaticalization as well as transformations in different aspects today, when compared to first attested examples or "desk-based" created examples. Semantic bleaching through metaphorical extension, increase in productivity and frequency is obvious in such instances at first.

Among the objections is that such constructions do not bring out new grammatical structures, but rather derive lexical elements. However, here, I tried to investigate how derivational elements develop from the perspective of grammaticalization that could elicit the morphological resources of the language. It must be recognized that analogy is a significant factor in such developments in the language. Language speakers may bear similar examples in their mind and form identical new ones by analyzing them to close the gaps on the lexicon and meet the need for naming concept at the moment of a natural conversation. Thereafter, with the help of frequency and productivity increased, such elements start to be used through related formal and semantic patterns more on more. As a result, lexical items tend to develop to derivational affixes and in the cases I elaborate here, it can be seen that the lexical items function as adjectives (modifiers) in compounds tend to develop prefixoids through some semantic patterns. In this respect, the cases I evaluate here need more deliberation at the interface of lexicalization and grammaticalization considering their consequences on the formal and semantic grounds. In any case, these elements contribute to the naming process most particularly in instantaneous needs in Turkish and have a role for the

enrichment of the Turkish lexicon offering a variety on the word-formation mechanism.

8. Abbreviations

´	lexical stress (on stressed syllable)	CL	clause
-	affix boundary	DER	derivational suffix
+	word and/or affix(oid) boundary	GEN	genitive
( )	optional space in orthography	INT	intensifying particle
(-)	optional dash in orthography	L	lexeme
< ... >	orthographic indication	N	noun
=	actual/de facto meaning	NEG	negation
:	vowel length in utterance	PF	meaning or function as a prefixoid
*	ungrammatical or unattested form	POSS	possessive
?	possible but unattested form	PTCP	participle
3	third person	REL	relative
ADJ	adjective	SAM	shared attribution marker
ADV	adverb(ial)	S	suffix
AOR	aorist	SG	singular
CM	compound marker		

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