An Ad-Phrasal Affix in Turkish

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Affixes can be ad-stem or ad-phrasal. This paper argues that the pronominal ki of Turkish is an ad-phrasal affix.

1. Introduction

In lexicalist theories of morphology (e.g. Kiparsky 1982, DiSciullo & Williams 1987) affixes are units that combine with stems to form words. Since Klavans (1982), it has been recognized that some things that are phonologically like affixes actually combine with phrases, and Anderson (1992) argues that these “special clitics” (term due to Zwicky 1977) are the syntactic correlate of word-internal morphology. Klavans used the term “phrasal affix” for such units, and that term has been commonly adopted; I will however employ the more transparent term “ad-phrasal affix”, since these affixes are not themselves phrases but rather affixes that attach to phrases.

Implicit or explicit in almost all of the discussion of ad-phrasal affixes in the literature is that they are all clitics. There is no known perfect diagnostic distinguishing clitics from other affixes, though the criteria mentioned in Zwicky & Pullum (1983) are widely cited. Anderson (1992) does not rely on any of these criteria in his analysis of ad-phrasal affixes, only noting that the properties picked out by Zwicky & Pullum are consistent with his interpretation of such affixes as the phrasal counterparts of sublexical affixation. As Zwicky and Anderson and others have observed, “clitic” as commonly used does not correspond to a distinguishable linguistic category, and in this paper I will mostly avoid the term altogether. What I am interested in is whether a particular affix in Turkish is ad-stem (combining with a stem to form a word) or ad-phrasal (combining with a phrase to form a phrase). The affix in question is otherwise not very much like a clitic, a fact which may be interesting in a wider context.

There are previous proposals analyzing affixes as ad-phrasal while not being much like clitics. Prominent in this regard are Kratzer’s (1994) proposals regarding German passives. In the Altaic domain, Yoon (1996a) has suggested that certain nominal affixes in Korean are ad-phrasal, and Bozsañin (2002) has proposed the same for various affixes in Turkish.

This paper presents arguments that the suffix called “pronominal ki” in Turkish (Lewis 1967) is an ad-phrasal affix.
2. The Problem of Pronominal -ki

2.1 Nominal morphotactics

The part of the morphotactics that is of interest in this paper includes the part which determines the order of (inflectional) suffixes in the Turkish Noun:

(1) N₀ (PL) (POSS) (CASE)

(2) arabα-lar-unuz-da
    car-PL-POSS1p-LOC
    'in our cars' 

N₀ can be a Noun root, or a Noun derived by derivational suffix(es) from a Verb, an Adjective, or another Noun.

The Plural is marked by the suffix lAr.¹

There are six Possessive suffixes, corresponding to the six person-number combinations:

(3)        pl
          sg         (l)m
          1          (l)mñz
          2          (l)n
          3          (s)(n)

lAr+(s)(n)

These are probably best regarded as a kind of agreement system, as their function syntactically is to mark the possessed element in a Genitive-Possessive construction, in agreement with the person and number of the possessor (with the caution that the third person possessive suffix has other uses, see footnote 7):

(4) ben-im    arabα-m
    me-GEN    car-POSS1s

siz-in    arabα-nuz
you-GEN    car-POSS2p

There are five overt case suffixes:

(5) (n)In    GEN
    (y)I     ACC
    (y)A     DAT
    DA       LOC
    DAn      ABL

¹ As is customary, I will cite suffixes in a base form employing archiphonemic notation: A = (çα), I = (i|ï|u), etc.
2.2. -ki

The suffix -ki, called "pronominal" ki by Lewis (1967), appears to attach to a nominal in the Locative or Genitive case:

(6) arabâ-m-in-ki
    car-POSS1s-GEN-ki
    "of my car"

(7) arabâ-m-da-ki
    car-POSS1s-LOC-ki
    "in my car"

The Locative -ki is actually more general, as it attaches to temporal and locational expressions:

(8) bugûn-ki
    bugûn = "today"

    şimdî-ki
    şimdî = "now"

    evvel-ki
    evvel = "before"

    geçen-hafta-ki
    geçen hafta = "last week"

The suffix -ki is exceptional in that it does not undergo vowel harmony, except in three forms which do not concern us here. It is also exceptional, as pointed out by Erdal (1994), in that in the Gen -ki cases stress migration is blocked by -ki:

(6) arabâ-m-in-ki

(7) arabâ-m-da-ki

I will address this difference in the conclusion.

When attached to a Genitive-marked nominal, -ki produces the equivalent of a (sometimes complex) stranded possessor phrase:

(9) Hasan-in
    Hasan-GEN
    arabâ-in
    car-POSS3s
    yeni, ben-im-ki
    car-POSS1s
    eski
    small

    Hasan’s car is big, mine is small"

---

2 See Schroeder (2000) for some discussion of the distributional properties of this suffix.

3 Johan Vandewalle suggested (p.c.) that the locative -ki can also attach to expressions formed with the suffix -(y)ken. Textual examples of this collocation are not easy to find, but Google did turn up one occurrence [Public Housing Bilgilendirme Belgesi, New South Wales, Mart 2001. URL: www.housing.nsw.gov.au/aplly_turkish.pdf]:

    "Mülk Durum Raporu, Kıranlık Anlaşmasının bir parçasıdır. Mülkün kirasılığa
    başladığındaki durumunu kaydede ve mülkün siz boşaltırkenki durumuna karşılanır ..."

4 Most suffixes in Turkish are harmonic, i.e. their vowels are underspecified and determined by properties of the stem to which they are attached. In addition, most Turkish suffixes are stressable, and stem-final stress migrates onto the suffix, and onto subsequent suffixes if they are stressable.
(10) ben-im araba-m eski, Hasan-in baba-san-in-ki yeni.
me-GEN car-POSS1s small, Hasan-GEN father-POSS3s-GEN-ki big
‘my car is small, Hasan’s father’s is big’

Note that in this case, \(-ki\) is incompatible with the overt expression of the possessee:

(11) ben-im araba-m  
me-GEN car-POSS1s  
‘my car’  

(12) Hasan-in araba-si  
Hasan-in-ki  
‘Hasan’s car’

When \(-ki\) attaches to a nominal in the Locative case, the syntax is a bit different. **Loc-ki** is compatible with the overt expression of the possessee:

(13) raf-ta-ki kitap  
shelf-LOC-ki book  
‘the book on the shelf’  

(14) arab-ta-ki  
arab-ta-ki  
‘the one on the shelf’  

In this case, the thing produced by \(-ki\) appears to function like an adjective; when it is recoverable from context, the noun modified may be omitted. Note that when the modified noun is omitted, a plural and/or case affix that would have attached to it instead attaches to the word formed by \(-ki\):

(15) arab-ta-ki  
kişi-lær  
arab-ta-ki-lær  
‘the people in my car’

This means that \(-ki\) can morphotactically not only follow the (PL)(POSS)(CASE) sequence in a nominal, but it can in turn be followed by (PL)(CASE):

(16) arab-ta-ki  
kişi-lær-in  
arab-ta-ki-lær-in  
‘of the people in my car’

It looks like there is a loop in the morphotactics.
3. A Morphotactic Problem

If we think simply about how to describe the possible sequences of suffixes in Turkish nominals, it is tempting to treat -ki as a suffix which permits a loop back to an earlier position in the suffix sequence, as indicated below:²

(17) \( N_0 \circ (PL)(POSS)(CASE)(ki) \)

There is an empirical problem with this, however: if it is something so simple as a morphotactic loop, we would expect the Possessive suffixes to repeat just as easily as the plural and case ones. It is not that simple.

In the Genitive-\( ki \) cases, after the -\( ki \) a Plural and a Case suffix may follow, but never a Possessive:

(18) siz-in-ki-ler-de
    you-GEN-ki-PL-LOC
    'in yours (pl)'

(19) *siz-in-ki-ler-im
    you-GEN-ki-PL-POSS1s

In the Locative-\( ki \) cases, it is possible for a Possessive to follow -\( ki \):

(20) ev-de-ki-ler-imiz⁶
    home-LOC-ki-PL-POSS1p
    'those of us who are at home'

In fact, most (almost all) of the speakers I have consulted find (20) ambiguous. It can mean either “those of us who are at home” or (in the appropriate context) “our books that are in the house”. Some further examples:

(21) Ankara'daki evlerimiz
    Ankara'dakilerimiz
    (our houses that are in Ankara)
    (ours that are in Ankara)
    (OR: those of us who are in Ankara)

(22) evimizdeki kitaplarımız
    evimizdekilerimiz
    (our books that are in our houses)
    (ours that are in our houses)
    (OR: those of us who are in our houses)

(23) evinizdeki kitaplarımız
    evinizdekilerimiz
    (our books that are in your houses)
    (ours that are in your houses)
    (OR: those of us who are in your houses)

² This is, in fact, what is done in Hankamer (1986), and other work by that author.

⁶ Thanks to Asli Güksel for pointing out this kind of example to me.
To contextualize this, consider the exchange of populations that occurred at the end of the war that resulted in the establishment of the existing state of Turkey, in which ethnic Turks who were living on the islands of the Aegean were moved to mainland Turkey, and ethnic Greeks who were living on the mainland were moved to the islands. In that context, imagine a Turkish official speaking to his Greek counterpart:

\[
\text{(24) } \text{ada-lar-ınz-da-ki-ler-imiz} \quad \text{biz-e} \quad \text{gel-sin-ler.}
\]
\[
\text{island-PL-POSS2p-LOC-ki-PL-POSS1p} \quad \text{us-DAT} \quad \text{come-OPT-PL}
\]
\[
\text{‘let those of ours that are on your islands come to us’}
\]
\[
\text{‘let those of us that are on your islands come to us’}
\]

As noted above, most of the speakers I have consulted agree that this example is grammatical and ambiguous in the indicated way.

In contrast, after Gen+ki a following Possessive suffix is never grammatical:

\[
\text{(25) } \text{*evimizinkilerimiz}
\]
\[
\text{*evimizinkilerimiz}
\]

There are thus two problems arising from the attempt to treat -ki as initiating a morphotactic loop. First, the morphotactic behavior diverges: the possible morpheme sequences following Gen-ki are not the same as those following Loc-ki; second, the sequence following Gen-ki has a mysterious gap: Plural and Case suffixes may follow, but not the intervening Possessive suffixes.

4. The Morphosyntax of It

Now let’s look at the syntactic constructions in which these morphological constructs figure.

I will assume a by now standard (conservative, by present-day standards) view of the structure of nominal phrases. In a Genitive-Possessive construction, the possessor is represented by a KP (Case Phrase) in the Genitive case, sitting in SPEC position of a DP headed by the Possessive morpheme:

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7 As apparent exception to this claim is the existence, at least in casual speech, of forms like ‘benimkisi’ (meaning exactly the same thing as ‘benimki’). This appears to be one of the odd uses of the third person possessive to mark definiteness; the third person possessive here is clearly not part of the Genitive-Possessive agreement system.

8 This is, for example, the structure proposed in Kornfilt (1985).
occurred at

Turkey, in

moved to

were moved

his Greek

example is

is never

that -ki as
merges: the

following

and Case

constructs

standards)

action, the

in SPEC

`benimkisi`

third person

Genitive-

(26)

\[
\begin{array}{c}
\text{DP} \\
\text{KP} \\
\text{Hasan-ìn} \\
\text{[GEN]} \\
\text{baba} -sì
\end{array}
\]

Syntactically, the -ki morpheme in the GEN-ki construction can be seen as replacing D' in this structure. A straightforward treatment in the currently accepted framework would be to assume that the -ki in this construction is simply an intransitive determiner, thus occupying D, projecting a DP, and permitting no complement NP. As we shall see below, the -ki in the Loc-ki construction is quite different.

(27)

\[
\begin{array}{c}
\text{DP} \\
\text{KP} \\
\text{Hasan-ìn} \\
\text{[GEN]} \\
\text{D} -ki
\end{array}
\rightarrow \text{Hasan-ìn-ki}
\]

Let us provisionally assume that the Loc-ki construction produces an Adjectival, which adjoins to NP²:

(28)

\[
\begin{array}{c}
\text{DP} \\
\text{D'} \\
\text{NP} \\
\text{Al} -ki \\
\text{raf-ta} \\
\text{kitap} \\
\text{[LOC]}
\end{array}
\]

Given these assumptions, the primary differences between the Gen-ki and Loc-ki constructions follow from their different syntax: Gen-ki is incompatible with an overt head noun because -ki replaces D', which would contain the N if one were there. In (27), -ki is an intransitive Determiner and it is for this reason that it is incompatible with a Noun heading a complement NP. The Loc-ki construction is compatible with an overt head noun because in this case the syntactic thing produced

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² Hankamer (to appear) argues that the Loc-ki phrase does not appear in the position of ordinary adjectives, but sits in the specifier position of a functional projection, lower than D and higher than demonstratives. This does not affect the argument developed here.
-ki is an adjectival, and cooccurs with its head noun unless that noun (more accurately, its NP) is elided (optionally) due to discourse recoverability.

The secondary differences are also explained. The absolute impossibility of OSS suffix following Gen-ki follows from the impossibility of a higher Genitive-kekd KP for the second POSS to agree with. There is no place in this structure for another possessor phrase, hence no place for a controller of the agreement is expressed by the Possessive suffix. Put another way, the ungrammaticality of OSS morpheme following a Gen-ki sequence is a reflection of the same principle prevents "my his car" from being grammatical in English.

It is, of course, possible for a DP such as that in (27) to combine with a case suffix to form a KP (case phrase), and if the case of that KP is Genitive or Locative, the KP can enter into a higher -ki construction:

\[
\begin{align*}
(29) & \quad \text{sizinkinki} \\
(30) & \quad \text{benimkindeki} \\
(31) & \quad \text{\begin{tikzpicture}[scale=0.5]
\node (KP) at (0,0) {KP};
\node (D) [below] at (0,-1) {DP};
\node (D') [right] at (1,0) {DP [GEN]};
\node (nin) [below right] at (1,-2) {nin};
\node (siz-in) [below] at (0,-3) {KP};
\node (D'') [right] at (1,0) {D'};
\node (D') [right] at (1,-1) {D [GEN]};
\node (D) [right] at (1,-2) {D};
\node (siz-in) [below] at (0,-3) {KP};
\node (D') [right] at (1,0) {D'};
\node (D) [right] at (1,-1) {D};
\node (siz-in) [below] at (0,-3) {n-in};
\node (siz-in) [below] at (0,-3) {n-in};
\end{tikzpicture} \rightarrow \text{siz-in-ki-nin-ki}}
\end{align*}
\]

The morphotactic loop, on this analysis, turns out to be nothing more than the natural and expected consequence of recursion in the syntax.

The situation with the Loc-ki construction is somewhat different. Here -ki is not replacing a D', but rather creating an adjectival phrase which then combines in a modifying relation with an NP (see (28)).

It should be possible for such a DP to enter into a construction in which it represents the possessed in a GEN-POSS structure:
(32)

\[
\begin{array}{c}
\text{DP} \\
\text{biz-im} \\
\text{NP} \\
\text{D} \\
\text{imz} \\
\text{NP} \\
\text{kitap-lar} \\
\text{AP} \\
\text{KP} \\
\text{raf-ta} \\
\text{-ki} \\
\end{array}
\]

(biz-im) raf-ta-ki kitap-lar-imz us-GEN shelf-LOC-ki book-PL-POSS1p

'our books that are on the shelf'

And for this to be reduced by ellipsis to

(33) raf-ta-ki ler-imiz
    shelf-LOC-ki-PL-POSS1p

'ours that are on the shelf'

As seen in section 2, this is correct.\(^{10}\) Furthermore, just as in the case of the Gen+\(ki\) construction, a DP containing a Loc+\(ki\) phrase can combine with a Case suffix to form a KP, which can then combine further to form a nested -\(ki\) construction:

(34) rafakilerimizin
    rafakilerimizininki
    rafakilerimizininkinde

Thus not only the apparent morphotactic loop but also the puzzling complication described in section 3 are accounted for in terms of the assumption that there are two distinct versions of -\(ki\) and that each combines syntactically with phrase-sized entities to produce other phrase-sized entities.

5. A Conclusion

We have seen that the complex morphotactics and morphosyntax of -\(ki\) can be understood if -\(ki\) is treated as an ad-phrasal affix, adjoining to phrases and producing

\(^{10}\) As noted above, almost all of my informants consider examples like (33) ambiguous. One informant insisted that (33) could only mean "those of us who are on the shelf".
phrases with particular syntactic privileges of occurrence. Among the mysteries solved by this analysis are the otherwise baffling morphological gap in the GEN-ki case, the different behavior of the two cases with regard to the possibility of an overt N in the DP, and the very recursiveness of the construction. None of this is explicable (though it could be stipulated) in an analysis where -ki is ad-stem rather than ad- phrasal.

It will be interesting now to explore the consequences of this result, since if -ki is an ad-phrasal affix, then presumably all affixes that occur outside -ki are ad- phrasal too.

References

Hankamer, Jorge (to appear). Why there are two kis in Turkish. Proceedings of the 11th International Conference on Turkish Linguistics.