

Figure and ground reflexives in Turkish

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After controlling for phonologically conditioned homophony, it is shown that Turkish has two distinct suffixes marking verbal reflexives that have distinct syntactico-semantic properties: *-Il* is syncretic with the passive and anticausative, and derives intransitive figure reflexives (Wood 2014); *-In* is not syncretic with the passive and anticausative, and derives ground reflexives, some of which have transitive uses. Goal phrases are compatible with some ground reflexives, as the reduced argument is not the location as a whole, but the DP at the bottom of an articulated locational structure (Svenonius 2006, 2008).

Keywords. verbal reflexives; figure and ground; delayed gratification; Turkish

1. Introduction. Suffixes of the forms *-Il*,¹ *-In* and *-n* in Turkish mark a range of verbal types, notably including passives, anticausatives, and reflexives. There is disagreement as to how many morphemes underlie these forms, the literature falling broadly into two camps. The traditional view holds that there is a passive suffix *-Il* and a reflexive suffix *-(I)n* (Lewis 1967, Banguoğlu 1974, Tietze 1989, Göksel 1993, Kornfilt 1997). An opposing position is that a single morpheme derives all of these verbal types (Taneri 1993, Nakipoğlu-Demiralp 1998, Zeyrek 2006, Gündoğdu 2017). In this paper, I show that both views are essentially correct. There is a morpheme that derives passives, anticausatives and reflexives, which has the allomorphs *-Il*, *-In* and *-n* according to the phonology of the stem. In addition, there is a second morpheme that also derives verbal reflexives, but not passives or anticausatives, and which has the allomorphs *-In* and *-n*. The two morphemes are thus homophonous in some, but not all, environments. The difference in exponence correlates with syntactic and semantic differences between two distinct reflexive types. *-Il* is a detransitivizer in the traditional sense: *-Il* reflexives are intransitive, lacking a syntactic object that is present in a corresponding transitive verb and which is coreferential with the reflexive subject. In the majority of cases, the argument in question is the figure of a figure-ground relation (Talmy 1978, Svenonius 2003), and hence *-Il* is shown to derive a large number of figure reflexives (as Wood 2014 shows for *-st* in Icelandic). In contrast, *-In* is not a detransitivizer, as some of its formations have transitive uses. However, it does signal a kind of reduced valency, though not the loss of a theme, nor of a dative-marked goal as such; rather, the missing argument is the most deeply embedded kernel of an articulated location structure: the ground (Svenonius 2006).

The paper is organized as follows: §2 evaluates the distribution of allomorphs according to phonological environment and identifies two distinct reflexive morphemes. §3 examines the syntactico-semantic properties of the two verbal reflexive types and establishes that *-Il* derives figure reflexives and *-In* derives ground reflexives. §4 takes a fine-grained look at ground

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¹ A capital *I* in suffix notation represents a high vowel occurring as *i*, *ı*, *ü*, or *u* according to vowel harmony.

reflexives, showing that they are often compatible with a goal phrase in the form of a dative-marked axial part (Svenonius 2006), and that the only missing piece is the ground itself, which is coreferential with the agent subject. §5 explores theoretical options for analyzing the two verbal reflexive types. §6 concludes.

2. Homophony and contrast: controlling for environment. Allomorphy in Turkish verbal suffixes is to a large extent conditioned predictably by the phonology of the stem, and hence the first step in assessing the status of verbal morphology is to control for phonological environment. The distribution of passive allomorphs in Turkish is widely described and uncontroversial. The passive suffix is *-n* postvocally (1a), *-In* after /l/ (1b), and *-Il* elsewhere (1c,d). Following a consonant other than /l/, a suffix of the form *-In* is either ungrammatical (1c) or has a non-passive interpretation, often reflexive (1d).

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|-----|----|---------------|----------|-----------------|---------------|-----------------|--------------------|
| (1) | a. | <i>oku-</i> | ‘read’ | <i>oku-n-</i> | ‘be read’ | | |
| | | <i>bekle-</i> | ‘expect’ | <i>bekle-n-</i> | ‘be expected’ | | |
| | b. | <i>bil-</i> | ‘know’ | <i>bil-in-</i> | ‘be known’ | | |
| | | <i>al-</i> | ‘take’ | <i>al-in-</i> | ‘be taken’ | | |
| | c. | <i>yaz-</i> | ‘write’ | <i>yaz-il-</i> | ‘be written’ | <i>*yaz-in-</i> | |
| | | <i>sat-</i> | ‘sell’ | <i>sat-il-</i> | ‘be sold’ | <i>*sat-in-</i> | |
| | d. | <i>giy-</i> | ‘wear’ | <i>giy-il-</i> | ‘be worn’ | <i>giy-in-</i> | ‘get dressed’ |
| | | <i>sür-</i> | ‘apply’ | <i>sür-ül-</i> | ‘be applied’ | <i>sür-ün-</i> | ‘apply to oneself’ |

Based on data such as that in (1d), I adopt the hypothesis that there is a distinct reflexive morpheme of the form *-In* following any consonant; in addition, I make the traditional assumption that this occurs as *-n* following a vowel. The passive and the reflexive are thus homophonous in two environments (stems ending in a vowel or in /l/), and phonologically contrastive elsewhere.

Stem-final segment:	vowel	/l/	other
Passive	<i>-n</i>	<i>-In</i>	<i>-Il</i>
Reflexive	<i>-n</i>	<i>-In</i>	<i>-In</i>

Table 1: The distribution of passive and reflexive allomorphs by phonological environment.

In §2.1 I use this principle to establish the identity of the anticausative, focusing first on the environment where the passive and reflexive are contrastive, and conclude that the anticausative is perfectly syncretic with the former but not the latter. In §2.2 I apply the same methodology to verbal reflexives, with strikingly different results: Both *-Il* and *-In* occur in the contrastive environment, occasionally deriving two reflexive verbs from the same stem. I conclude from this that Turkish has two morphosyntactically distinct verbal reflexive derivations.

2.1. THE DISTRIBUTION OF ANTICAUSATIVE ALLOMORPHS. Like passives, anticausatives are syntactically intransitive verbs whose subject corresponds to the object of a transitive verb; unlike passives, the anticausative has no implicit external argument corresponding to the transitive subject (Haspelmath 1993, Alexiadou et al. 2015, a.o.). In the contrastive environment (a stem ending in a consonant other than /l/), *-Il* forms at least thirty anticausatives.

Transitive	Intransitive	gloss
<i>aç-</i>	<i>aç-il-</i>	‘open’
<i>ayır-</i>	<i>ayr-il-</i>	‘separate’
<i>boz-</i>	<i>boz-ul-</i>	‘spoil’
<i>bur-</i>	<i>bur-ul-</i>	‘twist’
<i>burk-</i>	<i>burk-ul-</i>	‘sprain’
<i>bük-</i>	<i>bük-ül-</i>	‘buckle’
<i>büz-</i>	<i>büz-ül-</i>	‘scrunch up, pucker’
<i>çiz-</i>	<i>çiz-il-</i>	‘scratch’
<i>çöz-</i>	<i>çöz-ül-</i>	‘dissolve, come undone’
<i>devir-</i>	<i>devr-il-</i>	‘topple’
<i>dök-</i>	<i>dök-ül-</i>	‘spill’
<i>ez-</i>	<i>ez-il-</i>	‘get crushed’
<i>ger-</i>	<i>ger-il-</i>	‘become tense, taught’
<i>göm-</i>	<i>göm-ül-</i>	‘get buried, submerged’
<i>kavur-</i>	<i>kavr-ul-</i>	‘roast’
<i>kır-</i>	<i>kır-il-</i>	‘break’
<i>kıvr-</i>	<i>kıvr-il-</i>	‘coil’
<i>ört-</i>	<i>ört-ül-</i>	‘become covered’
<i>saç-</i>	<i>saç-il-</i>	‘strew’
<i>sars-</i>	<i>sars-il-</i>	‘shake’
<i>ser-</i>	<i>ser-il-</i>	‘be laid out’
<i>serp-</i>	<i>serp-il-</i>	‘sprinkle’
<i>stıyr-</i>	<i>stıyr-il-</i>	‘scrape off’
<i>soy-</i>	<i>soy-ul-</i>	‘peel’
<i>sök-</i>	<i>sök-ül-</i>	‘unravel’
<i>yar-</i>	<i>yar-il-</i>	‘split’
<i>yay-</i>	<i>yay-il-</i>	‘spread’
<i>yığ-</i>	<i>yığ-il-</i>	‘heap up’
<i>yık-</i>	<i>yık-il-</i>	‘collapse’
<i>yırt-</i>	<i>yırt-il-</i>	‘rip’

Table 2: Anticausatives marked with *-il* in the contrastive environment.

There are no anticausatives with a suffix of the form *-In* in the contrastive environment. An apparent counterexample is *çöz-ün-* ‘dissolve, biodegrade.’ This, however, is a technical term probably coined in the 20th century; the proper anticausative of *çöz-* ‘dissolve, thaw, undo’ is *çöz-ül-* ‘dissolve, thaw, come undone.’ Another, *gör-ün-* ‘appear,’ is not anticausative at all: The base *gör-* ‘see’ is not causative, while *gör-ün-* has an implicit experiencer that is optionally expressed as a dative (Kornfilt 1997:328). We may conclude that anticausatives of the form *-n* or *-In* in the homophonous environments (following a vowel or /l/) are allomorphs of *-il*.

- (2) a. *kapa-* ‘close (tr.)’ *kapa-**n-*** ‘close (int.)’ = *-il*
tıka- ‘clog (tr.)’ *tıka-**n-*** ‘clog (int.)’ = *-il*
b. *böl-* ‘divide (tr.)’ *böl-**ün-*** ‘divide (int.)’ = *-il*
del- ‘pierce’ *del-**in-*** ‘get pierced’ = *-il*

2.2. REFLEXIVES IN THE CONTRASTIVE ENVIRONMENT. Thus far we have seen that both passives and anticausatives have suffixes of the forms *-n* or *-In* only in the homophonous environments, and are elsewhere marked uniformly with *-Il*. Verbal reflexives present us with a different picture. In the contrastive environment, we find examples marked with *-Il* as well as with *-In*.

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|-----|----|-------------|---------------|----------------|--|
| (3) | a. | <i>koy-</i> | ‘put’ | <i>koy-ül-</i> | ‘set about, put oneself to (doing sth.)’ |
| | | <i>kat-</i> | ‘add’ | <i>kat-ıl-</i> | ‘join, add oneself to’ |
| | b. | <i>soy-</i> | ‘peel, strip’ | <i>soy-un-</i> | ‘get undressed’ |
| | | <i>ört-</i> | ‘cover’ | <i>ört-ün-</i> | ‘cover oneself’ |

One might conjecture that, in addition to predictable phonological conditioning, the form *-In* can be idiosyncratically conditioned by certain roots. However, this hypothesis is falsified by minimal pairs where the same root has two reflexive forms, one with *-Il* and one with *-In*.

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|-----|-------------|----------|----------------|------------------------|----------------|-----------------------------|
| (4) | <i>dök-</i> | ‘spill’ | <i>dök-ül-</i> | ‘spill out (a crowd)’ | <i>dök-ün-</i> | ‘pour (water) on oneself’ |
| | <i>tık-</i> | ‘stuff’ | <i>tık-ıl-</i> | ‘stuff oneself (into)’ | <i>tık-in-</i> | ‘stuff oneself (with food)’ |
| | <i>tak-</i> | ‘attach’ | <i>tak-ıl-</i> | ‘attach oneself to’ | <i>tak-in-</i> | ‘attach to oneself; assume’ |
| | <i>sar-</i> | ‘wrap’ | <i>sar-ıl-</i> | ‘wrap oneself around’ | <i>sar-in-</i> | ‘wrap around oneself’ |

The difference in marking is not idiosyncratic, but correlates with other differences. It has previously been noted that some verbal reflexives in Turkish are transitive (Göksel 1993, Erdem 2015). Controlling for phonological environment allows us to see that this is true only of *-In* reflexives, and never of *-Il* reflexives. Below, *sar-in-* can take either a dative- or an accusative-marked complement (5a), while an accusative complement is ungrammatical with *sar-ıl-* (5b).

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|-----|----|---------------------------------------|--|
| (5) | a. | (Ben) {havlu-ya / havlu-yu} | <i>sar-in-</i> dı-m. |
| | | I towel-DAT towel-ACC wrap-IN-PST-1SG | ‘I wrapped the towel around me.’ |
| | b. | (Ben) {ağac-a / *ağac-ı} | <i>sar-ıl-</i> dı-m. |
| | | I tree-DAT / tree-ACC wrap-IL-PST-1SG | ‘I embraced (wrapped myself around) the tree.’ |

These facts indicate the existence of (at least) two distinct verbal reflexive constructions. The following section examines their respective properties more closely.

3. Figure and ground reflexives. First let us return to the reflexive minimal pairs in (4) and observe that these are all based on the figure-ground relation. The figure (Talmy 1978) is “the entity in motion or at rest which is located with respect to the ground” and the ground is the “location with respect to which the figure is located” (Svenonius 2003:432-433). These may be physical or metaphorical. In Turkish, this relation is often expressed in the figure frame, where the figure is differentially accusative-marked (Enç 1993) or pseudo-incorporated (Öztürk 2005) and the ground is oblique. This is exemplified below with the ditransitive *dök-* ‘pour’: *çay-ı* ‘tea-ACC’ is the figure, in motion with respect to the ground *yer-e* ‘ground-DAT.’

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|-----|------|---|--------------|----------------|
| (6) | Ayşe | <i>çay-ı</i> | <i>yer-e</i> | <i>dök-tü.</i> |
| | A. | tea-ACC | ground-DAT | pour-PST |
| | | ‘Ayşe spilled the tea onto the ground.’ | | |

Reflexives based on this verb exhibit split behavior. The subject of the *-Il* reflexive (7a) *halk* ‘people’ is the figure, in motion with respect to the ground *sokağ-a* ‘street-DAT.’ The subject of the *-In* reflexive (7b) *Ayşe* is the ground, with respect to which the figure *su* ‘water’ is in motion.

- (7) a. Halk sokağ-a dök-**ül**-dü.
 people street-DAT pour-IL-PST
 ‘The people poured into the street.’
 b. Ayşe (su) dök-**ün**-dü.
 A. (water) pour-IN-PST
 ‘Ayşe washed.’ (lit. ‘Ayşe poured (water) on herself.’)

It should be noted that *su dök-ün-* is a collocation with the strictly idiomatic reading of ‘wash oneself’; *su* ‘water’ can be omitted with no change in interpretation, and for some speakers, replacing it with a nominal denoting a different liquid is unacceptable.² There is variation among *-In* reflexives in expression of the figure argument: Some are fully transitive, others have varying degrees of restrictions on the expression of the figure, and still others are fully intransitive.

The next minimal pair is based on *tık-* ‘stuff something-ACC (figure) inside something-DAT (ground).’ The subject of the *-Il* reflexive (8a) ‘I’ is the figure, in motion with respect to the ground *yatağ-a* ‘bed-DAT.’ The subject of the *-In* reflexive (8b) ‘I’ is the ground, with respect to which the figure *bir şeyler* ‘this-and-that’ is in motion. Here again, expression of the figure argument is restricted, this time to a semantically vague constituent: *bir şeyler* ‘some things.’

- (8) a. Küçük-cük yatağ-a tık-**ıl**-dı-m.
 small-DIM bed-DAT stuff-IL-PST-1SG
 ‘I stuffed myself into the tiny bed.’
 b. Bir şey-ler tık-**ın**-dı-m.
 a thing-PL stuff-IN-PST-1SG
 ‘I stuffed myself (eating) this-and-that.’ (lit.: ‘I stuffed some things into myself.’)

The next pair is based on *tak-* ‘attach something-ACC (figure) to something-DAT (ground).’ In the *-Il* reflexive (9a), the subject *Ahmet* is the figure, in motion with respect to the ground *hırsız* ‘thief.’ This is a *ground-in-motion* construction (Svenonius 2007:95): The postpositional element *peş* ‘behind’ (an axial part—see §4) has the entailment that the ground itself is moving. With the *-(I)n* reflexive (9b), the figure is *madalya-sın-ı* ‘his medal-ACC’ in motion towards the subject *amca-m* ‘my uncle,’ which is thereby also the ground. The latter example is from Banguoğlu (1974), an authoritative reference grammar. This and other literal uses of *tak-in-* are rejected by my consultants; the more common metaphorical use, in which the figure is an attitude or facial expression (9c), is judged to be perfect.

- (9) a. Ahmet hırsız-ın peş-in-e tak-**ıl**-dı.
 A. thief-GEN behind-3SG-DAT attach-IL-PST
 ‘Ahmet pursued the thief.’ (lit. ‘attached himself to the space behind the thief’)

² Two of my three consultants rejected the sentence in (7b) if *su* ‘water’ is replaced by *süt* ‘milk,’ while the third accepted it on the reading that Ayşe took a milk bath. This suggests that, despite the idiomatic character of the expression, the figure argument is semantically active.

- b. Amca-m madalya-sın-ı tak-ın-malı.
uncle-1SG medal-3SG-ACC attach-IN-NEC
'My uncle should put on his medal.' (Banguoğlu 1974:415)
- c. Umursamaz tavr-ın-ı tak-ın-dı.
unconcerned attitude-3SG-ACC attach-IN-PST
'She put on an air of indifference.'

The final pair is based on *sar-* 'wrap something-ACC (figure) around something-DAT (ground).' The subject of *sar-ıl-* (10a) is the figure, in motion with respect to the ground *ağac-a* 'tree-DAT.' The subject of *sar-ın-* (10b) is the ground, the figure being *havlu-yu* 'the towel-ACC.'

- (10) a. Ahmet ağac-a sar-ıl-dı.
A. tree-DAT wrap-IL-PST
'Ahmet hugged ('wrapped himself around') the tree.'
- b. Ahmet havlu-yu sar-ın-dı.
A. towel-ACC wrap-IN-PST
'Ahmet wrapped the towel around himself.'

In these four minimal pairs, the subject of the *-ıl* reflexive is consistently a figure and the subject of the *-ın* reflexive is a ground. This pattern holds more broadly. In all, *-ıl* forms around twenty figure reflexives, which may occur with a physical or metaphorical goal or source argument (Table 2), while *-ın* forms at least eight ground reflexives (Table 3).

Unlike anticausatives, the subject of a figure reflexive is an agent. Wood (2014) demonstrates this for Icelandic with several tests applied to a minimal pair: *troðast* 'squeeze (oneself into)' (figure reflexive) and *troðast undir* 'get trampled (underfoot)' (anticausative). Wood uses "what happened to X" clefts as a test, which are infelicitous if the agent is volitional. I was unable to construct clefts that native speakers deemed acceptable, but the same effect is achieved in a question-answer format. Finding minimal pairs that allow a human subject is a challenge, but science fiction expands the possibilities. The pair below is *ayr-ıl-* 'leave' (figure reflexive) and *ortadan ikiye ayr-ıl-* 'split in two down the middle' (anticausative). The former is bad as an answer to a "what happened to X?" question. While agentivity tests come with many caveats,³ what is striking is that the subject of *ayr-ıl-* meaning 'leave' is obligatorily volitional. A1 cannot mean that Spock was discharged or separated from Starfleet, except by his own will.

- (11) Q: Mr. Spock-ın baş-ın-a ne gel-di?
Mr. Spock-GEN head-3SG-DAT what come-PST
'What happened to Mr. Spock?'
- A1: # Yıldız Filo-sun-dan ayr-ıl-dı.
star fleet-CM-ABL separate-NACT-PST
'He left Starfleet.' (figure reflexive)
- A2: Orta-dan iki-ye ayr-ıl-dı.
middle-ABL two-DAT separate-NACT-PST
'He split in two down the middle.' (anticausative)

³ Among other confounds, most of the figure reflexives in Table 2 are homophonous with the passive.

Transitive	Figure reflexive	Dative goal	Ablative source
<i>aç-</i> ‘open’	<i>aç-il-</i> ‘swim/sail’	‘out to the open sea’	‘from shore’
<i>as-</i> ‘hang’	<i>as-il-</i> ‘hang’	‘onto (a branch, etc.)’	
<i>at-</i> ‘throw’	<i>at-il-</i> ‘throw oneself’	‘onto’	
<i>ayır-</i> ‘separate’	<i>ayır-il-</i> ‘leave’		‘a place; a person’
<i>büz-</i> ‘constrict’	<i>büz-ül-</i> ‘crouch’	‘into (e.g. a corner)’	
<i>çek-</i> ‘pull’	<i>çek-il-</i> ‘withdraw’	‘to’	‘from’
<i>dik-</i> ‘plant’	<i>dik-il-</i> ‘plant oneself’	‘in front of’	
<i>dök-</i> ‘spill, pour’	<i>dök-ül-</i> ‘spill’	‘into (the street)’	‘from (a building)’
<i>eğ-</i> ‘bend’	<i>eğ-il-</i> ‘bend, bow’	‘to (the ground)’	
<i>kat-</i> ‘add’	<i>kat-il-</i> ‘join’	‘(a group, an event)’	
<i>kes-</i> ‘cut’	<i>kes-il-</i> ‘stop’		‘eating, drinking’
<i>kıvr-</i> ‘coil, bend’	<i>kıvr-il-</i> ‘turn’	‘in (a direction)’	
<i>koy-</i> ‘put’	<i>koy-ul-</i> ‘set about’	‘doing (something)’	
<i>kur-</i> ‘set up’	<i>kur-ul-</i> ‘settle oneself’	‘in’	
<i>sar-</i> ‘wrap’	<i>sar-il-</i> ‘embrace’	‘someone/something’	
<i>ser-</i> ‘spread out’	<i>ser-il-</i> ‘spread out’	‘onto (a bed, etc.)’	
<i>stıyr-</i> ‘scrape’	<i>stıyr-il-</i> ‘sneak away’		‘from’
<i>sok-</i> ‘insert’	<i>sok-ul-</i> ‘sidle’	‘up to’	
<i>tak-</i> ‘attach’	<i>tak-il-</i> ‘follow’	‘someone’	
<i>tık-</i> ‘stuff’	<i>tık-il-</i> ‘stuff oneself’	‘into’	
<i>yaz-</i> ‘write’	<i>yaz-il-</i> ‘register oneself’	‘in’	

Table 2: Figure reflexives marked with *-il* in the contrastive environment.

Ground reflexives are formed with *-in*. Despite the shortness of the list, reflexives that denote putting something on or taking something off of the body are all found here.

Simplex stem	Ground reflexive	Direct object figure
<i>giy-</i> ‘put on, wear’	<i>giy-in-</i> ‘get dressed’	restricted
<i>soy-</i> ‘peel, strip’	<i>soy-un-</i> ‘get undressed’	no
<i>sür-</i> ‘apply, rub (on sth.)’	<i>sür-ün-</i> ‘apply, rub on oneself’	yes (oil, lotion, etc.)
<i>ört-</i> ‘cover’	<i>ört-ün-</i> ‘cover oneself’	yes
<i>sar-</i> ‘wrap’	<i>sar-ın-</i> ‘wrap around oneself’	yes
<i>dök-</i> ‘spill, pour’	<i>dök-ün-</i> ‘pour (water) on oneself; wash’	restricted
<i>tık-</i> ‘stuff’	<i>tık-ın-</i> ‘stuff oneself, snack’	restricted
<i>tak-</i> ‘attach’	<i>tak-ın-</i> ‘attach to oneself; assume (an attitude)’	restricted

Table 3: Ground reflexives marked with *-in* in the contrastive environment.

Expressibility of the figure argument varies from verb to verb. Below, *bir şişe kolonya-yı* ‘a bottle of cologne-ACC’ is the figure, while the subject is the ground.

- (12) Bir şişe kolonya-yı sür-**ün-**dü-m.
 one bottle cologne-ACC put.on-IN-PST-1SG
 ‘I put one bottle of cologne on myself.’ (Erdem 2015:83; glossing mine)

In the literature, *giy-in-* ‘get dressed,’ based on *giy-* ‘put on, wear’ (13a), is usually treated as intransitive (e.g., Göksel 1993). On this view, *giy-in-* is something of an oddity, as its subject does not corefer with the missing argument—it does not mean ‘wear oneself,’ nor is it based on a verb meaning ‘dress’ such that it could mean ‘dress oneself.’ We can make sense of this if the subject is the ground; *giy-in-* optionally takes a semantically vague accusative-marked figure argument denoting clothing (13b). This shows that *-In* is not a detransitivizer.

- (13) a. Gömleğ-i giy-di-m.
 shirt-ACC put.on-PST-1SG
 ‘I put on the shirt.’
 b. (Üst-üm-ü) giy-in-di-m.
 top-POSS.1SG-ACC wear-IN-PST-1SG
 ‘I got dressed (put on my clothes).’

Having identified the respective properties of the two reflexive types, we can use these to diagnose the identity of ambiguous forms. Monosegmental *-n*, the form taken by both *-Il* and *-In* on a vowel stem, is always ambiguous. When *-n* forms a figure reflexive, it is an allomorph of *-Il* and not *-In*, as in (14), where the subject is a figure and the ground is the dative goal.

- (14) Ev-e kapa-n-dı-k. = *-Il*
 house-DAT close-IL-PST-1PL
 ‘We shut ourselves in the house.’

When *-n* marks a ground reflexive, and in particular if the verb has a transitive use with an accusative figure, we can be certain that it is truly an occurrence of *-In*. The verb *kuşa-n-* ‘gird, wrap around one’s waist’ is such a case (15). Although there is no corresponding simplex verb **kuşa-* in Modern Standard Turkish, the morphological division is well-motivated, as we find the same bound root in the nouns *kuşa-k* ‘sash’ and *kuşa-m* ‘garb.’

- (15) Savaşçı kılıc-ın-ı kuşa-n-dı. = *-In*
 warrior sword-3SG.POSS-ACC gird-IN-PST
 ‘The warrior girded his sword (round his waist).’

There is even a minimal pair among the ambiguous forms: *yükle-n-* can mean either ‘heave oneself against’ (figure reflexive) with a dative goal (16a), or ‘heave onto oneself’ (ground reflexive) with an accusative figure (16b). The first has an allomorph of *-Il*, the second of *-In*.

- (16) a. Kapı-ya yükle-n-di-m. = *-Il*
 door-DAT heave-IL-PST-1SG
 ‘I heaved (myself) against the door.’
 b. Çuval-ı yükle-n-di-m. = *-In*
 sack-ACC heave-IN-PST-1SG
 ‘I heaved the sack (onto my back).’

Other cases are less clear: the subject of *yıka-n-* ‘wash’ is notionally the ground, but expression of a figure (dirt/sweat) is impossible. On the other hand, if the suffix here is *-Il*, the subject of *yıka-n-* might be a theme; note that *-Il* does form theme reflexives, e.g., *tart-ıl-* ‘weigh oneself.’

4. The missing argument. It is generally assumed of verbal reflexives that, as compared to their non-reflexive counterparts, they are missing a syntactic argument, with which the reflexive subject corefers (e.g., Reinhart & Siloni 2005). On this assumption, ground reflexives would be missing a syntactic argument that denotes the ground in the corresponding basic predicate. It may come as a surprise, then, that some ground reflexives are compatible with a dative goal (17a), apparently exhibiting the same argument structure as the non-reflexive form (17b).

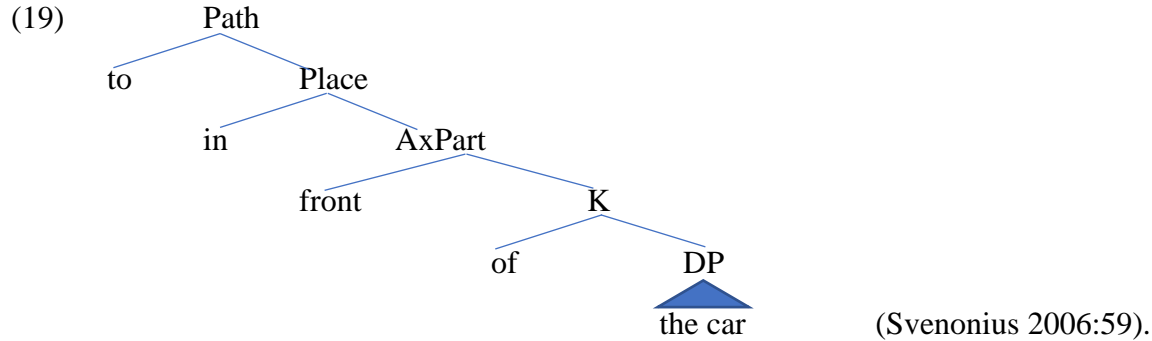
- (17) a. Duş-tan çık-ıp üst-ün-e havlu-yu sar-**m**-dı.
 shower-ABL leave-CONV surface-3SG.POSS-DAT towel-ACC wrap-IN-PAST
 ‘S/he wrapped the towel around herself/himself after leaving the shower.’
 (Erdem 2015:83—glossing and translation mine)
- b. Üst-ün-e havlu-yu sar-dı.
 surface-3SG.POSS-DAT towel-ACC wrap-PST
 ‘S/he wrapped the towel around herself/himself.’

Both the reflexive *sar-in-* and the basic verb *sar-* are ditransitive, taking an accusative-marked figure and a dative-marked goal. This is puzzling on the face of it, as there appears to be no valency reduction. Yet when we take a closer look, we see that the reflexive morpheme does correlate with the loss of an argument. The basic verb *sar-* permits a genitive DP identifying the referent of the agreement marker (*bebeğ-in* ‘baby-GEN’ in 18a), but the reflexive-marked *sar-in-* does not (18b). The reflexive subject is obligatorily coreferential with the missing argument.

- (18) a. Ayşe_i havlu-yu bebeğ_k-in üst-ün_k-e sar-dı.
 A. towel-ACC baby-GEN surface-3SG.POSS-DAT wrap-PST
 ‘Ayşe wrapped the towel around the baby.’
- b. Ayşe_i havlu-yu (*bebeğ_k-in) üst-ün_{i/*k}-e sar-**m**-dı.
 A. towel-ACC baby-GEN surface-3SG.POSS-DAT wrap-IN-PST
 ‘Ayşe wrapped the towel around herself.’ (*‘around the baby’)

Thus, ground reflexives do conform to the above generalization regarding argument structure, but at a finer-grained level than has previously been recognized. The dative-marked element *üst* is not itself the ground. Rather, it is an Ax[ial]Part: “a locative expression, referring not to a part of the object, but to a space defined with reference to that part” (Svenonius 2006:49). Having denotations such as *on*, *in*, *over*, *under*, *front*, *back* and *around*, AxParts identify a region projected by the ground. Cross-linguistically, the ground and its AxPart tend to exhibit the same morphosyntax as possessor and possessum. When the goal of an *-In* reflexive is expressed as in (18b), what is missing is the genitive-marked ground argument.⁴ Svenonius (2006) argues that the ground is a DP at the bottom of a universal functional sequence at the top of which is a path (goal or source). Svenonius suggests that elements not lexicalized have an underspecified contribution. The goal and the ground are thus distinct syntactic projections, though they may be conflated. For instance, in the sentence “I threw the ball in the box,” the box is both ground and goal, whereas in “I threw the ball in front of the box,” the box is still the ground, but now the goal is not the box itself but rather a space defined with respect to the box.

⁴ Or more precisely, the *eigenplace*: the collection of points in space occupied by the ground (Svenonius 2010:6).



This structure occurs (head-finally) in Turkish. In the goal phrase *bebeğ-in üst-ün-e* ‘over the baby’ (18a) Path is realized by the dative,⁵ AxPart by *üst* ‘over,’ K by the genitive, and the ground by *bebeğ-* ‘baby.’ Place is not lexicalized independently of Path in Turkish. Suppression of the ground DP and its K shell still allows expression of a goal (AxPart and Path).

With simple predicates, coreference of the subject and ground is possible; the presence of the suffix *-in* makes it obligatory. With *yükle-* ‘load’ (20a) the ground may be the subject, with *sirt* ‘back’ as the AxPart, or it may be disjoint. The reflexive *yükle-n-* has the same apparent argument structure, but only an implicit ground coreferential with the subject is permitted (20b).

- (20) a. Çuval-ı {sirt-ım-a / araba-ya} yük-le-di-m.
 sack-ACC back-1SG.POSS-DAT/cart-DAT load-v-PAST-1SG
 ‘I loaded the sack {onto my back / onto the cart}.’
- b. Çuval-ı {sirt-ım-a / *araba-ya} yük-le-n-di-m.
 sack-ACC back-1SG.POSS-DAT/cart-dat load-v-IN-PAST-1SG
 ‘I loaded the sack onto my back.’ (*‘onto the cart’)

We see a similar pattern with *bak-* ‘look,’ which takes a dative complement (21a), the perceptual goal. A figure is not expressible, but can be conceived of abstractly as a look or glance. The reflexive *bak-ın-* ‘look around oneself’ allows an optional dative complement based on the AxPart *etraf* ‘around,’ which names a region surrounding the ground (21b). Even without *etraf*, *bak-ın-* still means ‘look around oneself,’ suggesting that ground reflexives have a fixed axial relation that is implicit when not expressed overtly.

- (21) a. Ev-e bak-tı-m.
 house-DAT look-PST-1SG
 ‘I looked at the house.’
- b. (Etraf-ım-a) bak-ın-di-m.
 around-1SG.POSS-DAT look-IN-PST-1SG
 ‘I looked around me.’

The other ground reflexives we have seen thus far have ‘over/on’ as their fixed axial relation,⁶ with the exception of *tık-ın-* ‘stuff oneself (eating),’ which has the ‘inside’ relation.

⁵ Tonyalı (2015) argues that spatial goals in Turkish are postpositional dative constructions.

⁶ This raises questions about constructions such as *üst-ün-ü giy-in-* ‘put on one’s clothes’ in (13b), where *üst* looks like an AxPart but refers to the figure. I can think of two approaches to this: either (i) *üst* is ambiguous between an AxPart and a noun meaning ‘clothes,’ or (ii) upon culmination of the motion event, the outer layer of clothing is

5. Towards an analysis. Turkish figure reflexives present no serious theoretical challenges. Their argument structure and thematic relations make them amenable to any of a number of derivations that have previously been proposed for verbal reflexives. I review two possibilities before turning to the thornier problem of ground reflexives.

The formal identity of passive, anticausative, and reflexive (*u*-syncretism) is captured in a typology of Voice developed in an influential body of literature (Embick 2004; Alexiadou et al. 2015; Schäfer 2017; a.o.). Voice varies syntactically according to whether it projects a specifier, and semantically in terms of whether it introduces a θ -role. Transitives and unergatives are derived with a Voice head that is both active, having a {D} feature to merge a DP specifier, and thematic, introducing a θ -role. Nonactive Voice does not project a specifier but may still be thematic, deriving a passive with the external role either existentially bound, or saturated by a *by*-phrase. Alternatively, nonactive Voice may be semantically expletive; in this case, there is no external role, implicit or otherwise, and the resulting derivation is an anticausative. Morphological exponence is sensitive only to the presence or absence of a specifier, not to whether the Voice head is thematic or expletive, so the cross-linguistically common syncretism of passive and anticausative marking is straightforwardly accounted for. With a subset of verbs, the implicit agent in the thematic nonactive Voice head may be understood as coreferential with the subject, and so verbal reflexives are brought into the fold of *u*-syncretism (Embick 2004, Spathas et al. 2015). This is essentially the analysis of Turkish *u*-syncretism adopted by Gündoğdu (2017), where *-Il* spells out the nonactive Voice head.

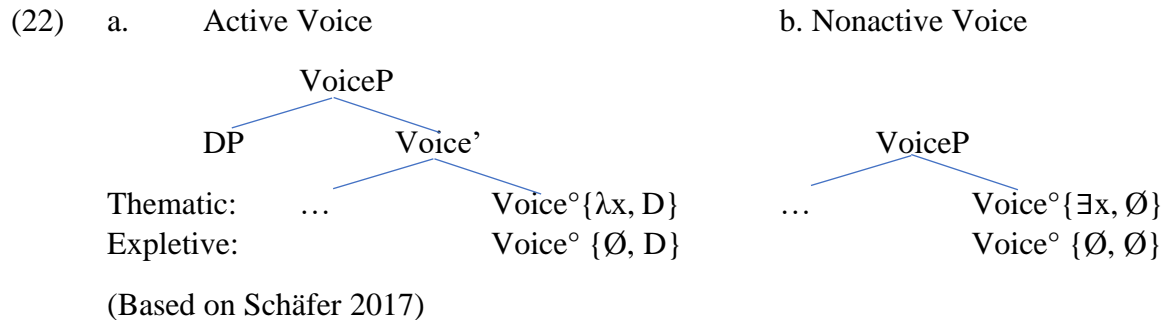
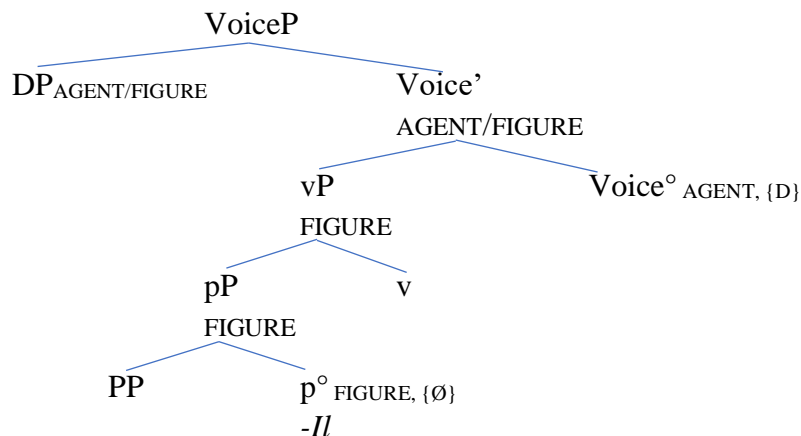


Figure reflexives might have the structure in (22b). Alternatively, they might be derived in the manner proposed by Wood (2014) for Icelandic. Following Svenonius (2003), the figure role, external to PP, is introduced by a functional head little p and, in the normal course of events, is saturated by a DP merged in Spec,pP. If, however, the role cannot be saturated in this way, it remains on the tree until a DP is merged in Spec,VoiceP, whereupon this DP receives a composite role of agent from Voice, and figure from p. This mechanism of θ -assignment is dubbed *delayed gratification* by Myler (2016). This could happen in two configurations: If an argument expletive—a non-referential nominal unable to bear a θ -role—is merged in Spec,pP, or if pP is nonactive, lacking a specifier altogether, in parallel with Voice typology. Wood argues that both derivations exist in Icelandic, with null realization of both the active and nonactive flavors of little p, and an argument expletive in the form of the clitic element *-st*. As for Turkish, in a realizational framework such as Distributed Morphology (Halle & Marantz 1993), *-Il* might

itself identified as the surface region projected by the ground. The latter approach would involve a complex representation where the accusative-marked argument undergoes a change from figure to axial region.

also spell out nonactive p (23) in addition to nonactive Voice. This head cannot merge a DP specifier to saturate the figure role, which is therefore passed up the tree until a DP is merged in Spec, VoiceP. Syncretism of nonactive p and nonactive Voice is explained, as both are specifierless variants of projections introducing arguments.

(23) Turkish Figure Reflexives by Delayed Gratification

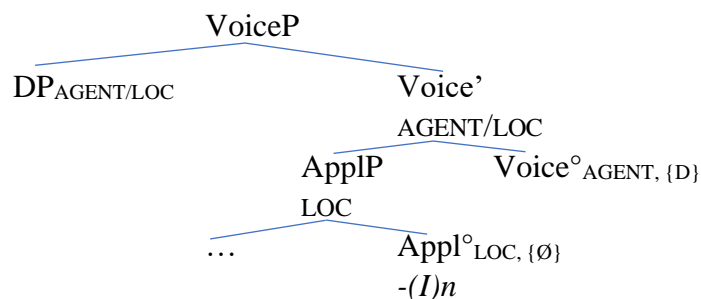


The only real difficulty posed by Turkish figure reflexives is the choice between (22b) and (23). Semantically, thematic nonactive Voice has an existentially bound agent variable that may be construed as referring to the same entity as the subject/internal argument DP, while nonactive p yields a complex θ -role saturated by the external argument. In other words, the former involves an x and a y where the two variables optionally corefer, and the latter involves an x and an x . Spathas et al. (2015) provide several tests for teasing out this difference, but such an investigation is beyond the scope of the present paper.

As for ground reflexives, neither of the above structures is viable. Nonactive Voice is a nonstarter for two reasons: first, *-In* is not syncretic with the passive and anticausative, and second, a number of ground reflexives are transitive. Nonactive p is also out of the question, since the subject of a ground reflexive is by definition not a figure. On the other hand, a ground (location) role can be introduced by an Applicative head. An Applicative lacking a {D} feature—a shrunken Appl head—would be unable to saturate this role, and the external argument would receive the composite agent/location role on merging in Spec, VoiceP by delayed gratification.⁷ The proposed structure is shown in (24) (abstracting away from the position of pP relative to ApplP).

⁷ Remarking on the compatibility of some of these verbs with a coreferential possessive-marked goal phrase, an anonymous reviewer suggests possessor raising (Deal 2017) as an alternative analysis. Given the morphosyntactic parallels between possessor-possessum and ground-AxPart, the reviewer’s suggestion may in fact be compatible with the present approach. I leave the development of this idea to future work.

(24) Turkish Ground Reflexives by Delayed Gratification



The shrunken Appl head approach is supported by a syncretism in which ground reflexives do participate: *-In* also marks verbs whose subject is a beneficiary (25a) or experiencer (25b), both of which are roles that can be introduced by applicatives.

(25)	a.	eD-	‘do’ (light verb)	ed- in-	‘acquire (for oneself)’ (+acc)
		tut-	‘hold’ (+acc)	tut- un-	‘hold on (to save or steady oneself)’ (+dat)
		siğ-	‘fit into’ (+dat)	siğ- in-	‘take refuge in’ (+dat)
	b.	yak-	‘burn’ (+acc)	yak- in-	‘complain’
		öv-	‘praise’ (+acc)	öv- ün-	‘boast’ (+inst ‘about’)
		şiş-	‘swell’ (int.)	şiş- in-	‘swagger, puff oneself up’ (int.)

Affected-agent verbs such as these are the subject of Key (to appear), which may be read as a companion paper to the present one. In it I argue that, instead of a location role, nonactive Appl introduces a beneficiary role in the case of self-benefactives (25a) and an experiencer role in the case of emotive behavior verbs (25b). It is worth noting that whenever the subject of an *-In* verb appears to be a figure (e.g., *siğ-in-* and arguably *tut-un-*) the subject benefits from the event and thus plausibly bears the applied role of beneficiary rather than location.

While the marked verbs in (25) might look idiosyncratic, this kind of syncretism (or polysemy) is extremely common cross-linguistically, and has been the subject of much research on the so-called *middle domain* in typological and functionalist work (notably Kemmer 1993), though it has been largely ignored by formalists until recently. Defective or expletivized ApplP offers a principled explanation for this syncretism.

6. Conclusion. By controlling for phonological environment, this paper has shown that Turkish has two suffixes that derive verbal reflexives: *-Il*, which is syncretic with the passive and anticausative, and *-In*, which is not. They share homophonous allomorphs following a vowel or /l/, which has previously obscured their distinct properties. Notably, *-Il* derives figure reflexives while *-In* derives ground reflexives, some of which allow expression of a figure or even a goal. This does not exhaust their distribution: *-Il* may spell out a variety of syntactic heads, including nonactive Voice (anticausatives and non-figure theme reflexives), possibly nonactive p, and perhaps even a dedicated Passive head. In addition to ground reflexives, *-In* derives affected-agent verbs whose subject is a beneficiary or experiencer. For *-Il* and *-In* respectively, I have suggested analyses involving specifierless versions of pP and ApplP whose roles are saturated via delayed gratification. Issues of syntactic and semantic composition (such as how to integrate the figure argument into the ground reflexive structure) must await future research.

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