

# REFLEXIVIZATION AND MOVEMENT IN TURKISH VERBAL REFLEXIVES

Faruk Akkuş  
*University of Massachusetts Amherst*  
 fakkus@umass.edu

Lefteris Paparounas  
*Université du Québec à Montréal*  
 paparounas.lefteris@uqam.ca

NELS 54  
 January 26 2024

## 1 INTRODUCTION

One recurring question whenever we find a reflexive interpretation: how is it derived?

In cases of anaphoric binding, (1a), the answer is (more or less) straightforward: syntactic anaphor binding leading to semantic variable binding.

- (1) a. John shaved himself.                                 b. John shaved.

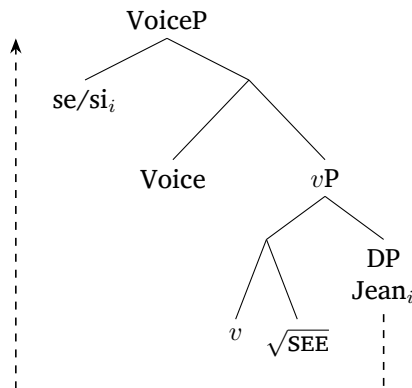
But in cases of ‘verbal’ reflexivization, (1b), questions arise:

1. What is the status of the surface subject?
2. Is there another (null, reflexive) argument around?
3. If not, what derives reflexivity? How does a single syntactic argument receive the interpretive properties associated with two different theta-roles?

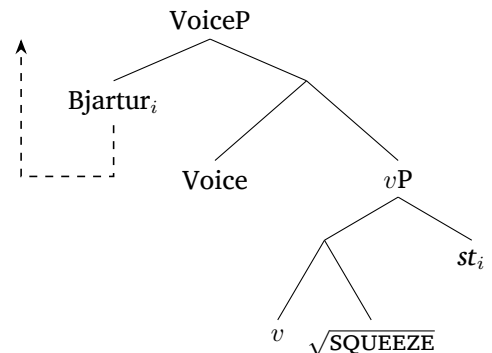
See e.g. the so-called ‘unaccusative’ and ‘unergative’ analyses of ‘clitic’ reflexives in, respectively, Romance (2) and Icelandic (3) – both really *backdoor transitive* analyses.

- (2) a. Jean<sub>i</sub> se<sub>i</sub> voit.  
       John REFL see.3SG  
       ‘John sees himself.’  
       (French)
- (3) a. Bjartur tróð-st ....  
       Bjartur.NOM squeezed-REFL  
       ‘Bjartur squeezed himself ...’  
       (Icelandic; Wood 2015:174, (7b))

b. *Transitive type A*



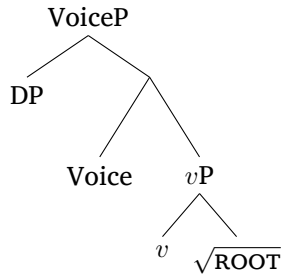
b. *Transitive type B*



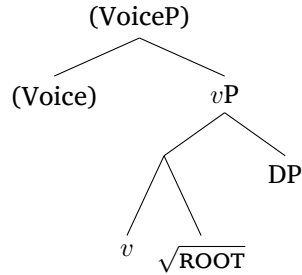
Within individual languages, there's a lot of debate as to whether (2) or (3) is correct – see esp. Romance, e.g. Burzio 1986; Embick 2004; Kayne 1988; Marantz 1984, 152ff; McGinnis 2004; Pesetsky 1995, 102ff; Sportiche 1998, 152ff) versus Reinhart and Siloni (2004, 2005); Sportiche (2014); Labelle (2008).

There are at least two more possibilities, amounting to truly intransitive configurations:

(4) *Unergative*



(5) *Unaccusative*



**Today's Goal:** to investigate Turkish verbal reflexives (TVRs), (6a) in comparison to their pronominal counterparts, (6b).

(6) a. (*verbal reflexive*)

Çocuk besle-n-di.  
child feed-REFL-PST  
'The child fed himself.'

b. (*pronominal reflexive*)

Çocuk kendi-ni besle-di.  
child self-ACC feed-PST  
'The child fed himself.'

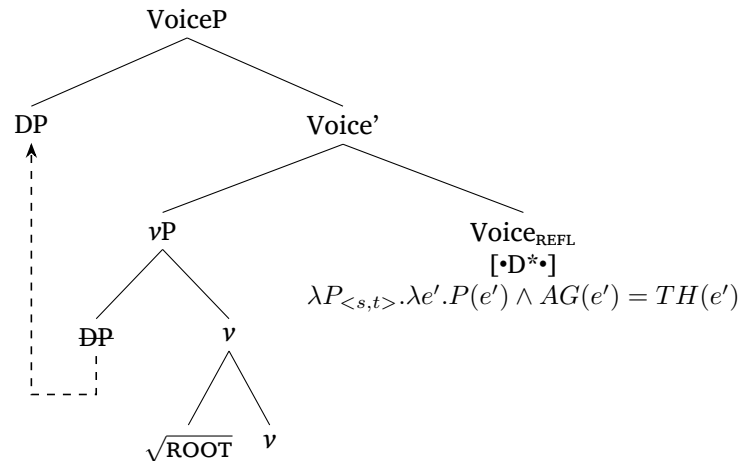
**RESULTS PREVIEWED**

1. **Intransitivity** TVRs are syntactically intransitive and semantically monadic.
2. **Reflexivization** The structure involves a reflexivizing Voice head, (7), one that identifies the agent and theme roles.
3. **Mixed behavior** The sole argument has its base position as the internal argument. It then moves to a VoiceP-peripheral derived subject position, in a way not causally tied to the reflexivization itself. The movement is syntactically driven, and is triggered by an edge feature, [ $\bullet D^* \bullet$ ].

**Roadmap**

- §2 Intransitivity
- §3 Internal argumenthood
- §4 External argumenthood
- §5 Proposal: Movement of the sole argument
- §6 Appendix

(7)



## 2 DIAGNOSING (IN)TRANSITIVITY

↪ Pronominal reflexives are syntactically transitive and semantically dyadic.

↪ Turkish verbal reflexives (TVRs) are syntactically intransitive and semantically monadic.

They thus resist a ‘transitive’ analysis of reflexivization of the type widely proposed for Romance *se/si* (e.g., Kayne 1988, Pesetsky 1995).

- The interpretively-oriented tests below (collected in Paparounas 2023 for Greek) seem sensitive to the number of *event participants* implicated in a reflexive denotation.
- According to more syntactically-oriented diagnostics as well, TVRs pattern with the language’s intransitive verbs – see below for e.g. causativization.

The relevant diagnostics are summarized in Table 1. (See Appendix 7.1 for the last two)

	Pronominal reflexive	Verbal reflexive
<b>Proxy readings</b>	✓	✗
<b>VP ellipsis/Focus</b>	strict and sloppy	only sloppy
<b>Causee Case</b>	DAT	ACC
<b>Comparative ellipsis</b>	three readings	only one reading
<b><i>De re</i> readings</b>	✓	✗

Table 1: *Summary of intransitivity diagnostics*

### 2.1 PROXY READINGS

Sometimes, the identity relation between a reflexive element and its antecedent can be non-exact: instead of picking out the antecedent itself, the reflexive element can instead pick out a contextually salient proxy for the antecedent (e.g. Fauconnier, 1985; Jackendoff, 1992; Reuland and Winter, 2009; Labelle, 2008; Lidz, 2001; Raghotham, 2022; Paparounas, 2023).

**Turkish** In (8a), the pronominal reflexive refers to a contextually salient proxy of its antecedent yielding a marked but felicitous reading which is impossible with the verbal reflexive (8b).<sup>1</sup>

- (8) *Context: Kıvanç Tatlıtuğ sees that his wax statue is about to be destroyed by the rain, and decides to cover it.*
- a. Kıvanç kendi-ni ört-tü.  
Kıvanç self-ACC cover-PST  
‘Kıvanç covered himself.’
  - b. #Kıvanç ört-ün-dü.  
Kıvanç cover-NACT-PST  
‘Kıvanç covered.’

**English** English patterns the same way:

- (9) *Context: In the wax museum, Ringo decides that his statue is a bit dirty, and proceeds to clean it.*
- a. Ringo washed himself.
  - b. #Ringo washed.

---

<sup>1</sup>Note that judgments on proxy readings are subtle, in the sense that the near-identity denoted by a proxy-shifted reflexive such as (9a) is sometimes judged as marked relative to the more plain reflexive interpretation of reflexive pronouns, especially in non-linguists’ judgments. What is crucial in this case is the contrast between examples like (8a) and (8b); even speakers who find proxy readings marked in (8a) seem to share the intuition that such readings simply cannot arise with (8b).

## 2.2 BOUND/FREE READINGS UNDER FOCUS

Pronominal and verbal reflexivity behave differently with respect to **bound/free readings under focus**, as brought out by denials of an *only*-focussed assertion (cf. Sportiche 2014; McGinnis 2022; Paparounas 2023).

**Turkish** An *only*-assertion with the pronominal reflexive, (10), licenses two different denials, each denying a different (free vs. bound) construal of the basic assertion.

- (10) Sadece Ali kendi-ni yıka-dı.  
only Ali self-ACC wash-PST  
'Only Ali washed himself.'
- a. Ali is the only  $x$  such that  $x$  washed  $x$  *(bound reading)*  
b. Ali is the only  $x$  such that  $x$  washed Ali *(free reading)*

(11a) felicitously denies the bound construal, (11b) the free one.

- (11) a. Hayır, Ayşe de kendi-ni yıka-mış.  
no Ayşe too self-ACC wash-PST  
'No, Ayşe washed herself too.' *(denial of bound reading)*  
b. Hayır, Ayşe de o-nu yıka-mış.  
no Ayşe too he-ACC wash-PST  
'No, Ayşe washed him too.' *(denial of free reading)*

But with verbal reflexives, only one denial is ever possible.

- (12) Sadece Ali yıka-n-dı.  
only Ali wash-NACT-PST  
'Only Ali washed.'
- a. Hayır, Ayşe de yıka-n-mış.  
no Ayşe too wash-NACT-PST  
'No, Ayşe washed too.' *(denial of bound reading)*  
b. #Hayır, Ayşe de o-nu yıka-mış.  
no Ayşe too he-ACC wash-PST  
'No, Ayşe washed him too.' *(#denial of free reading)*

**English** Same contrast regarding the number of allowed denials holds in English too.

- (13) Only John washed himself.  
a. No, Mary washed herself too.  
b. No, Mary washed him too.
- (14) Only John washed.  
a. No, Mary washed too.  
b. #No, Mary washed him too.

## 2.3 CAUSATIVES

Causes of causativized transitives are DAT:

- (15) a. Bütün misafir-ler araba-yı temizle-di-ler.  
all guest-PL car-ACC clean-PST-3PL  
'All the guests cleaned the car.'

- b. *pro* bütün {*misafir-ler-e* / \**misafir-ler-i*} araba-yı temizle-t-ti.  
 all {guest-PL-DAT / \*guest-PL-ACC} car-ACC clean-CAUS-PST  
 ‘(S/he) made all the guests clean the car.’

Causes of causativized intransitives (specifically unergatives) are ACC:

- (16) a. Sporcu koş-tu.  
 athlete run-PST  
 ‘The athlete ran.’  
 b. Antrenör {*sporcu-yu* / \**sporcu-ya*} koş-tur-du.  
 trainer {athlete-ACC / \*athlete-DAT} run-CAUS-PST  
 ‘The trainer made the athlete run.’

Pronominal reflexive-taking verbs pattern as transitives...

- (17) a. Çocuk kendi-ni besle-di.  
 child self-ACC feed-PST  
 ‘The child fed himself.’  
 b. Ebeveynler-i {*çocuğ-a* / \**çocuğ-u*} kendi-ni besle-t-ti.  
 parents-3POSS {child-DAT / \*child-ACC} self-ACC feed-CAUS-PST  
 ‘His parents made the child feed himself.’

...but verbal reflexives as intransitive:

(cf. Romance, e.g. Kayne 1975)

- (18) a. *pro* bu ara berbat besle-n-iyor-um.  
 this while terrible feed-REFL-PROG-1SG  
 ‘I feed (myself) terribly these days.’  
 b. [The Youtuber Orkun Işıtmak complains that his wife Merve doesn’t cook, so he has to do many take-outs:]  
 Merve {*ben-i* / \**ban-a*} bu ara berbat besle-n-dir-iyor.  
 Merve {I-ACC / \*I-DAT} this while terrible feed-REFL-CAUS-PROG  
 ‘Merve is making me feed (myself) terribly these days.’<sup>2</sup>

More examples:

- (19) (ben) çocuğ-u giy-in-dir-di-m.  
 I child-ACC wear-REFL-CAUS-PST-1SG  
 ‘I caused the child to dress (himself).’ (Kornfilt 1997:141,(543))  
 (20) Aile-m ben-i zorla {*kapa-n-dır-dı* / *ört-ün-dür-dü*}.  
 family-1SG.GEN I-ACC by.force {close-REFL-CAUS-PST / cover-REFL-CAUS-PST}  
 ‘My family forced me to cover (myself).’

#### INTERIM SUMMARY

- ↪ Pronominal reflexives are syntactically transitive and semantically dyadic.
- ↪ Turkish verbal reflexives (TVRs) are syntactically intransitive and semantically monadic.

Next we probe whether intransitives have an unaccusative syntax or unergative syntax.

- Diagnosing the position of this sole argument, we find a striking mixed behavior: the sole argument behaves as internal for some syntactic diagnostics, and as external for others.

<sup>2</sup>[https://www.youtube.com/watch?v=JMZC32JcAp8&ab\\_channel=OrkunI%C5%9F%C4%B1tmak](https://www.youtube.com/watch?v=JMZC32JcAp8&ab_channel=OrkunI%C5%9F%C4%B1tmak) 12’40”. Accessed June 5, 2023  
 Note the context in (18b) also rules out an ingesto-reflexive interpretation with a single event interpretation.

### 3 INTERNAL ARGUMENTHOOD

(At least) three diagnostics show that the single argument originates as an internal argument, i.e., the surface subject starts out as the logical object.

- (i) Stative passives in *-Ik* and *-mİş* (see Appendix 7.2), and (ii) Resultatives

#### 3.1 STATIVE PASSIVIZATION

Unaccusatives, but not unergatives, can be stative-passivized with the participle *-Ik* (Nakipoğlu-Demiralp 1998; Acartürk 2005; Acartürk and Zeyrek 2010; Gürer 2014; Neu 2023):

- |         |           |                        |         |    |           |                            |
|---------|-----------|------------------------|---------|----|-----------|----------------------------|
| (21) a. | kır-ik    | bardak                 |         | c. | *uyu-k    | bebek                      |
|         | break-ADJ | glass                  |         |    | sleep-ADJ | baby                       |
|         |           | ‘the broken glass’     |         |    |           | Intended: ‘the slept baby’ |
|         | b.        | bit-ik                 | pil     | d. | *koş-uk   | adam                       |
|         |           | finish-ADJ             | battery |    | run-NMLZR | man                        |
|         |           | ‘the finished battery’ |         |    |           | ‘Intended: ‘the run man’   |

Verbal-reflexive-forming Roots pattern as unaccusatives: they form stative passives.

- (22) a. Polis maktül-ü üst-ü {*soy-un-uk* / *giy-in-ik* } bir vaziyet-te bul-du.  
 police victim-ACC top-ACC {undress-REFL-ADJ / dress-REFL-ADJ } a state-LOC find-PST  
 ‘The police found the victim undressed/dressed.’
- b. koltuk-ta 1-2 saat *uza-n-ik* dur-mak...  
 couch-LOC 1-2 hour lie.down-REFL-ADJ remain-INF  
 ‘To stay lying down on the couch for 1-2 hours.’
- c. Herkes bedence cıbil, ruhça *ört-ün-ük*.  
 everybody bodily naked soul-wise cover-REFL-ADJ  
 ‘Everybody is bodily naked but soul-wise self-covered.’
- d. Kurtarma ekipleri kadın-ı bebeğ-in üzer-i-ne *kapa-n-ik* bir hal-de bul-du.  
 rescue teams woman-ACC baby-GEN top-POSS-DAT close-REFL-ADJ a state-LOC find-PST  
 ‘The rescue teams found the woman covering her baby (i.e., her body bracing over the baby).’
- e. alg-ler-e *tut-un-uk* olarak ...  
 algae-PL-DAT hold-REFL-ADJ state ...  
 ‘in a state of holding onto the algae’
- f. Pip Boy-a *eğ-il-ik* vaziyet-te iken bak-a-m-ıyor-um.  
 Pip Boy-DAT bend-REFL-ADJ state-LOC while look-ABIL-NEG-PROG-1SG  
 ‘I can’t look at Pip Boy while (I am) bended/bowed (to the ground).’

#### 3.2 RESULTATIVES

Crosslinguistically, resultatives serve as a strong indicator of the syntactic presence of a deep object. In Turkish as well, resultatives can only be predicated of a syntactically projected deep object (Turgay 2013).

- (23) a. Leyla masa-yı (ter-temiz) sil-di.  
 Leyla table-ACC REDUP-clean wipe-PST  
 ‘Leyla wiped the table (completely clean).’ (Turgay 2013:(27a)) transitive object
- b. Masa (Leyla tarafından) ter-temiz sil-in-di.  
 table (Leyla by) REDUP-clean wipe-PASS-PST  
 ‘The table was wiped completely clean (by Leyla).’ passive

- c. Nehir kas-katı don-du.  
river REDUP-solid freeze-PST  
'The river froze solid.' (Turgay 2013:112,(51a)) *unaccusative*
- d. Kim Kardashian saç-ı-nı sarı-ya boya-dı.  
m Kim Kardashian hair-3POSS-ACC yellow-DAT dye-PST  
'Kim Kardashian dyed her hair blonde.' (Gürkan 2019:(4))

Resultatives are not compatible with unergative predicates.<sup>3</sup>

- (24) a. \*Ceren yorgun koş-tu.  
Ceren tired run-PST  
'Ceren ran tired.' (based on Turgay 2013:69, (24b)) (ok as depictive)
- b. \*Özgür kısık bağır-dı.  
Özgür hoarse shout-PST  
'Özgür shouted hoarse.'

Crucially, resultatives are compatible with verbal reflexives, (25)-(26).

- (25) a. Kendi-m-i tertemiz yıka-dı-m.  
self-1SG.POSS-ACC clean wash-PST-1SG  
'I washed myself clean.'
- b. Tertemiz yıka-n-dı-m.  
clean wash-REFL-PST-1SG  
'I washed myself clean.' (Gürkan 2019:(24))
- (26) a. Dudak-lar-ım-ı mavi-ye boya-dı-m.  
lip-PL-1SG.POSS-ACC blue-DAT paint-PST-1SG  
'I painted my lips blue.' (i.e., I put on blue lipsticks)
- b. **Kendi-m-i** mavi-ye boya-dı-m.  
self-1SG.POSS-ACC blue-DAT paint-PST-1SG  
'I painted myself blue.'
- c. Sen-in için mavi-ye boya-n-dı-m.  
you-GEN for blue-DAT paint-REFL-PST-1SG  
'I painted myself (i.e., my whole body) blue for you.'
- d. \*Sen-in için {**dudak-lar-ı-mı** / **kendi-mi**} mavi-ye boya-n-dı-m.  
you-GEN for {lip-PL-1SG.POSS-ACC / self-1SG.POSS-ACC} blue-DAT paint-REFL-PST-1SG  
'I painted myself/my lips blue for you.'

#### INTERIM SUMMARY

- ↪ Turkish verbal reflexives are syntactically intransitive and semantically monadic.
- ↪ The sole argument originates in the internal argument position.

<sup>3</sup>Thus, resultatives in Turkish obey the main properties reported crosslinguistically, including requiring a syntactically projected argument. As such, in out-of-blue contexts, resultatives are not licit, (i), while they would work in *pro*-dropped contexts.

- (i) a. Q: Ne ol-du?  
what happen-PST  
'What happened?'
- b. A: Leyla \*(masa-yı) ter-temiz sil-di.  
Leyla table-ACC REDUP-clean wipe-PST  
'Leyla wiped \*(the table) completely clean.'

In line with the more restricted nature of Turkish resultatives, those involving transitivized unergative verbs, (Turgay 2013:68-69), or unselected object patterns, (Turgay 2013:89), are not available in Turkish.

## 4 EXTERNAL ARGUMENT DIAGNOSTICS

A range of observations suggest that the single, internal argument of Turkish reflexives also passes through the external argument position undergoing A-movement.

- We demonstrate this using independent constructions that are sensitive to the syntactic presence of an argument in Spec, VoiceP.
  - Impersonals
  - Adverbial gerundive *-ArAk*
  - Agent nominalization
  - Causativization (Causee incorporation)
  - Non-passivization
  - Long object movement
- These tests contrast transitives and unergatives from unaccusatives, and some of them tease apart active from passive transitives (See Appendix 7.3 for the last four tests).

Crucially, we can show that reflexives behave the way they do not just because of the presence of an agentive entailment; they distinguish themselves from passives for a few of these tests.

### 4.1 EPISODIC IMPERSONALS

Unergatives/transitives can form impersonals in episodic contexts; but unaccusatives cannot, only licensing impersonals under a habitual reading (Nakipoğlu-Demiralp 2001; Acartürk 2005; Acartürk and Zeyrek 2010; Akkuş 2021; Legate et al. 2020). [NB: the impersonal and passive have identical morphology]

#### (27) *Unergative*

- a. Her gece dans ed-il-ir.  
every night dance do-IMPERS-AOR  
'People/one dance(s) every night.'
- b. Dün burada uyu-n-du.  
yesterday here sleep-IMPERS-PAST  
'People/one slept here yesterday.'

#### (28) *Transitive with oblique object*

- a. Otobüs-e bin-il-ir.  
bus-DAT board-IMPERS-AOR  
'People/one board the bus.'
- b. Otobüs-e bin-il-di.  
bus-DAT board-IMPERS-PST  
'People/one boarded the bus.'

#### (29) *Unaccusative*

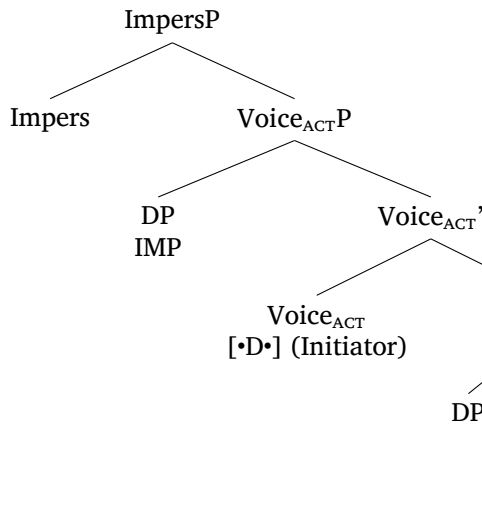
- a. Türkiye-de her gün trafik kaza-lar-ı-nda öl-ün-ür.  
Turkey-LOC every day traffic accident-PL-CM-LOC die-IMPERS-AOR  
'In Turkey it is died in traffic accidents every day.' (Nakipoğlu-Demiralp 2001, 140)
- b. \*Dün burada öl-ün-dü.  
yesterday here die-IMPERS-PAST  
Intended: 'People/one died here yesterday.'



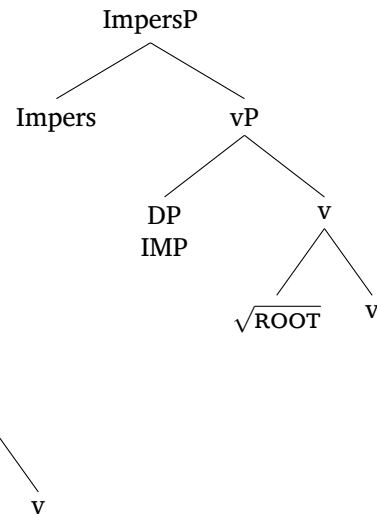
We adopt the analysis of impersonals developed by Akkuş 2021 and Legate et al. 2020:

- Impersonals do not involve argument demotion (unlike passives); instead an *unpronounced impersonal pronoun* (IMP) fills the argument position, be it the thematic subject, (30) or thematic object position, e.g., (31).
- IMP is licensed by the Impers head (see Akkuş 2021, Legate et al. 2020 for more discussion).
- Crucially, the presence of an episodic interpretation is sensitive to the syntactic position of the IMP.
  - Whereas episodic context is allowed with IMPs in spec, VoiceP,
  - it is disallowed with IMPs that are in internal argument position.<sup>4</sup>

(30) **IMP as external argument**



(31) **IMP as internal argument**



This is further confirmed by the ‘double-passives’, (32), which are shown to be *impersonals of passives*, (33), in Akkuş 2021; Legate et al. 2020. These also disallow an episodic interpretation (Dikmen et al. 2022).

(32) a. *Impersonal of passive* (‘double passive’)

Harp-te vur-ul-un-ur.  
war-LOC shoot-IMPERS-PASS-AOR

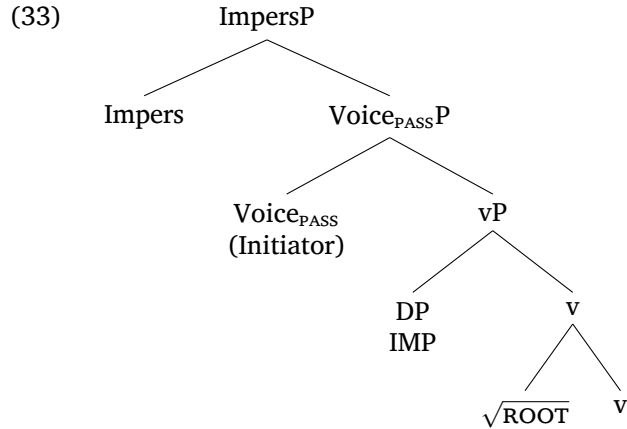
‘One is shot (by one) in the war.’ (Özkaragöz 1986, 77)

b. \*Harp-te vur-ul-un-du.

war-LOC shoot-IMPERS-PASS-PAST

Intended: ‘One was shot (by one) in the war.’ (adapted from Dikmen et al. 2022:50b)

<sup>4</sup>Similar effects are observed in the context of Romance impersonals. See e.g., Ordóñez (2021, 155) for a very similar analysis that attributes the presence or absence of episodic interpretation to the argument structure of the verb, particularly whether an argument is available in spec, VoiceP or not. He cites Chomsky’s (2008) little  $v^*$ , noting “the functional head associated with full argument structure”, thus places transitives and unergatives on one side, and passives, unaccusatives and copulas on the other.



Verbal reflexives freely form episodic impersonals, thus patterning with unergatives/transitives:

- (34) a. Dün bu nehir-de yıka-n-ıl-mış.  
 yesterday this river-LOC wash-REFL-IMPERS-PST  
 ‘Yesterday people/one washed in this river.’
- b. Büyük-ler-in ön-ü-nde saygı-yla eğ-il-in-di.  
 big-PL-GEN front-POSS-LOC respect-with bend-REFL-IMPERS-PST  
 ‘People/one bowed respectfully in front of the elder people.’
- c. Misafir-ler-in göz-ü ön-ün-de giy-in-il-di, süsle-n-il-di.  
 guest-PL-GEN eye-POSS front-POSS-LOC dress.up-REFL-IMPERS-PST doll.up-REFL-IMPERS-PST  
 ‘People/one dressed up, dolled up in front of all the guests.’

**Upshot:** The sole argument behaves as if it occupies the external argument position, SpecVoiceP, which allows it to receive the episodic interpretation.

#### 4.2 ADVERBIAL GERUNDIVE -ARAK

- Examples need to match in voice and in the status of the subjects as underlying or derived (or a combination of both) (see Özkaragöz 1980, Knecht 1985, Biktimir 1986, Kornfilt 1997, Legate et al. 2020, Akkuş 2021)

Table 2 summarizes the pattern. See Appendix 7.3.1 for examples.

Transitive/unergative + transitive/unergative	✓
Unaccusative + unaccusative	✓
Unergative + unaccusative	✗
Passive + passive	✓
Passive + transitive/unergative	✗
Passive + unaccusative	✗
Verbal reflexive + transitive/unergative	✓
Verbal reflexive + unaccusative	✗
Verbal reflexive + passive	✗

Table 2: *Patterns of combinations with -ArAk*

Crucially, verbal reflexives combine with, and thus pattern with unergatives/transitives, not unaccusatives:

- (35) a. reflexive + unergative  
 Kız [söyle-n-erek] yürü-dü.  
 girl say-REFL-ARAK walk-PST  
 ‘The girl walked (while) complaining.’ (Nakipoğlu-Demiralp 2002, 13c)
- b. unergative + reflexive  
 Kadın [zıpla-yarak] {tart-ıl-dı / süsle-n-di}.  
 woman jump-ARAK weigh-REFL-PST / doll.up-REFL-PST  
 ‘The woman {weighed / dolled up} (while) jumping.’
- c. reflexive + transitive  
 Adam [söyle-n-erek] bulaşık-lar-ı yıka-dı.  
 man say-REFL-ARAK dish-PL-ACC wash-PST  
 ‘The man did the dishes (while) complaining.’
- d. reflexive + unaccusative  
 \*Kız [söyle-n-erek] düş-tü.  
 girl say-REFL-ARAK fall-PST  
 ‘The girl fell (while) complaining.’
- e. unaccusative + reflexive  
 \*Adam [buna-yarak] yıka-n-dı.  
 man go.senile-ARAK wash-REFL-PST  
 ‘The man washed (while) going senile.’  
 The man was washed (while) going senile.

Moreover, reflexives are not compatible with passives:

- (36) a. \*Manken [giy-in-erek] öp-ül-dü.  
 model dress.up-REFL-ARAK kiss-PASS-PST  
 ‘The model was kissed (while s/he was) getting dressed up.’
- b. \*Çocuk [okşa-n-arak] söyle-n-di.  
 child caress-PASS-ARAK say-REFL-PST  
 ‘The child complained (while s/he was) being caressed.’

**Summary:** Various tests indicate that the sole argument occupies the external argument position, SpecVoiceP.

#### EXTERNAL-INTERNAL PROPERTIES COMBINED

- Crucially, it is also possible to combine the tests for Internal Argument (IA) and External Argument (EA):
- (37) a. Dün bu dere-de ter-temiz yıka-n-ıl-dı.  
 yesterday this river-LOC REDUP-clean wash-REFL-IMPERS-PST  
 ‘People/one washed clean yesterday.’
- b. *pro* [çocuğ-u ter-temiz yıka-n]-dır-dı-m.  
 [child-ACC REDUP-clean wash-REFL]-CAUS-PST-1SG  
 ‘I caused [the child to wash \_ clean].’
- In (37a), the reading of an arbitrary human impersonal (in the episodic context) is reserved to EAs; but the resultative needs the IA.
  - Likewise, in (37b), the causativization signals the presence of an argument in embedded Spec,VoiceP; and resultative again targets the IA.

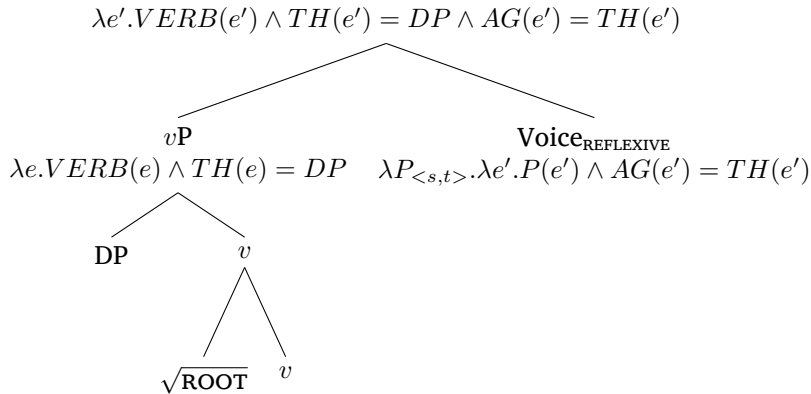
## 5 ANALYSIS

**Interpretation:** Recall that we want our reflexive semantics to do two things:

- Reflexivization
- Monadicity: we want to capture the intransitivity diagnostics in §2.

The approach in [Paparounas \(2023\)](#) is easily adaptable into Turkish (see also [Oikonomou and Alexiadou, 2022](#)):

(38) *A Reflexive Voice account*

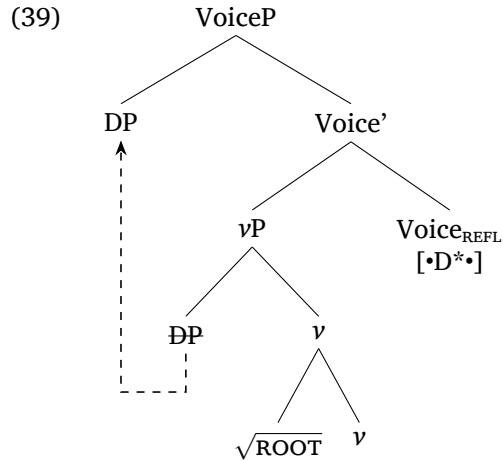


A few points:

- Straightforwardly captures monadicity: only one entity variable (event participant) is ever introduced.
- Reflexive Voice, which is a subtype of Voice, ([Labelle 2008](#); [McGinnis 2022](#); [Paparounas 2023](#); cf. [Ahn 2015](#); [Paparounas and Akkuş 2023](#)) does Agent-Theme identification in lieu of  $\exists$  closure (found in passive Voice).

**Syntax:** The mixed behavior is the result of movement of the single argument:

- It originates low, in the internal argument position.
- Movement is orthogonal to reflexivization.
  - Simply a fact of the syntax.
  - But Reflexive Voice does at least give us a locus to place the differences between reflexives and passives/unaccusatives, whose surface subject does not pass external argument diagnostics:
    - \* In Turkish, only Reflexive Voice has the edge/EPP feature [ $\bullet$ D\* $\bullet$ ] (besides active Voice).



## 6 CONCLUSION

1. **Intransitivity** Turkish verbal reflexives are syntactically intransitive and semantically monadic.
2. **Reflexivization** The structure of TVRs involves a reflexivizing Voice head, one that identifies the agent and theme roles.
3. **Mixed behavior** The sole argument has its base position as the internal argument. It then moves to a VoiceP-peripheral derived subject position, in a way not causally tied to the reflexivization itself. The movement is a pure syntactic fact triggered by an edge feature, [ $\bullet$ D\* $\bullet$ ].

## ACKNOWLEDGEMENTS

Many thanks to Rajesh Bhatt, Seth Cable, David Embick, Duygu Göksu, Muhammed Ileri, Kyle Johnson, Richard Larson, Julie Anne Legate, and the audience at Boğaziçi University (Oct 20, Istanbul), particularly Ümit Atlamaz and Ömer Demirok, Stony Brook University, UConn. For sharing their judgments, thanks to Duygu Göksu, Özge Bakay, Leyla Zidani-Eroğlu, Muhammed Ileri, Uğurcan Vurgun; and the following for their judgments on the passivization section: Beste Kamali, Jaklin Kornfilt, Nihan Ketrez, Büşra Yakut, Melike Sarıcam, Didar Akar, Seda Öztürk, Turgay Bayındır.

## REFERENCES

- Acartürk, Cengiz. 2005. Gradient characteristics of the unergative/unaccusative distinction in Turkish: An experimental investigation. Master's thesis, The Middle East Technical University.
- Acartürk, Cengiz, and Deniz Zeyrek. 2010. Unaccusative/unergative distinction in Turkish: A connectionist approach. In *Proceedings of the 8<sup>th</sup> Workshop on Asian Language Resources*, 111–119. Beijing, China: Coling 2010 Organizing Committee.
- Ahn, Byron Thomas. 2015. Giving Reflexivity a Voice: Twin Reflexives in English. Doctoral dissertation, University of California, Los Angeles.
- Akkuş, Faruk. 2021. (Implicit) Argument Introduction, Voice and Causatives. Doctoral Dissertation, University of Pennsylvania.
- Akkuş, Faruk. 2023. Turkish causatives embed a thematic VoiceP, and the Causee is an argument. In *Proceedings of the 53rd Annual Meeting of the North East Linguistic Society (NELS 53)*, ed. Suet-Ying Lam and Satoru Ozaki, 1–14. GLSA Publications.

- Alexiadou, Artemis, Elena Anagnostopoulou, and Florian Schäfer. 2015. *External arguments in transitivity alternations: A layering approach*. Number 55 in Oxford Studies in Theoretical Linguistics. Oxford; New York: Oxford University Press, first edition edition.
- Alexiadou, Artemis, and Florian Schäfer. 2013. Towards a non-uniform analysis of naturally reflexive verbs. In *In Proceedings of WCCFL 31*.
- Alptekin, Ali Berat, and Ebru Şenocak. 2019. Alper Tunga Destanı'nın yeni bir kaynağı olarak: Süleymanname. *Journal of Turkish Language and Literature* 5:126–143. URL <https://dergipark.org.tr/tr/download/article-file/704731>.
- Baker, Mark C, and Nadya Vinokurova. 2010. Two modalities of case assignment: Case in Sakha. *Natural Language & Linguistic Theory* 28:593–642.
- Biktimir, Tuvana. 1986. Impersonal passives and the *-arak* construction in Turkish. In *Studies in Turkish linguistics*, ed. Dan Isaac Slobin and Karl Zimmer, 53–75. Amsterdam/Philadelphia: Benjamins.
- Burzio, Luigi. 1986. *Italian syntax*. Dordrecht: Reidel.
- Carlson, Greg N. 2006. The meaningful bounds of incorporation. In *Linguistik Aktuell/Linguistics Today*, ed. Svetlana Vogeleer and Liliane Tasmowski, volume 95, 35–50. John Benjamins Publishing Company. URL <https://benjamins.com/catalog/la.95.03car>.
- Çetinoğlu, Özlem, Miriam Butt, and Kemal Oflazer. 2008. Mono/bi-clausality of Turkish Causatives. In *Essays on turkish linguistics: Proceedings of the 14th international conference on turkish linguistics*, ed. Sila Ay, Özgür Aydın, Iclal Ergenç, Seda Gökmen, Selçuk İşsever, and Dilek Peçenek, 43–53. Wiesbaden.
- Charlow, Simon. 2010. Two kinds of de re blocking.
- Chomsky, Noam. 2008. On phases. In *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, ed. R. Freidin, C. P. Otero, and M.-L. Zubizarreta, 133–166. MIT Press.
- Dikmen, Furkan, Ömer Demirok, and Balkız Öztürk. 2022. How can a language have double-passives but lack antipassives? *Glossa: a journal of general linguistics* 7.
- Embick, David. 1997. Voice and the interfaces of syntax. Doctoral Dissertation, University of Pennsylvania.
- Embick, David. 1998. Voice Systems and the Syntax/Morphology Interface. In *Proceedings of the Penn/MIT Workshop on Aspect, Argument Structure, and Events*, ed. Heidi Harley. MIT Working Papers in Linguistics.
- Embick, David. 2004. Unaccusative Syntax and Verbal Alternations. In *The unaccusativity puzzle: Explorations of the syntax-lexicon interface*, ed. Artemis Alexiadou, Elena Anagnostopoulou, and Martin Everaert, number 5 in Oxford Studies in Theoretical Linguistics, 137–158. Oxford; New York: Oxford University Press.
- Embick, David, and Alec Marantz. 2008. Architecture and Blocking 39:1–53. URL <https://www.jstor.org/stable/40071420>.
- Fauconnier, Gilles. 1985. *Mental spaces*. Cambridge, Mass: MIT Press.
- Göksel, Aslı. 1993. Levels of representation and argument structure in Turkish. Doctoral Dissertation, SOAS.
- Göksu, Duygu. 2023. Long(er) object movement in turkish. Doctoral Dissertation, UMass Amherst.
- Gürer, Aslı. 2014. Adjectival participles in Turkish. *Lingua* 149:166–187.
- Gürer, Aslı, Adem Efe Gencer, Tunga Güngör, and Sumru Özsoy. 2012. Dil Cambazı ve Türkçe'de Geçissiz Eylemler [Dil Cambazı and Intransitive verbs in Turkish]. *Ms., Bogaziçi University*.
- Gürkan, Duygu Özge. 2019. Some Observations on Resultative Secondary Predicates in Turkish. *Archiv orientální* 87.

- Harley, Heidi. 2017. The “bundling” hypothesis and the disparate functions of little *v*. In *The verbal domain*, ed. Roberta d’Alessandro, Irene Franco, and Ángel Gallego, 3–28. Oxford: Oxford University Press.
- Heim, Irene. 1994. Puzzling reflexive pronouns in *de se* reports.
- Jackendoff, Ray. 1992. Mme. Tussaud Meets the Binding Theory. *Natural Language & Linguistic Theory* 10:1–31.
- Jenkins, Robin. 2021. Specificity effects and object movement in Turkish and Uyghur. In *Proceedings of the Workshop on Turkic and Languages in Contact with Turkic 6*, ed. Songül Gündoğdu, Sahar Taghipour, and Andrew Peters. Linguistic Society of America.
- Kayne, Richard S. 1975. *French syntax: The transformational cycle*. Number 6 in Current Studies in Linguistics. Cambridge, Mass: MIT Press.
- Kayne, Richard S. 1988. Romance *se/si*. In *GLOW Newsletter 20*. Budapest, Hungary.
- Key, Gregory. 2013. The morphosyntax of the Turkish causative construction. Doctoral Dissertation, University of Arizona.
- Knecht, Laura Ellen. 1985. Subject and Object in Turkish. Doctoral Dissertation, Massachusetts Institute of Technology.
- Kornfilt, Jaklin. 1997. *Turkish*. London/New York: Routledge.
- Labelle, Marie. 2008. The French reflexive and reciprocal *se*. *Natural Language & Linguistic Theory* 26:833–876.
- Legate, Julie Anne, Faruk Akkuş, Milena Šereikaitė, and Don Ringe. 2020. On passives of passives. *Language* 96:771–818.
- Lidz, Jeffrey. 2001. Condition R. *Linguistic Inquiry* 32:123–140.
- Marantz, Alec. 1984. *On the nature of grammatical relations*. Number 10 in Linguistic Inquiry Monographs. Cambridge, MA: MIT Press.
- McGinnis, Martha. 2004. Lethal Ambiguity. *Linguistic Inquiry* 35:47–95.
- McGinnis, Martha. 2022. Reflexive clitics are verbal, not pronominal. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 67:328–352.
- Nakipoğlu-Demiralp, Mine. 1998. Split intransitivity and the syntax-semantics interface in Turkish. Doctoral Dissertation, University of Minnesota.
- Nakipoğlu-Demiralp, Mine. 2001. The referential properties of the implicit arguments of impersonal passive constructions. In *The verb in Turkish*, ed. Eser ErguvanlıTaylan, 129–150. Amsterdam/Philadelphia: John Benjamins.
- Nakipoğlu-Demiralp, Mine. 2002. Türkçe’deki ayırık geçişsiz eylemlerin olay yapısal bir incelemesi [An event-structural investigation of split-intransitivity in Turkish]. *Dilbilim Araştırmaları* 2002 1–16.
- Neu, Eva. 2023. Causatives of unergatives: A view from variable unaccusativity. *Ms., University of Massachusetts Amherst*.
- Nie, Yining. 2020. Licensing arguments. Doctoral Dissertation, New York University.
- Oikonomou, Despina, and Artemis Alexiadou. 2022. Voice Syncretism Crosslinguistically: The View from Minimalism. *Philosophies* 7:19.
- Ordóñez, Francisco. 2021. On the Nature of the Impersonal SE: Why Italian is not like Catalan and Spanish. In *Unraveling the complexity of SE*, ed. Grant Armstrong and Jonathan E. MacDonald, 137–160. Springer.

- Özkaragöz, İnci. 1980. Evidence from Turkish for the unaccusative hypothesis. *Proceedings of the Sixth Annual Meeting of the Berkeley Linguistics Society* 411–422.
- Özkaragöz, İnci. 1986. Monoclausal double passives in Turkish. In *Studies in Turkish linguistics*, ed. Dan Isaac Slobin and Karl Zimmer, 77–91. Amsterdam/Philadelphia: Benjamins.
- Öztürk, Balkız. 2005. *Case, referentiality and phrase structure*. Amsterdam/Philadelphia: John Benjamins.
- Paparounas, Lefteris. 2023. Voice from Syntax to Syncretism. Doctoral Dissertation, University of Pennsylvania.
- Paparounas, Lefteris, and Faruk Akkuş. 2023. Anaphora and agreement in the Turkish DP: Delimiting binding-through-Agree. *Natural Language & Linguistic Theory* URL <https://link.springer.com/article/10.1007/s11049-023-09583-4>.
- Pesetsky, David. 1995. *Zero syntax: Experiencers and cascades*. Cambridge, MA: MIT Press.
- Raghotham, Sreekar. 2022. Verbal reflexives. *Ms, Rutgers University* .
- Reinhart, Tanya, and Tal Siloni. 2004. Against an unaccusative analysis of reflexives. In *The unaccusativity puzzle: Explorations of the syntax-lexicon interface*, ed. Artemis Alexiadou, Elena Anagnostopoulou, and Martin Everaert, number 5 in Oxford Studies in Theoretical Linguistics, 159–180. Oxford: Oxford University Press.
- Reinhart, Tanya, and Tal Siloni. 2005. The Lexicon-Syntax Parameter: Reflexivization and Other Arity Operations. *Linguistic Inquiry* 36:389–436.
- Reuland, Eric, and Yoad Winter. 2009. Binding without Identity: Towards a Unified Semantics for Bound and Exempt Anaphors. In *Anaphora Processing and Applications*, ed. Sobha Lalitha Devi, António Branco, and Ruslan Mitkov, volume 5847, 69–79. Berlin: Springer.
- Sağ, Yağmur. 2022. Bare singulars and singularity in Turkish. *Linguistics and Philosophy* 45:741–793.
- Sells, Peter, Annie Zaenen, and Draga Zec. 1987. Reflexivization variation: Relations between syntax, semantics and lexical structure. In *Working papers in grammatical theory and discourse structure*, ed. Masayo Iida, Stephen Wechsler, and Draga Zec, 169–23. Stanford: CSLI.
- Sportiche, Dominique. 1998. *Movement, agreement and case*, 88–243. London: Routledge.
- Sportiche, Dominique. 2014. Assessing Unaccusativity and Reflexivity: Using Focus Alternatives to Decide What Gets Which  $\theta$ -Role. *Linguistic Inquiry* 45:305–321.
- Sportiche, Dominique. 2022. Constraints on Reflexivization. *Ms, UCLA* .
- Turgay, Tacettin. 2013. Resultative Constructions in Turkish. Master's thesis, Boğaziçi University.
- Wood, Jim. 2015. *Icelandic morphosyntax and argument structure*, volume 90. Springer.



## 7 APPENDIX

### 7.1 MORE (IN)TRANSITIVITY DIAGNOSTICS

#### 7.1.1 STRICT/SLOPPY

Another interpretive diagnostic distinguishing verbal from pronominal reflexives comes from *strict/sloppy ambiguities* (see Sells et al., 1987; Lidz, 2001).

**English** In both VP (40) and comparative ellipsis (41), the pronominal reflexive seems to yield an extra variable that can either be bound or co-refer, yielding a sloppy or a strict reading; the intransitive reflexive, however, is unambiguous, suggesting that only the bound (sloppy) reading is available:

- (40) a. John shaved himself, and Mark did, too. ✓strict ✓sloppy  
b. John shaved, and Mark did, too. ✗strict ✓sloppy
- (41) a. This barber shaves himself faster than the customer. ✓strict ✓sloppy  
b. This barber shaves faster than the customer. ✗strict ✓sloppy

**Turkish** Turkish patterns the same way.

- (42) *VP-ellipsis*
- a. Ali kendi-ni ört-tü, Ayşe de (öyle yap-tı).  
Ali self-ACC cover-PST Ayşe too so do-PST  
'Ali covered himself, and Ayşe did so too.' ✓strict ✓sloppy
- b. Ali ört-ün-dü, Ayşe de (öyle yap-tı).  
Ali cover-NACT-PST Ayşe too so do-PST  
'Ali covered, and Ayşe did so too.' ✗strict ✓sloppy
- (43) *Comparative ellipsis*
- a. Ali kendi-ni Ayşe-den daha çabuk ört-tü.  
Ali self-ACC Ayşe-ABL more quick cover-PST  
'Ali covered himself faster than Ayşe.' ✓object ✓subject
- b. Ali Ayşe-den daha çabuk ört-ün-dü.  
Ali Ayşe-ABL more quick cover-NACT-PST  
'Ali covered faster than Ayşe.' ✗object ✓subject

#### 7.1.2 DE DICTO

This test also checks event participants: arity-reducing reflexives are weird in the contexts below, because they don't allow *de se* readings favored by these contexts, since they only leave one event participant which PRO saturates.

In (44a), the pronominal reflexive can effectively be interpreted outside the scope of *want* (see Heim 1994; Sportiche 2022; Charlow 2010), thus being felicitous in the given context (in this case from Charlow 2010) where John does not realize that the person who he plans to shave is himself. But the verbal reflexive is infelicitous in the same context (44b), which, as Sportiche (2014) argues, is precisely what we expect if the verbal reflexive is monadic.

## English

- (44) [John, the community's high priest, must once a year ceremonially shave the oldest member of the community. He hasn't realized that, as of this year, he himself is the oldest member. On the day, he announces: 'I must now shave the oldest member of the community!'.]
- John wants to shave himself.
  - #John wants to shave.

The reason for the infelicity of (44b) must be the fact that the embedded clause has an interpretation like that in (45). Here, *PRO* is (ultimately) the only semantic argument of *shave*. In turn, since *PRO* is interpreted *de dicto*, (44b) is correctly predicted to only be able to describe situations where John thinks 'I want to shave myself', and to thus be infelicitous in the context given.

- (45)  $[\lambda x.shave(x)(x)](PRO)$

## Turkish

- (46) [Ali, the leader of a cult, must once a year ceremonially weigh the oldest member of the community using what is considered holy water. He hasn't realized that, as of this year, he himself is the oldest member. On the day, he announces: 'I must now weigh the oldest member of the community!'.]
- Ali kendi-ni tart-mak isti-yor.  
Ali self-ACC weigh-INF want-PROG  
'Ali wants to weigh himself.'
  - #Ali tart-ıl-mak isti-yor.  
Ali weigh-REFL-INF want-PROG  
'Ali wants to weigh.'

## 7.2 INTERNAL ARGUMENTHOOD

### Adjectival Participle *-miş*

- miş* also requires the syntactic presence of an internal argument; and is regularly used as a diagnostic for the unaccusative/unergative distinction in Turkish (Nakipoğlu-Demiralp 1998, 2002; Acartürk 2005).<sup>5</sup>

- (47) a. {bozul-muş / çürü-müş / eri-miş / kok-muş} yiyecek  
decomposed-PTCP / rot-PTCP / melt-PTCP / smell-PTCP food  
'the {decomposed/rotten/melted/smelling} food'
- b. {\*koş-muş / \*yüz-müş / \*çalış-mış / \*bağır-mış} çocuk  
run-PTCP / swim-PTCP / work-PTCP / shout-PTCP child  
Intended: 'a {run/swum/worked/shouted} child'

(Nakipoğlu-Demiralp 2002:7a-b)

Verbal reflexives again stativize:

- (48) a. ört-ün-müş kadın  
cover-REFL-PTCP woman  
'a covered woman'
- b. dere-de yıka-n-müş adam  
river-LOC wash-REFL-PTCP man  
'a man who has washed in the river'

<sup>5</sup>Gürer (2014) reaches the same conclusion that the *-miş* participle requires internal arguments, but with an additional restriction: specifically [+telic] DPs. This can be shown to be too strict, and that *-miş* is sensitive to the *presence/absence of deep objects*, and not lexical aspectual properties.

- c. soy-un-muş hatun  
undress-REFL-PTCP lady  
'an undressed lady'
- d. yatak-ta uza-n-mış bir adam  
bed-LOC lie.down-REFL-PTCP a man  
'a man lying down in the bed'

### 7.3 EXTERNAL ARGUMENTHOOD

#### 7.3.1 ADVERBIAL GERUNDIVE -ARAK

Transitive with transitive and transitive with unergative:

- (49) a. Çocuk [sakız çiğne-yerek] anne-sin-i öp-tü.  
child gum chew-ARAK mother-3SG.POSS-ACC kiss-PST  
'The child kissed his mother (while) chewing gum.'
- b. Kız [(top) oyna-yarak] şarkı söyle-di.  
girl ball play-ARAK song sing-PST  
'The girl (while) playing (ball), sang.' (Özkaragöz 1980, 417)

Derived subjects (i):

- (50) a. unaccusative + unaccusative  
Adam [sayıkla-yarak] öl-dü.  
man rave-ARAK die-PST  
'The man died raving.' (Biktimir 1986, 62-63)
- b. passive + passive  
Çocuk [okşa-n-arak] öp-ül-dü.  
child caress-PASS-ARAK kiss-PASS-PST  
'The child was kissed (while) being caressed.' (Biktimir 1986, 62-63)

Passives with unaccusatives (also (35e)):

- (51) a. \*Dondurma [ısı-t-ıl-arak] bozul-du.  
ice.cream heat-VBLZ-PASS-ARAK spoil-PST  
'The ice cream spoiled (while) it was being heated.'
- b. \*Elma [çürü-yerek] ağaç-tan kop-ar-ıl-dı.  
apple rotten-ARAK tree-ABL pick-VBLZ-PASS-PST  
'The apple was picked from the tree (while it was) rotting.'

Passives with actives (transitive/unergative):

- (52) a. \*Tatlı [don-dur-arak] ye-n-di.  
desert freeze-TRANS-ARAK eat-PASS-PST  
'The desert, (while pro) freezing (it), was eaten.'
- b. \*Gazete [anla-yarak] oku-n-du.  
newspaper understand-ARAK read-PASS-PST  
'The newspaper, (while pro) understanding (it), was read.' (Özkaragöz 1980, 414)
- c. \*Bu hayvan [koş-arak] kes-il-me-meli.  
this animal run-ARAK slaughter-PASS-NEG-OBLG  
'This animal, (while it is) running, shouldn't be slaughtered.'

Transitives with unaccusatives:

- (53) \* Adam çorba-yı [kayna-yarak] servis et-ti.  
 man soup-ACC boil-ARAK service do-PST  
 ‘The man served the soup (while it was) boiling.’ (Legate et al. 2020, 41)

Unergatives with unergatives, and unaccusatives with unaccusatives (also (50a)):

- (54) a. unergative initiator + unergative initiator  
 Adam [konuş-arak] koş-tu.  
 man talk-ARAK run-PST  
 ‘The man ran (while) talking.’ (Nakipoğlu-Demiralp 2002, 8a)
- b. unergative initiator + unergative initiator  
 Emre [ağla-yarak] konuş-tu.  
 Emre cry-ARAK talk-PST  
 ‘Emre talked (while) crying.’ (Nakipoğlu-Demiralp 2002, 10b)
- c. unaccusative theme + unaccusative theme  
 Adam [takıl-arak] düş-tü.  
 man trip.over-ARAK fall-PST  
 ‘The man fell tripping over.’ (Nakipoğlu-Demiralp 2002, 8b)
- d. unaccusative theme + unaccusative theme  
 Su [kayna-yarak] buharlaş-tı.  
 water boil-ARAK evaporate-PST  
 ‘The water evaporated boiling.’ (Nakipoğlu-Demiralp 2002, 12f)

No mixing of unaccusatives with unergatives:

- (55) a. unaccusative theme + unergative initiator  
 \*Adam [takıl-arak] koş-tu.  
 man trip.over-ARAK run-PST  
 ‘The man ran (while) tripping over.’ (Nakipoğlu-Demiralp 2002, 9a)
- b. unaccusative theme + unergative initiator  
 \*Adam [düş-erek] gül-dü.  
 man fall-ARAK laugh-PST  
 ‘The man laughed (while) falling.’
- c. unergative initiator + unaccusative theme  
 \*Adam [çalış-arak] hastalan-dı.  
 man work-ARAK get.sick-PST  
 ‘The man got sick working.’ (Nakipoğlu-Demiralp 2002, 9b)
- d. unergative initiator + unaccusative theme  
 \*Adam [yürü-yerek] takıl-dı.  
 man walk-ARAK trip.over-PST  
 ‘The man tripped over (while) walking.’

### 7.3.2 AGENT NOMINALIZATION

Moreover, in Turkish unergatives/transitives, but not unaccusatives, can be agent-nominalized with *-UcU*:

- |   |  |   |
|---|--|---|
| (56) a. koş-ucu<br>run-NMLZ<br>‘runner’ | b. bit-*(ir)-ici<br>finish-VBLZ-NMLZ<br>‘finisher’ | c. *düş-ücü<br>fall-NMLZ<br>Int: ‘faller’ |
|---|--|---|

At first sight, TVRs are not easily agent-nominalized with *-UcU*.

- (57) #yıka-n-ıci  
wash-REFL-NMLZ  
'self-washer'

On closer inspection, the unacceptability of such examples appears to not be a grammatical fact strictly speaking; cf. e.g. [Embick and Marantz 2008](#) on English *#stealer* vs. *base-stealer*. Providing contexts and modifiers helps us create acceptable examples greatly:

- (58) a. Charlie harika bir giy-in-ici, asla utanç verici görün-m-üyor, bu bir erkek için  
Charlie great a dress-REFL-NMLZ never embarrassing look-NEG-PROG this a man for  
zor.  
hard  
'Charlie is a great self-dresser, he never looks embarrassing, and this is very hard for a man.'
- b. sahiplen-ici ve mülk ed-in-ici bir yaklaşım geliştir-me-si  
own-NMLZ and possession acquire-REFL-NMLZ a approach develop-NMZ-POSS  
'his developing a possessive and property-acquiring approach...'
- c. DNA-ya bağla-n-ıci protein-ler  
DNA-DAT attach-REFL-NMLZ protein-PL  
'proteins that attach themselves to the DNA'
- d. profesyonel söyle-n-ici  
professional say-REFL-NMLZ  
'a professional complainer (i.e., self-talker)' (a Pinterest account name)
- e. ... mısri kılıç-lar tak-in-ici şah-lar-ın düşman-ın-dan sak-in-ici  
... mısri sword-PL put.on-REFL-NMLZ shah-PL-GEN enemy-POSS-ABL protect-REFL-NMLZ  
el-ler-i-ne kına yi[e]rine düşman kan-ı yak-ıci ...  
hand-PL-POSS-DAT henna instead.of enemy blood-CM apply-NMLZ ...  
'putting on mısri swords, applying blood instead of henna to the hands which avoid the shah's enemies...' ([Alptekin and Şenocak 2019:140](#))

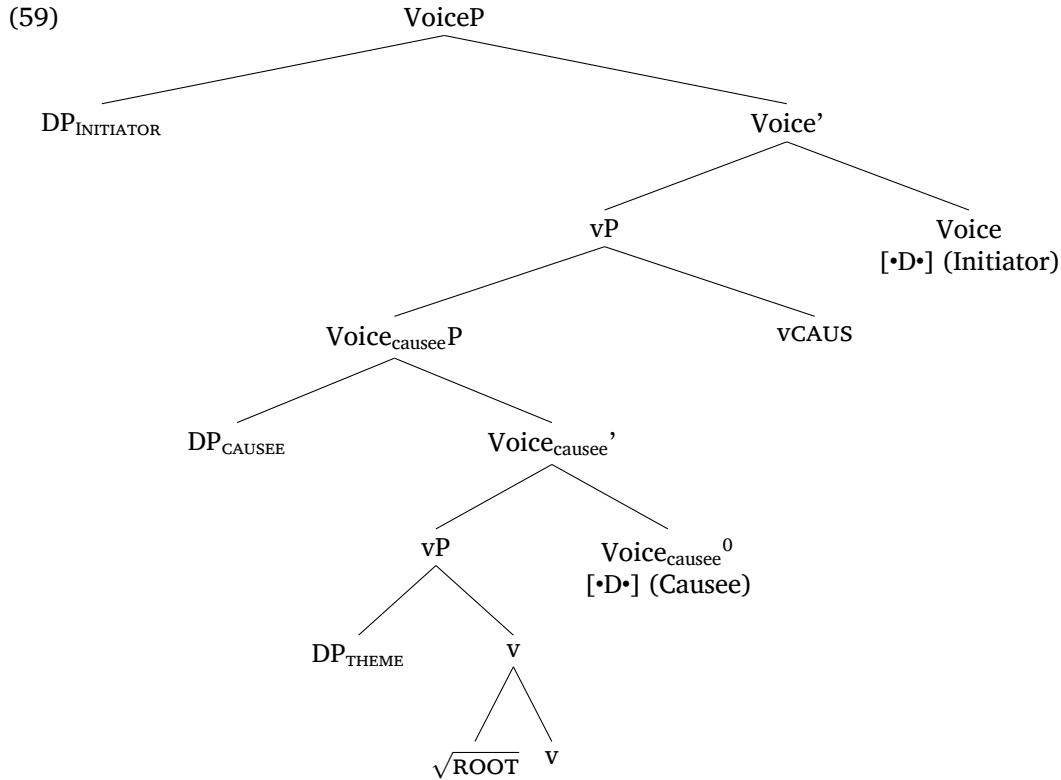
It's worth noting the complexities of this diagnostic crosslinguistically (see esp. [Alexiadou and Schäfer 2013](#); cf. [Reinhart and Siloni 2005](#)). We conjecture that the volatility of the diagnostic may in some cases be due to *name-worthiness* restrictions of the kind familiar from the (pseudo-)incorporation literature (see e.g. [Carlson, 2006](#)): agentive nominalizations that are judged to be common enough, in terms of real-world knowledge, to be worthy of a label are more likely to be accepted by speakers.

[Paparounas \(2023\)](#) notes that in Greek, affixal verbal reflexives do not agent-nominalize, whereas the situation with natural reflexives is less clear; we leave it open whether 'natural' and affixal reflexives may turn out to systematically pattern differently from each other here.

### 7.3.3 CAUSATIVIZATION (AGAIN)

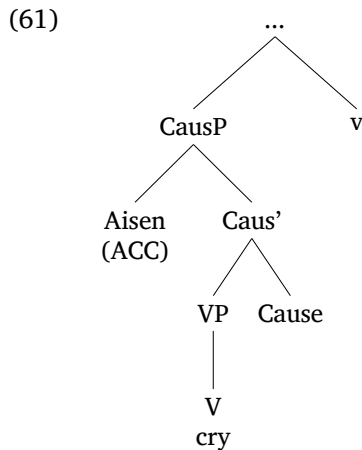
The **indirect causatives** in §2.3 also diagnose verbal reflexives as external argument-bearing verbs.

Indirect causatives in Turkish require embedding of a thematic VoiceP ([Akkuş 2021, 2023](#); contra [Çetinoğlu et al. 2008](#); [Key 2013](#); [Harley 2017](#); [Nie 2020](#)), with the overt Causee occupying Spec,VoiceP. This holds whether the Causee is marked DAT, (59), or ACC.



Baker and Vinokurova 2010 reaches the same conclusion for Sakha using different labels. (their *CausP* corresponds to *Voice<sub>causee</sub>P*, and *VP* maps onto the  $\sqrt{ROOT}$  + *vP* in Akkuş 2021).

- (60) a. Sardaana Aisen-y yta(a)-t-ta.  
 Sardaana Aisen-ACC cry-CAUS-PST.3SG  
 ‘Sardaana made Aisen cry.’ (based on Baker and Vinokurova 2010:23a)
- b. [[<sub>VP</sub> Sardaana [<sub>CAUSP</sub> Aisen [<sub>VP</sub> cry ] Cause ] v ] Past]



- The ACC-marked causee of unergatives occupies the same position as the transitive subject (Neu 2023).<sup>6</sup> It can be shown to be outside the VP as it is used to the left of the manner adverbs, standardly taken to mark the edge of VP in (61) or vP in (59), being a strong positional diagnostic across Turkic languages (e.g., Öztürk 2005; Baker and Vinokurova 2010; Jenkins 2021; Göksu 2023).

<sup>6</sup>and not lower. This holds both for simple root clauses and indirect causatives of unergatives. If there was a transitive verb with oblique object, the causee would still bear ACC case, (i), so there are two situations in which a causee can be ACC-marked.

The role of manner adverbs can be shown via the following example from Öztürk 2005, where the intended adverbial reading is marked with \*.

- (62) a. Ali (hızlı) kitab (\*hızlı) oku-du.  
 Ali quickly book quickly read-PST.3SG  
 ‘Ali did book-reading quickly.’  
 b. Ali (\*hızlı) kitab-ı (hızlı) oku-du.  
 Ali quickly book-ACC quickly read-PST.3SG  
 ‘Ali read the book quickly.’ (Öztürk 2005:51-52)

Placing the Causee to the right of the manner adverb results in the same distinct interpretation, (63b).

- (63) a. (ben) [çocuğ-u hızlı \_ koş]-tur-du-m.  
 I child-ACC fast run-CAUS-PST-1SG  
 ‘I caused [the child to run fast].’  
 b. (ben) [ hızlı çocuğ-u koş]-tur-du-m.  
 I fast child-ACC run-CAUS-PST-1SG  
 YES: ‘I caused [the fast child to run].’  
 NO: I caused [the child to run fast].

TVRs show the same positional effect wrt manner adverbs, (64).

- (64) (ben) [çocuğ-u hızlı \_ giy-in]-dir-di-m.  
 I child-ACC fast wear-REFL-CAUS-PST-1SG  
 ‘I caused [the child to dress (himself) fast] (since we were in a rush).’

#### CAUSEE/EMBEDDED AGENT INCORPORATION

- Baker and Vinokurova 2010 do not provide an example, but note that in Sakha “If the lower verb is not transitive, then the agent of the lower verb is the only NP inside the VP headed by the causative morpheme. *If it stays inside that VP, it remains unmarked*, but if it shifts to the edge of the VP to get a definite or specific reading, then it enters the same domain as the higher causer NP and it is marked accusative.”
- This seems possible in Turkish as well, where the embedded, unergative agent is incorporated, and occupies a VP-internal position (e.g., Öztürk 2005; Sağ 2022).

- (65) a. Cin-ler [kötü çocuk ağla]-t-ır.  
 djinni-PL bad child cry-CAUS-AOR  
 ‘Djinn cause [child-crying badly].’  
 b. (Context: *in a race where people can make different animals run...*)  
 (ben) bu yarış-lar-da köpek {yarış-/koş-}tur-ur-um.  
 I this race-PL-LOC dog {race-/run-}CAUS-PST-1SG  
 ‘I make dogs race/run in these races.’

In TVRs too, the Causee in default order occurs to the left of the manner adverb, and the opposite order results in a parallel interpretation to (63b).

- (66) *Şiddetli akıntı korkusundan, çoban bu nehirde ... (due to the fear of powerful currents, in this river the shepherd ...)*

(i) (ben) [çocuğ-u otobüs-e bin]-dir-di-m.  
 I child-ACC bus-DAT board-CAUS-PST-1SG  
 ‘I caused [the child to board the bus].’

- a. *pro* [koyun-u hızlı \_ yıka-n]-dır-ır.  
 sheep-ACC fast wash-REFL-CAUS-AOR  
 ‘the shepherd causes [the sheep to wash fast].’
- b. *pro* [hızlı koyun yıka-n]-dır-ır.  
 fast sheep wash-REFL-CAUS-AOR  
 ‘The shepherd causes [sheep-wash fast].’

- Under the assumption that the sole argument originates VP-internally (or vP-internally in a more DM-friendly structure), this only works if the Causee in TVRs moves from its original position into the higher phase (VoiceP or vP, in Baker and Vinokurova 2010; Jenkins 2021) both for direct objects in regular transitives, as well as accusative-marked Causee in indirect causatives (labeled as Spec,CausP in Baker and Vinokurova 2010:(24)).
  - What is of interest for our purposes is that the reflexive Causee also exhibits the same distributional properties, occurring to the left of manner adverbs, thus presumably occupying the Spec,VoiceP.
- It would be hard to capture this if the Causee remained VP-internally in a way that only relies on agentive semantics on Voice<sub>causee</sub> head.

#### 7.3.4 NON-PASSIVIZATION

Verbal reflexives may not be passivized in Turkish, and instead result in impersonals (Legate et al. 2020; Akkuş 2021) - which is expected if they behave like active, and not passive Voice.

##### Background:

- *Grammar 1:* Passivization is limited in application to transitive predicates with a thematic subject and structurally case-marked object.
- *Grammar 2:* Passivization applies with a larger set of predicates, resulting in an *impersonal passive*; specifically, verbs with oblique or pseudo-incorporated objects can undergo passivization, (67), and unergatives marginally can, (68).

(67) *Grammar B: Impersonal passive with oblique object*

- a. Çocuk-lar ağac-a tırman-dı-lar.  
 child-PL tree-DAT climb-PST-PL  
 ‘The children climbed the tree.’
- b. Ağac-a (çocuk-lar tarafından) tırman-ıl-dı.  
 tree-DAT child-PL by climb-PASS-PST  
 ‘It was climbed the tree (by the children).’

(68) *Grammar B: Impersonal passive with unergative*

- a. Seyirci-ler maç-ta bağırdı-lar.  
 spectator-PL game-LOC shout-PST-PL  
 ‘The spectators yelled in the game.’
- b. Maç-ta (seyirci-ler tarafından) bağırdı-ıl-dı.  
 game-LOC spectator-PL by shout-PASS-PST  
 ‘It was yelled in the game (by the spectators).’

Unaccusatives cannot be passivized for either group of speakers.



- (69) \* Kaza-lar-da adam-lar tarafından öl-ün-ür.  
 accident-PL-LOC man-PL by die-PASS-AOR  
 ‘It is died by men in accidents.’

Moving onto verbal reflexives, it turns out for both groups of speakers, passivization of verbal reflexives is not possible.

**Background:** As noted in Göksel 1993, the *Verb + refl + pass* sequences are well-formed in Turkish, (70).<sup>7</sup>

- (70) *Reflexive + ‘Passive’*
- a. yıka-n-il-di.  
 wash-REFL-PASS-PST  
 ‘Self-washing took place.’ (Göksel 1993:158, fn. 50)
  - b. giy-in-il-di.  
 dress-REFL-PASS-PST  
 ‘Self-dressing took place.’ (Göksel 1993:136, (84b))
  - c. döv-ün-ül-ür.  
 beat-REFL-PASS-AOR  
 ‘A self-hitting occurred.’ (Göksel 1993:339, (31))

(71) illustrate some attested examples in full clauses.

- (71) a. Ev-de ol-ma-mız-a rağmen giy-in-il-di, süsle-n-il-di.  
 house-LOC be-INF-1PL.POSS-DAT despite dress-REFL-PASS-PST doll.up-REFL-PASS-PST  
 ‘Even though we would be home, self-dressing and self-dolling up was done.’
- b. Hamam-da yıka-n-il-di.  
 Turkish bath-LOC wash-REFL-PASS-PST  
 ‘Self-washing was done in the Turkish bath.’ (Gürer et al. 2012,(25))
- c. Arı-n-ı (tertemiz) yıka-n-il-di günah-lar-ı-ndan.  
 purify-REFL-CONV clean wash-REFL-PASS-PST sin-PL-3POSS-ABL  
 ‘Purifying and (clean) self-washing was done for their sins.’
- d. Sıcak ol-duğ-u için soy-un-ul-du.  
 hot be-NMLZ-POSS for undress-REFL-PASS-PST  
 ‘Self-undressing was done since it was hot.’ (Gürer et al. 2012,(24))

Crucially, similar to unaccusatives, Refl + Pass is ungrammatical with a ‘by’-phrase, (72).

- (72) a. Dün dere-de (\*adamlar tarafından) yıka-n-il-di.  
 yesterday river-LOC men by wash-REFL-IMPERS-PST  
 ‘People/one washed in the river yesterday (\*by some men).’
- b. Sıcak ol-duğ-u için (\*tatilciler tarafından) soy-un-ul-du.  
 hot be-NMLZ-POSS for vacationers by undress-REFL-IMPERS-PST  
 ‘Self-undressing was done (\*by the vacationers) since it was hot.’
- c. Hamam-da (\*turistler tarafından) yıka-n-il-di.  
 Turkish bath-LOC tourists by wash-REFL-IMPERS-PST  
 ‘Self-washing was done in the Turkish bath (\*by tourists).’
- d. (\*Acılı baba tarafından) döv-ün-ül-ür.  
 in.pain father by beat-REFL-IMPERS-AOR  
 ‘A self-hitting was done (\*by the father in pain).’

<sup>7</sup>Göksel translates such examples in the form of ‘self-Ving’ to highlight their reflexive interpretation. We follow Göksel’s (1993) practice, and translate them as such henceforth. However, the use of ‘take place’, ‘occur’ might suggest an unaccusative structure, which we have shown, cannot be the case as they involve a thematic Voice, despite not being able to be passivized.

- e. Ev-de ol-ma-mız-a rağmen (\*biz-im tarafımızdan) giy-in-il-di.  
 house-LOC be-INF-1PL.POSS-DAT despite we-GEN by dress-REFL-IMPERS-PST  
 ‘Even though we would be home, self-dressing was done (\*by us).’

Therefore, the addition of the ‘passive’ morpheme leads to an *impersonal* interpretation, as such the translation is more like ‘People/one did self-washing’.

- They require a human interpretation.

- (73) a. Bu orman-da {çocuk-lar / fil-ler } dere-de yıka-n-ır-lar.  
 this forest-LOC {child-PL / elephant-PL } river-LOC wash-REFL-AOR-PL  
 ‘In this forest, {children / elephants} wash (themselves) in the river.’  
 b. Bu orman-da dere-de yıka-n-ıl-ır.  
 this forest-LOC river-LOC wash-REFL-IMPERS-AOR  
 ‘In this forest, {people / #elephants} wash (themselves) in the river.’

- Only 3sg agreement is allowed.

- (74) \*Hamam-da yıka-n-ıl-dı-m.  
 Turkish bath-LOC wash-REFL-PASS-PST-1SG  
 Int: ‘I was done self-washing in the Turkish bath.’ or ‘Self-washing was done by me in the Turkish bath’

### 7.3.5 LONG OBJECT MOVEMENT

An argument that originates in embedded object position undergoes Long Object Movement (LOM) to become the matrix grammatical subject under verbs such as *çalış-* ‘try’ or *iste-* ‘want’ (Göksu 2023).

- (75) a. Polis [çocuk-lar-ı kurtar-ma-ya ] çalış-tı.  
 police child-PL-ACC save-INF-DAT try-PST  
 ‘The police tried to save the children.’  
 b. Çocuk-lar (polis tarafından) [ \_ kurtar-ıl-ma-ya ] çalış-ıl-dı-(lar).  
 child-PL police by save-PASS-INF-DAT try-PASS-PST-PL  
 ‘The children were tried to be saved (by the police).’ (Göksu 2023:1a-b)

- In verbal reflexives as well, the DP starts out in object position, but unlike restructuring, it cannot undergo LOM.
  - In the non-LOM counterpart, a verb like ‘wash’ with the non-active morpheme is ambiguous between a passive and a reflexive interpretation, (76a).
  - When LOM applies, (76b), only the passive reading is maintained.

- (76) a. Çocuk yıka-n-ma-ya çalış-tı.  
 child wash-NACT-INF-DAT try-PST  
 YES: ‘The child tried [to be washed].’  
 YES: ‘The child tried [to self-wash].’  
 b. LOM  
 Çocuk yıka-n-ma-ya çalış-ıl-dı.  
 child wash-NACT-INF-DAT try-PASS-PST  
 YES: ‘The child was tried [to be washed].’  
 NO: ‘The child tried [to self-wash].’

Same holds for the verb ‘want’:

- (77) a. Çocuk yıka-n-mak iste-di.  
 child wash-NACT-INF want-PST  
 YES: ‘The child wanted [to be washed].’  
 YES: ‘The child wanted [to self-wash].’
- b. *LOM*  
 Çocuk yıka-n-mak iste-n-di.  
 child wash-NACT-INF want-PASS-PST  
 YES: ‘The child was wanted [to be washed].’  
 NO: ‘The child was wanted [to self-wash].’

#### 7.4 NOTES ON VOICE SYNCRETISM

Turkish has a type of Voice syncretism that is crosslinguistically pervasive:

- (78) a. Kapı aç-ıl-dı.  
 door open-NACT-PST  
 ‘The door opened’ OR ‘The door was opened’
- b. Küçük kız tart-ıl-dı.  
 little girl weigh-NACT.PST  
 ‘The little girl was weighed’ OR ‘The little girl weighed herself’

cf. e.g. Greek:

- (79) a. Perierjes theories anaptis- onde sineça (apo ylosologyus).  
 strange.PL.NOM theory.PL.NOM develop 3PL.NACT constantly from linguist.PL  
 ‘Strange theories are usually developed by linguists.’
- b. Kapça fita anaptis- onde apo mona tus.  
 some.PL.NOM plant.PL.NOM NEG develop 3PL.NACT from alone.PL 3PL.GEN  
 ‘Some plants grow on their own.’
- (80) O Janis ksiris- θ- ik- e.  
 the.NOM John.NOM shave PFV.NACT PST 3SG  
 ‘John was shaved’ OR ‘John shaved’

This type of system has been argued to arise when the morphology ‘indexes’ the absence of a thematic subject (e.g. Marantz 1984; Embick 1998, 1997, 2004; Alexiadou et al. 2015; see Paparounas 2023 for extensive recent discussion). Schematically:

- (81) Voice → Voice<sub>NACT</sub> / No DP specifier \_

(Embick, 1998, 2004; Alexiadou et al., 2015)

If the above is on the right track, then:

- For Turkish, the right formalization of (81) will have to make reference to *base generation*, and ignore derived specifiers of Voice. Possibly tricky.