

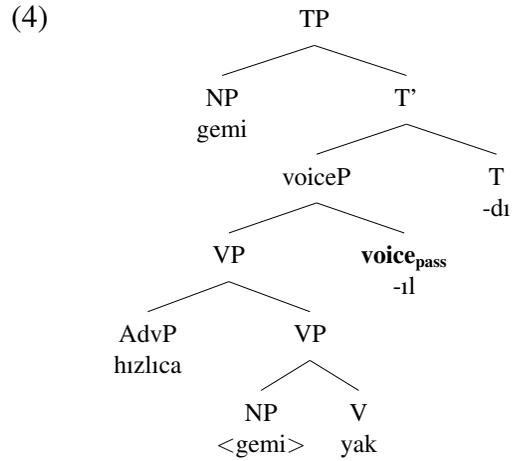
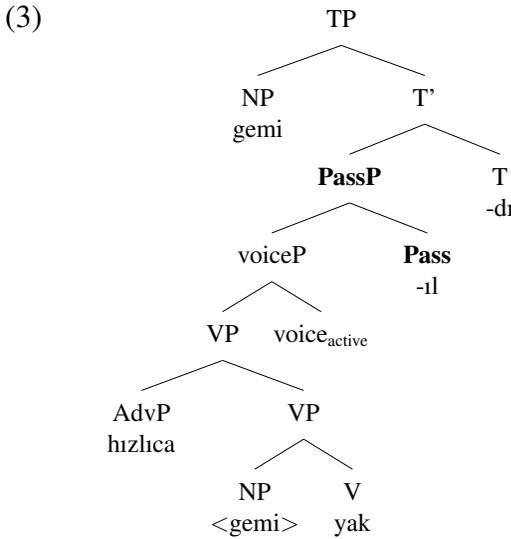
Greek and Turkish passives: A comparative approach

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ALF-1 (Atelier de Linguistique Formelle), 9 March 2026
Structures Formelles du Langage, CNRS, Université Paris 8

1 Introduction

- It is well known that passives lead to agentive inferences.
 - Typical diagnostic tests to differentiate passives from morphologically similar or syncretic constructions such as anticausatives include **agentive** adverbials, **by-phrases** and compatibility with **purpose clauses** (e.g., [Alexiadou 2014](#); [Alexiadou et al. 2015](#); [Bhatt and Pancheva 2006](#); [Chierchia 1995](#); [Collins 2024](#); [Landau 2010](#); [Manzini 1986](#); [Roeper 1987](#); [Stroik 1992](#); [Williams 1987](#) i.a.).
 - (1) a. The ship sank {#deliberately, # by the enemy, # to beat the enemy}.
 - b. The ship was sunk {deliberately, by the enemy, to beat the enemy}.
- Broadly, there are two types of analyses that have been proposed to capture the agentive inference associated with passives (that is absent e.g. in anticausatives)
 - 1. FUNCTIONAL HEAD ANALYSIS ⇒ there is an independent functional passive head above active voice, or a passive voice head that occurs *instead of* active voice. Under both approaches, the functional head introduces existential quantification over an argument position already present at the semantic level (e.g., [Alexiadou et al. 2015](#); [Bruening 2013](#); [Legate 2014](#) i.a.).
 - (2) gemi hızlıca yak-ıl-dı
ship quickly sink-PASS-PST
'The ship was quickly burnt.'

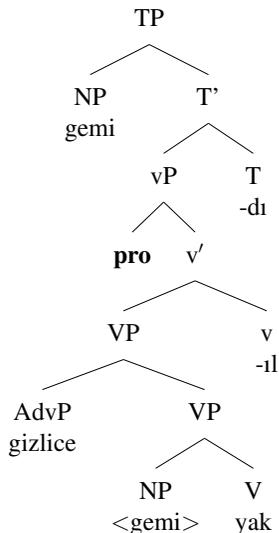


- (5) a. $[[\text{Pass}]] = \lambda P_{\langle e, vt \rangle} \cdot \lambda e. \exists x : P(x)(e)=1$
 b. $[[\text{voice}_{\text{pass}}]] = \lambda P_{\langle v, t \rangle} \cdot \lambda e. \exists x : \text{ag}(e)=x \wedge P(e)=1$

* For example, Key argues that the independent head analysis fares better for a language like Turkish, where causative morphology is not lost under passivization (i.e. active morphology not replaced by the passive morphology)

- (6) gemi hızlıca batırıldı
 ship quickly sink-CAUS-PASS-PST
 'The ship was quickly sunk.'

– 2. PRONOMINAL ANALYSIS \Rightarrow there is a syntactically projected implicit argument merged in the position where a DP would receive its agent role (e.g., Angelopoulos et al. 2025; Collins 2024; Dikmen et al. 2022; Jaeggli 1986; Roberts 2019 i.a.).



* conceptual motivation:

· theta criterion

* passive morphology:

· participle head?

· context-sensitive allomorph of voice?

· dissociated morpheme?

· pro itself?

· a separate Voice head on top of v (Angelopoulos et al. 2025; Collins 2024; Merchant 2005)?

- * One could have a separate \exists -binder binding *pro* or encode existential quantification within the meaning of *pro*.

⇒ Both approaches derive the same truth conditions

(7) There exist an event *e* and individual *x* such that the agent of *e* is *x* . . .

⇒ Hence, both camps can account for the agentive inferences in passive clauses.

- Nevertheless, there are certain additional syntactic parameters/features pertaining passive clauses (other than morphology and semantics) and these led different authors to propose different analyses.
 - personal vs. impersonal passive distinction
 - episodic vs. generic distinction
 - licensing behavior
 - * ability to license dependent case
 - * ability to bind anaphors & possessive pronouns
 - * ability to control PRO in purpose clauses
 - * ability to license secondary predicates

Personal vs. Impersonal Distinction

- Traditionally, personal passives are taken to be canonical passives associated with the absence of accusative case on the thematic object that has become the grammatical subject.

(8) a. Korra Zahir-**i** kovala-d₁.
Korra Zahir-ACC chase-PST
'Korra chased Zahir.'

b. Zahir kovala-n-d₁.
Zahir.NOM chase-PASS-PST
'Zahir was chased.'

(Personal passive)

- Impersonal passives are usually taken to be passive constructions where there is arguably no grammatical subject.
- Turkish can have such passives of both unaccusatives and unergatives (contra [Perlmutter 1978](#)).

- (9) a. Bu çukur-a düş-ül-ür.
This hole-LOC fall-PASS-AOR
'One may fall into this hole.'
Lit(eral): 'It is fallen to this hole.' (unaccusative)
- b. Dün maraton-da koş-ul-du.
yesterday marathon-LOC run-PASS-PST
'There was running in the marathon yesterday.'
Lit: 'It was run in the marathon yesterday.' (unergative)

- For example, Legate et al. (2020) proposed that true passive clauses lack implicit syntactic arguments (in Bruening (2013) style), while impersonal passives are impersonal active constructions involving implicitly represented argument (at least for Turkish, see also Šereikaitė (2022) for a similar analysis of Lithuanian personal and impersonal passives).

Episodic and Generic Distinction

- In particular, Dikmen et al. (2022) observes that passives targeting agent positions are compatible with episodic (as well as generic) contexts, while passives targeting theme positions are only good in generic contexts.

- (10) unergative/transitive: episodic ✓
- a. Bu kitap dün oku-n-du.
This book yesterday read-PASS-PST
'This book was read yesterday.'
- b. Dün konser-de bağır-ıl-dı.
yesterday concert-LOC shout-PASS-PST
'Someone/People shouted in the concert yesterday.'
Lit: 'It was shouted in the concert yesterday.'
- (11) unaccusative: episodic*, generic ✓
- a. *Ay, az önce çukur-a düş-ül-dü.
Oh, short before hole-DAT fall-PASS-PST
Int: 'Oh, people/someone fell into this hole a minute ago.'
Lit: 'It was fallen to this hole a minute ago.'
- b. Ay, bu çukur-a düş-ül-ür.
Oh, this hole-DAT fall-PASS-AOR
'Oh, people/someone (may) falls into this hole.'

- For Dikmen et al. (2022), the distinction appears because the syntactically represented argument in passive clauses are associated with distinct semantics, generating the requirement that passives targeting a theme position have to occur in a generic context.
- Generic vs. episodic distinction has also been shown to correlate with licensing behavior. For example, while Turkish dependent accusative never surfaces in any type of passives, accusative can surface in generic passives in Sakha (Tan & Kuhlert 2020). Note the passive morphology in the Sakha sentence.

- (12) a. Gelenek-ler-(*)i boz-ul-maz.
 custom-PL-ACC break-PASS-NEG.GEN
 ‘One does not break customs.’ Turkish
- b. yges-ter-y keh-**illi**-bet
 tradition-PL-ACC break-PASS-NEG.GEN
 ‘One does not break customs.’ Sakha

- Given that licensing behavior will give us important clues in diagnosing possible structures for passive sentences, we will test in particular Anaphor Licensing and Depictive Licensing in these four contexts.

- GENERIC + PERSONAL
- GENERIC + IMPERSONAL
- EPISODIC + PERSONAL
- EPISODIC + IMPERSONAL

PREVIEW OF OUR FINDINGS

- Generic vs. Episodic contrast is informative in anaphor licensing while Personal or Impersonal contrast seems irrelevant (contra Legate et al. 2020).
- The phi-feature make-up of an item, whether it is inflected or not plays a role in combination with the Generic vs Episodic contrast.
- The empirical landscape at hand is consistent with the PRONOMINAL ANALYSIS.
- However, it is also clear that there needs to be a more fine-grained typology of syntactically projected implicit arguments in passive clauses, (perhaps along the lines of an implicational hierarchy).

2 Anaphor Binding in Passives

Turkish: We will use the reflexive pronouns *kendi* and *kendisi*.

- kendi* requires a syntactically represented antecedent, and a local one

- (13) Ali [Ayşe-nin **kendini**] sev-diğ-in-i] düşün-üyor.
 Ali Ayşe-GEN self.ACC love-NMZ-POSS-ACC think-IMPF
 Ali (k) thinks that Ayşe (j) loves herself (j) ✓ LOCAL BINDER
 %Ali (k) thinks that Ayşe (j) loves him (k). %DISTANT BINDER
 *Ali (k) thinks that Ayşe (j) loves him (i) *NO BINDER.

- By contrast, *kendisi* can also exhibit pronominal behavior, being licensed without a binder.

- (14) Ali [Ayşe-nin kendisini sev-diğ-in-i] düşün-üyor.
 Ali Ayşe-GEN self.ACC love-NMZ-POSS-ACC think-IMPF
 Ali (k) thinks that Ayşe (j) loves herself (j) ✓ LOCAL BINDER
 Ali (k) thinks that Ayşe (j) love him (k). ✓ DISTANT BINDER
 Ali (k) thinks that Ayşe (j) love him (i) ✓ NO BINDER.

- In (13), *kendi* has to be bound by the local (or for some speakers non-local) antecedent. Crucially, it cannot get its reference from context.
- This is different for *kendisi* as shown in (14), which can also get its reference from the context.
- What is important for us is that *kendi* has to be bound by a syntactically present entity.
- The same points holds with quantificational binding:

- (15) a. Herkes_k kendini_{k/*i} sev-iyor.
 everyone self.ACC love-PROG
 ‘Everyone_k loves oneself_{k/*i}.’
 b. Herkes_k kendisini_{k/i} sev-iyor.
 everyone self.ACC love-PROG
 ‘Everyone_k loves oneself_{k/that person_i}.’

- Given that only *kendi* requires a linguistic antecedent binding it, we will use it to test if it is licensed in passives under these mixed sets of conditions.
 - GENERIC + PERSONAL
 - GENERIC + IMPERSONAL
 - EPISODIC + PERSONAL
 - EPISODIC + IMPERSONAL

GENERIC + PERSONAL

- (16) *kendi* in active ✓; in passive ✓
- a. Ali bazı durum-lar-da bu terapi-yi kendine uygula-maz.
 Ali some situation-PL-LOC this therapy-ACC self.DAT apply-NEG.AOR
 ‘Ali does not apply this therapy to himself in some situations.’
- b. Bu terapi bazı durum-lar-da kendine uygulan-maz.
 this therapy some situation-PL-LOC self.DAT apply-NEG.AOR
 ‘This therapy is not applied to oneself in some situations.’

GENERIC + IMPERSONAL:

(17) *kendi* in active ✓; in passive ✓

- a. Ali her kötü olay-da kendine bağır-maz.
Ali every bad situation-LOC self.DAT shout-NEG.AOR
'Ali does not shout at himself after every bad situation.'
- b. Her kötü olay-da kendine bağır-ıl-maz.
every bad situation-LOC self.DAT shout-PASS-NEG.AOR
Lit: 'It is not shouted at oneself after every bad situation.'

- We can summarize our findings so far for Turkish as in Table 1.

	Generic		Episodic	
	Personal	Impersonal	Personal	Impersonal
<i>kendi</i>	✓	✓	?	?

Table 1: Turkish: binding diagnostics across passive types.

- Now let's consider episodic personal and impersonal passives.

EPISODIC + PERSONAL

(18) *kendi* in active ✓; in passive *

- a. Ali dün bu terapi-yi kendine uygula-ma-dı.
Ali yesterday this therapy-ACC self.DAT apply-NEG-PST
'Ali did not apply this therapy to himself yesterday.'
- b. *Bu terapi dün kendine uygula-n-ma-dı.
this therapy yesterday self.DAT apply-PASS-NEG-PST
Int: 'This therapy was not applied to oneself yesterday.'

EPISODIC + IMPERSONAL

- a. Ali dün kendine bağır-ma-dı.
Ali yesterday self.DAT shout-NEG-PST
'Ali did not shout at himself yesterday.'
- b. *Dün kendine bağır-ıl-dı.
yesterday self.DAT shout-PASS-PST
Lit: 'It was not shouted at oneself yesterday.'

- We can summarize our findings as in Table 5.

	Generic		Episodic	
	Personal	Impersonal	Personal	Impersonal
<i>kendi</i>	✓	✓	x	x

Table 2: Turkish: binding diagnostics across passive types.

Novel observation for Turkish: The possibility of anaphor binding is affected by whether the passive type is generic or episodic. The personal vs. impersonal distinction is irrelevant (contra Legate et al. (2020)).

Greek:

- The Greek reflexive *o eaftos mu* behaves exactly like *kendi* in that it requires a local c-commanding antecedent (Angelopoulos and Sportiche 2025; Angelopoulos 2024).

(20) *O Jorghos pistevi oti i vasilisa kalese tin Maria ce
 the George.NOM believe.3SG that the queen.NOM invited.3SG the Maria.ACC and
 ton eafto tu ja tsai.
 the himself.ACC tu.GEN for tea
 ‘George believes that the queen invited Mary and himself for tea.’

- Unlike Turkish, Greek does not permit impersonal passives. Nevertheless, it exhibits the same contrast in anaphor binding between episodic and non-episodic passives: binding is ruled out in episodic contexts, but becomes possible in non-episodic contexts, where the reflexive receives a generic (‘oneself’) interpretation (Michelioudakis 2020, Angelopoulos et al. 2025).
- The generic interpretation is available only when the reflexive is 2SG or 1PL.

GENERIC + PERSONAL

Context: As doctors, we often find it easy to apply new therapies to our patients.

- (21) a. Otan aftes i therapies efarmozode IA_i s-**ton eafto su**_i, ine
 when these the therapies apply.NACT.PRS.3PL IA to-the self yours is
 periploko.
 complicated
 ‘When these therapies are applied to yourself, it is complicated.’
- b. Otan aftes i therapies efarmozode IA_i s-**ton eafto mas**_i, ine
 when these the therapies apply.NACT.PRS.3PL IA to-the self ours is
 periploko.
 complicated
 ‘When these therapies are applied to ourselves, it is complicated.’

- c. *Otan aftes i therapies efarmozode IA_i s-**ton eaf**to tu_i, ine periploko.
 when these the therapies apply.NACT.PRS.3PL IA to-the self his is complicated
 ‘When these therapies are applied to himself, it is complicated.’ Angelopoulos et al.
 (2025), (16))

EPISODIC + PERSONAL

- (22) a. *Otan i therapies efarmostikan IA_i s-**ton eaf**to su_i, itan
 when the therapies apply.NACT.PST.PERF.3PL IA to-the self yours was
 periploko.
 complicated
 ‘When the therapies were applied to yourself, it was complicated.’
 b. *Otan i therapies efarmostikan IA_i s-**ton eaf**to mas_i, itan
 when the therapies apply.NACT.PST.PERF.3PL IA to-the self ours was
 periploko.
 complicated
 ‘When the therapies were applied to ourselves, it was complicated.’ Angelopoulos
 et al. (2025), (17))

3 Depictive Licensing

- Depictive secondary predicates are adjectival phrases that describe a participant in the event introduced by the main verb of a clause, and they are temporally dependent on that event.
- In simple active clauses, depictives may modify the subject or object of the clause.

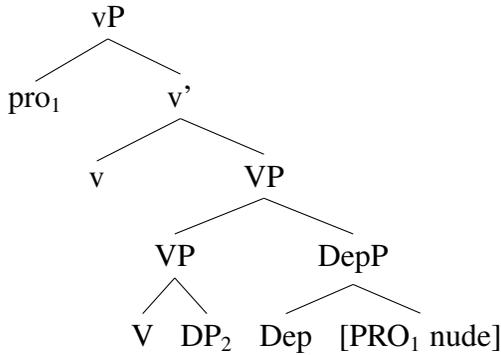
- (23) a. John left drunk. (subject depictive)
 b. Mary ate the meat raw. (object depictive)

- In English, the depictive phrase can be understood as predicating of the implicit external argument of a short passive (Collins (2024) (though see the references therein for potential complications, such as adverbial uses Williams (1985) and differing judgments; see, e.g., Chomsky (1986); Pytkänen (2008); Landau (2010)).

- (24) The game was played nude.

- Depictives involve control (Legendre (1997); Collins (2024)).
- The depictive forms a small clause with a null subject PRO, and PRO is obligatorily controlled by a syntactically represented argument.
- In passives, the external argument position is still projected, and can therefore control PRO.
- Adapting the syntax to languages without a special participial head (e.g. Turkish), we can assume the following architecture, where DepP (see Pytkänen (2008)) is a VP-modifier:

(25)



(26)

- a. $\llbracket \text{nude} \rrbracket = \lambda x. \lambda s. \text{nude}(s, x)$
- b. $\llbracket \text{Dep} \rrbracket = \lambda P. \lambda e. \exists s : P(s) \wedge e \circ s$
- c. $\llbracket \text{vP} \rrbracket = \lambda e. \exists x, s : \text{play}(e, \iota \text{game}) \wedge \text{agent}(e) = x \wedge \text{nude}(s, x) \wedge e \circ s$

- PRO analysis of depictives predicts sensitivity to whether there is a syntactically represented implicit argument in passive clauses, which can act as the controller of the subject of the depictive predicate.

Turkish:

- Some adjectives like **çıplak** ‘naked’ in Turkish can serve as depictive secondary predicates in active clauses.

(27)

- a. Garson yemeğ-i çıplak servis et-ti.
waiter food-ACC naked service do-PST
‘The waiter₁ served the food naked₁.’
- b. Bu restoran-da garson-lar yemeğ-i çıplak servis ed-er.
this restaurant-LOC waiter-PL food-ACC naked service do-AOR
‘In this restaurant, waiters₁ serve the food naked₁.’

(28)

- GENERIC + PERSONAL ✓ , GENERIC + IMPERSONAL ✓
- a. Bu restoran-da yemek çıplak servis ed-il-ir.
this restaurant-LOC food naked service do-PASS-AOR
‘In this restaurant, the food is served naked.’
 - b. Bu kumsal-da çıplak güneşlen-il-ir.
this beach-LOC naked sunbathe-PASS-AOR
‘On this beach, one sunbathes naked.’

(29)

- EPISODIC + PERSONAL ✓ , EPISODIC + IMPERSONAL ✓
- a. Dün bu restoran-da yemek çıplak servis ed-il-di.
yesterday this restaurant-LOC food naked service do-PASS-PST
‘In this restaurant, the food was served naked yesterday.’
 - b. Dün bu kumsal-da çıplak güneşlen-il-di.
yesterday this beach-LOC naked sunbathe-PASS-PST
‘On this beach, people sunbathed naked yesterday.’

- Depictive secondary predicates are licensed across all passives types.

	Generic		Episodic	
	Personal	Impersonal	Personal	Impersonal
<i>çıplak</i> ‘naked’	✓	✓	✓	✓

Table 3: Turkish: depictive diagnostics across passive types.

Greek:

- We need to distinguish between two types of predicates; (i) fully inflected adjectives and (ii) uninflected (PPs and adjectival borrowings from other languages).
- We take one from each category and show that they do not have an adverbial usage:

(30) a. *I mera perase aproetimast-os/ deforme/ se kali
 the day.NOM passed.3SG unprepared-M.NOM in a bad shape in good
 dhiathesi.
 mood
 ‘The day passed in a good mood.’

- Angelopoulos et al. (2025) show that the Greek passive can only license uninflected secondary predicates:

(31) a. *To pehnidi pezotan/ pehtike IA aproetimast-
 the game play.NACT.PRS.3PL play.NACT.PST.PERF.3PL IA unprepared
os/i.
 NOM.MASC.SG/PL
 ‘The game is played unprepared.’

b. Afto to pehnidi dhen pezete/ pehtike
 this the game not play.NACT.PRS.3SG play.NACT.PST.PERF.3SG
deforme.
 in bad shape
 ‘This game is/was not played in bad shape.’

c. O aghonas diorghanonete/ diorghanothike **se kali**
 the game organize.NACT.PRS.3SG organize.NACT.PST.PERF.3SG in good
diathesi.
 mood
 ‘This game is/was organized in a good mood.’ Angelopoulos et al. (2025,
 (24,26))

Interim conclusion:

In a nutshell:

- We conclude that in both Turkish and Greek, we need a syntactically represented argument in passive clauses.
- For Turkish, the need is particularly visible in generic passives, where the implicit argument can bind an anaphor.
- In episodic passives, anaphor binding is not possible, but depictives are still licensed suggesting that such passives also involve a syntactically represented implicit argument.
- For Greek, anaphor binding is possible only in generic passives, just like in Turkish. This suggests that there is a syntactically represented argument in passive clauses.
- However, depictive licensing is only possible with uninflected adjectival predicates suggesting again that the Greek passives involve a syntactically represented implicit argument.
- The question now how an implicit argument analysis of passive clauses can reconcile
 - the contrasts in episodic and non-episodic passives with respect to anaphor binding in Greek and Turkish,
 - the contrast between the inflected and uninflected secondary predicates in Greek.

4 More on anaphor binding in Turkish

- Recall in generic (personal and impersonal alike) passives, anaphors are licensed in Turkish.

(32) Bu terapi bazı durum-lar-da kendine uygulan-maz.
this therapy some situation-PL-LOC self.DAT apply-NEG.AOR
'This therapy is not applied to oneself in some situations.'

- Nevertheless, at first sight, pronominal binding appears strictly illicit, as we show below.
- First, let us observe that in active clauses, 3SG possessive *pro* can be bound by quantificational subjects like nobody, everybody as well as overt impersonal *insan* 'human' subject.

(33) a. Hiçkimse buraya aile-si-yile gel-mez
nobody here.DAT family-3SG.POSS-with come-NEG.AOR
'Nobody₁ comes here with their₁ family.'

b. Herkes buraya aile-si-yile gel-ir
everyone here.DAT family-3SG.POSS-with come-AOR
'Everyone₁ comes here with their₁ family.'

c. İnsan buraya aile-si-yile gel-mez
Human here.DAT family-3SG.POSS-with come-NEG.AOR
'One₁ does not come here with their₁ family.'

- Interestingly, the implicit argument in generic passives ***cannot*** license 3SG possessive *pro*.

- (34) a. *Buraya aile-si-yile gel-in-mez
 here.DAT family-3SG.POSS-with come-PASS-NEG.AOR
 Int. ‘One₁ does not come here with their₁ family.’
- b. *Buraya aile-si-yile gel-in-ir
 here.DAT family-3SG.POSS-with come-PASS-AOR
 Int. ‘One₁ comes/can come here with their₁ family.’

- Why should there be such a contrast? To answer this question, we zoom in on the morphological decomposition of the anaphors and possessive forms in Turkish.

- Except under Nominative, 2nd and 3rd person forms are indistinguishable.

Turkish anaphors	NOM	ACC	GEN	DAT
1SG (myself)	kendi-m	kendi-m-i	kendi-m-in	kendi-m-e
2SG (yourself)	kendi-n	kendi-n-i	kendi-n-in	kendi-n-e
3SG (3sg-self)	kendi-∅	kendi-n-i	kendi-n-in	kendi-n-e

- We observe the same type of accidental syncretism arise in the possessive paradigm when the root noun is consonant final.

house-possessive	NOM	ACC	GEN	DAT
1SG (my)	ev-im	ev-im-i	ev-im-in	ev-im-in
2SG (your)	ev-in	ev-in-i	ev-in-in	ev-in-in
3SG (her/his/its)	ev-i	ev-in-i	ev-in-in	ev-in-in

- but not when the root noun is vowel final.

cat-possessive	NOM	ACC	GEN	DAT
1SG (my)	kedi-m	kedi-m-i	kedi-m-in	kedi-m-e
2SG (your)	kedi-n	kedi-n-i	kedi-n-in	kedi-n-e
3SG (her/his/its)	kedi-si	kedi-sin-i	kedi-sin-in	kedi-sin-e

- It is orthogonal for our purposes why the formal identity between 2 & 3 arises with consonant final roots in the possessive paradigm and the reflexive paradigm. But here’s an analysis:

- (35) 3SG poss ⇒ /-sIn/
 a. readjustment rule1: /-sIn/ loses its /n/ / ____ # or NOM
 b. readjustment rule2: /-sIn/ loses its /s/ / C ____

- (36) 3SG anaphor ⇒ /kedin/
 readjustment rule: /kedin/ loses its /n/ / ____ # or NOM

(42) *Öğrenci-sin-e saygı duy-mak önemli-dir
 student-3SG.POSS-DAT respect show-INF important-GNR
 Lit: ‘It is important to show respect to his/her student’
 ‘It is important for one/anyone to respect their student.’

- Accidental syncretism again hides whether the licensed anaphor is 2SG or 3SG. But it seems clear now that it is 2SG.

(43) Kendine saygı duy-mak önemli-dir
 self.DAT respect show-INF important-GNR
 Lit: ‘It is important to show respect to yourself’
 (note: kendine ‘to yourself/to herself’)

- This sharply contrasts with overt impersonal *insan* ‘human’ which does require to bind a 3SG and cannot bind a 2SG *pro*.

(44) a. İnsan öğrenci-sin-e/ *öğrenci-n-e saygı
 human student-3SG.POSS-DAT/ *student-2SG.POSS-DAT respect
 duy-malı-dir.
 show-DEON-GNR
 ‘One must respect his/her/*your student.’
 b. İnsan-ın öğrenci-sin-e/ *öğrenci-n-e saygı
 human-GEN student-3SG.POSS-DAT/ *student-2SG.POSS-DAT respect
 duy-ma-sı önemli-dir
 show-NMLZ-3SG.POSS important-GNR
 ‘One must respect his/her/*your student.’

FINDING: The implicit argument in generic passives and agreement-less infinitival generic contexts can only bind 2SG pronouns and anaphors.

- **Prediction:** in contexts where we can have the NOM form of the anaphor, we will see that it is 2SG form, not 3SG.

- We see the NOM form of the anaphor when it is used within the PP {için NP} ‘for NP’.

(45) a. Ben bunu kendi-m için yap-tı-m
 I this.ACC self-1SG.POSS.NOM for do-PST-1SG
 ‘I did it for myself.’
 b. Sen bunu kendi-n için yap-tı-n
 you this.ACC self-2SG.POSS.NOM for do-PST-2SG
 ‘You did it for yourself.’

- Prediction is borne out.

- (46) Her şey kendi-n için yapılmaz ki!
 every thing self-2SG.POSS for do-PASS-NEG.AOR PRT
 ‘One does not do everything for themselves!’
- (47) *Her şey kendi için yapılmaz ki!
 every thing self-3SG.POSS for do-PASS-NEG.AOR PRT
 Int. ‘One does not do everything for themselves!’

- A final observation concerns the 2SG possessive *pro* binding in episodic passives.
- Parallel to the impossibility of the binding of the reflexive anaphora, the implicit argument of episodic passives cannot bind the possessive *pro*.

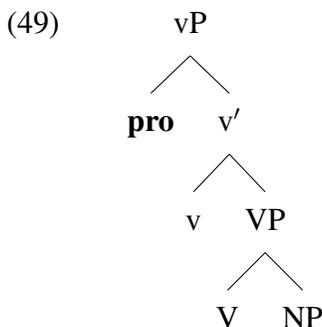
- (48) Dün burada aile-n-le yüz-ül-dü.
 yesterday here family-2SG.POSS-with swim-PASS-PST
 Int: *‘Yesterday, people/someone₁ swam here with their₁ family.’
 ‘Yesterday, people/someone₁ swam here with the addressee’s₂ family’

5 Analysis

- For any semantic account of binding that does not require a syntactically realized antecedent, the contrast between episodic and non-episodic contexts in the licensing of anaphors is problematic: why should semantic licensing of anaphors be restricted to non-episodic contexts?
- Likewise, it is implausible to assume that an implicit argument is present only in non-episodic passives. Since external arguments are merged below Aspect, such a restriction would require illicit look-ahead, and it remains unclear how aspect could determine the syntactic presence of an argument.

Passive: Implicit External Argument

- Somewhat abstracting away from language specific features, we assume that the external argument position is Spec,vP, not Spec,VoiceP, as in [Kratzer \(1996\)](#) and a lot of subsequent work, and that this position is filled by an silent pronoun.



A Typology of Implicit Arguments

- We adopt the typology of silent pronouns that have been proposed since at least Cinque (1988), and more recently in Fenger (2018); Angelopoulos (2024); Collins (2024) among others: $\text{pro}_{\text{Definite}}$, $\text{pro}_{\text{Existential}}$ and $\text{pro}_{\text{Generic}}$.
- These pronouns differ in their phi-feature specification:

Phi-features				
	Person	Number	Human	Animate
Pro_{Gen}	2SG (1PL Greek only)		+	+
Pro_{Exi}	\emptyset	\emptyset	+	+
Pro_{Def}	1 st /2 nd /3 rd	SG/PL	\pm	\pm

Table 4: Pronouns and their feature specification.

- We propose that, unlike English passives (Collins 2024), the Turkish passive—like the Greek passive Angelopoulos (2024)—permits only $\text{pro}_{\text{Generic}}$ and $\text{pro}_{\text{Existential}}$ —we return to this.
- Let us consider how this fares with the binding facts:

	Generic		Episodic	
	Personal	Impersonal	Personal	Impersonal
<i>anaphor binding in Turkish</i>	✓	✓	x	x
<i>anaphor binding in Greek</i>	✓	N/A	x	N/A

Table 5: Turkish and Greek binding diagnostics across passive types.

The Greek and Turkish anaphors we examine are subject to the following two conditions:

- **Condition A:** An anaphor must be bound in its domain.
- **The Pronominal Agreement Condition:** An anaphor agrees in phi-features with its antecedent. Collins and Postal (2012, 92)
 - The Pronominal Agreement Condition captures the fact that Greek and Turkish anaphors are inflected: the first for person, number, gender and the second for person and number.

Analysis:

- In episodic contexts, $\text{pro}_{\text{Existential}}$ is permitted, whereas $\text{pro}_{\text{Generic}}$ is not. Because $\text{pro}_{\text{Existential}}$ lacks phi-features, anaphoric binding in the passive is blocked, in accordance with the Pronominal Agreement Condition.
- On the other hand, pro_{Gen} is allowed in non-episodic/generic contexts, which explains why anaphor binding becomes possible in the generic passives of both languages.

Open Question:

But if the passives of both languages involve an implicit external argument, why are depictives licensed only in Turkish, while in Greek they are possible only when uninflected?

- A closer look at the morphological composition of adjectives used as depictives in Greek and Turkish reveals a more unified picture than initially assumed.
 - In Turkish, adjectives are not inflected for case, number, or gender.
 - Greek also has a class of uninflected adjectives, and these are precisely the ones that are licensed as secondary predicates (depictives).
 - By contrast, inflected Greek adjectives—those marked for case, number, and gender—are not licensed as secondary predicates.
- Thus, across both languages, depictive secondary predicates are systematically realized by morphologically uninflected adjectives.

	Generic		Episodic	
	Personal	Impersonal	Personal	Impersonal
(-INFL) depictives in Turkish	✓	✓	✓	✓
(-INFL) depictives in Greek	✓	N/A	✓	N/A
(+INFL) depictives in Greek	x	N/A	x	N/A

Table 6: Greek and Turkish: depictive diagnostics across passive types.

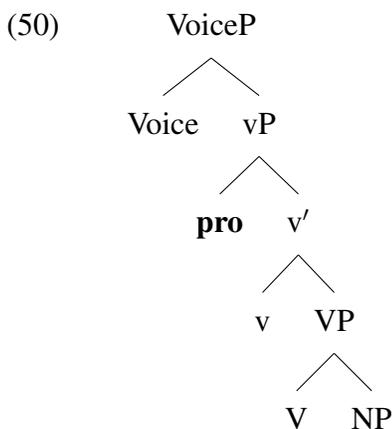
Analysis:

- Inflected Greek adjectives require an antecedent—identified in our analysis as the controller of PRO—with matching case and φ -features. Uninflected adjectives, by contrast, do not impose case or feature-matching requirements on their antecedent.
- In the passives of both languages, the implicit external argument lacks the relevant morphosyntactic features. As a result, only uninflected adjectives can be licensed in these contexts, since they do not depend on feature matching.
- More specifically, both pro_{Exi} and pro_{Gen} lack case, and pro_{Exi} additionally lacks φ -features. Because inflected secondary predicates in Greek require an antecedent bearing both case and matching φ -features, neither pro_{Exi} nor pro_{Gen} can license them.

6 Further issues: Non-Active Morphology, Distribution of implicit pronouns, Passives of unaccusatives and double passives

Non-active Morphology:

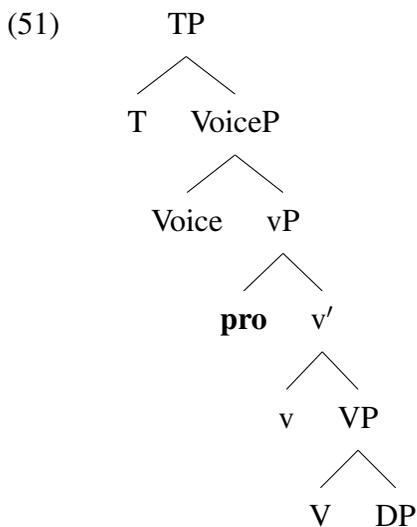
- In a line of research, external arguments are introduced by a functional head Voice. Non-active morphology has been analyzed as the realization of a Voice head that lacks an external argument (Embick 1998, 2004; Alexiadou et al. 2015, among others).
 - [Voice] → [Voice, NonAct] / in a context where Spec, VoiceP is not projected (or remains empty)
- However, we have shown that the external argument is syntactically represented even in non-active configurations. If this is correct, non-active morphology cannot be reduced to the absence of an external argument.
 - It is therefore more plausible to dissociate non-active morphology from the licensing or projection of the external argument, as proposed by Merchant 2005; Angelopoulos et al. 2020; Collins 2024, among others.



Distribution of Implicit Pronouns:

- We have argued that Greek and Turkish passives do not license pro_{Def} (see Angelopoulos et al. 2025 for Greek).
- The question that arises, then, is why this restriction holds. We address Turkish here.

- **Agree Step.** In personal passive sentences, T may agree with the internal argument.
 - **Pro_{Exi}:** When the external argument is pro_{Exi}, Agree with the internal argument is possible because pro_{Exi} lack phi-features.
 - **Pro_{Gen}:** When the external argument is pro_{Gen}, Agree with the internal argument is possible because either pro_{Gen} only has a +Generic feature that cannot be Agreed with or perhaps agreement is sensitive to the presence of KP layer on top of DPs, which passive pro arguments lack.
 - **Pro_{Def}.** When the external argument is pro_{Def}, Agree with the internal argument would be impossible (unless smuggling) because the closest target would be pro_{Def}. However, Turkish and Greek passives do not introduce this type of pro.



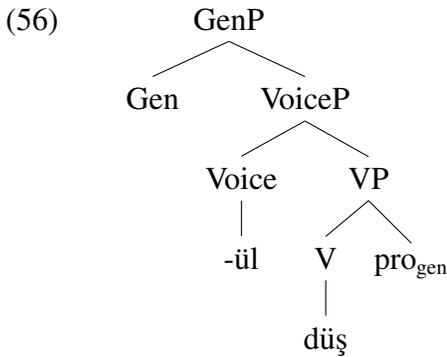
Passives of unaccusatives and double passives

- We showed that for ordinary passives, it is more plausible to dissociate the non-active morphology from the projection of the external argument in an account where the passive morphology is the realization of a head.
- The question now is whether such an account can be extended to other types of passives in Turkish.
- The answer to this question is not immediately clear.
- In the rest of this section, we would like to show how such an analysis could be extended to different types of passives in Turkish, with an alternative in the end, bearing in mind the following observations:
 - Turkish has passives of unaccusatives (52).
 - Turkish has double passives, where both the theme and agent positions are suppressed by passivization, and there are two morphemes corresponding to each operation (53).

- Passives involving theme suppression have to occur in generic contexts (52)-(54).
- The second passive morpheme in double passives is the theme passivization (55), or the passive morphemes has to be higher than the agent introducing head (given that the causative cannot intervene between the two passives).

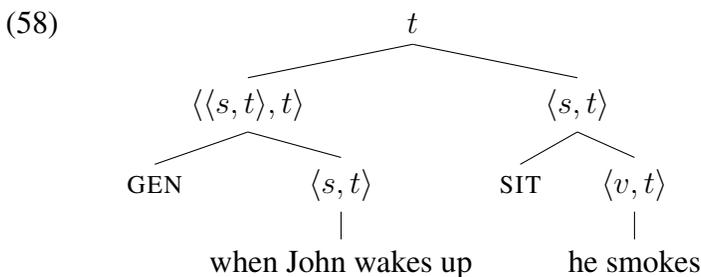
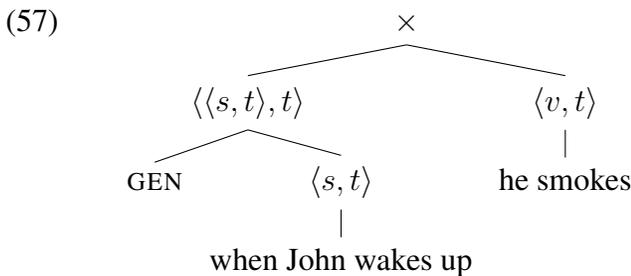
- (52) Bu çukur-a düş-ül-ür.
 this hole-DAT fall-PASS-AOR
 Lit: 'It is fallen into this hole.'
- (53) Savaş-ta vur-ul-un-ur.
 war-LOC shoot-PASS-PASS-AOR
 'One is shot in war.'
- (54) a. *Dün bu çukur-a düş-ül-dü.
 yesterday this hole-DAT fall-PASS-PST
 'Yesterday, it was fallen into this hole.'
- b. *Dün savaş-ta vur-ul-un-du.
 Yesterday war-LOC shoot-PASS-PASS-PST
 Yesterday war-LOC shoot-PASS-PASS-PST
 Int: 'Yesterday, somebody was shot in the war.'
- (55) a. Bu oyun-da iki kez diril-t-il-in-ir.
 this game-LOC two times revive-CAUS-PASS-PASS-AOR
 'In this game, one is revived two times.'
- b. *Bu oyun-da iki kez diril-in-t-il-ir.
 this game-LOC two times revive-PASS-CAUS-PASS-AOR
 Int: 'In this game, one is revived two times.'

- We know that pro_{gen} already requires a generic operator in the structure.
- Let us assume that the theme passivization has to involve pro_{gen} , which in turn requires the presence of the generic operator, barring episodic passives.
- We could assume that unaccusative structures might also host a Voice head. Furthermore, pro is interpreted as pro_{gen} in theme position.
- The relevant representation can be as in (56).



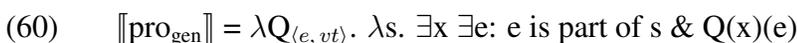
Correlation between pro_{gen} and generic passives

- Somewhat simplifying and ignoring intensionality, we can take non-episodic sentences to contain an operator like GEN which needs **a set of situations**, not a set of events.
- We propose that the transition from events to situations can be mediated by a null morpheme that situates events in situations. Hence, the logical form that we adopt is as presented in (58), not as in (57). The meanings that we propose for GEN and SIT are respectively provided in (59).



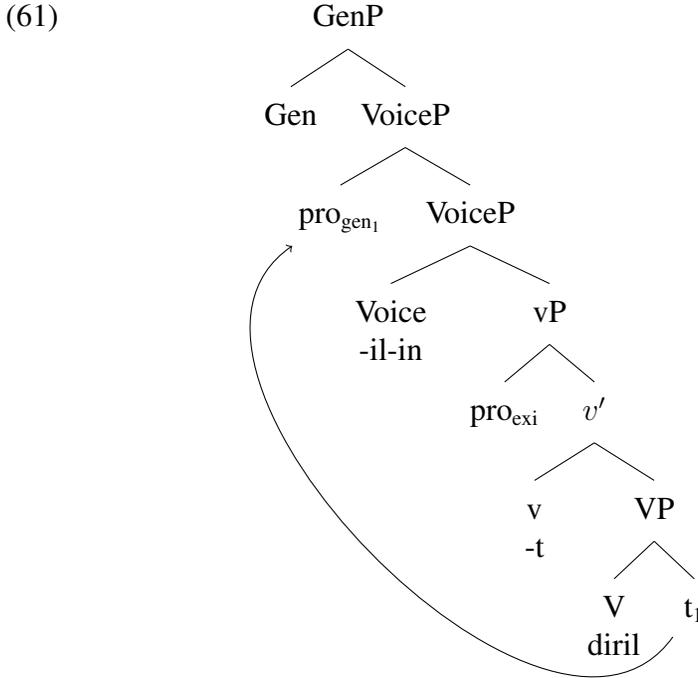
- (59) a. $\llbracket \text{GEN} \rrbracket = \lambda P_{\langle s, t \rangle}. \lambda Q_{\langle s, t \rangle}. \text{Gen } s [P(s)] [Q(s)]$ (Carlson, 1989)
 b. $\llbracket \text{SIT} \rrbracket = \lambda P_{\langle v, t \rangle}. \lambda s. \exists e: e \text{ is part of } s \ \& \ P(e)$

- We propose that pro_{gen} plays the role of SIT in clauses that it is involved in, as shown in (60).



- Now, let us see the consequences of this representation for double passives.

- pro_{gen} is merged in the theme position, and pro_{exi} in the agent position, as usual.
- However, pro_{gen} undergoes a movement to [Spec, Voice], triggering a second passive morpheme on Voice, as illustrated in (61). This actually can be taken to be a form of Spec-head agreement between pro_{gen} and Voice head.



- Why does pro_{gen} undergo movement?
- Following an idea proposed in [Dikmen et al. \(2022\)](#), we assume that this movement is semantically driven.
- Given that pro_{gen} returns a set of situations at the VP level, its combination with little v is blocked. This is because little v combines with a set of events and returns a function that introduces an agent position for these events.

$$(62) \quad \llbracket v \rrbracket = \lambda f_{\langle v, t \rangle}. \lambda x. \lambda e. f(e) \wedge \text{agent}(e)=x$$

- In order to avoid the type-mismatch, pro_{gen} undergoes a movement (similar to QR in object positions) to avoid the type mismatch, and moves to the edge of the event domain in the spirit of [Ramchand \(2008\)](#); [Ramchand and Svenonius \(2014\)](#); [Ramchand \(2018\)](#), which we take to be [Spec Voice], which in turn triggers the realization of the second passive morpheme on Voice, correctly accounting for the morpheme order.

- This analysis makes an interesting prediction. If the theme position is suppressed by passivization, it has to involve pro_{gen} .
- pro_{gen} must combine with a set of events.
- This means that in double passives, the agent position has to be filled by pro_{exi} , for the presence of a pro_{gen} in the agent position would generate a type mismatch with the dislocated theme pro_{gen} .
- Accordingly, in double passives, the reflexive anaphor *kendi* can only be bound by the theme.
- This is borne out:

(63) Savaş-ta kendin için vur-ul-un-ur.
 war-LOC self for shoot-PASS-PASS-AOR
 ‘At war one₁ is shot for oneself₁.’
 *‘At war somebody₁ shoots another₂ for themselves₁’.

- A final note is in order. It is also possible to take the passive morpheme to be the realization of *pro* itself.
- Such an analysis would also correctly capture the word order and account for the requirement that pro_{gen} cannot occur in episodic passives, without assuming a separate functional head for the passive morpheme.
- Then, such an analysis would have to explain how the passive morpheme ends up being part of the morphological word. Such an account would need to invoke an additional mechanism such as m-merger to capture that fact (Matushansky (2006)).
- One welcome consequence of such an analysis is its ability to account for the lack of agreement with the external argument in regular passives, and no agreement in double passives.
- By the time T head is merged, the passive *pro* arguments already become part of the morphological word (m-merged with Voice/*v*), hence arguably inaccessible for Agree (Matushansky (2006)).

Appendix - why *contra* Legate et al. 2020

- Legate et al. (2020) argue that personal passives disallow anaphor binding while impersonal passives allow it.
 - In testing for anaphor binding, they use the reciprocal pronoun **birbiri(n)** in various positions such as benefactive dative and within PPs.

(64) Herkes-in gör-eceğ-i şekil-de **birbirine** gir-il-ir
 everyone-GEN see-NMLZ-POSS manner-LOC each.other.DAT enter-PASS-AOR
 ‘Why would people fight tooth and nail in a way everyone could see?’ (Legate et al., 2020, p.779)

- In making the claim that personal passives disallow binding (and hence do not feature an implicit argument), they provide contrasts like this:

(65) (Legate et al., 2020, p.780)

- Bayram-lar-da birbirlerine pilav pişir-il-ir.
holiday-PL-LOC each.other.DAT pilaf cook-PASS-AOR
'During holidays, people pilaf-cook for each other.'
- *Pilav bayram-da birbirlerine pişir-il-di.
pilaf holiday-LOC each.other.DAT cook-PASS-PST
'During the holiday, pilaf was cooked for each other.'

- However, they only test the reciprocal binding possibility in GENERIC+IMPERSONAL and EPISODIC+PERSONAL contexts. In other words, while they are trying to test for the impersonal vs. personal distinction, they do not control for the episodic vs. generic distinction.

- Hence, they miss the fact that it is the GENERIC vs. EPISODIC contrast that matters, not IMPERSONAL vs. PERSONAL.

- Legate et al. (2020) also claim that depictives are not licensed in personal passives.

- To support their claim, they use data like this

(66) *Mektup (Ahmet tarafından) sarhoş yaz-ıl-dı.
letter (Ahmet by) drunk write-PASS-PST
'The letter was written drunk (by Ahmet).' (Legate et al., 2020, p.781)

- While the sentence is a little odd, we do not judge it completely unacceptable.
- As a matter of fact, the sentence becomes perfectly natural in contexts which favor the use of passive. For example, when we do not know the identity of the agent but are able to infer something about the event and/or its agent, the passive is pragmatically more appropriate:

(67) a. Bu email sarhoş yaz-ıl-dı herhalde.
this email drunk write-PASS-PST probably
'This email was probably written drunk.'

b. Bu email sarhoş yaz-ıl-mış bence.
this email drunk write-PASS-EVID I.think
'This email appears to have been written drunk, in my view.'

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