

Two voice mismatch puzzles in Sanskrit and Greek

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1 Introduction

Goals of this talk:

- Argue that a postsyntactic approach to voice morphology (Embick 1997, 1998, 2004) can capture the distribution of non-active morphology in languages like Greek and Sanskrit
- Argue that it can also indirectly account for non-canonical uses of non-active morphology– “mismatch verbs”, deponents:

(1) Vedic Sanskrit, RV 4.7.11c:

vátasya **meḍím** **sácate** (...)
wind.GEN.SG roar.ACC.SG follow.3SG.PRES.MID

‘He follows the roar of the wind’

Mismatch between active syntax and non-active morphology

- Show how this approach can also make sense of other peculiarities of the voice system of these languages, in particular co-occurrence of voice morphology:

(2) Vedic present passive

bhri-yá-te
carry-PASS-3SG.MID

‘is being carried’

Mismatch (?): passive and middle morphology co-occur.

1.1 Background

Two languages with a very similar voice system: Sanskrit (Vedic Sanskrit, corpus = Rigveda, ca. 1,400–1,100 BCE) and Ancient Greek (Homeric Greek, corpus = Iliad & Odyssey, 8th

century BCE) both have “bivalent” voice systems, with separate sets of verbal endings for active vs. non-active (= “middle”) voice.

(3) Vedic: Active—non-active endings (non-past/“present”)

	Active			Middle		
	Sg.	Dual	Pl.	Sg.	Dual	Pl.
1	-mi	-vas	-masi	-e	-vahe	-mahe
2	-si	-thas	-tha	-se	-ethe, -āthe	-dhve
3	-ti	-tas	-nti	-te, -e	-ete, -āte	-nte, -re

(4) Greek: Active–non-active endings (non-past/“present”)

	Active			Middle		
	Sg.	Dual	Pl.	Sg.	Dual	Pl.
1	-mi, -ō	—	-men, -mes	-mai	—	-metha
2	-s(i), -eis	-ton	-te	-sai, -ēi	-sthon	-sthe
3	-si, -ti, -ei	-ton	-asi, -nti, -ousi	-tai	-sthon	-ntai

Non-active/“middle” morphology occurs in the same syntactic contexts as in other languages with this type of voice system (Klaiman 1991, Kemmer 1993, Embick 1998, Kaufmann 2007, etc.):

- (5)
- a. Anticausatives
 - b. Reflexives/reciprocals
 - c. Self-benefactives
 - d. Dispositional/generic constructions
 - e. Mediopassives/passives

Descriptively, these are usually opposed to a corresponding formally (and syntactically) active construction (= alternating verbs, oppositional middles)

Moreover, both languages have a large number of *media tantum*, verbs that only ever take middle/non-active morphology (non-oppositional middles). These fall into the following categories (cp. Zombolou and Alexiadou 2013):

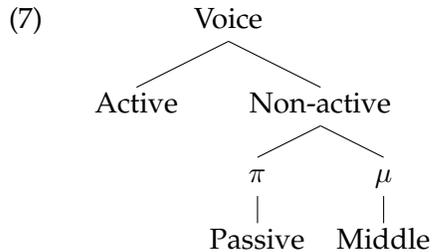
- (6)
- a. Experiencer/psych verbs
 - b. Statives
 - c. Verbs of motion
 - d. Deadjectival and denominal verbs
 - e. **Transitive agentive verbs**

I argue that only (6-e) should be considered “mismatch verbs” = deponents, and that all other functions can be captured by a postsyntactic approach to the canonical functions of

non-active morphology (following Embick 1997, 1998, 2004).

1.2 Syntactic vs. postsyntactic approaches

Standard generative approaches to voice: active, middle, and passive are values of the same head (Voice or *v*, details vary, cp. Collins 2005, Bruening 2013, Harley 2013, etc.), e.g., Alexiadou and Doron (2012):



Both π and μ are syntactic features that reduce valency by demoting the external argument.

Arguments against a valency-reduction approach to the middle:

- μ occurs in a suspiciously large number of syntactic contexts, compared to π
- A non-active/middle marked verb is often ambiguous between different readings, e.g.:
 - Ambiguity between passive and anticausative (from Alexiadou and Doron 2012):

(8) Modern Greek

i times miothikan apo to diefthindi/me tis nees ekseliksis
 the prices lowered.NACT by the director/with the new developments

“The prices were lowered by the director/went down because of the new developments”

(9) Modern Albanian (from Kallulli 2007):

Dritar-ja u kris nga presion-i/ Xhon-i/
 Window-the NONACT crack.AOR.3SG from/by pressure-the John-the
libr-i
 book-the

“The window cracked from the pressure/ was cracked by John/the book”

(10) Vedic, RV 7.8.1 (Kulikov 2006):

indhé rájā sám ar_iyó námobhir
 light.up.3SG.PRES.MID king.NOM PRVB noble.NOM reverences.INSTR

“With reverence, the noble king (= the fire) is igniting/is being kindled”

– Ambiguity between passive and generic/dispositional readings:

(11) Hebrew (from Alexiadou and Doron 2012):

migdāl ayfel lo nir'a mi-šam
tower Eiffel not see.SMPL.MID from-there

“The Eiffel tower was not visible from there/was not seen from there”

(12) Vedic: RV 6.10.4d

śocīṣ-ā dadṛś-e pāvakā-ḥ
glow-INSTR see.perf-3sg.mid pure-NOM

“The pure one is visible by his glow/ is seen through his glow”

– Ambiguity between reflexive and passive:

(13) Modern Greek *plēnotike* ‘washed himself/ was washed’ (for example, in a hospital)

... and we don’t find this kind of ambiguity in the Germanic/Romance type of passives, nor in the passive of trivalent voice systems (Alexiadou and Doron 2012).

- Not clear that all anticausatives are detransitivized (Alexiadou and Anagnostopoulou 2004; Embick 2004)
- Evidence for an unaccusative analysis of (some?) reflexives (Sportiche 1998, Embick 2004, Rooryck and Vanden Wyngaerd 2011 ...)
- In self-benefactives, no valency reduction takes place—if anything, the opposite.

(14) a. Vedic benefactive: RV 4.20.9d:

(īndraḥ) ... dadhā-ti dráviṇaṃ jaritré
(Indra) place-3SG.NONPAST.ACT wealth.ACC singer.DAT

“(Indra) installs/arranges wealth for the singer”

b. Vedic self-benefactive: RV 1.3.11c:

yajñám dadh-e sárasvatī
sacrifice.ACC place.PERF-3SG.PERF.MID Sarasvatī.NOM

“Sarasvatī has arranged/taken the sacrifice for herself”

Cp. with (self-)benefactive constructions in German (same for French):

(15) German

a. Benefactive:

Die Livia_i hat mir_j Firefly runtergeladen
The Livia has me.DAT Firefly downloaded

- “Livia downloaded Firefly for me”
- b. Self-benefactive:
 Die Livia_i hat sich_i Firefly runtergeladen
 The Livia has REFL Firefly downloaded
- “Livia downloaded Firefly for herself”
- c. Die Livia hat Firefly runtergeladen
 The Livia has Firefly downloaded
 “Livia downloaded Firefly”

- Valency reduction approaches cannot explain the large class of *media tantum*, since these are in no obvious way “detransitivized” from something else

Alternative: “Non-active” is a post-syntactic feature that’s inserted in particular syntactic environments, namely whenever *v* does not introduce an external argument DP (Embick 1998, 2004).

- (16) $v \leftrightarrow v\text{-}X/_\text{ } \text{No external argument (Embick 2004, 150)}$
 “Non-active voice is assigned when *v* does not introduce an external argument”

(-X = morphological exponence of “non-active” in a given language)

Sample derivation: Non-deponent, active, transitive.

- (17) a. X Y *bhár-a-ti*
 carry-CL-3SG.NONPAST.ACT
 “X carries Y, X is carrying Y”
- b.
-

- “Upwards Agree” (following Bjorkman (2011))

- V = verbalizing head (e.g., Harley 2005, 2011, Borer To appear)
- *v*P merges the external argument (Kratzer (1996))

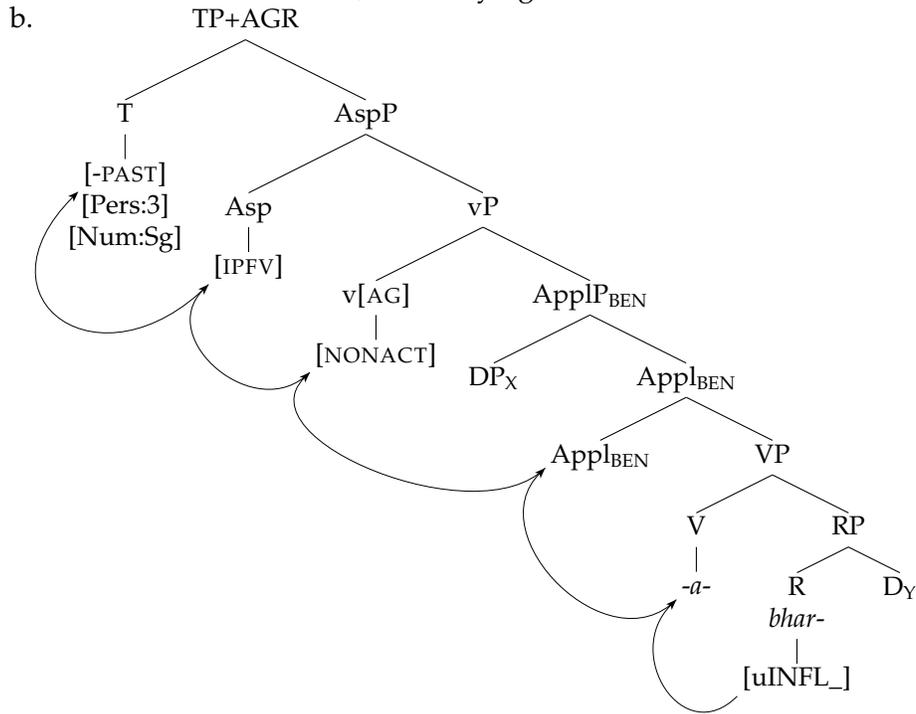
Because there is a DP in the specifier of *v*P, the conditions for the assignment of non-active voice are not satisfied.

Active = elsewhere inflection

- (18) a. *v*[AG]–[NONACT] ↔ non-active
 b. *v*[AG]–[] ↔ active

Sample derivation: Non-deponent (oppositional) middle verb:

- (19) a. *X Y bhár-a-te*
 carry-CL-3SG.NONPAST.NONACT
 “X carries Y for herself, X is carrying Y for herself”



- The beneficent DP is introduced by the projection $\text{AppIP}_{\text{BEN}}$ (Pylkkänen 2008, Bosse et al. 2012), subsequent movement of this DP to subject position
- Non-active feature on *v* because no external argument is introduced

Does this work for all the contexts in which non-active morphology is found in Vedic/Greek?

- (20) Oppositional:
- a. Anticausatives ✓
 - b. Reflexives/reciprocals ✓ (under some version of the unaccusative analysis of reflexives)
 - c. Self-benefactives ✓ (under an analysis where the beneficiary is introduced below *vP*, as in Pylkkänen 2008, Bosse et al. 2012, and then moves to subject)
 - d. Dispositional/generic constructions ✓
 - e. Mediopassives/passives ✓
- (21) Non-oppositional/ *Media tantum*
- a. Experiencer/psych verbs ✓
 - b. Statives ✓
 - c. Verbs of motion ✓ (?)
 - d. Deadjectival and denominal verbs ✓ (?)
 - e. **Transitive agentive verbs** ✗

(21-e) = deponents.

2 Deponency

Deponents, broad definition: Verbs that take *only* non-active (middle or passive) morphology, but are semantically and syntactically active (Lat. *dē-pōnere* ‘lay aside’, sc. the verb’s passive meaning), in languages which morphologically distinguish between an active and a synthetic non-active voice.

Often used synonymously with the term *Media tantum*.

→ We have just seen that this definition is too broad.

- (22) Definition of deponency (narrow)
 “In an active—non-active voice system, a deponent is an agentive verb whose finite forms are morphologically non-active, but syntactically active.”

2.1 Properties of deponent verbs

- Syntactically active (subj = NOM, obj = ACC)

- (23) Greek: Homer, *Iliad*, 3.278-9:

kaì hoi hupenérthe kamóntas **anthrópous**
 and who.NOM.PL beneath passed.on.PTCP.ACC.PL men.ACC
tínusthon
 punish.2DU.PRES.MID.

“and (you) who in the underworld punish the men who have passed on”

(24) Vedic: RV 2.23.4:

tráya-se **jánam** yás túbhyam dáśān
protect-2SG.PRES.MID man.ACC who.NOM you.DAT worship.3SG.SUBJ.ACT

“You protect the man who worships you”

- Same pattern in the non-finite forms (= mostly participles in absolutive constructions):

(25) Vedic *bādh* ‘oppress, attack, fend off’, RV 1.35.3cd:

á devó yāti savitá ... víśvā
PRVB god.NOM.SG go.3SG.PRES Savitar.NOM.SG all.ACC.PL
duritá **bādhamānaḥ**
danger.ACC.SG fend.off.MID.PTCP.NOM.SG

“The god Savitar is approaching, ... fending off all dangers.”

(26) Greek *tínumai* ‘avenge, punish, chastize’, Od.24.326:

lóbēn **tínúmenos** thumalgéa kai kakà
insult.ACC avenging.PRES.PTCP.MID.NOM.SG grievous.ACC and bad.ACC
érga
deeds.ACC

“ ... avenging (their) grievous insults and bad deeds.”

- Agent nouns:

(27) Vedic non-deponent agent nouns

- a. *dā-tár-* ‘giver’ (*dā* ‘give’)
- b. *ne-tár-* ‘leader’ (*nī* ‘lead’)
- c. *rakṣi-tár-* ‘protector’ (*rakṣ* ‘protect’)

(28) Vedic deponent agent nouns

- a. *trā-tár-* ‘protector’ (*trā* ‘protect’)
- b. *īḍi-tár-* ‘praiser, worshipper’ (*īḍ* ‘praise’)
- c. *kṣat-tár-* ‘server’ (*kṣad* ‘serve, prepare’)

- Can passivize iff distinct passive morphology is available (in some tense/aspect stems):

(29) Vedic non-deponent verb *bhṛ* ‘carry’

- a. Present active:
bhár-a-ti
carry-C-3SG.NONPAST.ACT

- “carries sth.”
- b. Present middle:
bhár-a-te
carry-C-3SG.NONPAST.MID
“carries oneself/for one’s own benefit/*is being carried”
- c. Vedic present passive:
bhri-yá-te
carry-PASS-3SG.NONPAST.MID
“is being carried”

NB middle/non-active endings obligatory with the passivizing suffix *-yá-*.

(30) Vedic deponent passives

Root	Deponent	Passive
<i>īḍ</i>	īṭ-te ‘praises’ praise-3SG.NONPAST.MID	īḍ-yá-te ‘is being praised’ praise-PASS-3SG.NONPAST.MID
<i>idh</i>	ind-dhé ‘kindles’ kindle-3SG.NONPAST.MID	idh-yá-te ‘is being kindled’ kindle-PASS-3SG.NONPAST.MID
<i>rabh</i>	rábha-te ‘seizes’ seize-3SG.NONPAST.MID	rabh-yá-te ‘is being seized’ seize-PASS-3SG.NONPAST.MID

Conclusion: Deponents are agentive, so their non-active morphology is not predicted by (16).

2.2 (Im)perfective aspect in Indo-European deponents

Deponents in Vedic and Greek only make an imperfective/present stem, verbs alternating between active and middle make both an imperfective and a perfective/aorist stem.

Table 1: Alternating verbs in Vedic

pres.act.	pres.mid.	aor.act.	aor.mid.	
<i>kṛṇó-ti</i>	<i>kṛṇu-té</i>	<i>ákar-Ø</i>	<i>ákr-ta</i>	<i>kṛ</i> ‘make’
<i>tanó-ti</i>	<i>tanu-té</i>	<i>átan-Ø</i>	<i>áta-ta</i>	<i>tan</i> ‘stretch’
<i>dádhā-ti</i>	<i>dát-te</i>	<i>ádā-t</i>		<i>dā</i> ‘give’
<i>dádhā-ti</i>	<i>dhat-té</i>	<i>ádhā-t</i>	<i>ádhi-ta</i>	<i>dhā</i> ‘place’
<i>punā-ti</i>	<i>punīté, páva-te</i>	<i>ápāvī-t</i>	<i>ápaviṣ-ta</i>	<i>pū</i> ‘cleanse’
<i>bhāja-ti</i>	<i>bhája-te</i>	<i>ábhāk-Ø</i>	<i>ábhak-ta</i>	<i>bhaj</i> ‘divide’
<i>mārṣ-ti</i>	<i>mṛṣ-té</i>	<i>ámṛkṣa-t</i>	<i>ámṛkṣa-ta</i>	<i>mṛj</i> ‘wipe’
<i>vṛṇák-ti</i>	<i>vṛṇk-té</i>	<i>ávark-Ø</i>	<i>ávṛk-ta</i>	<i>vṛj</i> ‘twist’
<i>strñá-ti</i>	<i>strñī-té</i>	<i>ástar-Ø</i>	<i>ástr-ta</i>	<i>str</i> ‘strew’
<i>tīṣṭha-ti</i>	<i>tīṣṭha-te</i>	<i>ásthā-t</i>	<i>ásthi-ta</i>	<i>stā</i> ‘stand’

Table 2: Alternating verbs in Greek

pres.act.	pres.mid.	aor.act.	aor.mid.	
<i>ag-ō</i>	<i>ágo-mai</i>	<i>égago-n</i>	<i>ēgagó-mēn</i>	'lead'
<i>dídō-mi</i>	<i>dído-mai</i>	<i>édōk-a</i>	<i>edó-mēn</i>	'give'
<i>ékho-ō</i>	<i>ékho-mai</i>	<i>éskho-n</i>	<i>eskhó-mēn</i>	'have, hold'
<i>kalé-ō</i>	<i>kaléo-mai</i>	<i>ekáless-a</i>	<i>ekalessá-mēn</i>	'call'
<i>légo-ō</i>	<i>légo-mai</i>	<i>éleks-a</i>	<i>eleksá-mēn</i>	'gather; say'
<i>leíp-ō</i>	<i>leípo-mai</i>	<i>élipo-n</i>	<i>elipó-mēn</i>	'leave'
<i>peíth-ō</i>	<i>peítho-mai</i>	<i>epépitho-n, épitho-n</i>	<i>epithó-mēn</i>	'persuade'
<i>trépo-ō</i>	<i>trépo-mai</i>	<i>étrapo-n</i>	<i>etrapó-mēn</i>	'turn'
<i>títhē-mi</i>	<i>títthe-mai</i>	<i>éthēk-a</i>	<i>ethé-mēn</i>	'put, place'
<i>khé-ō</i>	<i>khéo-mai</i>	<i>ékhe(u)-a</i>	<i>ekheuá-mēn</i>	'pour, scatter'

However, the majority of Vedic and Greek deponents only makes a present stem, but not an aorist stem:

Table 3: Deponent verbs in Vedic

pres.	aor.	
<i>indh-é</i>	1sg.opt. <i>idhī-mahi</i> (7x)	<i>idh</i> 'ignite'
1sg. <i>īkṣ-e</i>		<i>īkṣ</i> 'see'
<i>īja-te</i>		<i>īj</i> 'drive, impel'
<i>īt-te</i>		<i>īd</i> 'praise'
<i>īs-e</i>		<i>īs</i> 'have power over, own'
1pl. <i>kṣadā-mahe</i>		<i>kṣad</i> 'arrange, serve'
<i>jóguv-e</i>		<i>gu</i> 'call, praise'
3du.ipv. <i>grāse-tām</i>		<i>gras</i> 'devour'
2du. <i>taṁsaye-the</i>		<i>taṁs</i> 'push, shake'
2sg. <i>trāya-se</i>	2sg.ipv. <i>trāsva</i> (10x)	<i>trā</i> 'protect'
<i>dāya-te</i>	1sg.opt. <i>diṣīy-a</i> (1x)	<i>dā/day</i> 'distribute'
<i>pātya-te</i>		'have power over, rule'
<i>bādha-te</i>	<i>bādhiṣ-ṭa</i> (1x)	<i>bādh</i> 'beset, oppress'
<i>māṁha-te</i>		<i>māṁ</i> 'be generous, give'
1sg. <i>rabh-e</i>	<i>ārab-dha</i> (1x)	<i>rabh</i> 'seize'
<i>vānda-te</i>	3sg. <i>vand-i</i> (1x), 1pl.opt. <i>vāndiṣī-mahi</i> (1x)	<i>vand</i> 'praise'
<i>sū-te</i>		<i>sū</i> 'give birth to'

While 11 out of 17 deponents have no aorist at all, 4 have an aorist stem that is attested only once or twice in the entire corpus. Moreover, 4 of the 6 verbs that have an aorist stem at all make an s-aorist, using the productive aorist suffix *-s-/-iṣ-*.

Greek: While 12 out of 27 Homeric deponents make no aorist at all, 13 out of the 15 that do make an aorist use the (likewise productive) s-aorist.

Table 4: Deponent verbs in Greek

pres.	aor.	
<i>aínu-mai</i>		'seize'
<i>anaíno-mai</i>	<i>anēná-mēn</i>	'refuse, deny'
<i>arnéo-mai</i>	<i>ērnēsá-mēn</i>	'refuse'
<i>árnu-mai</i>	<i>aró-mēn</i>	'carry off, win'
<i>daío-mai</i>		'divide, distribute'
<i>datéo-mai</i>	<i>edassá-mēn</i>	'divide up'
<i>dékho-mai</i>	<i>edég-mēn</i>	'accept, receive'
<i>dízē-mai</i>		'seek'
<i>erépto-mai</i>		'bite off'
<i>érū-mai, erúo-mai, rhúo-mai</i>	<i>(er)rūsá-mēn</i>	'protect, defend'
<i>eúkho-mai</i>	<i>euxá-mēn</i>	'pray, deprecate'
<i>kaínu-mai</i>		'excel, surpass'
<i>kélo-mai</i>		'exhort, command'
<i>lísso-mai</i>	<i>ellisá-mēn</i>	'beg, pray'
<i>maío-mai</i>	<i>emassá-mēn</i>	'seek'
<i>médo-mai</i>		'take care of'
<i>mémpho-mai</i>		'blame, reproach'
<i>médo-mai</i>	<i>emēsá-mēn</i>	'plan, devise'
<i>mnáo-mai</i>		'take care of; court'
<i>olophúro-mai</i>	<i>olophūrá-mēn</i>	'lament, bewail'
<i>óno-mai</i>	<i>ōnosá-mēn</i>	'scorn'
<i>péno-mai</i>		'work at, attend to'
<i>ponéo-mai</i>	<i>eponēsá-mēn</i>	'work at, attend to'
<i>síno-mai</i>		'rob, plunder'
<i>sképto-mai</i>	<i>eskepsá-mēn</i>	'examine'
<i>titúsko-mai</i>		'make ready, prepare'
<i>pseúdo-mai</i>	<i>epseusá-mēn</i>	'lie, tell a lie'

Moreover, there are no instances in Vedic of a deponent that *only* makes an aorist but no present, and there are only two potential cases in Greek.

Summary of the distribution:

Table 5: Deponents and aspect in Vedic and Greek

	pres.act.	pres.mid.	aor.act.	aor.mid.
a. Alternating	✓	✓	✓	✓
b. Deponent 1	✗	✓	✗	✗
c. Deponent 2 (rare)	✗	✓	✗	✓
d. Deponent 3: Not attested	✗	✗	✗	✓

While alternating verbs make both a present and an aorist stem (line a.), deponents usually only make a present stem (line b.). If they do make an aorist stem, it implies a

primary present stem (line c.). Deponents cannot make only an aorist stem (line d.).

2.3 Motivating the connection between Aspect and agency

2.3.1 Georgian

Tuite (2002), (2007): Georgian has a number of verbs that take the prefixal passive marker *i-*, but are syntactically active.

→ Tuite: “semantically, deponents, in contrast to actives, express repeated, habitual actions, sometimes with the implication that they are characteristic of the subject.”

(31) Georgian deponents (from Tuite 2007 (TS = thematic suffix):

- a. *i-ts'er-eb-a*
PASS-write-TS-3SG.S
'writes to sbdy., informs sbdy. through writing, letters'
- b. *i-tsoxn-eb-a*
PASS-chew-TS-3SG.S
'ruminates, eats in an ugly, unpleasant fashion'
- c. *i-gin-eb-a*
PASS-curse-TS-3SG.S
'curses, utters curse words'

All of these verbs have corresponding “primary” verb stems in which the syntax matches the meaning, e.g.:

- (32)
- a. *ts'er-s*
write-3SG.S
'writes' (active)
 - b. *tsoxn-i-s*
chew-TS-3SG.S
'ruminates, chews [cud]' (active)
 - c. *a-gin-eb-s*
PRVB-curse-TS-3SG.S
'curses, swears at' (active)

2.3.2 Hebrew

Doron (2003), Doron (2005), and Alexiadou and Doron (2012): Hebrew *agency heads* determine the type of external arguments a root can take: simple, intensive, and causative.

Table 8: Hebrew verbal templates (from Alexiadou and Doron 2012)

	Simple	Intensive	Causative
Active	<i>a-a</i>	<i>i-e</i>	<i>h + i-i</i>
Middle		<i>u-a</i>	<i>h + u-a</i>
Passive	<i>n + i-a</i>	<i>t + i-a</i>	

Doron (2005):

- Causative head γ : external argument = cause
- Intensive head ι : external argument = actor

→ All intensive formations (transitive or intransitive) are unergative and take an actor as their external argument. No valency increase in the intensive template.

Table 9: Hebrew verbal templates

Root	Simple verb	Intensive verb
<i>rqd</i>	<i>raqad</i> 'dance'	<i>riqed</i> 'perform dancing'
<i>qpc</i>	<i>qafac</i> 'jump'	<i>qipec</i> 'jump up and down'
<i>'p</i>	<i>'af</i> 'fly'	<i>'ofef</i> 'perform flying'
<i>hlk</i>	<i>halax</i> 'walk'	<i>hilex</i> 'perform walking'
<i>xzr</i>	<i>xazar</i> 'return'	<i>xizer</i> 'court'

2.4 Aspect & agency in deponents

(33) Vedic alternating and deponent verb stems

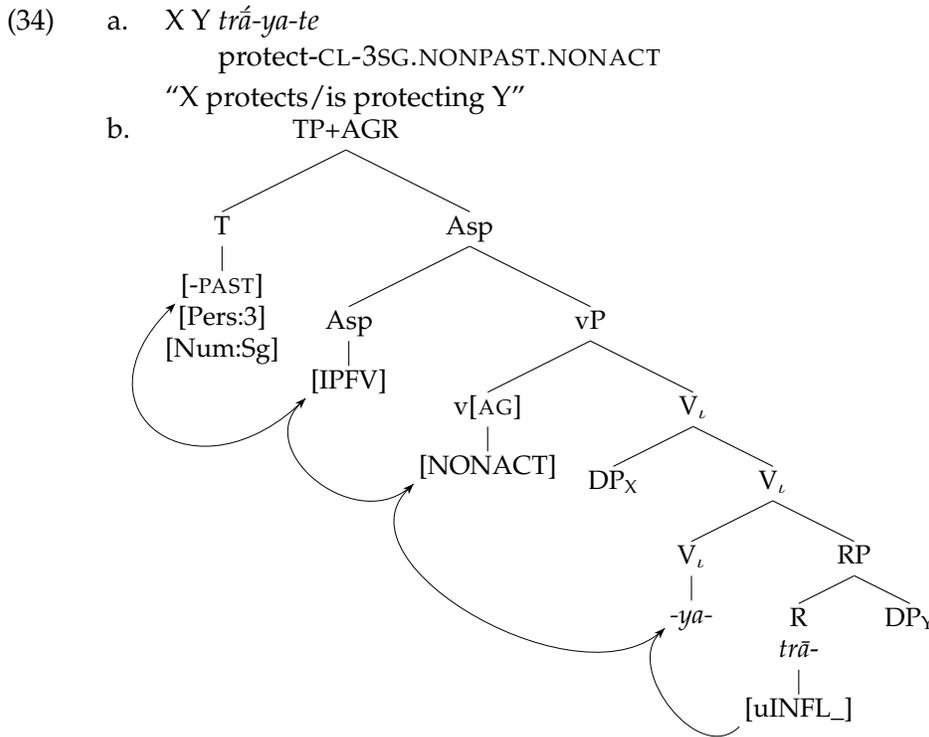
Alternating		Deponent	
Stem	Meaning	Stem	Meaning
<i>várdh-a-act./mid.</i>	'grow'	<i>rábh-a-mid.</i>	'seize'
<i>bhár-a-act./mid.</i>	'carry'	<i>grás-a-mid.</i>	'devour'
<i>yáj-a-act./mid.</i>	'sacrifice'	<i>trá-ya-mid.</i>	'protect'

Descriptively, voice specification of deponents = linked to their verbalizing morphology.

- Proposal: This is because the agent DP of deponents is introduced by the same thematic aspectual head that is spelled out as a verbalizer

- This head is similar to the Hebrew intensive head ι (along the lines of Doron): specified for imperfective aspect/habitual, iterative (intensive?) *Aktionsart* — V_ι (for now)

Sample derivation: Deponent verb



We now have an account that can explain the properties of deponents:

1. They are agentive: Because they merge with a projection introducing an agent DP, just like active agentive verbs — V_ι instead of vP
2. They take non-active morphology: Because of the interaction of 1. with rule (13)
3. They prefer/select (thematic/inner) imperfective aspect (generic/habitual/iterative/intensive): because that’s the projection that causes the mismatch

Additional assumption: We still need to say something about the lexical entry of a deponent verb (must be somehow specified for agentivity in the context of ipfv aspect):

(35) $\sqrt{\text{trā}}[\text{AGENT}/_ \iota]$

... instead of assuming a lexical diacritic [DEPONENT] or [PASS].

3 Middle and passive

Implications: “middle” morphology does not have the same status as a passive.

Arguments against middle/passive in the same structural position:

- Vedic: passive and middle co-occur:
 - (36) a. *ad-yá-te*
eat-PASS-3SG.NONPAST.MID
“is (being) eaten”
 - b. *bhri-yá-te*
carry-PASS-3SG.NONPAST.MID
“is (being) carried”

- Greek: Passive and active co-occur:
 - (37) Greek passive aorist:
 - a. *e-blé-thē-n*
PAST-hit-PASS-1SG.PAST.ACT
“I was hit”
 - b. *ékē-thē-n*
PAST.drive-PASS-1SG.PAST.ACT
“I was driven, led”

- Active and middle morphology never co-occur
- Middle occurs in a variety of syntactic contexts, passive only in very restricted context
- Passive = argument-demoting, middle not
- Passive morphology = in different structural position than active/middle:

Vedic: 1. passive *-yá-*, 2. verbalizing suffix *-ya-* (forms non-passive, mostly intransitive present stems)

- (38) Vedic intransitive *-ya-*:
 - a. *pád-ya-te*
fall-CL-3SG.NONPAST.MID
‘falls’
 - b. *búdh-ya-te*
awake-CL-3SG.NONPAST.MID
‘is awake’

Minimal pairs are occasionally found:

- (39) a. *kṣī-ya-te*
perish-CL-3SG.NONPAST.MID
'perishes'
- b. *kṣī-yá-te*
perish-PASS-3SG.NONPAST.MID
'is destroyed'

- *yá*-passives always take middle morphology, the unaccented intransitive *ya*-presents can take either active or middle endings

Greek: 1. passive use of the *-thē-* = post-Homeric development, 2. Homer: *-thē-* forms intransitive aorist stems.

- (40) Greek *-thē-* in intransitive/anticausative aorists:
- a. *e-kríph-thē-n*
PAST-hide-AOR-1SG.PAST.ACT
'I hid (myself)'
- b. *hēs-thē-n*
PAST.sit-AOR-1SG.PAST.ACT
'I sat'

Conclusions:

- passive head = different from active/middle head
- must be below *vP*, occupying the same structural position as the verbalizing morphology in *V*

Evidence: Verbalizing and passive morphology cannot co-occur, even if this should be phonologically possible.

Vedic nasal-infix presents and their passives:

- (41) a. *yu<ná>k-ti*
yoke<CL>-NONPAST.3SG.ACT
'yokes'
- b. *yuj-yá-te*
yoke-PASS-NONPAST.3SG.MID
'is being yoked'
- (42) a. *bhi<ná>t-ti*
split<CL>-NONPAST.3SG.ACT
'splits'
- b. *bhid-yá-te*
split-PASS-NONPAST.3SG.MID
'is being split'

Greek aorists:

- (43) a. *e-poiē-s-a*
 PAST-make-AOR-1SG.ACT
 'I made'
 b. *e-poiē-thē-n*
 PAST-make-PASS-1SG.ACT
 'I was made'
- (44) a. *é-du-s-a*
 PAST-sink-AOR-1SG.ACT
 'I made (something) sink'
 b. *e-dú-thē-n*
 PAST-sink-PASS-1SG.ACT
 'I was sunk'

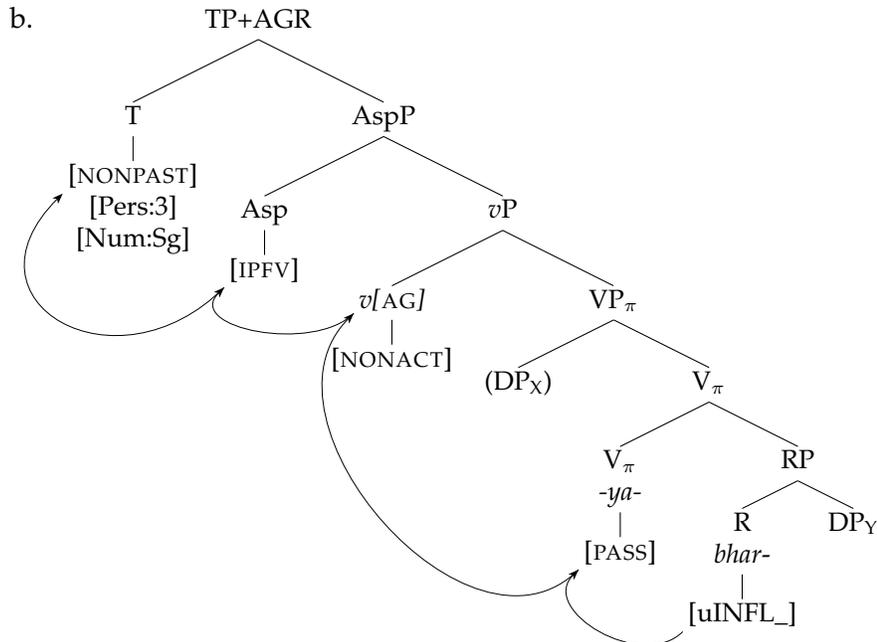
Two non-standard proposals:

- Passive head = V_π , where π corresponds to the feature [PASS] used in other approaches (cp. Alexiadou and Doron (2012)) = *below* vP (\rightarrow already motivated)
- V_π introduces the demoted external argument, not vP (\rightarrow more arguments needed)

Sample derivation:

- (45) Vedic non-deponent present passive:

- a. Y (X_{instr}) *bhri-yá-te*
 carry-PASS-3SG.NONPAST.MID
 'Y is (being) carried (by X)'



Predicts that passives always co-occur with non-active morphology → Vedic ✓

→ but not Greek.

Tentative proposal: Adopt Embick (2004)'s distinction between v [AG] (“agentive v ”) and v (= “defective v ”, e.g., Chomsky 2001)

- v [AG]:
 - Can introduce an external argument (but doesn't have to → self-benefactives, mediopassives, reflexives, etc.)
 - Has an ACC case feature
- v :
 - No external argument
 - No ACC

Unaccusatives (and the Greek *thē*-aorist in general) take v , not v [AG].

4 Conclusion

- Deponents are mismatch verbs—they are agentive where they shouldn't be
- A post-syntactic approach can capture the canonical uses of non-active morphology (including *media tantum*)
- Deponents misbehave because their agents are introduced “non-canonically”, below v P, triggering non-active morphology by (13)/(26)
- [PASS] = syntactic, [NONACT/ACT] = post-syntactic (co-occurrence possible in languages like Vedic and Greek)
- Extra assumption for active unaccusatives: “defective v ” → predicts *activa tantum*

References

- Alexiadou, Artemis, and Elena Anagnostopoulou. 2004. Voice morphology in the causative-inchoative alternation: evidence for a non-unified structural analysis of unaccusatives. In *The unaccusativity puzzle*, ed. A. Alexiadou, E. Anagnostopoulou, and M. Everaert, 114–36. Oxford University Press.
- Alexiadou, Artemis, and Edit Doron. 2012. The syntactic construction of two non-active voices: Passive and middle. *Journal of Linguistics* 48:1–34.
- Bjorkman, Bronwyn. 2011. BE-ing default: The morphosyntax of auxiliaries. Doctoral Dissertation, MIT.

- Borer, Hagit. To appear. The category of roots. In *The syntax of roots and the roots of syntax*, ed. A. Alexiadou, H. Borer, and F. Schäfer. Oxford University Press.
- Bosse, Solveig, Benjamin Bruening, and Masahiro Yamada. 2012. Affected experiencers. *Natural Language and Linguistic Theory* 30:1185–230.
- Bruening, Benjamin. 2013. *By*-phrases in passives and nominals. *Syntax* 16/1:1–41.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: a life in language*, ed. M. Kenstowicz. Cambridge, MA: MIT Press.
- Collins, Chris. 2005. A smuggling approach to the passive in English. *Syntax* 8/2:81–120.
- Doron, Edit. 2003. Agency and voice: the semantics of the Semitic templates. *Natural Language Semantics* 11:1–67.
- Doron, Edit. 2005. The aspect of agency. In *The syntax of aspect. Deriving thematic and aspectual interpretation*, ed. N. Erteschik-Shir and T. Rapoport, 154–73. Oxford University Press.
- 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 *Papers from the Penn/MIT Roundtable on Argument Structure and Aspect, May 1997 (MITWPL)*, ed. H. Harley.
- Embick, David. 2004. Unaccusative syntax and verbal alternations. In *The unaccusativity puzzle*, 137–58. Oxford University Press.
- Harley, Heidi. 2005. How do verbs get their names? Denominal verbs, manner incorporation, and the ontology of verb roots in English. In *The syntax of aspect: Deriving thematic and aspectual interpretation*, ed. N. Erteschik-Shir and T. Rapoport, 42–64. Oxford University Press.
- Harley, Heidi. 2011. A minimalist approach to argument structure. In *The Oxford handbook of linguistic minimalism*, ed. C. Boeckx, 426–47. Oxford University Press.
- Harley, Heidi. 2013. External arguments and the Mirror Principle: On the distinctness of Voice and v. *Lingua* 125/1:34–57.
- Kallulli, Dalina. 2007. Rethinking the passive/anticausative distinction. *Linguistic Inquiry* 38/4:770–80.
- Kaufmann, Ingrid. 2007. Middle voice. *Lingua* 117:1677–1714.
- Kemmer, Suzanne. 1993. *The middle voice*. Amsterdam: John Benjamins.
- Klaiman, Miriam H. 1991. *Grammatical voice*. Cambridge University Press.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase structure and the lexicon*, ed. J. Rooryck and L. Zaring, 109–37. Dordrecht: Kluwer.
- Kulikov, Leonid. 2006. The Vedic medio-passive aorists, statives and their participles: Reconsidering the paradigm. In *Themes and tasks in Old and Middle Indo-Aryan linguistics. Papers of the 12th World Sanskrit Conference*, volume 5, 45–3. Delhi: Motilal Banarsidass.
- Pylkkänen, Liina. 2008. *Introducing arguments*. Cambridge, Mass.: MIT press.

- Rooryck, Johan, and Guido Vanden Wyngaerd. 2011. *Dissolving binding theory*. Oxford University Press.
- Sportiche, Dominique. 1998. *Partitions and atoms of clause structure: Subjects, agreement, Case, and clitics*. New York: Routledge.
- Tuite, Kevin. 2002. Deponent verbs in Georgian. In *Philologie, Typologie und Sprachstruktur: Festschrift für Winfried Boeder zum 65. Geburtstag*, ed. W. Bublitz, M. von Roncador, and H. Vater, 375–89. Frankfurt am Main: Peter Lang.
- Tuite, Kevin. 2007. Liminal morphosyntax: Georgian deponents and their kin. *Chicago Linguistics Society* 39/1:774–88.
- Zombolou, Katerina, and Artemis Alexiadou. 2013. The canonical function of the deponent verbs in Modern Greek. In *Morphology and Meaning: Selected papers from the 15th International Morphology Meeting*, ed. F. Rainer, W. Dressler, F. Gardani, and H.C. Luschützky.