

Reconstructing Proto-Indo-European Deponents

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1 Introduction

- What kind of transitive constructions were marked with middle morphology in Proto-Indo-European?

(Late) PIE had a bivalent voice system, with active vs. middle (“non-active”) endings (Jasanoff 2003, Weiss 2009, Fortson 2010).

- (1) PIE active/middle endings

	active		middle	
	primary	secondary	primary	secondary
1sg.	*-mi	*-m	*-h ₂ e-r	*-h ₂ e
2sg.	*-si	*-s	*-th ₂ e-r	*-th ₂ e
3sg.	*-ti	*-t	*-o-r; *-to-r	*-o; *-to
1pl.	*-me-	*-me(-)	*-med ^h h ₂ (-r?)	*-med ^h h ₂
2pl.	*-te-	*-te(-)	*-d ^h (u) <u>̄</u> e(-r?)	*-d ^h (u) <u>̄</u> e
3pl.	*-(é)nti	*-(é)nt	*-ro(-r?); *-nto-r	*-ro; *-nto

1. General question: What was the distribution of the PIE active and middle endings?
2. Specific question: What kind of transitive, formally middle verbs did PIE have?
3. Even more specific question: Can we reconstruct voice mismatches for PIE, in particular syntactically active, transitive verbs with middle morphology (deponents, narrow definition)

Illustration: How do we predict the distribution of active vs. middle morphology in the following transitive clauses?

- (2) a. $X_{\text{NOM}} Y_{\text{ACC}} g^{\text{th}}\acute{e}nti$ “X slays Y”
 b. $X_{\text{NOM}} Y_{\text{ACC}} \acute{u}\acute{e}stor$ “X wears Y”
 c. $X_{\text{NOM}} Y_{\text{ACC}} p\acute{e}h_2s(t)or$ “X protects Y”

2 Background: middles in Indo-European

Non-active morphology is found in the same syntactic environments cross-linguistically (Geniušienė 1987, Klaiman 1991, Kemmer 1993, 1994, Embick 1998, Kaufmann 2007, Kallulli 2007, 2013, Alexiadou and Doron 2012, Alexiadou 2013, etc.) = canonical middles.

- Most of these environments are intransitive (inchoatives, anticausatives, reflexives, statives, etc.).
- Middle/non-active morphology in intransitive environments (cp. Gonda 1960, Hollifield 1977)
 - Anticausatives/inchoatives:
 - “Caland system” verbs, e.g., Ved. *práthate* ‘spreads out’, *pávate* ‘becomes clean’, *rócate* ‘shines’, Gk. *τρέφομαι* ‘grows up’, *μέλδομαι* ‘becomes soft’, *θέρομαι* ‘becomes hot’, etc. (Rau 2009, 2013)
 - Reflexives & reciprocals:
 - Vedic: *śumbhāti* ‘adorns’ — *śúmbhate* ‘adorns oneself’, recipr. *spárdhante* ‘they fight’
 - Greek: *λούω* ‘wash’ — *λούομαι* ‘wash myself’, recipr. *μάχονται* ‘they fight’
 - Tocharian: A *ytäštär* ‘adorns oneself’
 - Hittite: *zahhanda* ‘they fight’,
 - Modern Greek: *pleno* ‘wash’ — *plenome* ‘wash myself’, recipr. *adelfo-skotonomaste* ‘we brother-kill each other’
 - (Medio)passives:
 - Latin *amō* — *amor*, etc.
 - Vedic *śṛṇvé* ‘is heard’/‘can be heard’, *dadṛsé* ‘is visible/is seen’, *bruvé* ‘is spoken’, etc.
 - OIr.: *ber(a)ir* ‘is (being) carried’, *benair* ‘is (being) struck’, *melair* ‘is (being) ground’, etc.
 - Statives:
 - Ved. *sáye* ‘lies’, Ved. *ā mahe* ‘is able’, Gk. *ξεῖμαι*, Hitt. *kitta(ri)* ‘lies’, *dukkāri* ‘is visible’, etc.
 - Verbs of motion:
 - Vedic: *plávate* ‘swims, floats’, *gāhate* ‘enters, immerses’, *násate* ‘returns’
 - Greek: *πέτομαι* ‘fly’, *ἔρχομαι* ‘come’
 - Latin: *vagor* ‘wander’, *gradior* ‘advance’, *orior* ‘rise’
 - Modern Greek: *erhome* ‘come’, *afiknume* ‘arrive’
- ... but Indo-European also has transitive structures that combine accusative objects with non-active morphology.

2.1 Self-benefactive/“affected experiencer” constructions

- Vedic: *yájati* ‘sacrifices’ — *yájate* ‘sacrifices sth. for one’s own benefit’, *bhárati* ‘carries’ — *bhárate* ‘takes/carries sth. for oneself’, *pácati* ‘cooks’ — *pácate* ‘cooks for oneself’, etc.
- Greek: *φέρω* ‘carry’ — *φέρομαι* ‘carry for myself, win’, *αίρω* ‘lift, raise’ — *αίρομαι* ‘lift up for myself’, *τίθημι* ‘place, put’ — *τίθεμαι* ‘place for myself’, etc.

Examples:

(3) Vedic¹

a. RV 8.45.39:

ā ta etā vacoyújā hárī gr̥bhṇe sumádrathā
PRVB your these.ACC speech.yoked.ACC follow.ACC seize.1SG.PRES.MID with.chariot.ACC

“I hold onto these two fallow bays of yours, yoked by speech, along with their chariot.” (= ‘seize for myself’, vs. *gr̥bhñāmi*)

b. RV 1.161.6:

bṛhaspátir viśvárūpām úpājata
Bṛhaspati.NOM all.forms.ACC PRVB.drive.3SG.IPF.MID

“Bṛhaspati drove near (the cow) of all forms.” (= ‘drove for himself’, vs. *úpājat*)

(4) Greek, Il.23.413:

ἦ τ’ ἄν ἐγὼ τὰ πρῶτα λαβῶν κλισίην δὲ φεροίμην
surely PART PART I DEF first seize.PTCP.NOM shed.ACC PART carry.1SG.OPT.MID

“Surely I will seize the first prize and carry it to my shed (for myself)”

2.2 Experiencer verbs

= psych verbs, “cognition middles” (Kemmer 1993)

(5) Transitive experiencer verbs in Vedic and Greek

	Non-active verb	Case on theme
Vedic	<i>chandayate</i> ‘likes, takes pleasure in’ (\sqrt{chad})	ACC; LOC
	<i>juṣánta</i> ‘they taste, enjoy’ ($\sqrt{juṣ}$)	ACC (GEN)
	<i>pánanta</i> ‘they admire’ (\sqrt{pan})	ACC
	<i>mṛṣyate</i> ‘forgets’ ($\sqrt{mṛṣ}$)	ACC
Greek	ἄζομαι ‘am in awe of, fear’	ACC
	ἄγρομαι ‘marvel, be angry at’	ACC, DAT
	βούλομαι ‘wish, will’	ACC, inf.

¹Translations are from Jamison and Brereton (2014).

- (6) a. RV 7.18.21: *ná te bhojásya sakhyám mṛṣanta* “they did not neglect their partnership with you, who provided for (them).”
 b. Od.2.67: *ἀγασσάμενοι κακὰ ἔργα* “angry at your evil deeds”

(Cp. transitive experiencer verbs in Modern Greek (Zombolou and Alexiadou 2014): *esthanome* ‘feel’, *osmizome* ‘smell’, *fovame* ‘fear’, *gevome* ‘taste’, *kapsurevome* ‘fall in love with’, *drepome* ‘be ashamed of’, *sevome* ‘respect’, etc.)

2.3 (Some) reflexive constructions

Some reflexive/body part constructions are also formally transitive (with an accusative reflexive pronoun or anaphor):

- (7) Vedic:
 a. RV 10.8.3:
áruṣīr ... ṛtásya yónau tanvò juṣanta
 reddish.NOM.PL.F truth.GEN womb.LOC self.ACC.PL enjoy.3PL.AOR.MID
 “The reddish [flames] (...) enjoy themselves in the womb of truth.”²
 b. 1.147.4d:
ánu mṛkṣīṣṭa tanvám duruktaíḥ
 PRVB injure.3SG.AOR.MID self.ACC bad.words.INSTR
 “He shall injure himself with (his) evil words.”³

2.4 Statives and verbs of motion

Reflexes of **uéstō* ‘wears’ are transitive:

- (8) RV 4.2.19:
ṛtám avasrann uṣáso vibhātīḥ
 truth.ACC wear.3PL.IPF.MID dawn.NOM.PL radiant.NOM.PL
 “The radiant dawns clothed themselves in truth”⁴
- (9) Hitt., ABoT 4 + I 24f.:
weššanda=ma išḥharwantuš TÚG-^{HIA}-uš
 wear.3PL.PRES.MID=PART blood.red.ACC.PL clothes-PL-ACC.PL
putaliyanteš=a
 girded.PRES.PTCP.NOM.PL=and
 “They are wearing blood-red clothes and are girded up.”

²Jamison and Brereton (2014): “... the ruddy females [=flames? dawns?] (...) find pleasure in their own bodies within the womb of truth.”, Geldner (1951): “(...) haben die rötlichen (Flammen) ... an der Wiege der Opferordnung an sich selbst Wohlgefallen gefunden.”

³Jamison and Brereton (2014): “he should bring harm upon his own body by his evil words.”

⁴Insler (1968).

... as are the reflexes of **sék^heto* ‘joins, accompanies’ in some languages:

- (10) a. Ved., RV 4.7.11c:
 vātasya meḍīm sácate (...) (…)
 wind.GEN roar.ACC follow.3SG.PRES.MID
 “He follows the roar of the wind”
- b. OIr., Ml. 19b11:
 ní sechetar immurgu ord oc suidiu
 NEG follow.3PL.PRES.NON-ACT however order.ACC at this.DAT
 “They do not, however, follow the order in this”
- c. Lat., Plaut., *Aulularia* 4.7.16:
 I, iam sequor te, mater
 go.IPV at.once follow.1SG.PRES.PASS you.ACC mother
 “Go! I (will) follow you at once, mother.”

2.5 Deponents

Finally, there are transitive middles that syntactically behave like formally active agentive verbs and which usually have formally active synonyms or near-synonyms. There is no obvious synchronic motivation for middle morphology on these verbs.

- (11) Active/deponent synonyms

Language	Deponent verb	Active verb	Meaning
Latin	<i>hortor</i>	<i>moneō</i>	‘encourage, incite’
	<i>tueor</i>	<i>servō, salvō</i>	‘keep safe, watch over, protect’
	<i>fūror</i>	<i>clepō, rapiō</i>	‘steal, rob’
Hom. Greek	ἐρύομαι	φύλασσω	‘protect, guard’
	εἶρομαι	ἐρωτάω	‘ask, question’
	δαίομαι	σχίζω	‘divide, separate’
Modern Greek	<i>skarfizome</i>	<i>epinoo</i>	‘contrive, devise’
	<i>(meta)h̄irizome</i>	<i>hrizimopio</i>	‘use’
	<i>katarieme</i>	<i>anathematizo</i>	‘curse’

(This is a relatively small class of verbs: Zombolou and Alexiadou (2014) claim that only 11% of their corpus of Modern Greek media tantum are agentive and transitive and do not fit into any other established category of uses of middle morphology.)

Syntactically, these behave like formally active transitive verbs:

- They take accusative objects:

(12) Greek, Il. 3.278-9:

καὶ οἱ ὑπενέρθε καμόντας ἀνθρώπους τίνυσθον
and who.NOM.PL beneath passed.on.PTCP.ACC.PL men.ACC punish.2DU.PRES.MID.

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

(13) Vedic, RV 2.23.4a-b:

trāya-se jānaṃ yás túbhyaṃ dāsāt
protect-2SG.PRES.MID man.ACC who.NOM you.DAT worship.3SG.SUBJ.ACT

“.. you rescue the man who will do (ritual) service for you.” (Jamison and Brereton 2014)

- They passivize *iff* distinct passive morphology is available

(14) Vedic deponent passives

Root	Deponent	Passive
<i>īd</i>	<i>īt-te</i> ‘praises’	<i>īd-yá-te</i> ‘is being praised’
<i>idh</i>	<i>ind-dhé</i> ‘kindles’	<i>idh-yá-te</i> ‘is being kindled’
<i>rabh</i>	<i>rábha-te</i> ‘seizes’	<i>rabh-yá-te</i> ‘is being seized’

(15) Greek, deponent δωρέομαι ‘give, endow with’: Herodotus, *Hist.* 8.85.3:

Φύλακος δὲ εὐεργέτης βασιλέος ἀνεγράφη καὶ χώραν
Phulakos.NOM PART benefactor.NOM king.GEN down.write.AOR.PASS.3SG and land.DAT
ἔδωρήθη πολλῆι
endow.AOR.PASS.3SG much.DAT

“Phulakos was recorded as benefactor of the king and endowed with much land.”

- They make agent nouns

(16) Vedic deponent agent nouns

- trā-tár-* ‘protector’ (*trā* ‘protect’)
- īdi-tár-* ‘praiser, worshipper’ (*īd* ‘praise’)
- kṣat-tár-* ‘server’ (*kṣad* ‘serve, prepare’)

- (17) Greek deponent agent nouns
- a. ῥυτῆρ ‘protector’ (ῥῦμαι ‘protect, guard’)
 - b. ληιστῆρ ‘robber’ (ληίζομαι ‘rob, plunder’)
 - c. λωβητῆρ ‘slanderer’ (λωβάομαι ‘slander, mistreat’)

Conclusion: Languages with an active/non-active voice system have morphologically non-active transitive verbs that cannot be synchronically motivated = deponents.

- (18) Definition of deponency (Grestenberger 2014):
“In an active—non-active voice system, a deponent is a syntactically active verb whose surface subject is an agent and whose finite forms are morphologically non-active.”

- Can we reconstruct such verbs for PIE?

... in principle, yes: PIE had the same type of voice system.

3 Proto-Indo-European deponents

Criteria for determining PIE deponents:

- **Synchronic deponent status in at least two separate branches:** “Two separate branches” means non-adjacent language families without shared innovations.
- **No synchronic motivation for non-active morphology:** If there is some synchronic motivation for non-active morphology on an agentive verb in one branch, like analogy with a semantically or morphologically similar verb, its claim to PIE deponent status is weakened, unless there is corroborating evidence from other branches in which there is no synchronic motivation for non-active morphology. In other words, the non-active morphology on such verbs must be **non-trivial** from a synchronic point of view.

This is especially relevant for verbs of speech and certain verbs of visual perception, which vary greatly across the individual branches.

- **Morphological correspondence:** If cognate deponents in different branches correspond in their derivational morphology, they are more likely inherited than if they have differing verbal morphology.
- **Syntactic correspondence:** Identical object case and inherited agent nouns or verbal adjectives with the same syntactic behavior may provide additional evidence for deponent status.

3.1 **deh*₂-*i*- ‘divide, distribute’

- Evidence: Ved. *dáyate* ‘distributes’, Gk. δαίωμα ‘distributes’ (cp. Δάτωρ, δάις, -τός ‘portion’).
- Other forms (non-deponent): Root aorist: Ved. *áva adāt* (MS), *dīšva* (YV), pres. *dyāti* ‘divides’ (AV).
- Reconstruction: (late) IE **dáih*₂-*e-toi*⁵ ← **h*₂*e*-conjugation *i*-present 3sg. **déh*₂-*i-e*, 3pl. *dh*₂-*i-énti* (Jasanoff 2003: 105ff.)

3.2 **h*₁*ueg*^{uh} ‘speak solemnly, praise’

- Evidence: Ved. 3pl. pres. *óhate* ‘praise’, ptcp. *óhāna*-,⁶ OAv. 1sg. *aojōi*, 3sg.ipf. *aogədā*, ptcp. *aojāna*-, Gk. 3sg.ipf. εὔκτο (*Thebaïs* 3.3), remodelled as a thematic present: εὔχομαι (Myc. *eu-ke-to* /eukhetoi/).
- Other forms (non-deponent): Lat. *voveō* ‘vow’ (< **h*₁*uog*^{uh}-*éie/o*-), ?Ved. *vāghat*- ‘praiser’ (if from **h*₁*uo*/*ēg*^{uh}-*nt*-, EWA II: 539), ?Arm. 2sg.ipv. *gog* ‘speak!’ (aor. **gog(e)*- < **uog*^{uh}, Klingenschmitt (1982: 275)).
- Reconstruction: root shape **h*₁*ueg*^{uh} seems to require a 3sg. **h*₁*é-h*₁*ug*^{uh}-*to(i)* (LIV²: 253, Villanueva Svensson 2012: 335), but a full grade middle present **h*₁*ueg*^{uh}-*to(i)* would be more regular.

3.3 **peh*₂-*s* ‘protect’

- Evidence: Hitt. *paḫša(ri)* ‘protects’,⁷ Toch. A (class II) 3sg.pres. *pāštār*, 3pl. *pāsantār* ‘protect’ (< *-*s*- or *-*ske/o*-present), Jasanoff 1988: 230f., fn. 10, 2003: 136, 182f., 2012a) ≅ Toch. B *pāštār*, 3pl. *paskentār* (< *-*ske/o*-present).
- Other forms (non-deponent): Ved. *pāti*, OAv. *pāt* ‘protects’, subj. *pāsati* (= *s*-aorist subjunctive, LIV²: 460, Narten (1964: 168f.)); OCS *pasǫ* ‘graze, herd’, Lat. *pāscō* ‘graze’; PPP *pāstus*, *pāstor* ‘shepherd’.
- Reconstruction: *s*-present 3sg. **péh*₂-*s-or*.

3.4 **h*₂*neh*₃ ‘scorn, reprimand’

- Evidence: Gk. ὄνομα ‘scorn, reprimand’ (2sg. ὄνοσα, aorist ὄνοσάμην), Hitt. *ḫannari* ‘contest at law, sue; judge’; Toch. *nāk*: Toch. B class I subj. (inf) *nāktsi*, pret. III *nāksate*, class VIII

⁵The root shape /*day*/ is unexpected in both languages; Jasanoff 2003: 102ff.: lack of compensatory lengthening in *i*-presents to laryngeal-final roots is due to the “AHIHA-rule”: *-*AHIHA*- > *-*AIHA*- (*A* = any vowel, *I* = *i* or *y*): **déh*₂-*i-h*₂*e* > **dé-i-h*₂*e*, with subsequent analogical extension of the new root shape to contexts where compensatory lengthening would regularly take place, like the 3sg. **déh*₂-*i-e*. In Greek, the glide was preserved in analogy with form like δάινυμι ‘give a feast’, fut. δάισω, δάις, -τός ‘portion’, etc.

⁶Also *ohāná*-.

⁷Hitt. *paḫš-* is not a *mi*-verb (*pace* LIV²: 460); active forms are practically non-existent until the Neo-Hittite period and Kloekhorst (2008: 612) points out that *paḫš-* is “activated” as a *hi*- as a *mi*-verb when it is finally transformed into an active verb.

pres. *nākštār*, Toch. A *nākāštār* ‘blames, reprimands’ (Hackstein 1995: 65ff., Malzahn 2010: 677f.).

- Other forms (non-deponent): OIr. *-antar* ‘is blemished’ (Watkins 1962: 116ff., Pinault (1982) loc.cit., LIV² loc.cit.).
- Reconstruction: Full grade I present **h₂énh₃-(t)or* (or zero grade **h₂nh₃-(t)or?*).⁸

3.5 **med* ‘measure (out)’

- Evidence: Gk. *μήδομαι* ‘devise, contrive’ (aor. *ἐμήσατο*) and *μέδομαι* ‘take care of’ (+gen.); athem. Hsych. *μήστο* · *βουλεύσατο* < present injunctive **mēd-to* = OIr. ‘long-vowel preterite’ *·mídair* ‘judged’ (Narten imperfect, Jasanoff 2012c, cp. also LIV²: 423), OIr. *midithir* ‘judges’ (< **med-īe/o-*); OLith. *pamēmi* < **pa-mēdmi*, inf. *pamédėti* (also *(pa)mėdyti*) ‘imitate, ape’ and Latv. *mēdīt* ‘imitate’ < Proto-Baltic **mēd-mai* ‘measure’ (Villanueva Svensson 2006); OAv. 3sg. aor.subj. *masatā* ‘shall measure out’ (Hintze 2000), YAv. 3pl. pres. *vī-māḍaiiaṇta* (V.7.38, V.7.40), 3pl. pres.subj. *vī-māḍaiiaṇte*; Lat. *medeor* ‘help, heal’ (+dat., < **med-eh₁-īe/o-* (or **med-eīe/o-*?).
- Other forms (non-deponent): Goth. *mitan* ‘measure’ (OE *metan*, OHG *mez(z)an*, etc., cp. Feist 1939: 363f.) < **med-e/o-*; Gk. *μέδων*, *μέδεων* ‘ruler, ruling’ (Hom.+).
- Reconstruction: 3sg. **mēd-or*, 3pl. *mēd-ror* ‘measure’⁹ (Villanueva Svensson 2006), but probably rather a **h₂e*-present 3sg. **mēd-e*, 3pl. **mēd-r(s)*,¹⁰ with subsequent generalization of different ablaut grades (R(*ē*) in Greek, OIr., and Baltic; R(*e*) in Greek, OIr., and Germanic).

⁸The Greek present could reflect either **h₂énh₃-(t)or* or **h₂nh₃-(t)or* more or less directly. Both **h₂nh₃-C-* and **h₂énh₃-C-* would have given **ano-C-* with subsequent assimilation to **ono-C-* (thus Hackstein 1995: 66, who also dismisses Hom. *ώνατο* as evidence for final **h₂*; see also Pinault (1982: 20ff.)).

The Hittite form is more problematic. While a full grade I middle **h₂énh₃-or* should have given **HanH-V-* > *hann-V-* (cp. *harrā-* ‘crush’ < **h₂érh₃-V-*, Melchert 1994: 79f., Kloekhorst 2008: 300f.; on the loss of **h₃* in other positions see Melchert 1994: 72ff.), **h₃* was apparently also preserved in medial position in some cases, the circumstances of which are not clear, cp. Hitt. *walḫ-* < **u(ē)lh₃-*, Kloekhorst 2008: 945f.; Hitt. *lāḫu-* ‘pour’ < *lōh₃-u-*, Melchert 2011. If **(C)Rh₃V* gave **(C)aRh₃V*, as Kloekhorst, loc.cit. suggests, a zero grade middle **h₂nh₃-ór*, on the other hand, should presumably have surfaced as **hanhāri*, and even if gemination took place, the resultant verb should behave like *dukkāri* ‘is visible’ (reflecting accent on the ending). Since full grade seems to be the more expected ablaut grade of old *media tantum* and the medial reflexes of **h₃* are contested either way, it therefore seems more prudent to operate with a full grade I middle **h₂énh₃-(t)or* for Greek and Hittite.

Tocharian requires a full grade II root shape **nā-* < **h₂neh₃* which it extended with an element *-k-* (Hackstein 1995: 66f.).

⁹The meaning ‘measure’ is attested in Avestan, Germanic, and Italic (Lat. *modus* ‘measure, mode’, Osc. *meddiss* ‘judge’ < ‘the one who shows (**deik*) the measure (**med*), the established mode’, ‘devise’ in Greek, ‘heal’ in Latin (presumably related to ‘take care of’ seen in Gk. *μέδομαι*), ‘judge’ in Old Irish (and cp. Osc. *meddiss*), ‘rule’ in Greek *μέδων*, and ‘imitate’ in Baltic. LIV²: 423 essentially follows Benveniste (1969: 123ff.), who argues that the meaning ‘measure out (to establish/decide something)’ was the original meaning of this root. This is seen most clearly in Avestan and in the Italic nominal derivatives of this root. This then developed into ‘measure out, establish (the right measure) for somebody’ > ‘take care of’ in Greek and Latin. For Latin, this actually makes a denominal origin **med-eh₁* (instr.) + **-īe/o* from the instrumental of the root noun underlying Osc. *meddiss* the most likely derivation of *medeor* ‘help, heal’. This formation should have meant ‘have/be with the right measure (for)’, and the fact that *medeor* usually takes the dative (rather than the accusative) confirms this. The development from ‘measure out’ to ‘establish, rule, judge’ (Gk. *μέδων*, OIr. *midithir*) on the one hand and ‘devise’ (Gk. *μήδομαι*) on the other is also not too surprising. A parallel for Baltic ‘imitate’ is the development of Skt. *prati-mā-* ‘imitate’ from *mā* ‘measure’ (Villanueva Svensson 2006: 97).

¹⁰To avoid setting up an ablauting middle paradigm for PIE (I am grateful to Jay Jasanoff for this suggestion). **h₂e*-conjugation verbs originally had R(*o/e*)-ablaut, but there is no principled reason why Narten root **h₂e*-verbs should not have had R(*ē/e*)-ablaut. This Narten ablaut may have been associated with a particular Aktionsart in the present stem, see Kümmel (1998) and Melchert (To appear).

3.6 $*\underset{\sim}{i}i\text{-}\underset{\sim}{i}eh_2\text{-}$ ‘demand, seek’

- Evidence: Gk. δίζημαι ‘seek’ \approx stem of Vedic *ímahe* ‘we are asking, pleading’, 1sg. *īye*, ptcp. *iyāná-* (NB the accent), García Ramón 1993, 1999b, LIV²: 310f.: $< *i\underset{\sim}{i}h_2\text{-}$; Toch. B subj. II *yāštār* ‘will ask, beg’ $< *ih_2\text{-}s\acute{k}e/o\text{-}$ (Malzahn 2010 Hackstein 1995: 184ff.; 242).
- Other forms (non-deponent): Ved. *yāti* ‘asks, requests’, aor.subj. *yāsat* ‘shall plead’; Ved. *yātár-* ‘avenger’ = Gk. Ζητήρ (Hsych. Ζητήρ · Ζεὺς ἐν Κύπρῳ) $< *i\underset{\sim}{i}eh_2\text{-}tér\text{-}$ ‘seeker’ (García Ramón 1999b).
- Reconstruction: $*\underset{\sim}{i}i\text{-}\underset{\sim}{i}o/h_2\text{-}to(\underset{\sim}{i})$ ‘seeks, requests’.¹¹

4 Possible Proto-Indo-European deponents

4.1 $*treH$ / $*trā$ ‘protect’

- Evidence: Ved. *tráyate* ‘protects’ = YAv. *θrāiiente* ‘protect’ (Yt.13.146, also inf. *θrāiioidiiai*, Y.34.5, Y.11.9), Ved. (*s*-aor.) ipv. *trāsva*, pl. *trādhwam* (= OAv. *θrāzdūm*, Y.34.7, Y.58.5), subj. *trāsate* (Narten 1964: 131f.), Ved. *trātár-* ‘protector’ = Av. *θrātar*.
- Reconstruction: (pre-)Proto-Ir. $*trā\text{-}ia\text{-}ta(\underset{\sim}{i})$ ‘protects’.

4.2 $*gres$ / $gras$ ‘devour’

- Evidence: Ved. *grāsate* ‘devours’ (perf. mid. opt. *jagrasīta*, ptcp. *jagrasāná-*).
- Other forms (non-deponent): Gk. γράω ‘eat, gnaw’ (Call., also Hsych. γρᾶ · φάγε), Cypr. Gk. ipv. *ka-ra-si-ti* /*grásti*/ (4th century BCE, Masson 1983: 280).
- Reconstruction: $*gras\text{-}e\text{-}to\underset{\sim}{i}$ ‘devours’¹²

4.3 $*uer$ ‘protect; fend off, stop’

- Evidence: Gk. ἔρῳμαι ‘protect’ (thematized ἐρούομαι), ῥῳμαι (also ῥούομαι), perf. εἶρῳμαι.¹³

¹¹Greek δίζημαι introduced the full grade of the root (García Ramón 1993, $zā/zē\text{-}$ $< *i\underset{\sim}{i}eh_2\text{-}$, cp. ζητέω ‘seek’ (Hom.+)) and the full grade verbal adjective Ved. *yātá-*, OAv. *yāta-*).

¹²The middle inflection in Vedic is non-trivial, since other verbs of ingestion are formally active (*átti* ‘eats’, *asnáti* ‘eats’, *ághas* ‘devoured’, *píbatī* ‘drinks’, cp. Buck and Petersen 1945: 327ff.). Since the same is more or less true in Greek (ἔσθιω ‘eat’, ἔδω ‘eat’, but fut. ἔδομαι, aor. ἔφαγον, βέβρωκα ‘have devoured’, πίνω ‘drink’ vs. πατέομαι ‘eat, taste’, ἐρέπτομαι ‘feed on’), we could posit a late Proto-Indo-European/pre-Graeco-Aryan deponent whose middle inflection was given up in Greek.

¹³The lack of a digamma effect in Greek has given rise to comparison with Latin *servō* ‘save, protect’; this is rejected by Solmsen (1901: 245ff.) who also discusses the digamma problem. LIV²: 685, n. 4 suggests that the full grade of ἔρῳμαι $< *uer\text{-}u\text{-}mai$ was introduced in analogy to the active or the subjunctive, but the root is solidly deponent in Greek and there is independent evidence that *media tantum* paradigms had full grade (see Villanueva Svensson 2012). In light of this, the apparent ablaut suggested by the zero grade variant ῥῳμαι $< *wr\text{-}u\text{-}mai$ is more problematic.

Hackstein (2002: 124f.) tries to solve the morphological and phonological problems in Greek by assuming that the underlying root is the same as that of Gk. 3pl. ὄρονται ‘are watching over, taking care of’, YAv. *nī haraitē* ‘preserves’, etc., for which LIV²: 534 has a separate entry 1. $*ser$, and of Lat. *servō* ‘save, protect’. He posits a root $*suerh_3$ (the meaning of which is never defined) and argues that the different root shapes seen in Greek, Latin, Avestan, etc., can be accounted for by the Proto-Indo-European metathesis rule $*uR(H) > *Ru(H)$ (cp. Mayrhofer 1986: 161f.). Besides the full grade $*suerh_3$ and the regular zero grade *suerh₃*, the metathesized weak stem variant $*sruh_3$ would give Gk. ῥῳ- (ῥῳμαι) directly. While this solution

- Other forms (non-deponent): Ved. *várūtha-* ‘protection’, *varūtár-/várūtri-* ‘protector’ (besides *vartár-* ‘defender’, cp. EWA II: 512f.); maybe some forms of Ved. *vr̥* ‘cover’ (if this continues forms of **u̯er* ‘protect’, **Hu̯er* ‘lock in, keep safe’ (Lat. *aperiō* ‘open’, etc.), and **uel* ‘lock in, cover up’ (Gk. εἰλέω ‘hem in’, etc.), e.g., subj. *várate*, pres. *vr̥ṇóti* (LIV²: 684f.).
- Reconstruction: (late) **u-*present **u̯ér-u-to* ‘protect, defend, fend off’?

5 Results

- 6 relatively secure forms:
 - PIE *i-*present **deh₂-i-e* ⇒ pre-Graceo-Aryan **daieto_i* ‘distributes’
 - (late) IE **h₁éug^{uh}-to(i)* (or **h₁é-h₁ug^{uh}-to(i)*) ‘praises’
 - PIE **péh₂-s-or* ‘protects’ ⇒ **péh₂-s-tor* (⇒ **peh₂-s^hke/o-?*)
 - PIE **h₂énh₃-or* ‘blames, scorns’ ⇒ **h₂énh₃-tor/i*
 - PIE **méd-e/*méd-* ‘measures’ ⇒ IE **mēd-to(i)*, ⇒ **měd-e-to(i)*
 - (late) IE **i_i-i_ih₂-toi* ‘seeks’

Middle morphology not easily explicable within the PIE voice system = deponents

- Full grade (R(*e*)) prevails in the older forms (NB full grade middles do not imply “Narten” paradigms/roots, cp. Villanueva Svensson 2012, Melchert To appear), confirmed by the forms in section 3 and in general by *media tantum* (Watkins 1969: 113), Hollifield 1977: 128, Villanueva Svensson 2003: 145, Villanueva Svensson 2012: 341).

Conclusion:

- (proto-)middle morphology in PIE occurred in both transitive and intransitive structures
- ... but some (PIE) transitive verbs lack synchronic motivation for middle morphology → “voice mismatch”, deponents
- PIE full grade middles (deponents or otherwise) do not imply an alternating paradigm (i.e., actives with a “higher” ablaut grade)

would solve both the problem of the missing digamma in the anlaut and the /ǵ/ in the auslaut (these two properties correlate according to Hackstein 2002: 124f.), it requires giving up the equation with the Vedic forms, which lack initial *s-* and are moreover *aniṭ* (cp. *vr̥tá-*, *vártar-*, etc., EWA II: 512f.). On the other hand, there is no convincing alternative to the structural analysis of Ved. *varū* as **var-u-H** (Klingenschmitt 1982: 233’s proposal of /ū/ as due to rhythmic lengthening is completely ad hoc), and the same holds for Greek *ῥῶ*. That is, there seems to be no way around the laryngeal metathesis proposed by Hackstein.

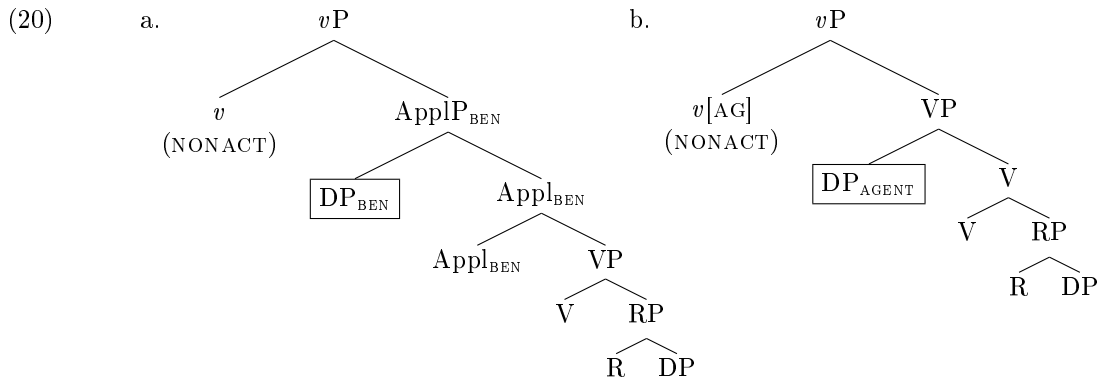
Appendix

A. Reanalysis: self-benefactive/canonical middle > deponent

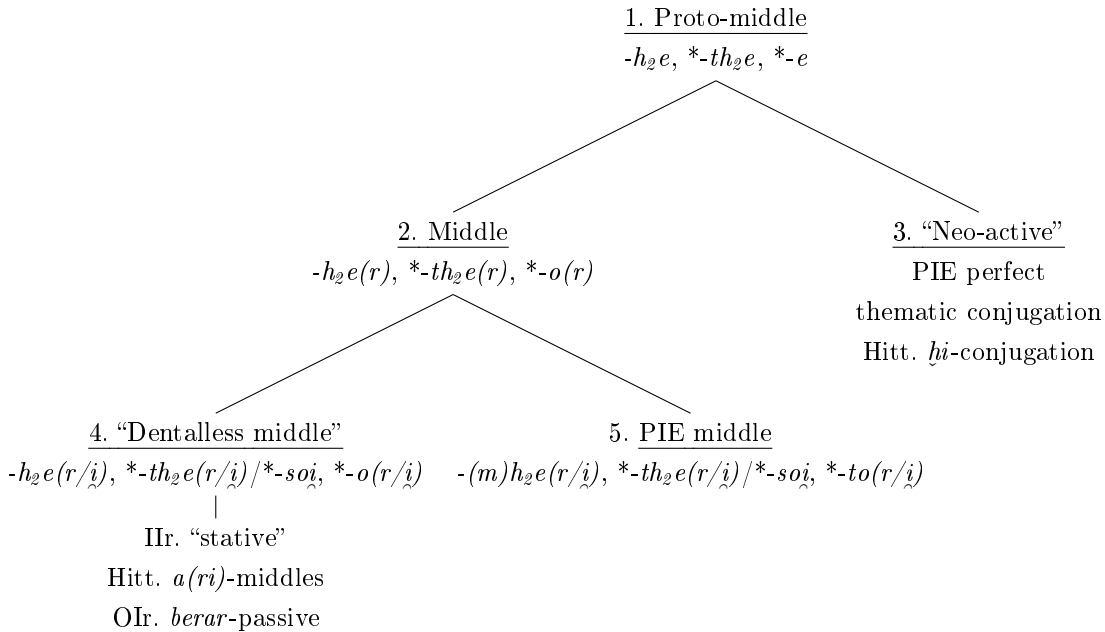
- Non-active morphology is a Spell-Out property of the functional projection v , active = default (“elsewhere”) morphology:

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

Arguments introduced below v (experiencers, benefactive arguments) trigger non-active morphology. If such an argument is reanalyzed as agent, the result is a surface mismatch (agents are usually in the specifier of v P (Kratzer 1996) where they do not trigger non-active morphology). (20-a-b) illustrate this reanalysis, the boxed parts are the arguments that undergo the reanalysis.



B. Development of the $*h_2e$ -conjugation/proto-middle



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