

Variation and change in Indo-European reflexives

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Variation and Contact in the Ancient Indo-European languages: between Linguistics and Philology
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1 Introduction

1.1 The puzzle

- The reconstruction of reflexivity in PIE has been hampered by the variety of formal devices used in reflexive contexts in the different IE languages
 - ...and partially by the implicit or explicit assumption that PIE must have had one single original “reflexive construction”
- At the same time, much progress has been made in the study of the function and reconstruction of middle morphology (e.g., Rix 1988, Jasanoff 2003, Villanueva Svensson 2003, Meiser 2009, Luraghi 2012, Cotticelli Kurras and Rizza 2013, Grestenberger 2014, 2016) and of the reflexive/anaphoric stem **s(y)e-* (e.g., Petit 1999, 2001, Puddu 2005, 2007, Viti 2009)
- But few (systematic) attempts at connecting these two (e.g., Cotticelli Kurras and Rizza 2013), and vastly different opinions on their original functions/distribution, e.g.:

“Il apparaît en effet que le réfléchi indo-européen de thème **s(e)ye-* était un réfléchi général, indifférent à la personne et au nombre.”
(Petit 1999: 407)

“[W]e can conclude that **se-*, originally simply marked the coreference with a previously expressed element. It is probable that there was no dedicated reflexive marker in Indo-European.”
(Puddu 2007: 264)

“Late PIE: the middle voice covers the entire spectrum of reflexivity, but some reflexive functions receive extra marking.”
(Cotticelli Kurras and Rizza 2013: 11)

The older Indo-European languages with an active/non-active (“middle”) voice distinction employ several reflexivization strategies, which can be divided into three broader and cross-linguistically well-attested categories:

1. Reflexivization through middle/non-active voice morphology only for body action verbs and “inherent reflexives”
2. Middle morphology on the verb + a “weak” reflexive pronoun or particle
3. Active morphology + a (weak or strong) reflexive pronoun

Goals of today’s talk:

- To argue that 1) must be reconstructed for PIE, but *only* for inherently reflexive, body action and body part NP construction verbs. It was not a “general” strategy to form reflexive predicates
- 2) or 3) must be reconstructed for forming reflexive predicate to transitive and ditransitive verbs
 - Crucially, pragmatic “weakening” or “strengthening” of one or the other strategy alone cannot explain why these different reflexivization strategies co-occur synchronically and differ according to the argument structure of the different predicate types
 - Since the goal is to study the interaction between verbal morphology and reflexive pronouns, the focus is on languages which preserve the PIE active/non-active (“middle”) distinction (specifically, Hittite, Tocharian, Vedic, Greek, Latin)
 - The focus is on **reflexive predicates** (cf. Reinhart and Reuland 1993), specifically **direct reflexives**

2 Preliminaries

2.1 Uses of middle morphology

Canonical contexts of non-active/“middle” morphology in Indo-European (& languages with a similar voice system, including languages with a Romance SE-type reflexive marker), Klaiman 1991, Kemmer 1993, Embick 1998, Kaufmann 2007, Alexiadou and Doron 2012, Luraghi 2012, Alexiadou et al. 2015, etc.):

- (1)
 - a. Anticausatives
 - b. **Reflexives**/reciprocals
 - c. Self-benefactives/“indirect reflexives”
 - d. Dispositional/generic constructions
 - e. Passives (Mediopassives)

= **voice syncretism**: in “Greek-type languages”, “a Voice head is spelled out with non-active morphology [...] if it lacks a specifier.” (Alexiadou et al. 2015 based on Embick 1998, 2004).

→ non-active morphology marks lack of an external argument (= agent), but is not valency-reducing itself

- (2) Spell-Out condition on non-active morphology (Alexiadou et al. 2015: 101–2)
Voice → **Voice[NonAct]/_ No DP specifier**

“For the morphological realization of Voice, the non-projection of the external argument as a specifier is a necessary and sufficient condition to yield a non-active form, independently of whether Voice has semantic impact or not.” (Alexiadou et al. 2015: 101–2) → “expletive Voice”

- active morphology = “elsewhere”
- ... and therefore conveniently also emerges when Voice is missing, e.g., in obligatorily *active* unaccusatives & statives → *activa tantum*

2.2 Typology of pronouns & pronominal clitics

2.2.1 Weak vs. strong pronouns

Cardinaletti and Starke 1999 distinguish three types of pronouns that differ w.r.t. to morphosyntactic, prosodic and semantic properties:

- (3) Cardinaletti and Starke 1999's typology of structural deficiency
- strong pronouns:** strong, phrases (Slovak *jemu*, It. *lui* ...)
 - weak pronouns:** deficient, phrases (Slovak *ono*, Olang-Tirolese *es* ...)
 - clitic pronouns:** deficient, heads (Slovak *mu*, It. *lo* ...)
- (4)
- Weak pronouns must occur in a case position at S(urface)-structure
 - Weak, but not clitic pronouns, bear lexical word stress

For reflexive pronouns, an additional criterion is whether or not they include Person and Number features, that is, whether they agree with an antecedent for all or some of the antecedent's morphosyntactic features.

2.2.2 Competition for insertion

Kiparsky 2002, 2012, Safir 2004: choice of reflexive form depends on the availability of pronominal forms in particular domains, i.e., is 1) form-dependent (which forms are available in any given language) and 2) domain-dependent.

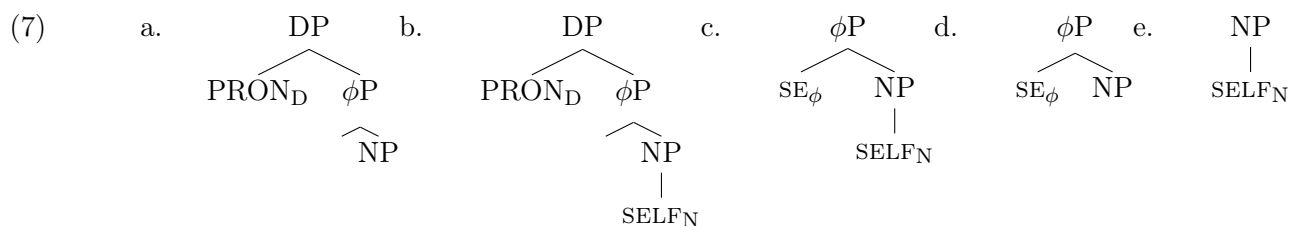
- (5) Form to Interpretation Principle (FTIP, Safir 2004):
If x c-commands y, and z is not the most dependent form available in position y with respect to x, then y cannot be directly dependent on x
- (6) Hierarchy of dependent forms (adapted from Safir 2004):
SE-SELF » pronoun-SELF » SE » pronoun » R-expression

Cf. Petit 2001, Puddu 2005, 2007, Cotticelli Kurras and Rizza 2013 on the feature typology of reflexive markers in the older IE languages.

2.2.3 Pronominal structure

Déchaine and Wiltschko 2002, 2017, Reuland 2011: decompositional approach to pronominal structure.

- Functional structure correlates with distributional properties (argument, predicate, etc.) and morphosyntactic features (Person/Number)



- Engl., Gm., It. ... Gk., Skt., Hitt. etc. personal pronouns (*I, you, he/she/it* ...)
- Engl. *my-self, your-self*, etc., Greek $\acute{\epsilon}\acute{\epsilon}/\acute{\epsilon}\ \omega\upsilon\tau\acute{\omicron}\nu$, etc.
- Dutch *zichself*, Ved. *svá- tanú-* (?), Toch. A *ṣñi-āñcām*, Toch. B *ṣañ-añm*
- Fr. *se*, It. *si* ... Lat. *sē*, Hitt. *-z(a)*, Ved. *tanú-* (?), Toch. A *āñcām* (?)
- Engl. *one* ... Ved. *tanú-* (?), Toch. A *āñcām* (?)

(7-a-b) \approx strong pronouns, (7-c-d) \approx weak pronouns

3 Inherent reflexives & body action verbs in IE languages

3.1 Simple inherent reflexives

Reflexivization through middle/non-active voice morphology only is possible for a restricted class of verbs (body action verbs, “inherent reflexives”) in the older IE languages, cp. Engl. *shower, shave* (without *-self*); the same holds for inherently reciprocal verbs (e.g., *fight, compete*...).

- Can be *media tantum*

- (8) a. Hittite: Few examples, most reflexives take *-za* (cf. Hoffner and Melchert 2008)
- waššiyari* ‘clothes him-/herself’ (also with *-za*)
 - parkuyatat* ‘cleaned himself’ (KUB 24 8 i31, Neu 1968: 138)
 - warp-* ‘wash’? (2sg.ipv.mid. *warpūt* ‘wash yourself!’ for **warphūt*, Neu 1968: 190f.)
 - šuppiyahḫati* ‘cleaned himself’ (KBo III 16 III 11; also with *-za*)
- b. Vedic
- śúmbhate* ‘adorns oneself’ (*śumbhāti* ‘adorns, makes beautiful’)
 - pávate* ‘purifies him-/herself’ (*punāti* ‘purifies’)
 - nenikté* ‘washes him-/herself’ (e.g. RV 9.71.3d)
- c. Greek (cf. Allan 2003: 88ff.)
- λούομαι ‘wash myself, bathe’ (λούω ‘wash sth.’)
 - κοσμοῦμαι ‘adorn myself’ (κοσμέω ‘arrange, adorn’)
 - αἰσχύνομαι ‘am ashamed’ (cp. Gm. *sich schämen*)
- d. Latin:
- lavor* ‘wash myself’ (*lavō* ‘wash (sth.)’)
 - alor* ‘nourish myself’ (*alō* ‘nourish’)
 - induor* ‘dress (myself), put on (+acc)’ (*induō* ‘put on (+acc)’)
- e. Tocharian (B): Schmidt 1974, Malzahn 2010: 95, 102, cf. (9).
- lik^(ā)-* ‘wash (off)’: *lyikštär/likštär* ‘washes him-/herself’ (pres. VIII)
 - sānāp^ā-* ‘anoint’: *sonoptär* ‘anoints him-/herself’ (pres. I)
 - wäs-* ‘dress, put on clothes’: *yäskeṃtär* ‘they put on clothes’ (pres. IXa); *wastär* ‘dresses (onself)’; subj. I)

- (9) PK AS 6B a6(CEToM, cf. Malzahn 2010: 102):

sonopitär likštär wätsanma krenta yäššitär
 anoint.3SG.IPF.MID wash.3SG.IPF.MID clothes.OBL beautiful.OBL clothe.3SG.IPF.MID

“He anoints himself, washes himself, [and] puts on beautiful clothes.”

Modern IE languages that continue the active/non-active voice system of the older IE languages also allow body action verbs and other “inherent reflexives” to be marked with non-act. morphology alone:

- (10) a. Modern Greek
- plenome* ‘wash myself’
 - xtenizome* ‘comb myself’
- b. Modern Albanian
- lahem* ‘wash myself, bathe’
 - thahem* ‘I dry myself’

3.2 Reflexivization through middle alone?

- Despite what we have seen in section 3.1., non-active morphology by itself cannot reflexivize any given predicate in languages like Modern Greek and Albanian
 - Except for “naturally reflexive” verbs (body action verbs, etc.), which do not fall under Reinhart and Reuland (1993)’s Condition B: “a reflexive predicate is reflexive-marked”
 - Evidence that non-active/“middle” morphology by itself is not valency-reducing

- (11) Modern Greek reflexives: non-active morphology + reflexive prefix *afto-* ‘self’. If *afto-* is missing, the interpretation can only be passive (ex. from Embick 1998).

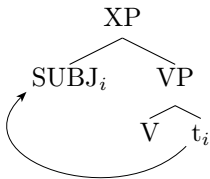
- a. afto-katastrafo-me
SELF-destroy-1SG.NACT
‘I destroy myself’
- b. O Yanis katastraf-ik-e
the Yanis destroy-PAST.NACT-3SG
‘Yanis was destroyed/*destroyed himself’

This suggests that it is the *afto*-morpheme that introduces reflexivity in these predicates, and not the non-active morphology → confirmed by older IE languages, where “middle” morphology alone does not reflexivize prototypically transitive predicates such as:

- (12) a. Hitt. *karštari*, Toch. B *kārsnātār* ‘is/gets cut’, not *‘cuts him-/herself’ (< **kers*)
b. Gk. *θείνεται* ‘is/gets killed’, not *‘kills him-/herself’ (< **g^{uh}en*)
c. Hitt. *damaštari*, Gk. *δάμναται* ‘is/gets tamed’, not *‘tames him-/herself’ (< **demh₂*)

- So why do we find non-active/“middle” morphology in *afto*-reflexives? → because it marks the absence of an external argument (≈ an agent)
 - This implies an “unaccusative analysis” of reflexives in Greek-type languages, as proposed by e.g., Grimshaw (1990), Pesetsky (1995) and Sportiche (1998), Rooryck and Vanden Wyngaerd (2011)...
 - Inherent reflexives = unaccusatives

- (13) Embick (1998)’s analysis of inherent reflexives: unaccusative verbs whose internal argument moves to subject position



3.3 Body part reflexives

Body part reflexives (body action verb reflexives with an inalienably possessed direct object) are analyzed here as a subclass of inherent/body action reflexives, along the lines of Rooryck and Vanden Wyngaerd 2011: 189 as an ‘inalienable spatiotemporal stage of its possessor-antecedent’, cf. Grestenberger (2015). Examples:

- (14) Vedic (translations from Jamison and Brereton 2014)

- a. RV 9.15.4a–b:

eṣá śṛṅgāṇi dódhuvac chíśi-te yūth₁yo vṛṣā
This.NOM horns.ACC shaking sharpen-3SG.PRES.MID of.the.herd bull.NOM

‘‘This one, the bull of the herd, **sharpens his horns**, ever shaking them, ...’’

- b. 6.71.1a–b:

úd u ṣyá deváḥ savitá hiraṇyáyā bāhú ayams-ta
up PART this.NOM god.NOM Savitar.NOM golden.ACC.DU arms.ACC.DU raise-3SG.AOR.MID

‘‘Up has this god Savitar **raised his two golden arms**’’

- c. 10.8.6c–d:

diví mūrdhānaṃ dadhi-ṣe suarṣám jihvám agne
sky.LOC head.ACC place-2SG.PERF.MID sun.winning.ACC tongue.ACC Agni.VOC
cakṛ-ṣe havyavāham
make-2sg.perf.mid oblation.conveying.ACC

“In heaven you have **set your head**, which wins the sun, and you have **made your tongue** to be the conveyor of oblations, o Agni.”

(15) Greek: *Od.* 2, 261–2:

Τηλέμαχος ... χεῖρας νιψάμενος πολιῆς ἄλός εὔχετ'
 Telemachus hands.ACC wash.AOR.PTCP.MID grey.GEN seawater.GEN pray.3SG.IPF.MID
 Ἀθήνη
 Athena.DAT

“Telemachus ..., **having washed his hands** with the grey seawater, prayed to Athena.”

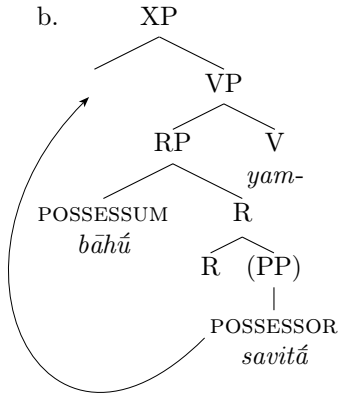
(16) Tocharian B: THT 107 b4 (CEToM):

nāṣṣa lyyāsa wrenta po laikāte
 swim.3SG.PRET.ACT limbs.OBL rags.OBL all wash.3PL.PRET.MID

“He bathed and **washed all of his limbs** [and] rags.”

Rooryck and Vanden Wyngaerd (2011): Body part reflexives are unaccusatives with an R(elational)P containing both the possessum (= the body part NP)

(17) a. savitá ... **bāhú ayamsta** ...
 “Savitar raised his arms”



- Body-part reflexives are analyzed as lacking an external argument/agent (the subject = possessor), therefore non-active morphology is predicted in these constructions by (2) (“non-active morphology marks lack of an external argument”)

4 Direct reflexives (Coargument reflexives)

4.1 Middle + weak reflexive

Middle morphology on the verb + a “weak” reflexive clitic/pronoun (underspecified for Person, ?Number)

- **Vedic:** Middle-marked verbs + *tanú-* f. ‘body’ > SELF (Kulikov 2007, Grestenberger 2015)
- Agrees with antecedent for Number; ACC case
- But indifferent to Person
- (post-Rigvedic Sanskrit uses *ātmán-* ‘soul’ > Hindi reflexive *apne* ‘self’ instead of *tanú-*)

(18) Vedic

a. RV 1.147.2:

vandārus te **tanvām vande** agne
praiser.NOM your **SELF.ACC** praise.1SG.PRES.MID Agni.VOC

“As your praiser, I **praise myself**, o Agni.”

b. RV 1.147.4d:

ānu **mrkṣiṣṭa** **tanvām** duruktaīḥ
PRVB injure.3SG.AOR.MID **SELF.ACC** slanders.INSTR

“May he **injure himself** with (his) slander.”

c. RV 7.104.17b:

āpa druhā **tanvām gūhamānā**
behind deception.INSTR **SELF.ACC** hide.PRES.PTCP.MID.NOM.F

“**Hiding herself** behind deception.”

d. RV 3.1.1:

agne **tanvām juṣasva**
Agni.VOC **SELF.ACC** enjoy.2SG.IPV.MID

“O Agni, enjoy yourself!”

e. RV 10.8.3:

āruṣīr ... ṛtāsya yónau **tanvò juṣanta**
reddish.NOM.PL order.GEN womb.LOC **SELF.ACC.PL** enjoy.3PL.PRES.MID

“The reddish [flames] (...) enjoy themselves in the womb of order.”

- Some evidence that number agreement with the antecedent was given up later in Vedic and *tanvām* was generalized (Kulikov 2007: 1419), e.g.:

(19) RV 10.169.3a:

yā devēṣu **tanvām aīrayanta**
whoNOM.PL. gods.LOC **SELF.ACC** move.3PL.IPF.MID

“... who **gave themselves** to the gods.”

- **Tocharian:** middle morphology + :

- Toch. B: complex reflexive **ṣaṅ-aṅm** ‘SE-SELF’; *ṣaṅ* < **s(e)ue-ne*, *aṅm* < **h₂en(h₁)tmen-*, cf. Ved. *ātman-*. Translates BHS *ātmana*.
- Toch. A: simple reflexive **aṅcām** (obl. *aṅm-*) ‘SELF’, (21-a), or complex reflexive **ṣṅi-aṅcām** ‘SE-SELF’ (or: ‘own self’?), (21-b).
- Both insensitive to Person/Number of antecedent

(20) Tocharian B

a. PK NS 54 b5 (CEToM):

lākentaṣṣem klautkeṃtsa **ṣaṅ-aṅm** no sū
with.suffering.OBL manner.OBL.PERL SE-SELF.OBL but this.NOM
mrauskāsträ
be.disgusted.CAUS.PRES.3SG.PRET.MID

“Because of the instances of sufferings this one makes himself to feel an aversion [to the world].”

- b. Toch B: THT 64 a5 (CEToM):

mā su nt= ālyekāšco **ṣaṅ-aṅm** **pällätär**
not this.NOM EMPH others.ALL SE-SELF.OBL praise.3SG.PRES.MID

“No-one **praises himself** before the others, then.”

- c. Toch. B: PK NS 25+26 a3:

ṣaṅ-aṅm cāmpim **yātässi** po cmelane
SE-SELF.OBL be.able.to.1SG.OPT.ACT tame.INF all births.LOC

“May I be able to **tame myself** in all births”

- (21) Toch. A

- a. A9 a1 (CEToM):

kipyo **sruksāt** **āñcām** säm pekant
shame.INSTR kill.3SG.PRET.MID SELF.OBL this.NOM painter.NOM

“Out of shame the painter killed himself.”

- b. A 394 b1 (CEToM):

ṣñ= āñcām risāt nätswa-[]
SE SELF.OBL leave.3SG.PRET.MID starve.INF

“He left himself to starve; he gave himself up to starvation”

4.2 Active + weak refl

Active morphology + weak or clitic reflexive pronoun.

- **Hittite** “Wackernagel” clitic $-z(a)$ ($/-t^s/ < PA *-ti$) famously polyfunctional and occurs with active *and* middle morphology from the earliest texts on (Boley 1993, Josephson 2003, Cotticelli Kurras and Rizzi 2011)
- $-z(a)$ is underspecified for Person, Number, Case (no DAT/ACC distinction), does not affect verbal morphology and needs a subject antecedent (Cotticelli Kurras and Rizzi 2011)
- Occurs in direct reflexive ((22-a-c)) and indirect reflexive contexts ((22-d))

- (22) a. KUB 33.120 i 38:

n=aš=**za** **munnaittat**
PART=he.NOM=**ZA** hide.3SG.PRET.MID

“And he hid himself.”

- b. KUB 16.34 i 8-9:

warpanzi=ma=wa=**z** $\bar{U}L$
wash.3PL.ACT-but-QUOT-**ZA** not

“But they do not wash themselves”

- c. KUB 29.1 i 3-34 (OH/NS):

kinuna=šmaš=**za** LUGAL-uš labarnaš **ulanun**
now=you.DAT.PL=**ZA** king-NOM *labarna*.NOM unite.1SG.PRET.ACT

“Now I, the labarna, have united (*ulanun*) myself ($-za$) to you ($-šmaš$)” (Hoffner and Melchert 2008: 358)

d. KUB 30.10 obv. 16-17 (OH/MS):

NINDA-an=**za wemīyanun** ... wātar=ma=z wemiya<nun>
bread-ACC=**ZA** find.1SG.PRET.**ACT** water=PART=**ZA** find.1SG.PRET.**ACT**

“I found for myself bread ... I found for myself water” (Hoffner and Melchert 2008: 359)

- **Vedic**: middle morphology in reflexive constructions drops out of use in later stages of Vedic and classical Sanskrit (Hock (2006))/becomes “optional”; examples are already found in the RV, e.g.:

(23) a. RV 8.96.15b:

ádha drapsó ... -**ádhārayat** **tanvām** ...
Then Drapsa.NOM sustain.3SG.IPF.**ACT** SELF.CCC

“Then Drapsa (...) **asserted himself** ...”

b. 3.51.11b:

suté ní **yacha** **tanvām**
Soma.LOC PRVB direct.2SG.PRES.IPV.**ACT** SELF.ACC

“**Direct yourself** (= stay close) to the Soma!”

4.3 Active + strong refl

Active morphology + case-marked pronoun that agrees for Person (and Number?)

- **Hittite**: besides *-z(a)* (section 4.2.), Hittite also uses the dative personal pronouns in the plural in indirect and direct reflexive contexts (Boley 1993, Hoffner and Melchert 2008, cf. Old English):

(24) a. Ḫatt. iii 4 (Hoffner and Melchert 2008: 358):

nu=**nnaš** DUMU.NITA.MEŠ DUMU.MUNUS.MEŠ **iya-wen**
PART=us.DAT sons daughters make-1PL.PRET.**ACT**

“and we begat for ourselves sons (and) daughters”

b. KUB 16.16 i 28:

warpanzi=ma=wa=**šmaš** **ŪL**
wash.3PL.PRES.**ACT**=but=QUOT=them.DAT not

“but they do not wash themselves”

- **Greek**: Homer shows use of personal pronouns in reflexive contexts for 1st & 2nd person, (25-a-b), (Schwyzer 1939-71, Petit 2001, Viti 2009, etc.) and 3rd person in non-direct reflexive (non-coargument) contexts, (25-c), (Viti 2009, Kiparsky 2012)
- Mostly with active morphology (but cf. (25-a))

(25) Greek

a. *Il.* 10.378:

αὐτὰρ ἐγὼν **ἐμὲ** **λύσομαι**
then I.NOM **me**.ACC release.1SG.PRES.**MID**

“then I released myself”

b. *Od.* 8.221:

ἐμὲ φημι πολὺ προφερέστερον εἶναι
me.ACC declare.1SG.PRES.**ACT** much more.excellent be.PRES.**INF**

“I declare myself to be the best”

c. *Il.* 15.574:

ἀμφὶ ἑῷ παπτήνας
around **him**.ACC glancing.AOR.PTCP.ACT

“glancing around himself”

- 3rd person coargument reflexives obligatorily take αὐτόν ‘self’: ἐέ/ἔἑ αὐτόν, ἐέ/ἔἑ αὐτήν, etc., (26-a-b)
- ... or just αὐτόν, αὐτήν without the 3rd person pronoun, (26-c).
- This construction takes *active* morphology and is generalized in post-Homeric Greek

(26) a. *Il.* 20.171:

ἐέ δ’ αὐτόν ἐποτρύνει μαχέσασθαι
3SG.PRON.ACC PART SELF.ACC.M urge.3SG.PRES.ACT fight.PRES.INF.MID

“He stirs himself up to fight”

b. *Il.* 14.162:

εὖ ἐντύνασαν ἑῷ αὐτήν
well adorn.AOR.PTCP.ACT.ACC.F 3SG.PRON.ACC SELF.ACC.F

“Having well adorned herself”

c. *Od.* 4.247:

ἄλλω δ’ αὐτόν φωτὶ κατακρύπτων ἦισχε
other.DAT PART SELF.ACC.M man.DAT hide.under.PRES.PTCP.ACT.NOM.M make.like

“and he made himself look like another man” (“he made himself hidden under another man”)

- **Latin:** active morphology + accusative personal pronouns for the 1st & 2nd person; active + reflexive *sē* for 3rd person (sg. & pl.), e.g., Viti 2009
 - ≈ Ancient Greek/Homer; *sē* can be used in logophoric and other long-distance contexts as well

(27) Latin

a. Plaut. *Tri.* 1.2.92:

dedisti-ne hoc facto ei gladium, qui se
give.2SG.PERF.ACT-PART this.ABL deed.ABL him.DAT sword.ACC whereby **REFL**
occideret?
kill.3SG.IPF.SUBJ.ACT

“Haven’t you given him through these deeds a sword with which he shall **kill himself?**”

b. Cic. *Tul.* 29.5 (Viti 2009):

Si [...] ego me ad iudicem sic defendam
if INOM **1SG.PRON.ACC** to judge.ACC thus defend.1SG.FUT.ACT

“If I shall **defend myself** like this before the judge.”

5 Discussion & conclusion

- Reconstruction of middle-marked inherently reflexive, body action, and body part NP verbs (section 3) for PIE seems straightforward
- For reflexives from canonically transitive verbs, two main strategies are attested:

- a. middle morphology + weak reflexive: Vedic, Tocharian
 - b. active morphology + strong reflexive: Hittite (?), Greek, Latin
 - c. (active morphology + weak reflexive: clearly secondary in Vedic, but may be old in Hittite)
- In each case, (a) arose from verb_{MID} + body part NP as the result of a cross-linguistically well-documented grammaticalization type. These constructions have morphologically “middle” verbs for independent reasons (section 3.3).
 - → suggests that (b) may have been the older strategy for reflexivizing canonically transitive agentive verbs, and that these reflexives had an external argument & the pronoun/SE-element was a case-marked internal argument
 - Because of the extremely common development of an intensifier/emphatic particle > reflexive, the question of the *form* of the reflexive pronoun has not been addressed here. But if (b) is reconstructed, this would suggest active morphology + (some form of) **s(e)u-* at least for the 3rd person
 - Or *all* persons (Petit 1999, 2001)? But cf. van Gelderen (2000) on reflexives in the history of English: 3rd person was the first to use SELF regularly
 - Either way, there is no reason to assume that pragmatic “strengthening” of middle morphology in reflexives took place: if (b) is reconstructed, because there was no middle morphology; if (a) is reconstructed, because middle morphology is independently justified by the body part NP construction.

References

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