The *in*-group: Indo-Iranian *in*-stems and their Indo-European relatives

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1. *in*troduction

It is difficult to find a topic in Indo-Iranian, Tocharian, or comparative Indo-

European linguistics worthy of our honorand that he himself has not treated

extensively. The present paper attempts to discuss just such a topic: the Indo-

Iranian and Indo-European origins of the Old Indic in-stems, a class of non-

ablauting possessive adjectives whose diachrony is somewhat unclear and

whose synchronic relationship to other possessive adjectives (especially those

in -vant-/-mant- and -van-) likewise merits some discussion. I argue that the

derivational history of these stems touches on an aspect of Old Indic nominal

morphology that our honorand himself has elaborated and elucidated on

several occasions, namely the "substantivizing" function of the nominal suffix

\*-i- in Indo-Iranian (cf. Pinault 1987-88, 1998ab, 1999-2000, 2004, 2016). In

other words, -in- is historically a composite suffix consisting of an original "i-

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substantivization" or "-individualization" of a thematic adjective, which was subsequently recharacterized by (likewise substantivizing) \*-n-. In the following section I discuss the attested Vedic and Avestan forms before presenting the formal analysis in section 3.

#### 2. indo-Iranian

#### 2.1. Vedic

In the Rigveda, we find 164 *in*-stems, predominantly used as adjectives (that is, to modify other nouns) or masculine animate (less often neuter) substantivized adjectives. The accent is always on the suffix, there is no suffix ablaut, and the inflection is completely inconspicuous: nom.sg.m. -i (Av. -i, -i), f.  $-in\bar{i}$ , n. -i, 2 acc.sg.m. -inam, voc. -in, instr.  $-in\bar{a}$ , dat. -ine (YAv. -ine), gen.abl. -inas, loc. -ini, nom.acc.pl.m. -inas (YAv.  $-in\bar{o}$ ), etc.

Regarding the function and syntax of -in-, the most important facts are, not surprisingly, summarized in AiG II,2 (328–50), where it is suggested that -in- may be older than -vant- in forming possessive adjectives. Moreover, "-in-scheint leichter substantiviert zu werden als -vant-" (AiG II,2: 333), and it is preferred over -vant- for characterizing animate beings (AiG II, 2: 335). Gotō (2013: 43) states that "[t]he stem -in- is used to indicate that the modificand has something or some quality as its essential, habitual, or characteristic item,

Neuter forms are rare and tend to be relegated to the thematized stem variant -ina-, cf. AiG III: 279.

whereas *-vant-* (and its variant *-mant-*) designated also an incidental possession." (see also Thieme 1955: 191). The most thorough study of the semantics of *-in-* and *-vant-* is provided by Tucker (2013), who confirms Debrunner's observation that *-in-* is almost exclusively used to modify animate nouns, whereas *-vant-* modifies inanimate and animate nouns, <sup>3</sup> so that "from *rátha-* m. 'chariot': humans and horses are *rathin-* (RV 5.83.3; 6.27.8, 47.31; 9.97.50) but generosity or a gift (*rádhas-* n., RV 5.57.7; 7.77.5) is *ráthavant-*" (Tucker 2013: 81). This explains why *-in-* is rarely used in the neuter (except, strikingly, with animate nouns that are grammatically neuter, Tucker 2013: 84–5), while *-vant-* is much more common in the neuter, though it is used with masculine and feminine nouns as well. We will return to these generalizations in section 3.

#### 2.1.1. Denominal stems

By far the largest subclass of *in*-stems (ca. 70 in the RV) is based on *a*-stems, including prominent members of the class such as *aśvin*- from *áśva*-, *vajrin*-from *vájra*-, etc. Other representative examples whose (synchronic) basis is an unambiguous *a*-stem *substantive* include *arkin*- 'with beams of light; singer' (4x, *arká*- m. 'beam'), *ukthín*- 'speaking/accompanied by praise-hymns' (8x,

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<sup>&</sup>lt;sup>3</sup> This holds for most of the RV, though in book 10 and in the AV these distributional differences begin to erode, making -*in*- and -*vant*- more or less equivalent (Tucker 2013: 94).

ukthá- n. 'praise-hymn'), dyumnín- 'splendid (17x, dyumná- n. 'splendor'), dhanín- 'possessing prizes, riches' (3x, dhána- n. 'prize'), parnín- 'having wings, feathers' (4x, parná- n. 'wing, feather'), rathín- 'charioteer' (10x, rátha- m. 'chariot'), śṛṅgín- 'with horns, horned' (3x, śṛṅga- n. 'horn'), somín- 'having/bringing Soma' (18x, sóma- m.), (mahā)hastín- 'with (big) hands; at hand' (6x, hásta- m. 'hand'), etc. However, there are also a number of cases in which the synchronic basis is undoubtedly an a-stem adjective, occasionally an adjective acting as the second member (SMC) of a possessive compound (SMC). For example, udrín- 'rich in water' (7x) seems to be based on the stem -udr-á- found in the SMC of, e.g., ánudra- 'without water' (Gk. ἄνυδρος), samudrá- 'accumulation of water, ocean', itself originally a possessive derivative of an athematic substantive (\*yód-r/yéd-n- n. 'water'; cf. Malzahn in Press: 7); daśa-gvín- (1x) and śata-gvín- (5x) 'having 10, 100 cows; consisting of 10, 100' are derived from dáśagva- \*'having 10 cows' >

<sup>&</sup>lt;sup>4</sup> Alternatively, one could take these forms as instances of "pleonastic -in-", described for Bahuvrīhi compounds in AiG II,2: 121–2 and AiG II,2: 331–2. Given that both Bahuvrīhis and in-stems are independently possessive at this stage, this is a synchronically plausible interpretation. However, the pleonastic use of -in- seems to have become productive only in post-Vedic Sanskrit, so I would still interpret the examples discussed in this section as archaisms. My proposed explanation for the unexpected adjectival basis is discussed in section 3.

'consisting of 10, group of 10' and unattested \*śatágva-, respectively, the SMC of which is itself a possessive derivative of gάν- m. 'cow' (cf. athematic possessive su-gú- 'having good cows', OP θata-gu- 'having 100 cows', etc.; EWA I: 478–9, 709, Thieme 1952: 67<sup>5</sup>). A similar derivational history is likely for śva-ghnín- (6x) 'gambler', lit. 'dog-slayer', designating the winner in a game, presumably from a (possessive?) compound \*śva-ghn-ά- '(having) dog-slaying, dog-slayer' (cf. go-ghná- 'cow-slaying'; EWA II: 674, KEWA III: 403). The simplicia citrín- 'bright, shiny' (1x) and rukmín- 'adorned with gold, golden' (2x) may also be deadjectival to citrá- 'bright, shiny' and rukmá- 'shiny, brilliant, or derived from the corresponding substantives citrá- n. 'shine' and rukmá- m. 'brilliants'. We will return to these cases in section 3.

There are several reasons to think that nominal  $-a- \rightarrow -in-$  is in fact the oldest derivational pattern of this class. First, it is reminiscent of the ubiquitous replacement of thematic \*-o- by \*-i- in Indo-Iranian and other Indo-European languages (cf. section 3). Second, the columnal accent and

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<sup>&</sup>lt;sup>5</sup> Thieme actually posits a neuter substantive \*śatagva- 'herd of 10 cows' as the derivational basis, but as we will see in section 3, it is more likely that it was originally the underlying adjective from which *in*-stems were derived.

<sup>&</sup>lt;sup>6</sup> The latter is more likely for *rukmín*-, since *rukmá*- is predominantly used as a plural substantive, while *citrá*- is mostly adjectival. I am grateful to Stephanie Jamison for pointing this out to me.

complete lack of suffix ablaut point to a "de-thematic" formation (although predicting the behavior of secondary athematic formations with respect to accent and ablaut is notoriously difficult). Third, there is a straightforward path of development from this to the other attested derivational patterns, but not necessarily vice versa. Finally, the secure (if scant) parallels in Avestan mostly belong to this class, cf. section 2.2.

As for denominal *in*-stems from nouns other than those in -*a*-, there are at least six in the Rigveda that are clearly based on *i*-stems: RV 10.68.3a *atithin*- 'providing for guests' (Jamison & Brereton 2014; *átithi*- m. 'guest', cf. Pinault 1998b on the etymology), RV 1.853c *abhimātin*- 'pursuer; antagonist' (*abhimāti*- f. 'pursuit, attacker'), RV 9.98.6d *ūrmin*- 'with/having waves' (*ūrmi*- m. 'wave'), *khādin*- 'adorned with bangles; bangle' (3x; *khādi*- m. 'bangle'), RV 6.63.4b *jūrṇin*- 'glowing' (*jūrṇi*- f. 'blaze, glow'), and RV 8.66.12a *tuvi-kūrmin*- 'powerfully ranging' (*tuvi-kūrmi*-).8 Given that these

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<sup>&</sup>lt;sup>7</sup> SMC from *car<sup>i</sup>* according to Jamison & Brereton 2014 and RV commentary ad RV 3.30.3.

<sup>&</sup>lt;sup>8</sup>  $k\bar{\imath}r$ in- in RV 5.4.10, 5.40.8, and 5.52.12 seems to be from  $k\bar{\imath}r$ i- m., which is itself difficult ('singer, praiser' or 'poor, weak'), and does not differ from it semantically, cf. EWA I: 357. In the RV commentary ad RV 5.52.12, Jamison argues in favor of the meaning 'weak, light, lightweight' and suggests that the putative in-forms in fact belong to the paradigm of  $k\bar{\imath}r$ i-. The same could hold

are mostly hapax and do not always semantically differ from their base, it is unlikely that this was a very old (or productive) derivational type. In fact, some of these forms may be better analyzed as belonging synchronically to the paradigm of the corresponding -in- stem (cf. fn. 8 above and AiG III: 145–47 on the encroachment of (i)n-stem inflection on the i-stems).

With *in*-stems derived from *s*-stems, there are two ways of treating the suffix of the base: 1) by adding -*in*- to the suffix, as in *śavasín*- 'having strength, strong' (1x, *śávas*- n. 'strength') and *sahasin*- 'victorious' (1x, *sáhas*-n. 'victory'), and 2) by replacing the suffix, as in *retín*- 'rich in seed, sperm' (1x) from *rétas*- n. 'seed, sperm', cf. AiG II,2: 330.9 Both strategies may also be attested in Avestan, though the situation there is much more murky, cf. section 2.2.

for *arcin*- (2x), which means 'ray, beam' in RV 8.41.8d and seems to belong to the paradigm of *arci*- m. 'ray, beam' (Jamison, p.c.).

<sup>&</sup>lt;sup>9</sup> Though the status of the second pattern is much less certain than of the first. Other than *retin*-, Debrunner (AiG II,2: 330) only mentions *varcin*- (4x), the name of a Dāsa in the RV, which could be from *várcas*- n. 'shine, splendor' (cf. also *brahma-varcasin*- and *varcasvin*-, both AV). To these may be added *medin*- (2x), if this is to be taken from *médas*- n. 'fat' as suggested in EWA II: 377. However, *-as-in*- and *-as-v(-)in*- are much more common already in late Vedic.

Stems in  $-\bar{a}$ - are treated like those in -a-, irrespective of their origin (that is, whether or not the  $\bar{a}$ -stem is derived from a thematic stem): the suffix vowel of the base is replaced, as in *paripanthin*- 'highwayman, opponent', which seems to be based on the syntagm pári + pánthā- (pári pánthām 'around the way', cf. AiG II,2: 331), manīsin- 'wise, thoughtful' (manīsā-, f. 'wisdom, thoughtfulness'),  $m\bar{a}yin$ - 'full of tricks, cunning' ( $m\bar{a}y\bar{a}$ - f. 'trick, magic'), śiprín- (besides śipravant-) 'having/with lips' (śiprā- f. 'lips'). Replacement of  $-\bar{a}$ - in derivation and compounding is also attested in other Indo-European languages, cf. the restriction against (verbal abstract) stems in \*- $\bar{a}$  as SMC of possessive or determinative compounds with a nominal first member (AiG II,2: 249, Debrunner 1917: §139, §145; Leumann 1977: 281, Fellner & Grestenberger 2017). In these cases, \*-ā- is replaced with \*-o- (e.g., Gk. τιμή 'honor'  $\rightarrow$  ἄ-τιμος 'without honor', ζώνη 'belt'  $\rightarrow$  ἐύζωνος 'wellgirded', etc., Ved. jihva- 'tongue' → mádhu-jihva- 'having a sweet tongue',  $jy\dot{a}$ - 'bowstring'  $\rightarrow rt\dot{a}$ -jya- 'having a good bowstring',  $\dot{s}ipr\bar{a}$ - 'lips'  $\rightarrow vrsa$ siprá- 'with lips like a bull') or \*-i- (e.g., Gk. ἀλκή 'strength'  $\rightarrow$  ἄν-αλκις 'defenseless, weak', Lat. barba 'beard' - imberbis 'beardless', lingua 'tongue'  $\rightarrow$  trilinguis 'trilingual', etc.). The latter strategy presumably started out as substantivization of \*o-adjectives that were themselves derived from \*eh2-stems (cf. Fellner & Grestenberger 2017, fn. 16) via a derivational chain \*-eh2- 'X'  $\rightarrow$  \*-h2-o- 'of/with X'  $\rightarrow$  \*-h2-i- 'one of/with X', synchronically still observable in, e.g., Ved. śiprā- f. 'lips': vṛṣa-śiprá- 'with lips like a bull': siprin- 'having/with lips' and pantha- m. 'path': anu-patha- 'along the way', su-pátha- 'easy to walk', prá-patha- m. 'path forward' (as if \*opnt-h2-o): prapathín- 'leading forward, far away' (I argue in section 3 that -in- is part of this derivational chain in Indo-Iranian). 10

The reanalysis of this pattern seems to have led to the generalization that the suffix of the base should be replaced (rather than affixed to), as is suggested by the *s*-stems mentioned above, and a few cases where -*ya*- is apparently also replaced:  $rj\bar{\imath}pin$ - in RV 4.26.6 and 8.33.12 seems to be derived from the etymologically unclear  $rjipy\dot{a}$ -11 and hiranin- 'golden' from hiranyan. 'gold'. Debrunner (AiG II,2: 328–9) points out that -*y*-in- is preserved after vowels in  $m\bar{a}yin$ -, etc., so it is not clear whether this replacement was originally due to a sound change \*Cin or due to the generalization of the morphological replacement rule as discussed above. That such a rule existed and was extended to other stems is also suggested by, e.g., RV *varmin*-

<sup>&</sup>lt;sup>10</sup> Less directly in  $s\acute{a}khi$ -/ $s\acute{a}khay$ - 'comrade' < \* $s\acute{o}/\acute{e}k^{u}$ - $h_{2}$ -oi-, an amphikinetic derivative of an i-substantivization, cf. Schindler 1969: 154, fn. 65, KEWA III: 413.

Both are used to characterize eagles and may mean something like 'speeding straight ahead', from  $rj\dot{u}$ -/rji° 'straight' (EWA I: 250–1, cf. Schmitt 1970 on the Iranian cognates of  $rjipy\dot{a}$ - and Balles 1997: 148–50 on its etymology and cognates in Greek and Armenian). Moreover,  $rj\bar{\imath}p\dot{\imath}n$ - may have been contaminated with formally similar  $rj\bar{\imath}s\dot{\imath}n$ - from  $rj\bar{\imath}s\dot{a}$ - (Werba apud EWA I: 252), which is itself etymologically unclear.

'armoured' from *várman*- n. 'armour', TĀr. *brahmin*- from *bráhman*-, etc., where it was apparently decided to replace only part of the suffix (the offending -a-, crucially). The extension of this replacement rule must also be responsible for the creation of the suffix -*vín*- from semantically similar *van*- or *vant*-stems (though these are not always attested), cf. AiG II,2: 916–19, e.g., *á-yudhvin*- 'not (prone to) fighting': *yúdhvan*- 'prone to fighting, hostile', *māyāvin*- 'having wisdom, magic': *māyávant*-; from *māyá*- f. 'wisdom, magic' (contrast *māyín*- above). Resegmented, the suffix was then used to avoid the substitution problem with *ā*-, *s*- and other stems, e.g., *aṣṭrāvín*- 'obeying the goad' (*áṣṭrā*- f. 'goad'), *stukāvín*- 'with locks of hair' (*stúkā*- f. 'lock of hair'); *namasvín*- 'in awe, respectful' (*námas*- n. 'respect, awe'), *rakṣasvín*- 'harmful' (*rákṣas*- n. 'harm'), etc.

To summarize, the substitution of nominal -a- by -in- is the oldest and most productive way of deriving in-stems in the Rigveda. This derivational device was extended to  $*\bar{a}$ -stems very early on, maybe based on an existing late PIE pattern (cf. the Greek and Latin parallels above), and eventually to other stems in Indo-Iranian. This leaves the matter of the "primary" or deverbal in-stems to be resolved.

## 2.1.2. Deverbal stems

Besides the clearly denominal stems in -*in*-, the handbooks also distinguish a deverbal class, e.g., Debrunner (AiG II,2: 341–8), though for the most part what this means is that the *in*-stem is derived directly from the root. The status

of this class in the Rigveda is debatable since due to formal ambiguity, it is not always easy to discern whether a given stem is deverbal or denominal. I have used the following criteria for distinguishing deverbal forms, partly based on Debrunner's criteria: 1) lack of a potential (synchronic) nominal basis, 2) preverb selection and verbal (stem forming) morphology that matches a synchronic verb stem, 3) palatalization of a root-final velar, 4) (anit) root takes vrddhi, and 5) verbal case assignment (that is, accusative objects). Applying these criteria (though we will reevaluate them momentarily) results in ca. 20 deverbal stems, though not all criteria apply to each stem. The following examples each fulfill at least two of the first four criteria: kevalādín- 'eating alone' (1x, ad 'eat'), arcin- 'radiating, shining' in RV 2.34.112 (arc 'shine'; contrast denominal arkin- above), kāmin- 'desiring' (5x, kāmáya- 'desire sth.'), vi-cārin- 'wandering around, off' (1x, vi car 'wander off'), ni-todin-'stabbing, burrowing into' (1x, ni tod), tsārin- 'sneaking' (1x, tsar), ā-dārin-'breaking into' (1x,  $\dot{a}$  dar), ( $\dot{a}$ -) $n\bar{a}min$ - '(un)bending, (not) bowing' (2x, nam), mandin- 'intoxicating, exhilarating' (18x, mad/mand 'intoxicate (oneself), exhilarate'), ni-yayin- 'driving, going downwards' (1x, ni y $\bar{a}$ ), ni- $r\bar{a}min$ - + loc. 'staying at' (1x, ní ram + loc.), pra-saksín- 'conquering, overpowering' (3x, prá saks, s-aorist stem of sah 'conquer, vanquish').

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<sup>&</sup>lt;sup>12</sup> But *arcin*- in RV 8.41.8 probably belongs to the paradigm of *arci*-, see fn. 8 above.

As for the fifth criterion, accusative case, there are few examples with verbal case assignment in pre-classical Sanskrit (cf. Delbrück 1888: 182, AiG II,2: 346–7, Lowe 2017: 94, 140–4), and only two in the RV, namely  $k\bar{a}min$  in RV 2.14.1c  $k\bar{a}min$  hi  $v\bar{v}r\dot{a}h$   $s\dot{a}dam$  asya  $p\bar{v}tim$  "because the hero is ever desirous of his drink" and  $ad\bar{a}rin$  in RV 8.45.13 vidman hi tvan dhanamin dhan

It is noteworthy, though, that in both cases there is also a possible nominal base, both from a formal and a semantic point of view. Thus *kāmin*-looks like it should be a possessive adjective to *kāma*- 'desire' (also *kāmá*- 'desiring (one)'), which is itself the nominal basis of *kāmáya*- (cf. Jamison 1983: 72), and besides *ādārin*- we find *ā-dārá*- m. 'who breaks open, into; makes accessible'. Diachronically, it was precisely this kind of ambiguity that led to the development of the "verbal" use of -*in*- and the reanalysis of this suffix as a participle-like verbal adjective in (post-)Classical Sanskrit and Pāli (cf. AiG II, 2: 347–8, Lowe 2017: 186–93, 241–46). In the Rigveda, around 25 *in*-stems are formally and/or semantically ambiguous in this way. Representative examples are given in Table 1.

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<sup>&</sup>lt;sup>13</sup> Translations from Jamison & Brereton 2014.

Table 1. Derivationally ambiguous in-stems

Stem	Meaning	Potential base
kārín- (7x)	'praising, singing'	kārá- m. 'praise song' or kir/kar 'to praise'
javín- (1x)	'speedy'	javá- m. 'speed' or jav 'to speed'
tveșin- (1x)	'impetuous'	tveṣá- 'impetuous' or tviṣ '(be) impetuous'
(bhūri-, sahasra-)	'nourishing (many, a	póṣa- m. 'bloom, nourishment'
poṣin- (2x)	thousand)'	or pus 'thrive; nourish'
(abhi-)pra-	'breaking apart'	(pra)bhangá- 'who breaks (sth.)
bhaṅgín- (2x)		apart' or <i>(abhí) prá bhañj</i> 'to break sth. apart'
madin- (21x)	'exhilarating, intoxicating'	madá- m. 'exhilaration, intoxication' or mad 'enjoy, intoxicate' (contrast mandín-)
mahin- (6x)	'great'	mahá-/mahá- 'great' or mah 'be great'
virapśín- (13x)	'having/procuring abundance'	virapśá- m. 'abundance' or vi rapś 'abound'
vaśin- (10x)	'having power, ruler'	váśa- m. 'wish, power' or vaś 'want, desire'
bhadra-vādín- (2x)	'speaking blessings'	(saṃ)vādá- 'conversation, speech' or vad 'to speak'
uktha-śaṃsín- (2x)	'saying speeches'	śáṃsa- m. 'praise, prayer' or śaṃs 'speak, praise'
manyu-ṣāvín- (1x)	'preparing Soma with bad thought'	sāvá- m. '(Soma-)pressing' or su/sāv 'press'
svānín- (1x)	'rushing, resounding'	svāná- m. 'sound' or svan 'rush, resound'
(pajra-, pra-)	'having (strong,	(pra)hoṣá- m. 'sacrifice' or prá
hoṣin- (2x)	steadfast) sacrifices'	hu 'sacrifice, pour out (to)'

This suggests that some of the criteria used by Debrunner and above to distinguish deverbal forms need to be reevaluated. In particular, the use of synchronic vrddhi as signaling a deverbal formation is confusing, since this is

synchronically productive in thematic verbal abstracts and agentive nominals of the type CaC-a- (cf.  $k\bar{a}r\dot{a}$ -,  $sv\bar{a}n\dot{a}$ -, etc., in table 1), some of which may in fact be the synchronic (or diachronic) basis of a corresponding in-stem (again, see table 1 and AiG II,2: 348, where this is already tentatively suggested). As for root-final palatals, the only "minimal pair" where this criterion can reasonably be applied to distinguish a synchronic denominal from a deverbal formation is arkin- vs. arcin-, and even here certain caveats apply (cf. fn. 8). The only other instance where a root-final velar surfaces as a palatal is varcin-, which could also be denominal (cf. fn. 9); all other roots ending in a velar behave like arkin- (i.e., -bhangin- in table 1,  $\dot{s}akin$ - 'strong', virokin- 'shining forth'). Excluding these two criteria means that the evidence for unambiguously deverbal stems in the Rigveda is much smaller than suggested in AiG II,2, and it is clear that this class is not yet productive at this stage.

To summarize, while formal and semantic criteria can disambiguate individual stems in this subclass, the ambiguity between stems derived from roots and those derived from the corresponding thematic verbal abstracts (or agentive nouns) of the type CaC-a- ("τόμος/τομός-type") is an especially noteworthy subtype of derivationally ambiguous in-stems. We will return to these in section 3.

#### 2.2. Avestan

There are few uncontroversial examples of *in*-stems in Avestan (cf. AiG II,2: 348–9, Hoffmann & Forssman 2004: 146–7). The secure ones are YAv.

parənin- (Ved. parṇin-) 'feathered, with feathers' in Yt. 10.119 (nom.pl. parənīnō), 'holding a feather' in Yt. 14.38 (dat.sg. pərənine<sup>14</sup>), from parəna'feather, wing'; YAv. miiezdin- 'having/with ritual meals, offerings' from miiazda- 'ritual offering' (gen.pl. miiezdinam V. 18.12, Yt. 13.64), and OAv., YAv. fra(x)šnin- 'careful; knowing beforehand' (nom.sg. fraxšnī, fraxšni- Y. 44.7<sup>15</sup>, Yt. 10.9, Yt. 10.24, Yt. 19.48). Bartholomae (AIW 978) suggests that the latter is derived from \*fra-xšnā- f. 'foreboding, knowledge' (cf. Skt. prajñā- f., ŚB), cf. frā-xšnəna- 'foresight', which would offer a nice Iranian parallel for the synchronic replacement of \*-ā- by -in- discussed in section 2.1.1 for Vedic (though a deverbal derivative from something resembling the Young Avestan syntagm fra zāna- cannot be completely excluded).

To these may be added pseudo-OAv, *yəuuīn*- 'cornfield' from *yauua*- 'corn' (acc.pl. *yəuuīnō* in Y. 42.2, S 2.7) and YAv. *sraošin*- 'obedient' in Her.

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<sup>&</sup>lt;sup>14</sup> Hoffmann & Forssman (2004: 146) suggest emendation to \*parənine, but the manuscripts rather point to \*parənīne according to de Vaan (2003: 209), who suggests that the expected \*-i- was corrupted to -ī-. I am grateful to Elizabeth Tucker for pointing out that this form is used of a man holding a feather in Yt. 14.38, which of course fits perfectly with her observation that animacy (rather than, say alienable vs. inalienable possession) was originally responsible for determining the distribution of -in- vs. -vant- in Vedic.

<sup>&</sup>lt;sup>15</sup> Y. 44.7:  $az \partial m \ t \bar{a} i \bar{s} \ \theta \beta \bar{a} \ frax \bar{s} n \bar{\imath} \ auu \bar{a} m \bar{\imath} \ maz d \bar{a}$  "With these (questions) I in foresight assist Thee, Oh Wise One" (Humbach 1991:158).

7 yat aēša yōi apərənāiiiūkō **sraōši** vā anu.tacaiti "When this child obediently runs along with him", which looks like an *in*-stem from *sraoša*- m. 'obedience' both formally and with respect to its meaning.<sup>16</sup>

<sup>16</sup> There are a few additional potential Young Avestan *in*-stems whose status is less certain. These occur mostly in Yt. 15, a list of names and epithets of Vayu, and Yt. 1, a list of names of Ahura Mazdā. These hymns are discussed extensively by Panaino (2002), especially with respect to the problem of the generally unexpected endings of a- and i-stems transmitted in the manuscripts. The apparent in-stem aojin- 'strong' occurs in Yt. 15.46 aoji nama ahmi, aojiš nama ahmi "Strong I am by name, strongest I am by name". The form aojiš must stand for aojištō (Panaino 2002: 79, de Vaan 2004: 368), and aoji may be the nominative sg. of a denominal aojin- 'having strength' from aojah- n. 'strength' (with replacement of the suffix as in Ved. retin-), or deverbal to aog-/aoj-. The formulaic nature of the text ("X I am by name, X-est I am by name") makes one expect the first word to be an adjective, and an adjectival istem \*aoji- is morphologically unlikely—unless it was backformed from aojišta-, in which case one would expect a nom.sg. \*aojo in these texts according to de Vaan (2003, 2005) and Panaino (2002). De Vaan (2004: 368) suggests that this form would have been spelled aoji because of the palatal preceding the schwa, which is plausible, but still depends on accepting a fairly unexpected morphological form. A corrupted nom.sg. \*aojå from an adjectival internal derivative of aojah- as proposed by de Vaan (2004: 368) does not help

much, either, since, as de Vaan points out himself, the ending -å is otherwise preserved in the following lines. All in all, and considering the many uncertainties surrounding the forms in this line, a denominal *aojin*- from *aojah*- still seems like the best bet.

Similar considerations hold for YAv. saocahin- 'having/with shine, glow, flames' in the same text, Yt. 15.47 saocahi nama ahmi (cf. Panaino 2002: 82). This seems to be from a neuter s-stem \*saocah-, cf. Ved. śociṣ- n. 'flame' and RV 10.96.4 sahásra-śokas- 'with/having a thousand flames', and may therefore be evidence that Iranian, like Indic, used both suffix replacement and concatenation when deriving in-stems from s-stems (saocahin- vs. aojin-, like Ved. śavasín- 'strong': śávas- n. 'strength' vs. retín- 'rich in seed': rétas- n. 'seed, sperm').

YAv. səuuin- 'useful, helpful' could be from \*sauua- or sauuah- 'strength, superiority' (like Ved. śavasín- 'strong' from śávas- 'strength', but with replacement of the suffix instead of concatenation), or deverbal to sū 'help, sustain, strengthen' (Ved. śū 'become strong, thrive'), cf. Av. sūra- 'strong' (Ved. śūra-), superlative səuuišta- (Ved. śáviṣṭha-), etc. The form occurs in a by now familiar format in Yt. 1.15 səuuī nama ahmi, sūrā nama ahmi, səuuišta nama ahmi, probably "Useful I am by name, strong I am by name, strongest I am by name". The context suggests that the composer intended an etymological connection between the three adjectival forms, but the question is whether this was original or redactional. Either way, as in the

# 2.3 interim summary

Although Av. parənin-: Ved. parṇin- remains the only exact equation between an Avestan and a Vedic in-stem, the secure Avestan forms parənin-'with/having (a) feather(s)', miiezdin-'having/with ritual meals, offerings', fra(x)šnin-'careful; knowing beforehand', as well as yəuuīn-'cornfield' and sraošin-'obedient' conform to the derivational patterns established for Vedic in section 2.1 and confirm that the type was originally denominal, predominantly to a-stems. There are no clearly deverbal examples in Avestan.

case of aoji in Yt. 15.46, we are most likely dealing with an in-stem or backformed i-stem, though the latter is less likely (the manuscripts consistently have  $s \rightarrow uu\bar{i}$ ; i-stem nominatives in Yt. 1 and Yt. 15 are usually spelled with  $\rightarrow i$  in the manuscripts. However,  $-\bar{i}$  instead of -i is also unexpected for an in-stem nom.sg., cf. de Vaan 2003: 262).

The form *bucahin*- 'hissing, snarling' (?) in Yt. 15.47 *bucahi nama ahmi, buxtiš nama ahmi* is even more difficult. Panaino follows AIW: 968 in assuming an *s*-stem \**bucah*- n. 'hissing, snarling' as the derivational basis, which might be comparable to the root of Skt. (Dhātup.) *búkkati* 'barks' and Gk. βὑκτης 'swelling, howling' (of winds). The probable onomatopoeic nature of the root (cf. KEWA II: 435, Panaino 2002: 82) and the significant manuscript variation with respect to the form do not inspire confidence in its validity.

We will discuss possible reasons for the noticeable difference in productivity of -*in*- between Vedic and Avestan in the following section. First, we will turn to the diachrony of the Indo-Iranian suffix \*-*in*-.

# 3. *in*do-European

# 3.1. Proposal

I propose that the Indo-Iranian suffix \*-in- is historically a composite suffix \*-i-n-, containing the individualizing suffix \*-i- that was later extended by likewise individualizing \*-n-. We have already seen in section 2 that the derivational rule whereby the stem vowel of the thematic base is replaced by - in- is reminiscent of the inherited derivational pattern \*-o-  $\rightarrow$  \*-i-, with the conspicuous "replacement" of theme vowel by \*-i-. This has been amply discussed in the past (e.g., Schindler 1980, Nussbaum 1999, 2004, 2009, 2014ab, 2017b, Weiss 2006, 2013, Pinault 1987–88, 1998ab, 1999–2000, 2004, 2015, Balles 2006, 2009, Grestenberger 2014, 2017ab, etc.), so the examples in (1)–(2) should suffice for illustration.

- 1) \*(C)o-adjective  $\rightarrow$  \*(C)i-abstract (f.), ex. from Nussbaum 2017b: 588
  - a) Lat. ravus 'hoarse'  $\rightarrow$  ravis f. 'hoarseness'
  - b) PIE \* $h_2e\dot{k}$ - $r\acute{o}$  'high, sharp' (Gk. ἄκρος)  $\rightarrow$  \* $h_2\acute{o}/\acute{e}\acute{k}$ -ri f. 'height' (Gk. ἄκρις 'hilltop')

c) PIE \* $d^hub$ -ro- 'deep' (Toch. <sup>A</sup> $tp\ddot{a}r$ , <sup>B</sup>tapre)  $\rightarrow$  \* $d^hub$ -ri- 'depth' (OCS  $d\breve{u}br\breve{i}$  f. 'abyss')

- 2) \*(C)o-adjective  $\rightarrow$  \*(C)i- "individualization" (m./animate)
  - a) Av. tiyra- 'sharp'  $\rightarrow tigri$  m. 'arrow' (< \*'sharp one/thing')
  - b) Ved.  $j\bar{\imath}r\dot{a}$  'swift'  $\rightarrow j\bar{\imath}r\dot{\imath}$  m./f. 'running water, rapids'
  - c) PIE \* $h_2e\acute{k}$ - $r\acute{o}$  'high, sharp'  $\rightarrow$  \* $h_2\acute{o}/\acute{e}\acute{k}$ -ri- m. 'high one/thing' (Lat. ocris m. 'peak')

As for PIE \*-(o)n-, this individualizing suffix originally formed (masculine) animate substantives from thematic adjectives, most famously in Germanic where these become reanalyzed as weak adjectives (cf. Olsen 2006, Nussbaum 2014a), but also in many other Indo-European languages. Representative examples are given in (3).  $^{17}$ 

- 3) \*-(o)n-individualizations
  - a)  $*h_1 rud^h (r)\acute{o}$  'red'  $\rightarrow *h_1 rud^h on$  'red one' (Lat.  $R\bar{u}f\bar{o}(n-)$  'red one' via Sabellic; PGmc. \*raudan- 'red')
  - b) Lat. catus 'sly, sharp'  $\rightarrow Cat\bar{o}(n-)$  'sly one'

 $\overline{}^{17}$  On \*-(o)n- in Tocharian agent nouns and verbal governing compounds, cf. Pinault 2012 and Fellner 2014, 2018. On the Germanic n-stem inflection cf. Jasanoff 2002.

c) Gk. στραβός 'squinting'  $\rightarrow Στράβων$  'squinter'

At first glance, this suggests a derivational chain 1) \*-o-  $\rightarrow$  \*-i-, a substantivization with subsequent semantic bleaching and reanalysis of the derivative as adjectival and 2) re-substantivization by \*-n-. The problem is that this derivational chain does not account for the possessive semantics typical of Indo-Iranian in-stems. To illustrate this, consider the examples in (4).

- 4) a) PIIr. \* $\acute{a}\acute{c}\mu$ -a- 'horse'  $\rightarrow$  1. \* $\acute{a}\acute{c}\mu$ - $\acute{i}$  '?' 2.  $\rightarrow$  \* $\acute{a}\acute{c}\mu$ - $\acute{i}$ -n- 'having/with horses'
  - b) PIIr. \*par-ná- 'wing, feather'  $\rightarrow$  1. \*par-ní- '?'  $\rightarrow$  2. \*par-ní-n- 'having/with wings, feathers'

In (4), it is not clear what step 1 would contribute semantically, since the derivational basis is already a substantive, and there is no good reason to assume a "possessive \*-i-" here.<sup>18</sup> In fact, i- (and other) "substantivizations"

<sup>&</sup>lt;sup>18</sup> Or elsewhere, for that matter. Alleged cases of "possessive -i-" in Bahuvrīhis, for example (e.g., Lat. *somnus* 'sleep'  $\rightarrow$  *in-somnis* 'sleepless', Ved. *árdha*- m. 'half'  $\rightarrow$  *práty-ardhi*- 'possessing half of sth.; possessing equal parts', etc.) are better analyzed as originating as substantivizations of (internally derived) possessive adjectives, as discussed in the main text below (cf. also Grestenberger 2017a).

take precisely *adjectives* as their derivational basis, and many of the best examples are from primary, Caland-associated (change-of-state) adjectives. This suggests that the derivational chain in (4) lacks an intermediate, adjectival stage.

Fortunately, an intermediate derivational step with a possessive \* $\acute{o}$ suffix is unproblematic and independently available in the form of the
ubiquitous "τομός-type". As argued in, e.g., Schaffner 2001, Nussbaum 2017a,  $\acute{o}$ -adjectives with possessive, agentive, or patientive semantics could be
"internally derived" from (barytone) o-abstracts, illustrated in (5) with
examples from Nussbaum 2017a.

- 5) \* $R(\dot{o})$ -o-abstract  $\rightarrow$  \*R(o)- $\dot{o}$ -possessive/agentive/patientive adjective
  - a) PIE \*μόg<sup>h</sup>-o- 'conveyance, conveying' (Gk. ὄχος, OCS vozъ 'wagon')
     → \*μοg<sup>h</sup>-ó- 'conveyor, conveying' (Ved. vāhá-, Av. vāza- 'conveying; draft animal'<sup>19</sup>)
  - b) Gk. τόμος 'slice' (\*'(result of) cutting') → τομός 'cutting, sharp'
  - c) Ved.  $\dot{saka}$  m. 'strength'  $\rightarrow \dot{saka}$  'strong (one)'

The idea being that forms like  $*uog^h$ -o- originally meant 'with/having conveyance', and that the agentive and patientive uses attested in the daughter

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Indo-Iranian.

<sup>&</sup>lt;sup>19</sup> See also Hajnal 1994 and Tucker 2012 on the reflexes of these two types in

languages developed from this possessive meaning. For our purposes, this means that the derivational chain in (4) can be emended to the one in (6a):

- 6) a. PIIr. \*áću-a- 'horse' (Ved. áśva-)
  - → 1. \*(-)aću-á- 'with/having horses' (cf. Ved. vadhry-aśvá- 'with gelded horses')
  - $\rightarrow$  2. \*aćų-i- 'one with/who has horses'
  - → 3. \*aću-i-n- 'one who has horses (m.); with/having horses (adj.)' (Ved. aśvin-)
  - b. Ved.  $\dot{saka}$  m. 'strength'  $\rightarrow \dot{saka}$  'strong (one)'  $\rightarrow \dot{sakin}$  'strong one' (e.g. RV 5.52.17a  $\dot{sakinah}$  'the strong ones'); adj. 'strong'

While this chain is somewhat idealized, it must be emphasized that all the intermediate steps are independently attested, sometimes even synchronically (cf. 6b, with all steps except for the *i*-stem). Step 1 is the  $\tau \dot{o}\mu o \zeta \rightarrow \tau o \mu \dot{o} \zeta$ -type derivation outlined in (5). Admittedly, it is much easier to find examples in which the derivational base is a verbal abstract than a concrete noun (like 'horse' and 'feather'), but some examples do exist (Nussbaum 2017a: 239 cites Ved. *kárṇa*- 'ear': *karṇá*- 'with ears, -eared'), and possessive \*- $\dot{o}$ - also occurs in SMC of Bahuvrīhi compounds, usually with athematic bases as in  $\dot{a}n$ -udr-a- 'without water' (Gk.  $\ddot{a}vv\delta\rho o \zeta$ ) discussed in section 2.2.1 above, but also with thematic bases, synchronically often with "irregular" oxytonesis in the SMC of Bahuvrīhis, e.g., bahv-ann $\dot{a}$ - 'possessing much food' ( $\dot{a}nna$ - n.

'food'), a-phalá- 'without fruit' (phála- n. 'fruit'), tri-anīká- 'having three faces' (ánīka- n. 'face'), su-hiranyá- 'having good gold' (hiranya- m. 'gold'), PN vadhry-aśvá- 'with gelded horses' (áśva- m. 'horse'), etc., cf. AiG II,1: 293–300, Schaffner 2001: 338; Kim 2010: 135–7. Given that the SMC of possessive compounds are often semantically and morphologically equivalent to internally derived simplex possessive adjectives, it makes sense to interpret this "Bahuvrīhi oxytonesis" as diachronically equivalent to the derivation of possessive adjectives of the type śāka- m.  $\rightarrow śāká$ - adj., i.e., the "τομός-type" (see also Malzahn Fortcoming: 8 with references on the interpretation of such compounds as archaisms). Note also that in-stem SMC are quite productive already in the Rigveda, and probably started out as substantivizations of just such possessive \*- $\acute{o}$ -stem SMC.

Step 2, the \*i-substantivization of \* $\acute{o}$ -adjectives (possessive or not) has already been exemplified in (2) above, but it must be emphasized that this process is actually synchronically attested, albeit to a limited extent, e.g.,  $\acute{a}rdha$ - m. 'half'  $\rightarrow$   $pr\acute{a}ty$ -ardhi- 'possessing half of sth.; possessing equal parts',  $j\bar{i}r\acute{a}$ - 'swift'  $\rightarrow$   $j\bar{i}r\acute{i}$ - m./f. 'running water, rapids',  $(pura\dot{m}-)dar\acute{a}$ -'(fortress-)splitter'  $\rightarrow$  (go-)dari- '(cow[-out-of-the-rock]-)splitter', etc. (cf. Grestenberger 2014, 2017ab). Step 3 is not synchronically attested (except for a few cases like  $\acute{a}tithi$ - m. 'guest' vs.  $atith\acute{i}n$ - 'providing for guests', which are neither old nor very productive, cf. section 2.2.1 and fn. 8 above), but this is of course fully expected once we assume that the \*-i- of step 2 had become recharacterized and then reanalyzed as \*-in-. Moreover, synchronically

aberrant cases in which the base of an *in*-derivative is apparently an adjective rather than a substantive (e.g.,  $citr\acute{a}$ - a. 'bright, shiny'  $\rightarrow$   $citr\acute{in}$ -,  $-udr-\acute{a}$ - 'having/with water'  $\rightarrow$   $udr\acute{in}$ -, \* $\acute{s}va$ - $ghn-\acute{a}$ -  $\rightarrow$   $\acute{s}vaghn\acute{in}$ - 'dog-slayer',  $d\acute{a}\acute{s}agva$ -\*'having 10 cows' >  $da\acute{s}agv\acute{in}$ -) can now be understood as remnants of this derivational pattern, as can the columnal suffixal accent of - $\acute{in}$ -, which must have been inherited from the accent of the oxytone adjectival base. <sup>20</sup>

This analysis could explain why -in- did not become particularly productive in Avestan: Avestan has (relatively) many instances of denominal -  $a \rightarrow -i$  substantivization (cf. Grestenberger 2017b) of the type  $ti\gamma ra$ - 'sharp'  $\rightarrow tigri$ - m. 'arrow', <sup>21</sup> so maybe these stems did not "need" a synchronic

It must be emphasized again that this is not the only possible interpretation of these forms. Thus Alan Nussbaum has pointed out to me that in derivational pairs like  $\dot{saka}$ - 'might'  $\rightarrow \dot{sakin}$ - 'mighty', the *in*-derivative could have become secondarily associated with the corresponding adjective of the base, i.e.,  $\dot{saka}$ - 'mighty (one)'. This may then have resulted in a secondary association with *a*-adjectives that could have been extended to cases like *citrá*-  $\rightarrow$  *citrín*- and to Bahuvrīhis, resulting in "pleonastic -*in*-" (cf. fn. 4). Such an account would be compatible with an analysis that takes "vṛddhi -*i*-" as the original starting point of the -*a*-  $\rightarrow$  -*in*- pattern; see section 3.2 für further discussion.

<sup>&</sup>lt;sup>21</sup> At least more than one would expect coming from Vedic, though the semantic relationship is not always as clear as in this example.

recharacterization with \*-n-. It would also provide a diachronic explanation for the vrddhi of deverbal in-stems to anit-roots ending in a single consonant (i.e.,  $k\bar{a}rin$ -,  $sv\bar{a}nin$ -,  $v\bar{a}din$ -,  $ts\bar{a}rin$ -, etc.): This would then originally be due to the \*o-grade of the derivational base, i.e., a \*R(o)-o- verbal abstract and/or \*R(o)-o-verbal adjective of the  $\tau \dot{o} \mu o \varsigma \rightarrow \tau o \mu \dot{o} \varsigma$ -type. It makes more sense to treat this restriction with respect to root shape as a remnant of the denominal origin of these forms, since there is no verbal stem with historic \*o-grade that could convincingly be argued to be the basis of these in-stems, and a historic lengthened grade would not need to be restricted to certain root shapes in the way that lengthened grades caused by Brugmann's Law are.

Finally, this analysis goes some way towards explaining the semantic differences between -in- and the other possessive adjectival suffixes mentioned in the introduction, in particular the observations in AiG II,2: 333–5 and Tucker 2013 that -in- is more readily usable as a substantive and is preferred for characterizing animate beings. This function makes sense as a remnant of the original substantivizing function of the composite suffix, even though it was subsequently reanalyzed as adjectival (again, much like the Germanic weak adjectives in \*-on-; cf. also ex. (6b) above).

# 3.2. Outside of Indo-Iranian: plausible and less plausible connections

Before concluding, I briefly want to address possible alternative analyses and connections to other suffixes outside of Indo-Iranian. While these cannot be treated in detail here, I hope to resume their discussion in another place.

First of all, an analysis in which the -i- of -in- reflects a laryngeal, that is, an original suffix \*-H(-)n-, can be excluded, since the suffixal accent, the lack of any preference whatsoever of this suffix for set-roots, and the fact that the original derivational basis were \*o-stems are strong arguments against it. Moreover, the Iranian forms in -in- cannot be the result of laryngeal vocalization. Taken together, this excludes the possessive "Hoffmann-suffix" \*-Hon- $^{22}$  as underlying Indo-Iranian \*-in- on phonological and derivational grounds. $^{23}$ 

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The shape of the suffix is contested; \*- $h_3on$ - has been proposed based on the possible voicing of a preceding voiceless stop by the suffix-initial laryngeal (Hamp 1972). Pinault (2000) argues that the suffix was originally a root noun SMC of possessive compounds from the root \* $h_3en$  'enjoy, profit from'. Olsen (2010) also argues that the suffix originated as a root noun SMC, but proposes a root \* $h_3en(h_2)$  'take on a load, undertake a charge'. Weiss (2009: 310) reconstructs \*- $h_1on$ -, presumably based on Nussbaum (2004), who argues that the Hoffmann-suffix ultimately reflects a deinstrumental formation \*- $h_1$ -on-(athematic instrumental singular ending plus individualizing \*-(o)n-). I have no stake in this debate and therefore use \*-Hon- for now (see Olsen 2010: 87–92 and Pinault 2011 for a more detailed discussion of the different proposals).

23 Especially because the Hoffmann-suffix selects athematic bases already at the oldest stage—though not exclusively, cf., e.g., OAv.  $mq\theta r\bar{a}n$ - 'holder of  $mq\theta ra$ ' ( $mq\theta ra$ - 'sacred thought formula'), YAv.  $pu\theta r\bar{a}n$ - 'having sons'

An analysis that builds on "vṛddhi -i-" (cf. AiG II,2: 301–4) is likewise inadvisable, both formally and semantically. Although the base of vṛddhi -i- is usually thematic, like that of the *in*-stems,<sup>24</sup> semantically the latter are

(pu9ra- 'son'); note also the semantic similarity of the latter with Ved. putrin-. See Tucker 2013: 96–100 for an analysis of -in- as ultimately reflecting the Hoffmann-suffix.

<sup>24</sup> On possible evidence for vrddhi *i*-stems from athematic bases see Nussbaum 2009, and for a derivation of \*-i-n- from genitival \*-i- parallel to the *vṛkī*-type (e.g., *rathī*- 'charioteer') from \*-*i-H*- see Nussbaum 2014b: 8–9. As for the semantics of possessive vs. genitival formations, Alan Nussbaum (p.c.) has also pointed out that these are semantically close enough to be almost indistinguishable when the derivational basis is an abstract, cf. examples with genitival \*-ijo- such as, e.g., Av.  $x \check{s} a \theta r a$ - 'reign, rule'  $\rightarrow$ xšaθriia- 'ruler', Ved. v'apuṣ- 'beauty'  $\rightarrow vapuṣ̄₁ya$ - 'beautiful'; Gk.  $\~αθλον$ 'hard work'  $\rightarrow$  ἄθλιος 'miserable', ὅλβος 'prosperity'  $\rightarrow$  ὅλβιος 'prosperous', ἀλκή 'strength' → ἀλκαῖος 'strong' (compare the semantics of the latter two to Ved. dhána-  $\rightarrow$  dhanín- 'having riches' and śāka-  $\rightarrow$  śākín- 'mighty'). Moreover, \*-i-H- and \*-i-n- (accepting that both are originally composite suffixes, which most scholars would probably agree on) both attract the accent. This is probably a property of the derivational structure of these formations (i.e., both are secondary derivatives based on an underlying noun, hence, in formal terms, add a second nominal layer which causes reassignment possessive, while the vṛddhi -i-stems are patronymics (ágniveśi- '(descendant) of Agniveśa-') and/or appurtenance nouns (sấrathi- m. 'co-driver': sarátha-'on the same chariot', Av. māzdaiiasni- 'one of the Mazdayasnas': mazdaiiasna- 'Mazda-follower'). Moreover, the synchronic lengthening caused by vṛddhi -i- is not sensitive to root structure or the morphological structure of the base and always attracts the accent, very much unlike the instems. Although there may be evidence for patronymic/appurtenance -i-without vṛddhi (e.g., Av. zaraθuštri- 'follower of Zarathustra': zaraθuštra-) and although it is possible that patronymic/appurtenance \*-i- and substantivizing \*-i- ultimately go back to one and the same suffix at an early stage of Proto-Indo-European (cf. Grestenberger 2009: 17–9 with lit., 2014: 96), this is unlikely to be relevant at the stage at which the in-stems originated, i.e., Proto-Indo-Iranian.

of the accent) rather than a property of the suffix(es). As for the semantic overlap, the core function of -in- in both Vedic and Avestan (including the single exact correspondence) is possessive, which explains the functional overlap and eventual productivity with Bahuvrīhis. A development from an originally genitival category would have necessitated a massive semantic shift in the prehistory of (proto-)Indo-Iranian, and there is no evidence that the category as such is that old. See the main text for further arguments against this type of approach.

Finally, a complex, originally ablauting \*-i(-)on-/-i(-)en-/-i(-)n, as proposed by, e.g., Hoffmann & Forssman 2004: 146, Debrunner, AiG II,2: 349–50, can also be excluded as the origin of Indo-Iranian -in-. Most of the examples and possible parallels cited by the latter, such as kanıyā-/kanin-'girl', are now analyzed as containing the Hoffmann-suffix (see fn. 21 and 22). It has to be pointed out, however, that the reflexes of possessive \*-Hon- and individualizing \*-(o)n- are not always clearly formally distinguishable and/or have influenced each other in the individual branches (cf. Zucha 1989, Olsen 2006), and Nussbaum (2004) has argued that the two suffixes can ultimately be unified (cf. fn. 21 above). It is thus very likely that further derivational connections of the Indo-Iranian in-stems are waiting to be uncovered in other branches of Indo-European.<sup>25</sup>

## 4. in-Conclusion

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One such possible connection was pointed out to me by Birgit Olsen, namely the combination of the appurtenance/genitival suffix \*-(i)io- plus individualizing \*-(o)n-, as, for example, in Gk. οὐρανός 'heaven'  $\rightarrow$  οὐράνιος 'heavenly'  $\rightarrow$  οὐρανίων 'heavenly one; god'. The parallel is not exact, however, since there is a semantic difference (appurtenance vs. possessive semantics, but see fn. 23 above) and a formal difference (suffix of the derivational base), but it shows how "composite suffixes" with individualizing \*-(o)n- could and did arise independently in different IE daughter languages.

I have argued in this paper that even though -in- is restricted to Indo-Iranian (and became particularly productive in the Indic branch), its derivational behavior and "component parts" are squarely Indo-European, in the sense that they reflect inherited formal and functional properties that are independently attested in other Indo-European branches and in Indo-Iranian itself. I have argued that IIr. \*-in- consists of the individualizing suffix \*-i- that originally derived substantives from thematic adjectives, plus the zero grade of the individualizing suffix \*-(o)n- that was used to recharacterize the i-derivatives once their substantival use was no longer available. The characteristic possessive meaning of the in-stems originates in the adjectival, thematic bases that underly the i-substantivizations and that are independently known as " $to\mu\dot{o}\varsigma$ -type" adjectives.

More work on how these "component parts" developed in the individual branches is undoubtedly needed, especially as regards the different types of "individualizers" or "substantivizers" discussed in this article. I have no doubt that our honorand will continue this work.

#### **Abbreviations**

AiG II,1 = Wackernagel, Jacob. 1905. *Altindische Grammatik*, vol. II,1:

\*\*Einleitung zur Wortlehre, Nominalkomposition. Göttingen:

Vandenhoeck & Ruprecht.

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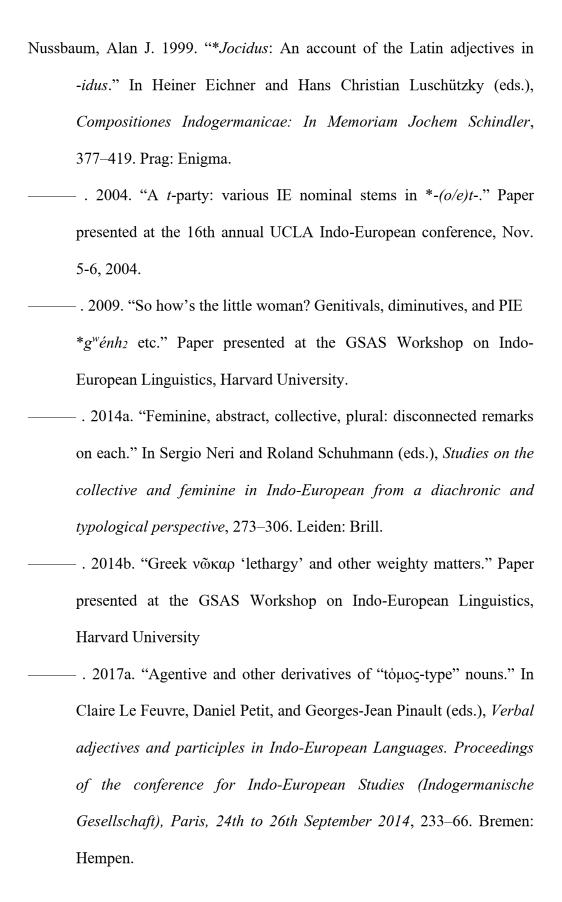
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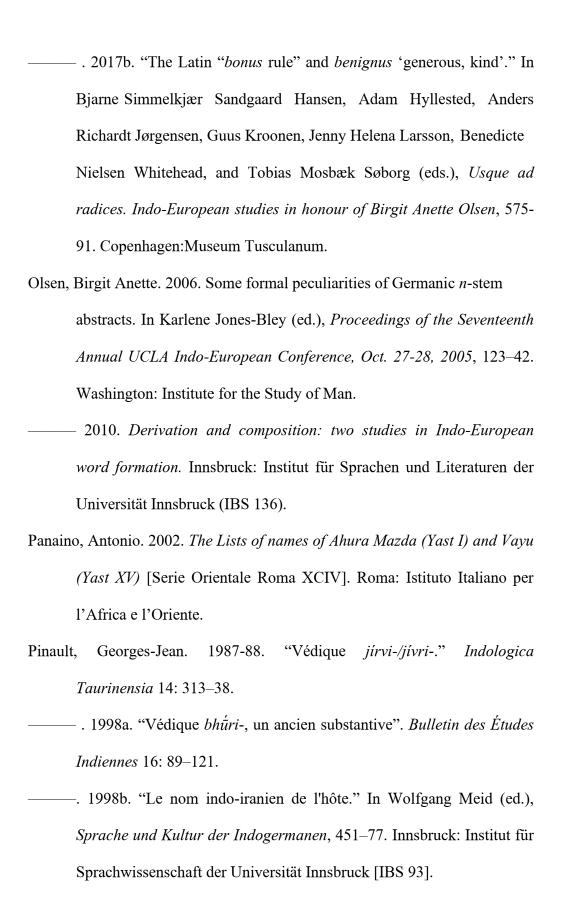
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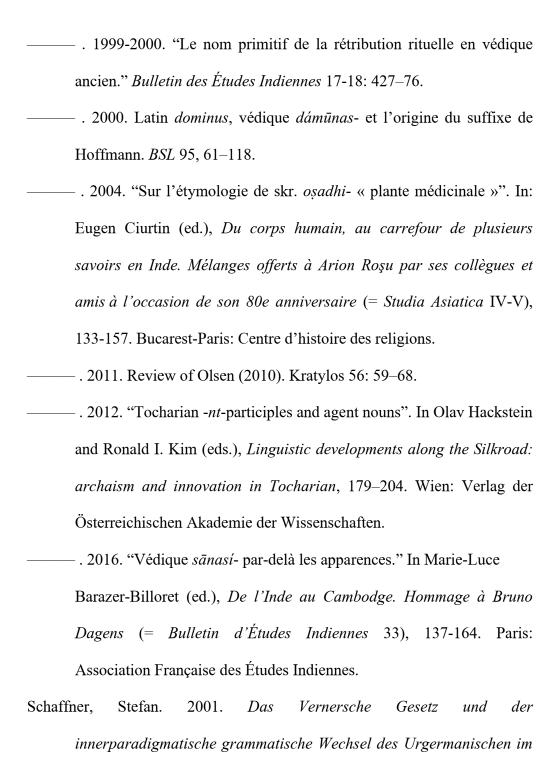
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