

THE LEXICALIZATION OF THE ADJECTIVE CLASS AS AN INNOVATIVE FEATURE IN THE INDO-EUROPEAN FAMILY

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ABSTRACT

The threefold division noun-verb-adjective is often considered a hallmark of the IE family from the remote PIE phase. However, Alfieri (2016, 2018, forth.) claims that this view is incorrect: while in Latin three major classes of lexemes are found (nouns, verbs and adjectives), in the Sanskrit language of the Rig Veda only two major classes are found (verbal roots and nouns) and the most typical “adjective” (i.e. the Quality Modifier) is a derived stem built on a verbal root meaning a quality. As a consequence, a deep and previously neglected typological change should be reconstructed in the IE family, namely the lexicalization of the adjective class and the change from a parts of speech (PoS) system “without” adjectives and quality concepts verbally encoded, which is still preserved in the RV, to a PoS system with “true” adjectives, which is found in Latin and in almost all other, especially modern and Western, IE languages. In this case, the data in Alfieri (2016, 2018, forth.) are confirmed focusing on the Quality Argument and the Quality Predicate, so as to show that the presence of a lexical class of adjectives is a common development that has come about independently in different branches of the IE family.

KEYWORDS: Typology; Indo-European linguistics; Root; Parts of Speech.

1. Introduction¹

We are all used to believing that the threefold division between nouns, verbs and adjectives is a hallmark of the Indo-European family from its first origin

¹ Abbreviations: ABL: ablative, ACC: accusative, Agr: agreement, ADJ: adjectivalizer, AFF: affix, AUM: augment, COMP: comparative, SBJ: subjunctive, GEN: genitive, DAT: dative, DU: dual, F: feminine, (P)IE: (Proto-)Indo-European, INJ: injunctive, M: masculine, MD: middle, NM: nominalizer, NOM: nominative, NT: neuter, Pers: person, PF: perfect, PL: plural, PoS: parts of speech, PRE: preverb, PRS: present, PTC: participle, SG: singular, INS: instrumental, SUP: superlative, VOC: vocative.

in PIE. As a consequence, the PoS systems in Latin and in Sanskrit are often considered to be almost identical, the two languages being closely related. In both cases, three major word classes are found: nouns, verbs and adjectives or, to be exact, noun stems, verb stems and adjective stems.² The three classes are defined through the same features in both languages: case, number and gender for the noun; person, tense and aspect for the verb; agreement and comparison for the adjective. Sanskrit adjectives are not as sharply distinguished from nouns as Latin adjectives, since quite a few Sanskrit nouns agree and can be compared, just like some verbal roots, pronominal stems and prepositions.³ However, there is little doubt among specialists that the parts of speech systems in Latin and in Sanskrit are almost identical, bar a few marginal factors.

An important corollary of this view is that Sanskrit simple verb stems can be termed as *roots* as a homage to the Indian native grammarians (Skt. *d^hātu-* ‘base, fundament’), but in fact there is no structural functional difference between the verbal root and the simple verb stem, both units being defined by the same features that define Latin verb stems (person, tense and aspect) and, what is more important, by the same category status that defines all verb stems across languages (that is, their being verbs as opposed to both nouns and adjectives, whatever the exact meaning of these labels may be at a cross-linguistic level).

Both views have been countered by Alfieri (2016, 2018, forth.). The identity of the Latin and Sanskrit PoS systems descend from a traditional, inflectional definition of PoS. If PoS are universally defined mirroring their

² The categorization of stems is more specific than the categorization of the word-forms built on those stems, but it is not different. In Latin, the word-form *amā-mus* ‘we love’ and the stem *amā-* ‘to love’ are defined through the same features, but they show different values for each feature: no specified value for *amā-* vs. 1pl.pres.act. for *amā-mus* (Ramat 1999, 2014). The idea that Latin has three PoS comes from the Middle Ages and has been universally accepted since the 16th century, but it is not shared by Latin native grammarians (Alfieri 2014). The PoS theory developed by the Indian indigenous grammarians is quite different from that proposed by Latin grammarians and discussed here. However, the Indian indigenous theory of grammar cannot be discussed here for the sake of space; but see Alfieri (2013) for a discussion and here fn. 35 for references.

³ See Whitney (2000 [1879¹]: 111), Delbrück (1888: 188f.), Speyer (1974 [1896¹]: 2; 1998 [1886¹]: 179), Wakernagel (1905: 1), MacDonell (1975 [1910¹]: 178), Renou (1952: 338; 1965: 231) and Morgenroth (1977: 65). Radicalizing such a view – or, at least, following the similar claim in Indian native grammar (see Alfieri 2009: 10ff, 2014b: 64ff.) – Joshi (1967) and Bhat (1994, 2000) claimed that Sanskrit adjectives are completely merged with nouns: however, their claim is excessive philologically and ill-advised typologically (Alfieri 2016: 141ff., 153ff.).

definition in Latin – that is, roughly speaking: the noun as the class of items with case, the adjective as the class of items with agreement, and the verb as the class of items with person –⁴ then the PoS systems in Latin and Sanskrit really seem identical, both languages showing the same three classes and defining each class through broadly the same features. However, it is well known that languages cannot be compared starting from language-specific classes defined formally. Rather, any comparison between two languages, be they related or not, must begin from the so-called *comparative concepts*, that is language-external, universal concepts defined on a conceptual map.⁵ In this case, the map combines a semantic concept (Object, Quality, Action) and a discourse-pragmatic function (Argument, Modifier, Predicate). See Table 1 (Croft 2001: 92 slightly modified).

Table 1. The comparative concepts of PoS.

	Argument	Modifier	Predicate
Object	Object Argument	Object Modifier	Object Predicate
Quality	Quality Argument	Quality Modifier	Quality Predicate
Action	Action Argument	Action Modifier	Action Predicate

The Object Argument is the NOUN, the Quality Modifier is the ADJECTIVE and the Action Predicate is the VERB. These categories are termed “unmarked correlations” and are not the formal categories of any language; rather, they are the zones of conceptual space whose encoding in a single language is the subject of the typology. The aim of the typology, therefore, is to establish how these zones of space are coded in single languages.

However, in order to reach this goal two meanings of the traditional notion of PoS must be distinguished: PoS-constructions and PoS-lexemes. PoS-constructions are the constructions that code the slots in Table 1. Constructions can be of different types across languages. However, in inflectional IE languages, the typical constructions that code the slots in Table 1 are words delimited by endings: in IE languages, therefore, PoS-constructions are simply PoS-words or, in traditional terms, word-classes. PoS-lexemes are

⁴ Here “case” is meant as a summary label that stands for case, number and gender. Similarly, in the following, “agreement” sums up gender, number, case and agreement, and “person” sums up person, tense, etc.

⁵ See the monographic issue 20(2) of *Linguistic Typology* (2016) entirely devoted to the “comparative concept debate” and the anthology in Alfieri et al. (forth.).

classes of the simple lexemes (or of the lexical morphemes) that enter the words/constructions that code the slots in Tab. 1.⁶ The difference between PoS-constructions and PoS-lexemes appears clearly if the *nomina actionis* of the IE languages are considered: Skt. *vard^h-ana-* ‘growing’ (from *vard^h-* ‘to grow’) is a noun in its word class, but it is a verb or a verbal root in its lexeme class.

If the encoding of the unmarked correlations in Tab. 1 is analysed dividing PoS-words and PoS-lexemes, the difference between the PoS systems in Latin and in the RV clearly comes out. In Latin, the most typical construction coding the NOUN is a simple noun stem marked by case (i.e. [noun]-Case, ex. 1), the most typical construction coding the VERB is a simple verbal lexeme marked by person (i.e. [verb]-Pers, ex. 2) and the most typical construction coding the ADJECTIVE is a simple adjectival lexeme marked by agreement (i.e. [adjective]-Agr, ex. 3).

- (1) **arm-a** **viru-m=que** can-o
 weapon(NT)-ACC.PL man(M)-ACC.SG=and sing-PRS.1SG
 ‘I sing the weapons and the man.’ (*Aen.* I.1)
- (2) tibi ne **tener-as** glacie-s sec-e-t
 you.DAT not soft-ACC.F.PL ice(F)-NOM.SG cut-SBJ-3SG
 asper-a planta-s
 rough-F.NOM.SG palm(F)-ACC.PL
 ‘Ah, might the jagged ice not cut your tender feet.’ (*Ec.* X.49)
- (3) nos patri-ae finis
 we.NOM homeland(F)-GEN.SG border(M)-ACC.PL
 et dolci-a linqui-mus arva;
 and sweet-ACC.NT.PL leave-PRS.1PL field(NT)-ACC.PL
 nos patri-am **fugi-mus**
 we.NOM homeland(F)-ACC.SG escape-PRS.1PL
 ‘we leave the borders of our homeland and the sweet fields, we escape from our homeland’ (*Ec.* I.2)

If these constructions are mapped onto Table 1, Table 2 is obtained.

⁶ For a discussion on terminology, see Alfieri (2016: 138, fn. 28) and Alfieri (forth.).

Table 2. Latin constructions table (only unmarked correlations are reported).

	Argument	Modifier	Predicate
Object	[noun]-Case	–	–
Quality	–	[adjective]-Agr	–
Action	–	–	[verb]-Pers

If Table 3 is projected orthogonally dividing the lexeme and the word layer, the PoS system in Latin is obtained (Table 3).

Table 3. Latin PoS table (only primary categorization is reported; the arrows refer to grammatical processing).

	Noun	Adjective	Verb
Phrase			
Derived stem			
Simple stem	[noun]-Case	[adjective]-Agr	[verb]-Pers
Lexeme	↑ noun	↑ adjective	↑ verb

In the RV the situation is different, but the difference is not immediately evident. Also in the RV, the most typical NOUN is [noun]-Case (ex. 4).⁷ However, the most typical VERB differs in the two languages. While in Latin it is a simple verb stem marked by person (i.e. [verb]-Pers), in Sanskrit it is a verbal root marked by an affix and person (i.e. [root]-AFF-Pers, ex. 5).⁸

- (4) pác-ya-te **yava-ḥ**
 cook-PRS4-3PL corn(M)-NOM.SG
 ‘the corn ripens’ (1.135.8^d)

⁷ In Sanskrit, derived nouns are more frequent than in Latin, but in both cases derived nouns are not the most frequent construction that codes the Object Argument function (see Alfieri 2016: 143).

⁸ Aronoff’s analysis of Latin verb inflection (1994: 33ff., 39ff., 45ff.) cannot be applied to Sanskrit, since the stem vowel is not a frozen item in Sanskrit and the input form for Sanskrit word-formation is the stem without its stem vowel (i.e. the bare root). See Alfieri (2016: 144, fn. 40) for discussion.

- (5) **táp-a-nti** **śátru-m̄**
 make_hot-PRS1-3PL enemy(M)-ACC.SG
 svàr ṇá b^húmā
 sun(M).NOM.SG as earth(NT).ACC.SG

‘[the Gods] burn the enemy, as the sun [burns] the earth’ (7.34.19^a)

Since the encoding of the ADJECTIVE was the controversial point, a sample of 51 hymns of the RV was collected, all the 892 Adjective constructions in the sample were gathered and a frequency count was made. Contrary to expectations, the most typical Adjective construction in the sample (425 cases, 47.6%), is not a simple adjective, but rather a derived adjective built on verbal root of quality or near-quality meaning joined to a nominalizer or a participial suffix (i.e. a primary, *kṛt* suffix in Indian terms). This construction can be schematized as [root]-NM-Agr (ex. 6–7).⁹

- (6) **kṛṣṇád^hvā** **táp-ū** **raṇ-vá-ś**
 black_path.M.NOM.SG be_hot-NM.M.NOM.SG rejoice-NM-M.NOM.SG
 ci~ket-a dyaú-r iva smáya-mān-o
 PF~brighten-3SG sky(M)-NOM.SG as laugh-PTC-M.NOM.SG
 ná^ho-b^hiḥ
 cloud(NT)-INS.PL

‘[Agni], of the black paths, hot and pleasant, brightens as the sky laughing within the clouds’ (2.4.6^{cd})

- (7) **prá nāka-m** **ṛṣ-vá-ṃ**
 away firmament(M)-ACC.SG push-NM-ACC.M.SG
 nu~nund-e bṛh-ant-aṃ
 PF~elevate-3SG make_big-PTC-ACC.M.SG

‘[Varuṇa] pushed away the high lofty firmament’ (7.86.1^c)

⁹ *Kṛt* suffixes are glossed as NM since their most typical function is that of building nouns from verbal roots, although they can also build participles and derived adjectives, which are often considered as a special type of agent noun built on roots with stative meaning. See MacDonell (1975: 113) on the *-as-* suffix, Alfieri (2009: 34, fn. 62) on *kṛt* suffixes in general, and Panagl (1982, 1987, 2006) on the similar productivity of participial suffixes and of the other nominalizers in the RV.

The construction in ex. 6–7 is not the only Adjective construction in the RV. However, the second most frequent construction that codes the Adjective function in the sample is a *bahuvrīhi* compound, i.e. [...]N-[...]N-Agr (184 cases, 20.6%, e.g. *kavi-kratu-h* ‘with poet’s purpose’ in RV 1.1.5^a); the third is a noun joined to a prefix such as *su-*, *dus-*, etc., i.e. Pre-[...]N-Agr (133 cases, 14.9%, e.g. *su-dyót-māna-h* ‘of good brilliance’ in RV 8.48.4^b); the fourth is a noun joined to one of the secondary *tadd^hita* suffixes, i.e. [...]N-ADJ-Agr (94 cases, 10.5%, e.g. *pitr-īya-h* in RV 8.48.7^b).¹⁰ Only the fifth most frequent construction is a simple adjective stem marked by agreement, i.e. [adjective]-Agr (56 cases, 6.3%, e.g. *énī-h* ‘colourful (f.)’ in RV 10.87.7^d). If the most typical constructions that code each slot are mapped onto Table 1, Table 4 is obtained.

Table 4. RV construction table.

	Argument	Modifier	Predicate
Object	[noun]-Case	–	–
Quality	–	[root-NM]-Agr	–
Action	–	–	[root-AFF]-Pers

If Table 4 is projected orthogonally, dividing PoS-constructions and PoS-lexemes, the PoS system in RV Sanskrit is obtained and its difference with the PoS in Latin clearly emerges (Table 5).

Table 5. RV PoS table (the arrow signalling the processing of derived nouns is dotted, since it does not represent the most common strategy for coding the Noun).

	Noun	Adjective	Verb
Phrase			
Derived stem	[root-NM]-Case	[root-NM]-Agr	[root-AFF]-Pers
Simple stem	noun-Case		
Lexeme	noun	root	

¹⁰ *Tadd^hita* suffixes are glossed as ADJ, since their typical function is that of building relational adjectives from nouns, although they can also build diminutive or other types of nouns (see Alfieri 2016: 148 fn. 50 and 154ff.).

In sum, if the method for PoS definition proposed and the data shown are accepted, one should conclude that, unlike from what has always been claimed by specialists in IE linguistics and Sanskrit philology, while in Latin three major classes of lexemes can be defined: nouns, verbs and adjectives, in the RV only two major classes of lexemes are attested: verbal roots and nouns. Schematically: [N, A, V] vs. [N (AV)].¹¹ However, before accepting such a view, the encoding of the Quality Argument and the Quality Predicate shall be checked, so to verify that quality concepts are indeed coded verbally in all the relevant slots of Table 1.

2. Latin

In Latin, the most typical Object Modifier is a noun lexeme in the genitive case (i.e. [noun]-Gen, ex. 8); the most typical Object Predicate is a nominal predicate that is, a simple noun stem in the nominative case with or without the copula (i.e. [noun]-Nom (+ COP), ex. 9); the most typical Quality Argument is an adjectival stem marked by a nominalizing affix and case (i.e. [adjective]-NM-Case, ex. 10); the most typical Quality Predicate is an adjectival predicate – that is, a simple adjective stem marked by agreement with or without the copula (i.e. [adjective]-Agr (+ COP), ex. 11); the most typical Action Argument is a simple verb stem joined to a nominalizing affix marked by case (i.e. [verb]-NM-Case, ex. 12); the most typical Action Modifier is a participle – that is, a simple verb stem marked by an adjectivalizing affix and agreement (i.e. [verb]-NM-Agr, ex. 13).

- (8) Aenead-um genetrix,
 sons_of-aeneas-GEN.M.PL parent(F).NOM.SG
- homin-um**=que **divo-m**=que voluptas,
 man(M)-GEN.PL=AND god(M)-GEN.PL=and delight(F).NOM.SG
- alma Venus...
 dear.NOM.F.SG venus(F).NOM.SG
- ‘Mother of Rome [sc. of the sons of Aeneas], delight of Gods and men, dear Venus...’ (Lucr., *De rer. nat.*, 1.1)

¹¹ The schema [N (AV)] is the result of an oversimplification (Alfieri 2016: 151ff.). In the RV 38 primary adjectives are found (4% of the whole lexicon), which in most cases are etymologically derived from verbal roots. For an analysis of all the primary adjectives in the RV, see Alfieri (2016: 153ff.).

- (9) est enim mundu-s quasi commun-is
 be.PRS3SG really world(M)-NOM.SG almost common-NOM.M.SG
 deo-rum atque homino-rum **domu-s**
 god(M)-GEN.PL and man(M)-GEN.PL house(F)-NOM.SG
aut urbs utro-rum=que
 or city(F)-NOM.SG both-GEN.M.PL=and
 ‘For the world was as it were the common dwelling-place of Gods
 and men, or the city that belongs to both’ (Cic., *De nat. de.*, 2.154)
- (10) quanta illa, dii
 so_much.NOM.F.SG that.ABL.F.SG god(M).NOM.PL
 immortal-es, fu-it gravi-tas,
 inmortal-NOM.M.PL be.PF-3SG heavy-NM.F.NOM.SG
 quanta in oratione maiestas!¹²
 so_much.NOM.F.SG in speech(F).ABL.SG majesty(F).NOM.SG
 ‘what weight and majesty there was in his [sc. of Scipio] speech on
 that occasion’ (Cic., *Lael.* 25.96)
- (11) si fuerit **sanu-s**, coccin-a
 if be.PF.SBJ.3SG sound-NOM.M.SG scarlet_coverlet(NT)-NOM.PL
 quid facient?
 what.ACC.NT.SG do.SBJ.3SG
 ‘If he were well, of what use would be these scarlet coverlets’ (Mart.,
Ep. 2.16)
- (12) nihil aeque sanitat-em impedi-t,
 nothing.NOM.NT.SG as_much healing(F)-ACC.SG prevent-PRS.3SG
 quam crebr-a remedio-rum
 as continuous-NOM.F.SG cure(NT)-GEN.PL

¹² The noun *maiestas* ‘majesty’ has the same structure as *gravitas* etymologically, since it is derived from the adjective *maius* ‘major’, with the *e*-grade of the suffix, attached to the suffix *-tat-*: **mai-es-tat-*. However, the morphological rules needed to produce *majestas* and the ablaut of the suffix **-e/os-* were productive in the pre-history of Latin, but ceased their productivity before the 1st century B.C. When Cicero wrote his *De amicitia*, therefore, the abstract noun *maiestas* was a lexicalized item stored in the lexicon as a non-compositional whole.

muta-tio

change-NM.F.NOM.SG

‘nothing hinders a cure so much as frequent change of medicine’
(Sen., *Ep.* 2.3)

- (13) qu-i magis lice-t **curr-ent-es**
 who-NOM.M.SG more be_allowed-PRS.3SG run-PTC-ACC.M.PL
- servo-s scribe-re?
 slay(M)-ACC.PL write-INF

‘Who is more allowed to represent hurrying servants’ (Ter., *Eun.*, 36)

If the constructions above are mapped onto Table 2, Table 6 is obtained.

Table 6. Latin constructions table.

	Argument	Modifier	Predicate
Object	[noun]-Case	[noun]-Gen	[noun]-Nom (+ COP)
Quality	[adjective]-NM-Case	[adjective]-Agr	[adjective]-Nom (+ COP)
Action	[Verb]-NM-Case	[Verb]-ADJ-Agr	[verb]-Pers

Table 6 confirms the expectations. Quality meanings are typically coded through constructions that are built on a primary adjective stem in all three relevant slots in the table. We can therefore confirm that in Latin three classes of simple lexemes are needed to produce all the constructions in Table 5. This PoS system or, more precisely, this type of lexical inventory can therefore be usefully summed up as [N, A, V].

3. The language of the Rig-Veda Saṃhitā

The difference between Latin and RV Sanskrit does not concern all the constructions in Table 4. In Sanskrit too, the most typical Object Modifier is a noun in the genitive case (i.e. [noun]-Gen, ex. 14); the most typical Object Predicate is a nominal predicate – that is, a simple noun stem in the nomina-

tive with or without the copula (i.e. [noun]-Nom (+ COP), ex. 15);¹³ the most typical Action Argument is a simple verb stem joined to a nominalizing affix marked by case (i.e. [verb]-NM-Case, ex. 16); and the most typical Action Modifier is a participle – that is, a simple verb stem marked by a nominalizing affix and agreement (i.e. [verb]-NM-Agr, ex. 17).

- (14) *tuvām hí nas tanuv-áh, Soma,*
 you.NOM.SG indeed we.GEN.PL body(F)-GEN.SG soma(M).VOC.SG
gopā gātre-gātre
 protector.NOM.M.SG limb(NT).LOC.SG-limb(NT).LOC.SG
ni-ṣa-sát-t^hā nṛ-cákṣāḥ
 PREV-PF-set-PF.2SG man-eye.NOM.M.SG

‘For, as protector of our body, Soma, you have been settled down in every limb, having your eyes on men’ (8.48.9^a)

- (15) *strī hí brahmā ba-b^hūvi-t^ha*
 woman(F).NOM.SG then brahman(M).NOM.SG PF-be-PF.2SG
 ‘then you, brahman, became a woman’ (8.33.9^d)

- (16) *sá á gam-a-d índro yó*
 3SG.M PTCL go-SBJ-3SG indra(M).NOM.SG who.NOM.M.SG
vásūnām cí-ket-a dá-tu-m
 good(NT).GEN.PL PF-be_attentive-PF.3SG give-NM-ACC.F.SG
dā-man-o rayīṅām
 give-NM-GEN.NT.SG rich(F).GEN.PL

‘He will come here – Indra, who will be attentive to the giving of the gift of goods and riches’ (5.36.1)

¹³ The copula is optional in Sanskrit (Gren-Eklund 1978: 15ff., Breunis 1990: 8ff., 43ff.), but is more frequently absent in the 3rd singular of the present indicative, especially in negative sentences (see already Delbück 1888: 6ff., Meillet 1906–08: 3; Bloch 1906–08: 49). Despite Stassen’s claim (1997: 63ff., 98f.), the difference between *as-* ‘to be’ and *b^hū-* ‘to be, become’ depends on the different actionality of the two roots but has nothing to do with the contrast between adnominal and adjectival copula, just as the root *as-* ‘to be’ has no pronominal origin (see PIE **h₁es-* ‘to be’).

- (17) \acute{a} kṛṣṇéna rájas-ā **várt-aman-o**
 ADV black.NT.STR.SG space(NT)-INS.SG roll-PTC-M.NOM.SG
 [...] Savitá [...] yā-ti
 [...] Savitar.M-NOM.SG go-PRS2.3SG

‘Savitar comes rolling hither through the dark space’ (1.35.2^a)

In sum, bar the Action Predicate, all the slots on the Object and the Action rows are similarly coded in Latin and in the RV. However, the situation is more complex in the Quality row.

3.1. The Quality Argument

We have already seen that the Quality Modifier construction is coded differently in Latin and in the RV. A similar difference can therefore be expected in the Quality Argument and the Quality Predicate slots. In order to verify such a claim, the sample in Alfieri (2016) was taken, all the constructions coding the Quality Argument and the Quality Predicate were gathered and a frequency count was made.¹⁴

A total of 517 Quality Arguments is found in the sample and they are divided as follows. The most typical construction that codes the Quality Argument is a root joined to a nominalizer of the *kṛt* type, namely [root-NM]-Case, which is perfectly parallel to the construction used in the Quality Argument function.¹⁵ This construction is attested in 400 cases (77.4%, ex. 18–19).

- (18) $sá$ jā-ya-se mat^h-yá-māna-ḥ
 as_ such be_ born-PRS4-2SG.MD churn-PASS-PTC.MD-NOM.M.SG
sáh-o mah-á-t tuvám
 be_ able-NM.ACC.NT.SG be_ big-NM-ACC.NT.SG you.ACC.SG

¹⁴ The sample includes 51 hymns, namely: book 1: 1, 35, 61, 85, 135, 154, 160; book 2: 2, 4, 12, 24, 33, 35; book 3: 7, 49, 59; book 4: 49, 50, 51; book 5: 36, 83; book 6: 5, 16, 47, 54; book 7: 49, 55, 61, 63, 70, 71, 86, 103; book 8: 2, 4, 29, 33, 48; book 9: 1, 2; book 10: 14, 15, 30, 34, 87, 90, 127, 129, 130, 135, 168.

¹⁵ As we have already implied (see fn. 9), participles and derived nouns are hardly distinguishable in the RV. As a confirmation, see also Renou (1965: 231): “On discute sur la question de savoir si tel mot est adjectif ou substantif, nom d’agent ou nom d’action: la décision est souvent arbitraire”.

āh-uḥ sáh-as-as putráṃ Aṅgira-ḥ
 say-PF3PL be_able-NM-GEN.NT.SG son(M)-ACC.SG aṅgira(M)-VOC.PL

‘[Agni] being churned [in wood], you are born to great strength. You they call the child of strength, o Aṅgiras’ (5.11.6^e)

(19) yásya **śúṣ-mād** ródasī
 who.GEN.M.SG destroy-NM.M.ABL.SG world(F).DU.NOM

á-b^hyas-etām ṅṛ-mṇásya **mahná**
 PST-fear-OPT.3DU man-mind.M.GEN.SG be_big-NM.NT.INS.SG

sá janās-a índraḥ
 3SG.M.NOM people(M)-VOC.PL Indra(M).NOM.SG

‘before whose explosiveness, the two world halves trembled in fear, because of the greatness of his manliness – he, o people, is Indra’ (2.12.2^{cd})

Under the schema [root-NM]-Case two slightly different constructions are hidden. The stems *sáh-as-* ‘strength’, *śúṣ-ma-* ‘explosiveness’ and *mah-ná-* ‘greatness’ are preferentially used as nouns in the RV: [root-NM]_N-Case. However, derived stems with primarily adjectival meaning can enter the same construction [root-NM]_A-Case with no formal difference (ex. 20).¹⁶

(20) gó-mātar-o yác c^{hub}^h-áya-nte
 cow-mother-NOM.M.SG when be_beautiful-PRS10-3PL

añjí-b^his tanúṣu **śub^h-rá**
 unguent(M)-INS.PL body(M).LOC.PL be_beautiful-NM.M.NOM.SG

da-d^hi-re **vi-rúk-mat-aḥ**
 PF-put-PF.3PL PRE-shine-NM-M.ACC.PL

‘when those whose mother is a cow [sc. the Maruts] beautify themselves with unguents, the beautiful ones put radiant ornaments on their body’ (1.85.3^{ab})

¹⁶ Gren-Eklund (1978: 38): “Some types of nominal words necessarily function as name of things and concepts [...], but every word with any potential qualification force can be translated either as an adjective or as a substantivized adjective”. Note that if substantivized adjectives were excluded, the percentages of the different constructions would remain almost unchanged, the only exception being discussed in fn. 17.

This construction is often defined “substantivized adjective” in classical grammars and “syntactic conversion” or “zero-marked trans-categorization” in functional-typological works. However, from a purely functional point of view, a substantivized adjective may be the result of a syntactic conversion of an adjective into a substantive, but it can also be the result of the neutralization of the difference between [...]–Case and [...]–Agr in certain syntactic environments, such as all the Argument slots in Table 1, where agreement is not a pertinent feature and also adjectives are marked only through case. As a confirmation, cases that are intermediate between an abstract noun of quality meaning and a substantivized adjective can be found easily (ex. 21).

- (21) tá ukṣ-itāso **mahi-māna-m**
 3PL.M.NOM grow-NM.M.NOM.SG be_big-MN-NOM.M.PL
 āś-ata
 PST.get-AOR.3PL
 ‘once grown, they [the Maruts] attained greatness [lit. ‘what is great’]’ (1.85.2^a)

Clearly, the derived noun is not the only construction that codes the Quality Argument function. The second most frequent construction that codes this function is a noun with an adjectivalizing affix of the *tadd^hita* type marked by case: [...]–ADJ–Case (41 cases, 9.1%). The stem attached to the adjectivalizer can be a simple noun (37 cases, 6.6%, ex. 22) or a root already nominalized with a *kṛt* suffix (13 cases, 2.5%, ex. 23).

- (22) sá íd rájā prátijan-yāni
 3SG.M.NOM indeed king(M)-NOM.SG opponent-ADJ.NT.ACC.PL
 víśvā śuṣ-meṇa ta-st^hāv
 all.NT.ACC.PL destroy-NM.M.INS.SG PF-stay.PF.3PL
 ab^hí **vīr-īyeṇa**
 over hero-ADJ.NT.INS.SG
 ‘Only that king surmounts all the (forces) belonging to his opponents through his tempestuousness and heroism’ (4.50.7^{ab})

- (23) víśvaṃ **s-at-yá-m** mag^havānā
 all.NT.NOM.SG be-NM-ADJ-NT.NOM.SG generous.M.VOC.DU

yuvór íd
you.GEN.DU this(NT).NOM.SG

‘All that is real belongs to you, o generous ones [sc. Indra and Bṛhaspati]’ (4.50.7^{ab})

The third most frequent Quality Argument is an adjective marked by case: [adjective]-Case. This construction is found in 25 instances (4.8%), but is found almost exclusively with the substantivized adjective construction (ex. 24).¹⁷

- (24) ní-up-tās ca **bab^hrávo** vāc-am
pre-scatter-NM.M.INS.SG and brown(M).NOM.PL voice(F).ACC.SG
á-kr-ataṁ é-míd eṣāṁ
PST-do-AOR.3PL go-PRS2.1SG.indeed this.M.GEN.PL
niṣkṛtá-m jāriṇīva
fixed_place(NT).ACC.SG enamoured_girl(F).NOM.SG.AS

‘As soon as, scattered down, the brown (dices) have raised their voice, I just go to their appointed place, I go to their appointed lace, as a girl with a lover’ (10.34.5^{cd})

The fourth most frequent construction is a primary noun marked by case, namely [noun]-Case. This construction is attested in 24 cases (4.6% of the sample, ex. 25).

- (25) á krand-aya **bála-m** ójo
ADV sound-PRS1.IPT.2SG power(NT)-SG.ACC grow-NM.NT.ACC.SG
na á dhā
1.DAT.PL ADV set.AOR.INJ.2SG

‘roar out your power, set strength in us’ (6.47.30^a)

The fifth most frequent construction is a compound (i.e. [...]N-[...]N-Case, 21 cases, 4.1%). The head of the compound can be a root nominalized with a

¹⁷ This is the only construction that shows a different frequency if substantivized adjectives are excluded. If only abstract nouns of quality meaning were counted, the [noun]-Case construction would become the third most frequent construction, the [root]-NM-ADJ-Case would become the fourth (e.g. *satyám* ‘truth’ in 2.124.12^a, 13 cases, 4.5%), and the [adjective]-Case construction would be reduced to only 2 cases similar to ex. 21.

kṛt suffix (i.e. [...]N-[root-NM]N-Case, 13 cases, 2.5%, ex. 26), a simple noun (i.e. [...]N-[noun]N-Case, 8 cases, 1.6%, ex. 27), or a simple noun joined to an adjectivalizing suffix (i.e. [...]N-[noun-ADJ]N-Case, 1 case, 0.2%, ex. 28).

- (26) yó yaj-ñó viśvá-tas tántu-b^his
 who.M.NOM.SG sacrifice-NM.M.NOM.SG all(NT)-ADV thread(M)-INS.PL
 ta-tá éka-śataṃ **deva-karméb^hir**
 extend-PTC-M.NOM.SG one-hundred god-ACTION.M.INS.PL
 áya-taḥ
 stretch-PTC.M.NOM.SG

‘The sacrifice, which is extended in every direction by its wrap threads and stretched out by a hundred and one acts of the Gods...’ (10.130.1^{ab})

- (27) yáḥ soma-pá ni-ci-tó
 who.M.NOM.SG soma-drink.M.NOM.SG in-observe-PTC.M.NOM.SG
vájra-bāhu-r yó **vájra-hasta-ḥ**
 mace-arm-M.NOM.SG who.M.NOM.SG mace-hand-M.NOM.SG
 sá janāsa índra-ḥ
 3SG.M.NOM people(M).VOC.PL indra(M)-NOM.SG

‘The soma-drinker who is renown as the one bearing the mace in his arms, as the one bearing the mace in his hands – he, o people, is Indra’ (8.2.12^c)

- (28) má ḥṛ-ṇī-t^hā ab^hi asmán
 not be_angry-PRS9-INJ.2SG towards we.ACC.PL
 mah-āṃ iva **yúva-jāniḥ**
 be_big-NM.M.NOM.SG like young-wife.ADJ.M.NOM.SG¹⁸
 ‘Stop being angry with us, like a great man with a young wife’ (8.2.19^c)

¹⁸ In this case the adjectivalizer is coded through vowel lengthening (ablaut) *a* → *ā* and accent shift (the so-called *vṛdd^hi* of derivation): *yuva-jani-* ‘young wife’ → *yúva-jāni-* ‘whose wife is young’.

The total of the Quality Argument constructions found in the sample are listed below (Table 7).¹⁹

Table 7. The Quality Argument construction in the RV.

Quality Argument	Count	Percentage
1. [...]-NM-Case	400	77.4
1. [root-NM]-Case	400	77.4
2. [...]_N-ADJ-Agr	47	9.1
2. [noun-ADJ]-Case	34	6.6
5. [root-NM-ADJ]-Case	13	2.5
3. [...]_A-Case	25	4.8
3. [adjective]-Case	25	4.8
4. [...]_N-Case	24	4.6
4. [noun]-Case	24	4.6
5. [...]_N-[...]_N-Case	21	4.1
6. [...] _N -[root-NM] _N -Case	13	2.5
7. [...] _N -[noun] _N -Case	7	1.4
8. [...] _N -[noun-ADJ] _N -Case	1	0.2
Total	517	100

The table shows that the most typical Quality Argument in the RV is not a simple adjective stem attached to a nominalizer, as in Latin, but rather a nominalized root. If the constructions are grouped under the class of the lexical items they are constructed upon, rather than under the type of construction in itself, it clearly emerges that the root is the most typical input form for building the Quality Argument in the RV (Table 8).

¹⁹ For the sake of space, the Pre-[root]-NM-Case construction is merged with the [root]-NM-Case type, while comparative and superlative suffixes are disregarded if attached to simple nouns/adjectives or to nouns/adjectives already attached to *tadd^hita* suffixes, as in Alfieri (2016): *yaśástaram* ‘more glorious’ (8.2.22^c) therefore counts as an instance of [adjective]-Agr (on *yaśás-* ‘glorious’, see Alfieri 2016: 152).

Table 8. The Quality Argument construction in the RV (version 2).

Quality Argument	Count	Percentage
1. root	426	82.4
1. [root-NM]-Case	400	77.4
5. [root-NM-ADJ]-Case	13	2.5
6. [...]N-[root-NM]-Case	13	2.5
2. noun	66	12.8
4. [noun]-Case	24	4.6
2. [noun-ADJ]-Case	34	6.6
7. [...]N-[noun]N-Case	8	1.6
8. [...]N-[noun-ADJ]N-Case	1	0.2
3. adjective	25	6.3
3. [adjective]-Case	25	6.3
Total	517	100

3.2. The Quality Predicate

The situation found in the Quality Argument slot is also found in the Quality Predicate slot, but the interpretation of the data is more complex. Following the literature on adjectival typology (Stassen 1997, Dixon 2004), the Quality Predicate is understood as including both the stative and the transformative predicate (the ‘be QUALITY’ and the ‘becoming QUALITY’ types). However, the results do not change substantially if the transformative predicate is excluded from the count (see fn. 30 for discussion).

In the sample, 171 Quality Predicates are found and are so divided (in Stassen’s terms 1997): a verb-like pattern, which employs the same construction [...]–Pers as that found in the Action Predicate, and the noun-like pattern, which shows the same construction as that found in the Object Predicate, bar the fact that the head of the predicate is marked by case and agreement, rather than by case only: i.e. [...]–Agr (+ COP).²⁰ The noun-like pattern is slightly

²⁰ Since in Sanskrit the copula is optional (see fn. 13), the order of the constituents is free, and the poetic style of the RV is often elliptical, the difference between a Quality Modifier and a Quality Predicate is not always clear-cut (see RV 4.51.7^a).

(i) tá gḥā tá bḥad-rá
 this.F.PL.NOM ADV this.F.PL.NOM be_bright-NM.F.NOM.PL
 Uṣásah purás-ur
 dawn(F).NOM.PL once.be-PF.3PL

‘these same auspicious Dawns existed of old’ (Jamison and Brereton 2014)

‘those indeed, those Dawns have formerly been auspicious’ (MacDonell 1917)

more frequent than the verb-like pattern (97 cases, 56.7%), although it is clearly more frequent than it is in Latin and in the modern IE languages, as Stassen (1997: 359ff.) and Alfieri (2009) noticed.²¹ The head of the noun-like Quality Predicate may be any of the constructions listed in Alfieri (2016) and each of them shows a frequency very similar to that observed in the Adjective slot or in the Quality Argument slot. The most frequent stem that enters the [...]Agr (+ COP), as confirmation, is a derived adjective built on a verbal root joined to a *kṛt* suffix (63 cases, 36.4%, ex. 29).

- (29) *tríkadrukeb^{hi}h* *pat-a-ti* *śál ur-vír*
tríkadruka(M).INS.PL fly-PRS1-3SG six be_{wide}-NM.F.NOM.PL

ékam íd ***bṛh-át***
 one 3SG.NT.NOM be_{lofty}-NM.NT.NOM.SG

‘he [Yama] flies with the Trikaduka. Six are broad [sc. the six realms], but just one is lofty [the superior realm]’ (10.14.16^{ab})

The frequency of the other constructions is far lower. The second stem type that enters the noun-like pattern of the Quality Predicate is a compound: [...]N-[...]N-Agr (14 cases, 8.1%). The head of the compound can be a nominalized verbal root (i.e. [...]N-[root-NM]N-Agr, 7 cases, 4.1%, ex. 30), a verbal root without suffix (i.e. [...]N-[root]N-Agr, 6 cases, 3.5%, ex. 31), or a simple noun stem (i.e. [...]N-[noun]N-Agr, 1 case, 0.6%, ex. 32).

- (30) *devá* *iva savitá* ***satyá-d^harmā***²²
 god(M).NOM.SG as savitar(M).NOM.SG true-ordinance.M.NOM.PL

‘Like God Savitar’s, their [sc. of the dices] ordinances hold true [lit. ‘they are of true ordinance]’ (10.34.8^c)

The same situation holds true for the distinction between subject and predicate in a nominal sentence: *sarvám kalv idamṁ brahman* (ChU 3.14.1) can mean ‘all this really is Brahman’ or ‘Brahman is all this’ (Gren-Eklund 1978: 15ff.). These ambiguities are well known (see Bloch 1906–1908: 49), but do not substantially affect the statistics. Moreover, in the paper we followed the interpretation by Jamison and Brereton (2014) systematically in order to avoid arbitrary choices.

²¹ Rigorously speaking, Stassen (1997: 359ff.) and Alfieri (2009) claimed that the verb-like pattern is the most frequent. A more careful statistical count, however, showed that the claim was excessive.

²² Note that *d^harma-* ‘ordinance’ – a word which would play a major role in the future development of Indian religion, but it was not yet a true technical term in the RV – comes from *d^hṛ-* ‘to hold, bestow’.

- (31) **go-śā** **indo** **nṛ-śā**
 cow-conquer.M.NOM.PL drop(M).NOM.SG man-conquer.M.NOM.PL
asi **aśva-sā**
 be.PRS2.2SG horse-conquer.M.NOM.PL
vāja-sā **utá**
 prize-conquer.M.NOM.PL and
 ‘[Soma Pavamāna] O drop, you are cow-winning, man-winning,
 horse-winning and prize-winning’ (9.2.10^{ac})
- (32) **híraṇya-rūpa-ḥ** **sá** **híraṇya-saṃdṛḡ**
 gold-form-M.NOM.SG 3SG.M.NOM gold-appearance.M.NOM.SG
ap-āṃ **nápāt** **séd**
 water(F).GEN.PL son(M).NOM.SG 3SG.M.NOM.indeed
u **híraṇya-varṇa-ḥ**
 really golden-color-M.NOM.SG
 ‘golden formed, he has a golden appearance – the son of the waters –
 and he is also golden-hued’ (2.35.10^{ab})²³

The third most frequent stem type that enters the noun-like pattern of the Quality Predicate is a simple noun of quality meaning, such as *pāti-* ‘lord’, *yuvan-* ‘young’ and *vṛṣan-* ‘bull, strong’. The whole construction, therefore, can be schematized as [noun]-Agr (9 cases, 5.2%, ex. 33).

- (33) **vayām** **s-iyā-ma** **pátayo** **rayī-ṇām**
 we.NOM.PL be-OPT-1PL lord.M.NOM.PL rich(M)-GEN.PL
 ‘may we be lords of riches’ (8.48.13^c)

The fourth most frequent stem that enters the noun-like pattern of the Quality Predicate is a simple adjective, that is [adjective]-Agr (5 cases, 2.9%, ex. 34).

²³ Also *híraṇya-saṃdṛś-* ‘having a gold appearance’ and *híraṇya-varṇa-* ‘having a gold colour’ are instances of the [...]-[root-NM]-Agr (+ COP) construction, since *saṃ-dṛś-* ‘appearance’ comes from *dṛś-* ‘to see’ and *varṇa-* ‘colour’ is derived from *ṽ-* ‘to cover’.

- (34) **pṛśnir** éko hár-ita²⁴
 speckled.NOM.M.SG one.NOM.M.SG burn-NM.M.NOM.SG
 éka eṣām
 one.NOM.M.SG this.M.GEN.PL
 ‘one is speckled, one is green [sc. the frogs]’ (7.103.6^b)

The fifth and the sixth most frequent stem types that enter the noun-like pattern of the Quality Predicate are a root joined to a nominalizer and to an adjectivalizer (i.e. [root-NM-ADJ]-Agr, 3 cases, 1.8%) and a noun joined to an adjectivalizer (i.e. [noun-ADJ]-Agr, 1 case, 0.6%). Both constructions are found in (35).

- (35) svād-ú-ṣ²⁵ kílayám
 be_sweet-NM-M.NOM.SG sure.this.M.NOM.SG
mád^hu-mām utáyám tīvrá-ḥ
 honey(M)-ADJ.M.NOM.SG and.this.M.NOM.SG sharp-M.NOM.SG
 kílayám **rás-a-vām** utáyám
 sure.THAT.M.NOM.SG taste-NM-ADJ.M.NOM.SG sure.that.M.NOM.SG
 ‘sweet is this one [the Soma], certainly, and it is honeyed; sharp is this one, certainly, and it is full of sap’ (6.47.1^a)

The verb-like pattern [...]Pers is slightly less frequent than the noun-like pattern, although it is certainly more frequent than it is in Latin and in other, especially modern or Western, IE languages.²⁶ This construction accounts for

²⁴ The adjective *harita-* ‘green-yellow’ and on cases also ‘brown-yellow’ (lit. ‘flame-colored’ or ‘burnt-colored’) is the past participle of *har²-* ‘burn → be angry’ (*EWAi*: s.v.): see, as an example, It. *bruciare di rabbia* lit. ‘burn of rage’ and *essere verde/giallo di rabbia* (lit. ‘be green/yellow of rage’). It is in between a true derived adjective and an already lexicalized form. Note that many endemic species of frogs in India are rather yellow-brown than truly green.

²⁵ The ending *-ṣ* is an archaic sandhi variant for *-s* before a velar stop. The adjective *mád^hu-mat-* is derived from *mád^hu-* ‘honey’, which in turn may be etymologically derived from a lost verbal root **mad^h-* ‘be sweet’.

²⁶ The high frequency of verb-like quality predicates in the RV is known to Sanskrit philologists, but is known only in a rather indirect manner. Gren-Eklund (1978: 34) claimed that nominal sentences with adjectival meanings are far rarer in Sanskrit than they are in the modern European languages: clearly, noun-like adjectival predicates are rare precisely because adjectival predicates are often coded verbally.

74 cases (43.3%). No special preference for any tense or mood is found: the present is the most frequent tense and the indicative the most frequent mood (20 cases, 13.9%, ex. 36–39).

- (36) *yā-b^{hi}h* *sómo* **mód-a-te**
 who(F).INS.PL soma(M).NOM.SG enjoy-PRS1-3SG.MD
harṣ-a-te *ca*
 be_excited-PRS1-3SG.MD and
 ‘thanks to which [the Waters] Soma is delighted and become excited’
 (10.30.5^a)
- (37) *ayāṃ* *ha* *túb^hyaṃ* *váruṇo*
 3SG.M.NOM indeed you.DAT.SG Varuna(M).NOM.SG
hr-ṇī-te
 be_hangry-PRS9-3SG.MD
 ‘Varuṇa now is hangry with you’ (7.86.3^d)
- (38) *jāyā́* **tap-ya-te** *kitavá-sya*
 wife(F).NOM.SG be/make_hot-PRS4-3SG.MD gambler(M)-GEN.SG
 ‘the wife of the gambler is grieved [lit. ‘is hot, burs (for pain)’]’
 (10.34.10^a)
- (39) *ná sváp-nāya* **sprh-aya-nti**
 not sleep-NM.M.DAT.SG be_eager-PRS10-3PL
 ‘They [sc. the Gods] are not eager for sleep’ (8.2.18^b)

Middle endings (ex. 36–38) are more frequent than the active endings (52 cases out of 74), but active endings can be found (ex. 39), and are more common with transformative meanings (ex. 40–41) or with roots such as *raṇ-* ‘take pleasure, be glad’, *ruṣ-* ‘be vexed, resentful’, *tṣp-* ‘be pleased, satiated’, and *mad-* ‘be glad, rejoice’ (ex. 42).

- (40) *té* **'-vard^h-anta** *svá-tav-as-o*
 this.M.NOM.PL PST-grow-3PL.PST self-be_strong-NM-M.NOM.PL
mah-itvaná
 be_big-NM.M.INS.SG

‘those self-powerful ones strengthen themselves [lit. ‘become bigger, stronger’] in their greatness’ (1.85.7^a)

- (41) *tád devānāṃ devá-tamāya*
that.NT.NOM.SG god(M).GEN.SG god(M)-SUP.M.DAT.SG

kár-tv-am á-śrat^hn-an
do-NM-NT.NOM.SG PST-be_loosened-3PL.IPF

dṛl^hhá á-vrad-anta
make_firm.PTC.NT.NOM.PL PST-become_soft-3PL

vīl-itá
be_hard-PTC.NT.NOM.PL

‘This is the mission of the godliest of the Gods: fixed things became loose, hard things became soft’ (II.24.3)

- (42) *saptá pṛkṣāsaḥ sva-d^háy-ā*
seven.NOM.PL nourishing.M.NOM.PL self-wish-NM.F.INS.SG

madanti
rejoice-PRS1-3PL

‘the seven [priests] giving strength become exhilarated by their own will’ (3.7.8^b)

Bar the indicative, the imperative is the most frequent modal form in which the verb-like quality predicate is inflected (12 cases, 8.3%, ex. 43–44), but also the optative is not infrequent (3 cases, 1.8%, ex. 45).²⁷

- (43) *índrasya muṣṭír asi*
Indra(M)-GEN.SG fist(M)-NOM.SG be.PRS2.2SG

vīl-áya-sva
become_solid-PRS10-IPT.2SG.MD

‘you [Soma] are the fist of Indra: be firm!’ (6.47.30^d)

²⁷ According to Avery (1876), the present indicative is the most frequent verbal form in the RV (31%), the imperative is the second most frequent (24%) and the optative is attested only in the 2% of cases. The distribution of moods with the Quality Predicate, therefore, is perfectly parallel with their distribution with the Action Predicate.

- (44) *sóma* *rājan* ***mṛ̥ḷ-áyā***
 Soma(M).VOC.SG king(M).VOC.SG be_merciful-PRS1.IPT.2SG
naḥ *su-as-tí*
 1PL.GEN well-be-NM.NT.ACC.SG
 ‘O king Soma, be merciful to us with well-being’ (8.48.8^a)
- (45) *abhí* *no* *vīró* *árvat-i*
 toward 1PL.GEN hero(M).NOM.SG horse(M)-LOC.SG
kṣam-eta
 be_indulgent-PRS1.OPT.3SG
 ‘the hero on the horseback [Rudra] should be indulgent’ (2.33.1^c)
- Outside the present system, the perfect can also be found (8 cases each, 5.6% of the sample, ex. 46–47), especially with stative meanings, whereas the aorist is uncommon (2 cases, ex. 48–49).²⁸
- (46) *ab^hī* *nú* *mā* *vṛṣab^ha* ***ca-kṣam-ī-t^hāḥ***
 toward now 1SG.ACC bull(M).VOC.SG PF-forgive-OPT-PF.2SG
 ‘you should now be indulgent toward me, o bull [sc. Rudra]’
 (2.33.7^d)
- (47) *ná* *mā* *mi-met^h-a* *ná* ***ji-hīl-a*** *eṣá*
 not 1SG.ACC PF-oppose-PF.3SG not PF-anger-PF.3SG 3SG.F.NOM
śi-vá *sák^hi-b^hya* *utá máhyam*
 be_benign-NM.F.NOM.SG comrade(M)-DAT.PL and 1SG.DAT
ās-īt
 be.IPF.3SG
 ‘she did not oppose me, nor gets hangry; she was gracious to my comrades and to me’ (10.34.2^a)
- (48) *jána-sya* *gopá* ***a-jan-iṣ-ṭa***
 people(M)-GEN.SG cow-protect.M.NOM.SG PST-be_born-AOR.3SG.MD

²⁸ In Avery’s count (1876), the aorist is attested in about the 11% of the predicates. The aorist, therefore, is more frequent with the Action Predicate than with the Quality Predicate.

jāgr-vir

awake-NOM.M.NOM.SG

‘the herdsman of the people [sc. Agni] has been born, the awakened’
(5.11.1^a)

- (49) anyó anyám ánu grb^h-ṇā-ti
other.M.NOM.SG other.M.ACC.SG behind grasp-PRS9-3SG
enor apām prasargé yád
this.M.GEN.PL wáter(F)-GEN.PL discharge(M).LOC.SG when

á-mand-iṣ-ātām

PST-rejoice-AOR-3DU

‘one of the two [sc. frogs] grasps the other from behind, when they
have become exhilarated in the discharge of the waters’ (7.103.4^{ab})

The total of the Quality Predicate constructions found in the sample are listed below (Table 9).²⁹

Although the verb-like pattern of the adjectival predicate is more frequent in the RV than it is in all the other, especially modern and Western, IE languages, the noun-like pattern is slightly more frequent absolutely. The most typical Quality Predicate in the RV, therefore, is a noun-like predicate with an adjectival head. However, in most cases the adjective that heads the predicate is a secondarily derived adjective built on a verbal root of quality

²⁹ If the transformative predicate is excluded, Quality Predicates are reduced to 144 cases, 95 of the noun-like type (66%) and 49 of the verb-like type (44%). The relative frequency of the various noun- or verb-like constructions remains unchanged, bar the increased frequency of the imperative (12 cases) against the indicative (19 cases). Moreover, in Sanskrit is not always easy to establish if a predicate is transformative or stative (3.7.7^c):

- (i) prāñco **mad-a-nty** ukṣāṇ-o a-jur-yā
forwardrejoice-PRS1-3PL bull(M)-NOM.PLnot-become_old-NM.M.NOM.PL

‘turned forward, the young, unageing bulls become exhilarated’ (Brereton and Jamison 2014)

‘the unageing bulls that tend eastwards are glad’ (MacDonell 1917)

MacDonell (1917) prefers the stative noun-like reading ‘be delighted’ for roots such as *mad-* and the like, even when they are inflected in the active, whereas Brereton & Jamison (2014) prefer a verbal interpretation ‘rejoice’ and a transformative meaning ‘become exhilarated, find satisfaction’, especially when the root is in the active, and usually reserve the noun-like stative reading when the root is in the middle (see *modate* ‘is delighted’ in ex. 36). However, this is but a tendency: in ex. 36 the middle *hars-a-te* is translated ‘is upset’ by MacDonell, but ‘becomes excited’ by Brereton and Jamison.

Table 9. The Quality Predicate constructions in the RV.

Quality Predicate	Count	Percentage
1. [...]Agr (+ COP)	97	56.7
1. [root-NM]-Agr	63	36.4
2. [...]N-[...]N-Agr	14	8.1
1. [...]N-[root-NM]-Agr	7	4.1
[...]N-[root]-Agr	6	3.6
[...]N-[noun]-Agr	1	0.6
3. [noun]-Agr	9	5.2
4. [adjective]-Agr	5	2.9
5. [root-NM-ADJ]-Agr	3	1.8
6. [noun-ADJ]-Agr	1	0.6
2. [...]Pers	74	43.3
1. Present	61	35.7
1. Indicative	46	26.9
1. Imperative	12	7.0
9. Optative	3	1.8
2. Perfect	11	6.4
3. Aorist	2	1.2
Total	171	100

meaning. This means that the Sanskrit noun-like adjectival predicate is not a prototypical nominal predicate such as those in Latin and contemporary European languages. It is rather in between a true nominal predicate built on a strictly nominal form and a periphrastic verbal predicate built on a participle or a participle-like formation and an auxiliary verb, such as the Sanskrit periphrastic future in *-tar-* (see *dātāsmi* ‘I will give’ < *dā-tar-* ‘giver’, from *dā-* ‘to give’, and *asmi* ‘I am’, from *as-* ‘to be’), or the participial sentences of the late Sanskrit texts.³⁰ As a confirmation, if the constructions are grouped

³⁰ Sanskrit scholars do not agree on the classification of participial sentences among nominal or verbal ones, especially since the Prakrits code the past tense with a form that continues the Sanskrit past participle in *-ta-* and *-na-*, but shows a verbal syntax of the ergative type (Gren-Eklund 1978: 12ff.). For the ancient phases (RV and Classical Sanskrit) some scholars simply merge participial sentences with nominal ones (Meillet 1906; Benveniste 1950; Breunis 1990:

under the class of the lexical items they are constructed upon, rather than under the type of construction in itself, it clearly comes out that verbal roots are the most typical input forms for building any Quality Predicate, be it verb- or noun-like (Table 10).

Table 10. The Quality Predicate constructions in the RV (version 2).

Quality Predicate	Count	Percentage
1. root	153	90.9
1. noun-like	81	47.4
1. [root-NM]-Agr	63	36.4
5. [...]N-[root-NM]-Agr	7	4.1
6. [...]N-[root]-Agr	6	3.6
8. [root-NM-ADJ]-Agr	3	1.8
2. verb-like	74	43.5
2. Present	61	35.7
3. Perfect	11	6.4
9. Aorist	2	1.2
2. noun	11	6.4
3. noun-like	11	6.4
4. [noun]-Agr	9	5.2
10. [noun-ADJ]-Agr	1	0.6
11. [...]N-[noun]-Agr	1	0.6
3. adjective	5	2.9%
4. noun-like	5	2.9
7. [adjective]-Agr	5	2.9
Total	171	100

If the gaps in Table 3 are filled with the constructions discussed above, Table 11 is obtained.

Table 11 shows that two classes of simple lexemes are sufficient to produce all the constructions in the table. Therefore, only two major classes of

50, 98f.), whereas others consider participial sentences intermediate between true nominal sentences and verbal sentences (Bloch 1906: 56ff.; Renou 1952: 358).

Table 11. RV construction table.

	Argument	Modifier	Predicate
Object	[noun]-Case	[noun]-Gen	[noun]-Case (+ COP)
Quality	[root]-NM-Case	[root-NM]-Agr	[root-NM]-Agr (+ COP)
Action	[root]-NM-Case	[root-NM]-Agr	[root-AFF]-Pers

simple lexemes are projected in the lexicon of the RV: noun and verbal roots. Schematically: [N (AV)].

In sum, quality meanings are mainly coded in verbal roots in the RV, but in most cases they are coded covertly.³¹ Sanskrit roots range from true stative-unaccusative meanings (*śubh-* ‘be beautiful’, *tṛṣ-* ‘be thirsty’, *śī-* ‘to lie’), to unergative meanings (*i-* ‘to go’, *bhā-* ‘to shine’), to true transitive-causative meanings (*han-* ‘kill’, *bhid-* ‘split’), not to mention roots that are compatible with a wide array of meanings that go from the stative to the transitive (*svād-* ‘be, become, or make tasty’, *bṛh-* ‘be, become or make big, thick or strong’, *tap-* ‘become hot, heat’). In such a continuum, some roots can be grouped on their semantics and/or derivational behaviour (e.g. on average *media tantum* roots with unaccusative meanings, *activa tantum* roots with unergative meanings, roots of the “causative alternation”, which code the unaccusative meaning with a *-ya-* or a middle present, and the transitive meaning with an *-n-* or causative present in *-ava-*, etc.).³² However, none of these groups is bi-uniquely linked with quality meanings: each group includes also roots that do not mean a quality, roots that are intermediate between two or more groups

³¹ The semantic domains of the RV primary adjectives are only partially consistent with Dixon’s (2004: 3–4) prototypes. Among the four core semantic prototypes of the adjective, the domains DIMENSION, AGE and VALUE are populated, though not deeply (*ārbha-* ‘little’, *dīrgā-* ‘long’, *agā-* ‘bad’, etc.), while COLOUR is well-represented (*kṛṣṇā-* ‘black’, *nīla-* ‘dark’, *palitā-* ‘grey’, *babhrū-* ‘brown’, *bradhā-* ‘pale red’, etc.). More populated are the “peripheral” prototypes, which are usually found in languages with medium- and large-sized adjective classes, such as PHYSICAL PROPERTIES (*āmā-* ‘raw’, *nagnā-* ‘naked’, *yahū-* ‘vigorous’, etc.) and HUMAN PROPENSITIES (*īrya-* ‘active’, *tīlvila-* ‘rich’, *dīnā-* ‘weak’, etc.), while no adjective falls in the prototype SPEED. Moreover, some adjectives fall outside any of the proposed prototypes (*ānūna-* ‘complete’, *mādhu-* ‘sweet’, *mādhyā-* ‘middle’, *yaśās-* ‘glorious’).

³² For a similar description of the semantic continuum of Sanskrit roots, see Lazzeroni (1990, 2002, 2004, 2017).

and roots that mean a quality but do not fall in any of these groups, more or less as is the case in Northern Iroquoian (Chafe 2012). Similarly, some derivational forms are more compatible with the encoding of quality meanings than others (the middle present, the *-ya-* present and the perfect), but quality meanings can theoretically be coded in any verbal form (see the *-aya-* present in ex. 37 and the *-nā/nī-* present in ex. 39, which are usually seen as transitive-causative forms), and also the nominalized forms of the roots can be employed to highlight the quality-stative component of the lexically transitive-causative roots (*ṛṣ-* ‘push’ → *ṛṣ-vá-* ‘high’, *tap-* ‘become, make hot’ → *tap-ú-* ‘hot’ in ex. 7).³³ As a consequence, only a limited number of roots are listed in dictionaries with an exclusive or preferential stative-qualitative meaning (i.e. ‘be QUALITY’), but the absence of an overt quality meaning among the translational equivalents of a Sanskrit root in a dictionary does not preclude such a root being able to code a quality if inflected in the appropriate form. And in many cases quality meanings, be they transformative or stative, together with a transitive-causative or a unergative meaning, are listed together in dictionaries as abstract semantic potentialities that can be highlighted depending on the derivational form in which the root is used.³⁴

4. Conclusion

The data discussed so far confirm the claims in Alfieri (2016, 2018, forth.). The threefold division between nouns, verbs and adjectives, which we usually consider a hallmark of the IE family since its remote PIE phase, does not have this role. It rather is a “second generation isogloss” – as Keidan (this volume) defines it – that is, a common development that occurred independently in the different branches of the IE family, a development that had

³³ Middle and *-ya-* presents, in other words, are the most common forms that code quality meanings, but they do not select two clear-cut, synchronic classes of verb-like adjectives, as I claimed in Alfieri (2009).

³⁴ It is well known that translational equivalents are partial equivalents, especially if the source and the target language are typologically different. The English or German verbs that translate Sanskrit roots are, by nature, categorically more specific than the roots, thus they show a narrower meaning as a rule. Moreover, the structure of the target language may somehow influence the translation of the quality meanings: ‘be-QUALITY’ predicates are far more common in English dictionaries than in German ones (*uc-* ‘sich gewöhnen’ vs. ‘be used’, *krud^h-* ‘zürnen’ vs. ‘be angry’, *kṣud^h-* ‘hungern’ vs. ‘be hungry’, *can-* ‘Freude haben’ vs. ‘be pleased’, *jū-* ‘eilen’ vs. ‘be swift’, etc.). The opposite case is possible though uncommon (*vrād^h-* ‘stir up’ vs. ‘stolz sein’, *vrad-* ‘mürbe sein’ vs. ‘weaken’).

already been completed before the first historical attestation in most IE languages (e.g. Latin, Germanic, Slavic, Baltic, etc.), but was not yet concluded in the RV.

Such a view entails two corollaries that are worth discussing. First and foremost, if the PoS systems in Latin and in Sanskrit differ in the number of their major lexical classes, the Sanskrit root is functionally different from a Latin simple verb stem: the verb stem is the most typical input form for building the constructions that prototypically code Action meanings, while the root is the most typical input form for building the constructions that prototypically code both Action and Quality meanings. The root, therefore, is a precatatorial unit and, specifically, it is the verbal morpheme of a language in which only two major classes of lexemes are found and adjectives are coded verbally, that is [N (AV)].³⁵

Moreover, given the genetic kinship of Sanskrit and Latin, their difference is necessarily the results of a diachronic change. Theoretically, the change may be [N, A, V] → [N (AV)], or [N (AV)] → [N, A, V], but Alfieri (2016, 2018) showed that the change was [N (AV)] → [N, A, V] for at least three reasons.³⁶ From a general point of view, the history of the IE languages consisted of a progressive decrease of the index of gross complexity (i.e. the average number of morphemes per word); the most typical word thus passed from a structure: root-suffix-ending to a structure: stem-ending.³⁷ Most of the primary adjectives found in the lexicon of the RV are derivatives from PIE or Proto-Indo-Iranian verbal roots of quality meaning that underwent a lexicalization process between PIE and the RV from the etymological point of view. The number of primary adjectives reconstructed for PIE ranges between the 8 adjectives reconstructed in IEW and the 17 accepted in NIL: in both cases, they are not as numerous as the 38 adjectives of the RV.³⁸ It is not

³⁵ The relations between the definition of the notion of root in Sanskrit proposed above and its definition in Indian native grammar is complex, and cannot be discussed here. However, see Alfieri (2013, 2014b) for a discussion on the topic.

³⁶ For a similar view, see Bozzone (2016), though she projects the lexical structure [N (AV)] to pre-Proto-IE rather than viewing it as a synchronic stage of RV Sanskrit.

³⁷ The change in the structure of the prototypical word between PIE and the historical IE languages is what Belardi called *teoria del segno lessicale* (the word is the lexical sign par excellence in Saussure's view). On the topic, see Belardi (1985, 1990, 1993) and the literature discussed in Alfieri (2016: 160ff. and 2018).

³⁸ See also Alfieri (2009: fn. 80, 2016: 159ff.). This is not the right place to discuss the difference between the two accounts. Still, some of the adjectives reconstructed by Wodtko are clearly taken from verbal roots (**h₁es-u-* < **h₁es-* 'be'; **meġ-* < **meġ-* 'be big', cfr. Skt. *mah-*

absurd, therefore, to suppose that the change [N (AV)] → [N, A, V] was the result of two interwoven factors. On the one hand, there was a blurring of the intra-word morpheme boundaries, especially those between the root and the affixes used to build the derived adjectives, but also those between the root and the verb class affix, which are still well visible in Sanskrit, though quite opaque in the other IE languages. On the other, there was a progressive blurring of the verbal forms used to code unaccusative-quality meanings such as the perfect, the middle and the *-ya-* present, with a parallel increase of the frequency of the noun-like encoding of the Quality Predicate, which could be headed by one of the formerly derived adjectives that had begun their lexicalization process.³⁹

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‘be or make big’; *HeHk- ‘fast’ < *HeHk- ‘be fast’, cfr. Skt. *aś-* ‘reach’; *h₁werH- ‘wide’ < *h₁werH- ‘be wide’, cfr. Skt. *var-* ‘stretch’, etc.).

³⁹ In most languages of the type [N (AV)], the Quality Predicate is preferentially coded through a verb-like pattern. Still, in a few cases a noun-like pattern based on a derived adjective is available alongside the verb-like pattern, although usually the verb-like pattern is more frequent (e.g. Chemehuevi and West Greenlandic, not to mention Classical Arabic, which may easily show a situation similar to that in the RV).

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