# THE BAHUVRĪHI COMPOUND BETWEEN ZEROING AND CONTRASTIVE ACCENTUATION: VEDIC SANSKRIT MODEL AND PĀNINI'S MODEL

#### ABSTRACT

L'articolo mira a sondare come il modello di composto *bahuvrīhi* presentato nella grammatica descrittiva di Pāṇini possa rapportarsi diacronicamente al composto *bahuvrīhi* attestato nel Sanscrito Vedico, tenendo in particolare considerazione quelli che sono i due requisiti secondo Pāṇini: stato tematico per tutti i costituenti e accento sul primo membro, contrativamente assegnato rispetto ai composti determinativi. Poiché l'opera di Pāṇini si basa sulla tradizione scolastica brahmanica, anche le fonti del suo modello di *bahuvrīhi* devono rintracciarsi in quel contesto culturale. Il *locus classicus* è *indraśatru*, che segna così l'inizio di un processo di regolarizzazione linguistica applicata al composto *bahuvrīhi*. Il medesimo composto *indraśatru*, discusso nell'ambito scolastico brahmanico, è citato in un inno rigvedico tardo (RV 1.32.6; 1.32.10), impiegato con una significativa valenza poetica. Perciò, i due tratti caratteristici pāṇiniani del composto *bahuvrīhi* risultano derivare da una particolare commistione di linguaggio poetico ed esegesi linguistica.

This article aims to explore how Pāṇini's model of the *bahuvrīhi* compound may be diachronically correlated to the *bahuvrīhi* compound as attested in the Vedic Sanskrit language, thus accounting for the two Pāṇinian requisites: zero-ending for all the constituents and accentuation on the first constituent, contrastively employed in relation to the determinative compounds. Since Pāṇini's work is based on the Brahmanical scholarly tradition, the sources of his *bahuvrīhi* model are also to be found in the Brahmanical scholarly milieux. The *locus classicus* is the case of *indraśatru*, which starts off the process of uniformation and regulation of *bahuvrīhi* compound stressed on the first constituent. The same scholarly-discussed *indraśatru* compound is mentioned in the late Rigvedic textual layer (RV 1.32.6; 1.32.10), as an expressive poetic device. Therefore, the two Pāṇinian characteristic traits of the *bahuvrīhi* compound are inherited from a peculiar blend of poetic language and linguistic exegesis.

INTRODUCTION\*

Pāṇini's model of the *bahuvrīhi* compound is presented in the *sūtra* 2.2.24 of his work:

A 2.2.24: ánekam anyapadārthé //

«Two or more inflected nouns [combined] in the meaning of another inflected word (*i.e.*, the meaning of an inflected word different from the constituents) <are a *bahuvrīhi* compound>».¹

<sup>\*</sup> The first version of this paper was presented at SALA 35 (South Asian Languages Analysis Roundtable, Paris, October 29-31, 2019). As far as the passages of Vedic and Sanskrit texts are concerned, unless otherwise stated, the translation is mine.

As regards its interpretation, see Cardona 1997, pp. 219-221; Sharma 2002, III, pp. 91-93; and mo-

According to the recent studies, it means that the morphological and syntactic valency of a *bahuvrīhi* compound can be exhausted only outside its surface-constituents. Moreover, no derivational affix, even phonetically null, conveying the morphological value of possessive and converting an endocentric compound into an adjective, is to be postulated:<sup>2</sup> it is characterised by zero-ending for all constituents with no special ellipsis, that is, in Pāninian terms, «all the members of such a compound are its upasarjanas». Instead, given such a Pāninian analysis, the Western label of "exocentricity" comes to correspond to the syntactic relation that holds between the *denotatum* of the whole compound and one of the surface constituents of the compound itself, either the right-hand one or the left-hand one. <sup>4</sup> This is explicitly confirmed by the earliest Pāninian indigenous commentaries, where relative pronouns are prevalently adopted in the constituent-analysis of the bahuvrīhi compounds, according to glossas such as [RC [X vasva] sah Y]. Nonetheless, the relative clauses so constructed as phrasal paraphrases do not exclusively imply a "possessive" relation between the *denotatum* and surface constituents, thereby attesting that a univocal morphological and syntactical value, which might correspond to a specific marker, cannot be postulated for the Sanskrit bahuvrīhi compounds. On the contrary, the very category of the bahuvrīhi compound itself is characterised by a sort of polyvalency, "fuzzily" depending on the variability of the co-text phrasing. It is this very polyvalency that turns the Sanskrit bahuvrīhi compound into a refined poetical device, suited to the expressive complexity of classical Sanskrit poetry, and in general to the elaborated and learned expressivity pertaining to the Sanskrit culture.

Given this scenario, it is worth recalling that Pāṇini's linguistic models result from a "descriptive" approach to the linguistic facts, so that such a Pāṇinian model of *bahuvrīhi* can be more understandable if inserted into the wider perspective of the so-called Pāṇinian Sanskrit, that is the linguistic variety "described" in Pāṇini's work. In fact, in historical terms, the so-called Pāṇinian Sanskrit does not yet correspond to the classical Sanskrit stage, even though the *Aṣṭādhyāyī* of Pāṇini will be assumed as an authoritative parameter for "grammaticality", especially from Pataṇjali's work onward (2<sup>nd</sup> BCE). This means that the Pāṇinian *bahuvrīhi* model must be referred to the early cultural period, attested in the Vedic textual *repertoire* and transmitted in the Brahmanical Vedic schools.

In short, as is well known,<sup>6</sup> Pāṇinian Sanskrit might be considered as a sort of "conversational language", dating back to around the late Vedic period (5<sup>th</sup>-4<sup>th</sup> BCE), and re recently Candotti – Pontillo 2019, pp. 34-36.

<sup>&</sup>lt;sup>2</sup> This differs from the traditional interpretation ascribed to scholars such as BOPP 1833, V, p. 1433, and Whitney 1889, p. 501: as argued by Maria Piera Candotti and Tiziana Pontillo the Pāṇinian analysis of the Sanskrit *bahuvrīhi* compounds is based on the *LUK* zero-replacement endings for all the constituents: Candotti – Pontillo 2019.

<sup>&</sup>lt;sup>3</sup> Ivi, p. 34.

<sup>&</sup>lt;sup>4</sup> Cf. Lowe 2015, pp. 100-106.

 $<sup>^5</sup>$  Cf. also Gillon 2007, pp. 12-15; as regards the possessive and adjectival affix -ka, cf. Lowe 2015, pp. 84-85; 105-106.

<sup>6</sup> This question has been lengthily debated, beginning from the first Western edition of the Aṣṭādhyāyī

thus roughly corresponding to the Vedic prose of the Vedic *corpus*. However, it is controversial which linguistic variety must be meant by the Pāṇinian term *bhāṣā*, especially in relation to other linguistic varieties referred to in Pāṇini's work, such as the so-called *chandas* variety, which conveys the "prestigious" linguistic register of the Vedic *saṃhitās*, the "Sacred Literature" *par excellence*. Therefore, the language described in Pāṇini's work is a variable linguistic reality, a sort of "Hybrid Sanskrit", which is an example of a semi-colloquial language spoken by educated speakers within learned Brahmanical communities. Some properties of the Vedic *corpus*.

Against such a linguistic background, the Pāṇinian model of the *bahuvrīhi* compound is appropriate for classical Sanskrit – in actual fact, it will be assumed as a prescriptive rule – but as such, in the "descriptive" perspective of Pāṇini's Sanskrit, it is not sufficient to account for all its linguistic varieties. In fact, the condition of the Pāṇinian *bahuvrīhi* must be completed by the *sūtra* 6.2.1, which deals with the position of the accent, that is the first constituent of the *bahuvrīhi* compound retains the accent as if it were a simple *pada*, not employed in the compound.<sup>11</sup>

A 6.2.1: bahuvrīhaú prakrtyā pūrvapadám //
«In the bahuvrīhi compound the initial constituent [is] with the original form (prakrtyā)»

Such a linguistic *specimen* correlated to the accent especially pertains to Vedic Sanskrit, <sup>12</sup> whereas the later classical Sanskrit is not characterised by the same system of accentuation. In fact, the aforementioned *sūtra* 6.2.1 is evidence for assuming that Pāṇini's Sanskrit is correlated to the Vedic Sanskrit in a sort of linguistic *continuum*: <sup>13</sup> the accent rules do not pertain exclusively to the *chandas* variety, but the whole Pāṇinian text presupposes a form of accentuation, although there is no perfect correspondence between the Vedic accentuation and the accentual system adopted in

by Bohtlingk 1887, pp. xvII-xIX. Paul Thieme's work (1935) is still authoritative, even though his thesis (pp. 63-81) has been focused and deepened by scholars such as Bronkhorst *e.g.* 1991, Deshpande *e.g.* 1992 and 2001; more recently: Kiparsky 2012, Kulikov 2013 and Houben 2018.

<sup>&</sup>lt;sup>7</sup> Cf. Kulikov 2013 and Houben.

<sup>&</sup>lt;sup>8</sup> Cf. e.g. Kiparsky 2012.

<sup>&</sup>lt;sup>9</sup> As regards the relationship between the *bhāṣā* and *chandas* varieties, cf. Deshpande 1985. Moreover, as regards the Vedic textual tradition, Pāṇini's work appears to be familiar with the Black Yajurvedic tradition, attested in the north-western and central areas of the Gangetic plain: cf. Sadovski 2002 and Thieme 1935; in particular, Pāṇinian work is acquainted with the texts of the Kaṭha and Taittirīya school.

<sup>&</sup>lt;sup>10</sup> As regards this definition, see Kulikov 2013, p. 84.

As regards this interpretation, cf. Sharma 2001, pp. 193-194.

 $<sup>^{12}</sup>$  In actual fact, the accent marking came to be changed and progressively lost from the later  $Br\bar{a}hm$ -anas onwards.

 $<sup>^{13}</sup>$  In a synchronic perspective a diglossic relationship is implied between  $bh\bar{a}s\bar{a}$  and chandas varieties; nonetheless,  $bh\bar{a}s\bar{a}$  and chandas varieties can also be interpreted in a diachronic perspective: the Pāṇinian Sanskrit on the one hand retains 'relics' of the so-called earlier Vedic Sanskrit and, on the other, anticipates linguistic innovative traits, belonging to post-Vedic Sanskrit. Also, Wilhelm RAU (1985, p.104) uses the same term Kontinuum mainly within a diachronic perspective of the issue. As regards the relationship between the so-called  $bh\bar{a}s\bar{a}$  and chandas rules, cf. Deshpande 1985.

Pāṇini's work and "described" in its *sūtras*<sup>14</sup>. In actual fact, a relevant section of the Pāṇinian work is concerning the accentuation, beginning from the *sūtra* 6.1.155; in particular, the *sūtra* 6.1.220 deals with the accentuation normally applied to a compound, and the following quarter of the sixth lesson refers to manifold cases and exceptions, which do not fall into the *chandas* variety, so confirming that Pāṇini's Sanskrit is related to the Vedic Sanskrit in a peculiar way. Therefore, the linguistic facts so "descriptively" represented by the Pāṇinian Sanskrit should also be considered in relation to such a peculiar linguistic context. Furthermore, Pāṇini's model of the *bahuvrīhi* compound is to be referred *in primis* to it. Thus, the aim of this paper is to investigate how this Pāṇinian model may be correlated to linguistic facts of the Vedic Sanskrit, in particular as registered in the early and late Rigvedic textual layers and transmitted in the Brahmanical scholarly *milieux*.

THE VEDIC SANSKRIT SCHOLARLY MODEL OF THE BAHUVRĪHI COMPOUND: THE CASE OF "INDRAŚATRU"

The Pāṇinian sūtra 6.2.1, defining the position of the accent in bahuvrīhi compounds, is the first of a number of exceptions to the general rule (utsarga), quoted in sūtra 6.1.220 (samāsasya), according to which «The final constituent of a compound is marked with udātta ('accent') at the end». Therefore, Pāṇini's model of the bahuvrīhi compound implies a suprasegmental marker, that is the accent, used contrastively as a distinctive marker between the category of bahuvrīhi compounds and other categories of compounds, de facto endocentric compounds. This would mean that if on the one hand no specific ellipsis of the morphological and syntactic marker is posited, on the other, the consequent morpho-syntactic polyvalency, as a characterising trait of a bahuvrīhi compound, is suprasegmentally marked, in particular by means of contrastive modality. That would mean that the accent is the mark of such a morpho-syntactic polyvalency.

In actual fact, such a contrastive function of the accent in relation to different typologies of compounds is well known in the Brahmanical scholarly sapiential *repertoire* that predates the Pāṇinian work: a variant of the famous Vrtra—myth, especially referred to in prose sections of the collections of the Yajurvedic schools, <sup>18</sup> corroborates

<sup>&</sup>lt;sup>14</sup> Johannes Bronkhorst (2007, p.185) resumes the question thus: «[...] any comparison between the linguistic data in Pāṇini and those in the Veda must be extremely careful in the field of sandhi and accentuation». Discrepancies between Pāṇini's *sūtras* and Vedic linguistic facts, as attested in the Vedic *corpus*, were already ascertained by William Dwight Whitney (1893), referring especially to *chandasi* rules; cf. more recently the case presented by Leonid Kulikov (2013).

<sup>&</sup>lt;sup>15</sup> Cf. Sharma 2001, p. 193: in this *sūtra* the compound is interpreted as a whole, whereas the compound as such is normally conceived of as formed by two or more integrating syntactically related nominals, characherized by their own individual accents, as the same following *sūtras* suggest.

<sup>16</sup> Cf. LÜHR 2004a.

<sup>&</sup>lt;sup>17</sup> Cf. Lühr 2004b, 163-186.

<sup>&</sup>lt;sup>18</sup> MS 2.4.3; KS 12.3; TS 2.4.12.1; 2.5.2.1; 2.5.2.2; ŚB 1.6.3.8-10; the same passage is also mentio-

the fact that the Pāṇinian aphorismas picture the linguistic traits as attested and preserved in the Brahmanical scholarly context, with special reference to prose textual material. Such a mythical variant is centred on the relationship between Indra and his supporter Viṣṇu, combined with the sacrificial context, but it also involves Vṛtra: 19 his father Tvaṣṭṛ, who desires a powerful son able to defeat Indra, pronounces a *mantra* with the compound "*indraśatru*", although he mistakes the auspicious *tatpuruṣa* form *indraśatru* "adversary of Indra" with the accent on the second constituent, for the inauspicious *bahuvrīhi* form *indraśatru* "one whose adversary is Indra" with the accent on the first syllable, so that his son Vṛtra is effectively slain by Indra. The episode is annotated in MS 2.4.3 as 'Indeed, he wished to turn him into the adversary of Indra, he turned Indra into his adversary': *indrasyāhainaṃ śatruṃ ácikīṛṣad indram asya śatrum akarot*. Moreover, it is suggested in Patañjali's work (1.2.11-12), and in the *Pāṇinīŋa śikṣā* (st. 52), by means of the quotation of the compound likened to Indra's weapon (*vajra* 'thunderbolt'):

duṣṭaḥ śabdaḥ svarataḥ varṇataḥ vā mithyā prayuktaḥ na tam artham āha / sa vāgvajraḥ ya-jamānam hinasti yathā indraśatruḥ svarataḥ aparādhāt / 'A word defective because of the accent or a phoneme used wrongly does not convey the (proper) meaning (artha). (Being) a thunderbolt in the form of speech, it kills the sacrificer just as did (the use of) indraśatru because of a wrong accent'.<sup>20</sup>

Here, the mention of the «sacrificer» referring to the ritualistic context of the textual Yajurvedic sources, definitively establishes the correlation between linguistic correctness and the efficacy of the ritual speech,  $^{21}$  so conferring the primacy of the linguistic competence on the sacerdotal sapiential tradition: in this way the linguistic *auctoritas* of the Brahmanical schools, whose Speech ( $v\bar{a}c$ ) is a powerful weapon as such, is definitely promoted. In actual fact, the compound "*indraśatru*", on which the aetiology of the defeat of Vrtra is pivoted, is mentioned in the later Rigvedic textual layer,  $^{22}$  that is in a hymn in the first book ( $^{24}$  NP 12.12.6; 12.12.10), belonging to the same textual layer of the Atharvavedic collection ( $^{24}$  AVP 12.12.6; 12.12.10),  $^{23}$  whose redaction is ascribable to the Kuru period: $^{24}$ 

RV 1.32.6d ≈ AVP 12.12.6d ≈ TB 2.5.4.4 sáṃ rujấnāḥ pipiṣa índraśatruḥ

sám ruj
$$\dot{a}$$
 + án $\ddot{a}$ h pipiṣe completely.PVB shattering-INS.F.SG. faceless-NOM.M.SG crush-PRF.3SG.PASS

ned in the Sāmavedic Jaiminīya Brāhmaņa 2.155.

<sup>&</sup>lt;sup>19</sup> Cf. Caland 1908, p. 126ff.; Bronkhorst 1991; Hock 1993.

<sup>&</sup>lt;sup>20</sup> For this interpretation see Joshi – Roodbergen 1986, pp. 41-42.

<sup>&</sup>lt;sup>21</sup> Cf. Deshpande 2001, p. 37.

<sup>&</sup>lt;sup>22</sup> As regards the Rigvedic textual layers and their correlation with the Atharvavedic collection, cf. WITZEL 1995b.

<sup>&</sup>lt;sup>23</sup> Cf. Bhattacharya's edition 1997.

<sup>&</sup>lt;sup>24</sup> Cf. e.g. WITZEL 1997, p. 278.

índraśatruḥ

[Indra-STEM-adversary-STEM]NOM.M.SG

'The faceless by shattering<sup>25</sup> was completely crushed, "indraśatru""

RV 1.32.10d;  $\approx$  AVP 12.12.10d dīrgháṃ táma  $\dot{a}$  sayad indrasatruḥ

dīrghám + támas + áśayat lie-IND.3SG.IPRF

indraśatruh

[Indra-STEM-adversary-STEM]NOM.M.SG "indraśatru" lay through the long darkness'

The hymn in which the compound occurs is a sort of epic composition, centred on Indra's archetypical heroic deed:<sup>26</sup> the defeat of the enemy-serpent (áhi), Vrtra, corresponding to the Indo-European mythologeme "HERO-SLAY-Adversary [in form of] SERPENT/Dragon".<sup>27</sup> In such a co-text, the compound "indraśatru" is interpreted as the bahuvrīhi 'one whose adversary is Indra' because of the accent, and employed as an epithet of Vrtra; 28 on the other hand, it does not occur as tatpurusa compound 'adversary of Indra' in the Rigyedic collection. However, it is analogue to the bahuvrīhi compound indrasakhi 'one whose comrade is Indra', mentioned in RV 7.34.24b and in the later textual stage (e.g. AVŚ 4.22.6c; 7c), which is in compliance with the type of Indo-Iranian bahuvrīhi compound "A als E habend", as analyzed by Schindler.<sup>29</sup> Moreover, indrasakhi refers to a phraseology frequently used in the Rigvedic collection, such as the genitive syntagmas *indrasya sákhi*-'comrade of Indra' / *indrasya* sakhiyá- 'comradeship of Indra'; 30 also the syntagma *indrena sakhiyá*- 'comradeship with Indra' is attested in RV 2.18.8a. Lastly, it can be considered as the equivalent of the instrumental syntagma *indrena sákhyā* 'with Indra as comrade', occurring in AVŚ 7.41.1d.<sup>31</sup> On the contrary, the phraseology involving the terms *indra* and *śát*ru is not so common: in the Rigvedic collection the phraseological inflected syntagma "X-GEN śátru-" ('adversary of s.one, against s.one') is mainly attested in the late Rigyedic textual layer.<sup>32</sup> and in the subsequent textual stage, as the above-mentioned MS passage points out, mainly referred to the antagonistic relationship with Indra, but, in actual fact, the explicit phrase *indrasva śátru*- is mentioned only in RV 10.155.5c. Nonetheless, the neologistic epithet śatru-hán 'slaying adversary', 33 equivalent to the

As to the controversial interpretation of  $ruj\acute{a}n\bar{a}h$ , see Oldenberg 1909, pp. 31-32; Witzel – Gotō 2007, p. 535; here, Thieme's hypothesis is assumed:  $ruj\acute{a}n\bar{a}h = ruj\acute{a}$  (ins. of root noun  $r\acute{u}j$ -) +  $\acute{a}n\bar{a}s = bahuvr\bar{i}hi < karmadh\bar{a}raya$  an- $\acute{a}s$  'no face' (Thieme 1957, p. 88).

<sup>&</sup>lt;sup>26</sup> Cf. the translation by Jamison – Brereton 2014, pp. 134-136.

<sup>&</sup>lt;sup>27</sup> Cf. the classic *How to Kill a Dragon* by WATKINS 1995.

<sup>&</sup>lt;sup>28</sup> So Scarlata – Widmer 2015, p. 9; and Lühr 2004b, pp. 182-183.

<sup>&</sup>lt;sup>29</sup> Cf. Schindler 1986, pp. 399-401.

<sup>&</sup>lt;sup>30</sup> Cf. RV 3.60.3a; 4.25.1b; 8.48.2c; 10.62.1b; in the ninth book they are formulaic expressions (7x).

<sup>&</sup>lt;sup>31</sup> Cf. Schindler 1986, p. 399.

<sup>&</sup>lt;sup>32</sup> E.g. RV 1.33.13a; 10.42.6c; 10.155.4c; AVŚ 4.22.3d; 20.89.6c; etc.

<sup>33</sup> RV 10.159.3a; AVP 7.20.

archetypical vrtra-hán 'slaying vrtra', 34 confirms that in this Vedic textual layer whosoever is to be the winner in a contest must be magically defined as Indra, while the term 'adversary' (śátru) identifies whosoever is to be defeated like the mythical Vrtra. Likewise, the syntagma "X-GEN hántar-" ('slayer of s.one') is the counter-syntagma of "X-GEN śátru-", so defining the Indraic hero, the winner as such<sup>35</sup>. The glossa of the later Nirukta (600-250 BCE<sup>36</sup>), applied to the interpretation of indrasatru, retains the same construction: 'Indra is slaver or destroyer of this one (who is) indraśatru'. Therefore, the menacing late Rigvedic syntagma "X-GEN śátru-" is thus apotropaically controlled: whosoever dares to arise as an adversary will be slain just as Indra slew his antagonist. Such phraseology seems to restore and amplify the image of Indra as unrivalled, already outlined in the earlier Rigyedic textual layer; he has no adversaries or counterparts, 38 and 'slays all the obstacles and adversaries in the contests'. 39 Moreover, neither the karmadhāraya compound indraśátru meaning 'adversary as Indra' or 'adversary in form of Indra', nor the predicative syntagma 'Indra [is] the adversary' is attested in the Rigvedic collection at all.<sup>40</sup> Therefore, the *bahuvrīhi* compound *indrasatru* seems to result from an innovative combination of the term *in*dra with śátru-", though in compliance with the type of Indo-Iranian bahuvrīhi compound represented by indrasakhi:

1)  $[_{RC}$  [X-GEN *satrur yah*] *sa indrasya satruh*] He who is adversary of s.one is adversary of Indra

2) [RC [\*indraḥ śatrur yasya / yena / yasmai / yasmāt] sa indraśatruḥ] He whose \*adversary is Indra / by whom \*Indra is adversary / against whom \*Indra is adversary / because of whom \*Indra is adversary, is indraśatru

In this way, the Indraic primacy is completely renewed, since 'one whose adversary is Indra' or 'by whom Indra is adversary / against whom Indra is adversary / because of whom Indra is adversary' is not only to be slain, like Vrtra, Indra's adversary par excellence, but is also not expected to exist other than Vrtra. Linguistically speaking, the Rigvedic compound "indraśatru" is used with exocentric value, and not as a determinative compound: it implies a syntactic relation between the denotatum-Vrtra and the surface constituents – indra and śátru –, which may be expressed by manifold relative phrasal paraphrases, thus implying a morphological expertise. In actual fact, the use of the relative pronoun in polyptotic constructions emerges in the inter-

The compound śatru-hán is based on the common phraseology involving the root han 'to slay', constructed with the accusative: cf. SCARLATA 1999, p. 693.

<sup>35</sup> It is attested in the late Rigvedic textual layer, e.g. in RV 10.166.1c; AVŚ 1.7.1d; etc.

<sup>&</sup>lt;sup>36</sup> The date of the *Nirukta* is a controversial matter.

<sup>&</sup>lt;sup>37</sup> Nir 2.16: indraśatrur indro 'sya śamayatā vā śātayitā vā.

<sup>&</sup>lt;sup>38</sup> Cf. e.g. RV 6.18.12c: násya śátrur ná pratimánam asti / 'there is neither adversary nor counterpart for him'.

<sup>&</sup>lt;sup>39</sup> RV 4.41.2c: sá hanti vrtrā samithéşu sátrūn.

<sup>&</sup>lt;sup>40</sup> As for the diachronic relationship between *bahuvrīhi* compound and *karmadhāraya* compound, this is not the focus of this article, but see just a hint on p. 15, and in note n. 45.

mediate Rigvedic textual layer and develops especially in the Atharvavedic formulations. An Nonetheless, the two surface constituents – *indra* and *śátru* – are juxtaposited as a simplified morpho-syntactic sequence [NN], in compliance with the model of compounding belonging to the pre-Rigvedic linguistic stage, and in particular with the "*indrasakhi*" type.

Thus, the late Rigvedic *bahuvrīhi* compound "*indraśatru*" as an epithet of Vṛtra connotes Indra as unrivalled in an innovative way: it results from both a sophisticated re-elaboration of mythological imagery already documented in the earlier Rigvedic textual layers, and a morpho-syntactic re-formulation of common phraseology, combined with profound textual expertise, by means of which the Indraic leadership is restored. It is therefore assumable that such a poetic neologism may be the outcome of that first work of textual survey and redaction dating back to the Kuru period, which inaugurated the process of canonisation of the Vedic textual *repertoire* and the correlated phenomenon of the formation of the Brahmanical "schools".<sup>43</sup>

Hence, the *bahuvrīhi* model represented by the case "*indraśatru*" is the output of metrical competences, linguistic expertise, poetic devices, and mythological imagery combined in a refined way by skillful philologists and exegetes. This came to constitute the sapiential Brahmanical tradition, transmitted in the scholarly *mileux*, inherited by Pāṇini himself and to which Pāṇini refers.

THE VEDIC SANSKRIT SCHOLARLY MODEL OF THE BAHUVRĪHI COMPOUND BETWEEN THE PROTO-INDO-EUROPEAN MODEL AND PĀNINI'S MODEL

The *bahuvrīhi* compound is considered an important issue of the Indo-European linguistics: Proto-Indo-European models of compounding are devised especially on the basis of the Sanskrit Vedic and the early Greek *bahuvrīhi* compounds:<sup>44</sup> in actual fact, the *bahuvrīhi* compounds are especially attested in the Vedic linguistic stage of the *Rgvedasamhitā* and in Homeric Greek, compared to a paucity of determinative compounds.<sup>45</sup>

<sup>41</sup> E.g. RV 2.12; AVŚ 10.7. Cf. Ronzitti 2014, p. 89ff.

<sup>&</sup>lt;sup>42</sup> As regards this issue, see below.

<sup>&</sup>lt;sup>43</sup> Cf. e.g. Witzel 1995a, pp. 14-15. In this perspective, the later scholarly analysis of the compound, correlated not only to the role of Indra but also to that of Viṣṇu, further corroborates the idea of cosmic sovereignty, thus confirming that the scholarly textual exeges is a means to promote political leadership.

<sup>&</sup>lt;sup>44</sup> Cf. Wackernagel 1957, pp. 273-307, §107-117; as for a survey about the *status quaestionis*, cf. Kastovsky 2009; Lindner 2012, pp. 88-121, and 2013, pp. 149-154; Tribulato 2015; Lundquist - Yates 2018, pp. 2118-2121.

<sup>&</sup>lt;sup>45</sup> The diachronic primacy of the exocentric compound has been debated: the *bahuvrīhi* compound is considered as being earlier than determinative compounds (*tatpuruṣa* and *karmadhāraya*); cf. Jacobi 1897, pp. 83-86 vs. Brugmann 1905-1906, p. 59. Furthermore, according to Jacobi 1897, pp. 3-4, the syntactic structure implied by *tatpuruṣa* compounds would be morphologically more articulated than the predicative construction entailed by *karmadhāraya* compounds, so that it is assumable that the attributive determinative compounds may belong to the same proto-linguistic stage as the *bahuvrīhi* 

Finally, the Proto-Indo-European model of compounding<sup>46</sup> assumes that a compound results from a process of 'univerbation' (*Univerbierung*) and 'lexicalisation' (Worteinung) of an original phrasal syntactic construction; in the case of the bahu*vrīhi* compound, it can be a relative clause structure with possessive meaning (e.g. 'one whose adversary is Indra'). Therefore, in compliance with this reconstruction, the category of bahuvrīhi compound emerges from the shifting of syntactic structures to morpho-lexical ones. However, Jacobi argued that the bahuvrīhi compound in particular must derive from sentences without a copula, by means of a simple process of a 'juxtaposition' (Zusammenrückung) of simplified syntactic sequences (e.g. [AN], [AdvN], [NN], [NA]), without implying any exclusive possessive meaning and relative pronoun construction.<sup>47</sup> This latter hypothesis would be congruent with the Pāninian model, whose morphological and syntactic valency is variable, since it is exhausted outside the compound itself, depending on the phrasal co-text.

On the other hand, such a process of univerbation and juxtaposition, pertaining to the primordial linguistic stage, entails that the morpho-syntactic structures themselves are questionable, and that the system of nominal inflection was not fully developed yet, 48 or even still at a pre-inflectional stage. 49 Thus, by applying Jakob Wackernagel's analysis, 50 and taking into account the relative chronology of the Rigvedic collection, 51 for example the compound *uttānáhasta* 'one whose hands are outstretched', referring to the praying posture for the suppliant, must derive from the process of univerbation of the phrase \*uttāná(s) hásta(s). Attested in the formulaic expression uttānáhasta $n\acute{a}mas\bar{a}$  'with outstretched hand in reverence', <sup>52</sup> it corresponds to the Indo-European phraseology documented for example in the Homeric formula χεῖρας ἀνασχεῖν 'to raise the hands', and especially in the equivalent Old Avestan formula nəmanhā ustānazastō 'with outstretched hands in reverence', so that it can be considered as an Indo-Iranian relic and even a Vedic archaism.53

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RV 10.79.2d uttānáhastā námasādhi viksú
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uttānáhastā námasā [outstretched-STEM-hand-STEM]NOM.M.PL. reverence-INS.N.SG. among.ADV clan-LOC.M.PL

'[they] with outstretched hands among the clans'

one, according to Brugmann 1906, p. 75.

<sup>46</sup> Cf. Brugmann 1906, pp. 35-50, §18-19; 49-52, §23; 75-76, §34.

<sup>&</sup>lt;sup>47</sup> Cf. Jacobi 1897, pp. 87-90; especially pp. 89-90.

<sup>&</sup>lt;sup>48</sup> So Wackernagel 1957, pp. 288-291, §112, though admitting a primordial inflectional system: cf. Ivi, pp. 45-46, §19.

<sup>&</sup>lt;sup>49</sup> This was the *communis opinio* from Jacobi 1897, p. 1 onwards.

<sup>&</sup>lt;sup>50</sup> Wackernagel 1957, pp. 289-290.

<sup>&</sup>lt;sup>51</sup> Cf. WITZEL 1995b.

<sup>&</sup>lt;sup>52</sup> It occurs in RV 3.14.5b; 6.16.46d; 6.63.3dc; 10.79.2d.

<sup>&</sup>lt;sup>53</sup> Cf. Dunkel 1993, 111-114.

Similarly, against such an Indo-Iranian background, a root is closely connected to the image of the fire, that is PIIr (s)ćauč 'to burn, to blaze, to flame'. <sup>54</sup> In Vedic Sanskrit the correlated root śuc is extremely productive through its derivatives: the bahuvrīhi compound śukráśocis 'one whose flame is burning', denoting the fire, <sup>55</sup> is redundantly formed by two constituents (śuk-rá 'burning, blazing' and śoc-ís 'flame, blaze') both derived from the same root śuc, with derivational suffix and ablaut.

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E.g. RV 7.15.10ab agnī rákṣāṃsi sedhati śukráśocir ámartiyaḥ
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agnī+rákṣāṃsisedhatiśukráśocir+fire-NOM.M.SG demon-ACC.N.PL ward.off-IND.3SG.PRES [blazing-STEM-flame-STEM]NOM.M.SGámartiyaḥimmortal-NOM.M.SG
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In this case too, the *bahuvrīhi* compound *śukráśocis* would be the result of the univerbation of the constituents of a simplified syntagma \**śukrá(m) śocis agni(s)* thus retaining the oxytone accent of *śukrá*, but evident morphological processes based on derivational suffixes and ablaut of root are also to be assumed.

Similarly, the *bahuvrīhi* compound *tuviśravas-tama* 'one whose fame is very mighty' or 'very mighty-famed', <sup>56</sup> referring both to Agni and the progeny he supports might result from the juxtaposition of \*tuvi 'strong, mighty' (< PIE \*tuH<sub>2</sub>-i-) and śrávas 'fame, glory' (< PIE \*kleuos), in a simple phrase such as \* tuvi śrávas agni(s) 'mighty fame, Agni'. The motif of 'fame, glory' represented by the PIE \*kleuos is widespread in the Indo-European background, <sup>57</sup> and the Vedic compound \*tuviśravas is etymologically the equivalent of the Cypr  $\sigma\alpha\mu\sigma\lambda\dot{\epsilon}\mu\eta\varsigma$ . <sup>58</sup> The compound pṛthuśrávas, 'one whose fame is broad' or 'far-famed', occurring in the intermediate and later Rigvedic textual layers <sup>59</sup> as the name of a generous patron ( $s\bar{u}ri$ ), might also be the outcome of \*pṛthú śrávas  $s\bar{u}ri(s)$  'broad fame, patron', which would reflect the same Proto-Indo-European ideology as the \*kleuos, on which the paradigm of leadership relies.

Lastly, the famous scholarly example *indraśatru* referred to *vrtrá*, might also be analysed as the outcome of the univerbation of the simple phrase \**indra(s) śátru(s) vrtrá(s)* 'Indra the adversary, Vrtra', preserving the accent on the same syllable of the first term *indra*, which is juxtaposed, without hypothesising any relative clause structure.

<sup>&#</sup>x27;Agni, whose flame is flaming, the immortal, wards off the demons'

<sup>&</sup>lt;sup>54</sup> Cf. Mayrhofer 1996, pp. 655-656; Lubotsky 2001.

<sup>&</sup>lt;sup>55</sup> Attested e.g. in RV 2.2.3c; 8.44.9b; 8.23.20b; 7.14.1c; 7.15.10b.

<sup>&</sup>lt;sup>56</sup> RV 5.25.5a; 3.11.6c.

<sup>&</sup>lt;sup>57</sup> Cf. Watkins 1995, p. 114.

<sup>&</sup>lt;sup>58</sup> Cf. Lubotsky 1988, p. 123; tuvi 'strong' is the zero grade form (\* $tuh_2$ -i-) of the adjective  $tav\dot{a}s$ , a derivative of the root  $tav^i$  'to be strong' < PIE \* $teuh_2$ - /  $tuh_2$ -, cognate of Lat  $tum\bar{e}re$  'to be swollen', and Gr  $\sigma\dot{\alpha}o\varsigma$  /  $\sigma\dot{\alpha}s$  'safe, healthy'.

<sup>&</sup>lt;sup>59</sup> RV 8.46.21d; 24a and 1.116.21d.

Thus, in compliance with such a Proto-Indo-European model of the *bahuvrīhi* compound, no relative clause or other complex morpho-syntactic structures should be involved: in this sense any compound might result from metonymic processes belonging to the earlier poetic language, according to which the outstretched hands are identified with the suppliant and the blazing flame with the fire as such, the broad fame with the heroic and generous leader of the clan as such, while the relationship between Indra and the adversary metaphorically evokes Vṛtra as such, 60 without any specific affix conveying any specific morphological value.

However, it is worth recalling that, apart from any diachronic primacy, the *bahu-vrīhi* compound is found throughout manifold linguistic Sanskrit strata, such as earlier or later Vedic Sanskrit or even classical Sanskrit. What is different is the level of linguistic and metaphorical complexity: the more complex the metaphorically elaborated image, the more refined and magically connotative the poetic register, token of a deeper level of poetic skills, and of a more complex cultural reality. Thus, what might be a metonymic output, without any ending, insofar as it belonged to a pre-flectional or semi-inflectional linguistic stage, was eventually developed as a poetic device, cleverly and refinedly used in relation to different expressive aims, depending on the different cultural stages.<sup>61</sup>

For example,  $utt\bar{a}n\acute{a}hasta$  'one whose hands are outstretched' immediately denotes the figure of the suppliant, but in RV 10.79.2d it alludes to a solemn clan ritual, centred on the fire-clan. Similarly,  $\acute{s}ukr\acute{a}\acute{s}ocis$  'one whose flame is flaming' which defines the fire as such, is a metonymy immediately denoting the object "fire"; but redoubling the same root ( $\acute{s}uc$ ) by means of the two derivatives used as constituents, it appears to be a sophisticated poetic device, a sort of etymological figure, rather than a mere metonymy. Likewise,  $\acute{i}ndra\acute{s}atru$  'one whose adversary is Indra' is the fruit of a linguistically and metaphorically elaborated revision. In actual fact, as pointed out above, the  $\emph{bahuvr}$  $\emph{i}$ hi  $\emph{i}$ ndra $\emph{s}$ atru conveys a more effective value than the simple  $\emph{tat-purusa}$  'adversary ( $\emph{s}$ atru) of Indra', reversing the role of Indra himself; since he is an 'adversary' ( $\emph{s}$ atru), he overrides all his own adversaries, establishing himself as the supreme and cosmic leader.  $^{62}$ 

Therefore, the Vedic Sanskrit *bahuvrīhi* compound as attested in the Rigvedic, Atharvavedic and Yajurvedic collections is only apparently in line with the Proto-Indo-European model of the *bahuvrīhi* compound that relies on univerbation and juxtaposition: it depends on the different linguistic and poetic stages, corresponding to different Vedic cultural stages.

Finally, although it may be controversial to relate such a process of juxtaposition to a pre-flectional linguistic stage, characterised by the zero-ending of all the con-

<sup>&</sup>lt;sup>60</sup> Cf. Bauer 2008; 2018. Candotti – Pontillo 2019, pp. 19-20, are not fully convinced about this hypothesis.

<sup>&</sup>lt;sup>61</sup> As to the difference between earlier Vedic compounding and later classical Sanskrit compounding, cf. Renou 1956.

<sup>62</sup> In actual fact, the value expressed by such a compound ratifies Indra's supremacy as a cosmic sovereignty.

stituents, or to inflected endings, but realized by means of zero morpheme, 63 it is worth noticing that except for *uttānáhasta*, that is the crystallised Indo-Iranian form, open inflected syntagmas of the constituents of compounds are found throughout all the textual layers. For example, the two constituents prthú and śrávas are mentioned separately as syntagma prthú śrávas 'broad fame' in RV 7.5.8d; the inflected syntagma \*śukrá(m) śocis is frequently mentioned mainly in the instrumental case śukréna śocisā 'with the blazing flame', mostly in the late Rigyedic and mantric textual layers<sup>64</sup>. On the other hand, the same inflected syntagma śukréna śocisā also occurs in RV 4.52.7c and 6.48.7b; furthermore, the genitive form is used in the expression śúkrasva śocisas pate 'o lord of the blazing flame' referring to the god Agni in RV 5.6.5b. This would mean that not only is the bahuvrīhi compound śukráśocis evidently correlated to the flectional system, but that it was also constructed in parallel with morphological responsions and polyptota that seem to turn the derivational affix and grammatical complexity into a poetic device and, reversely, poetry into an overview of morpho-syntactic peculiarities. 65 Thus, on the one hand, the bahuvrīhi compound śukráśocis occurs in the mantric textual layer. 66 even with additional morpho-lexical redundancy based on the term śukrá. 67 On the other hand, we find examples of the formulaic phrasal syntactic construction śukraż śocimsy agnéh lit. 'the flames of the fire are blazing': 68 it appears as a sort of gloss of the bahuvrīhi compound itself, inasmuch as the blazing flames are defined as belonging to the fire; it actually precedes later relative scholarly phrasal paraphrases: fire 'whose flames [are] blazing' is *śukráśocih*.

Furthermore, neither \*tuví śrávas nor \*tavás śrávas ('mighty fame') are found as open syntagma, but the secondary morpheme -tama of the compound tuvíśravas-tama suggests that it is morphologically considered as one adjectival stem. <sup>69</sup> Lastly, the phrase \*indra(s) śátru(s) 'Indra the adversary' is not attested in the Rigvedic collection, as noticed above, but it is evoked by the cadence indra śátrūn 'O Indra, the adversaries (acc.pl.)' occurring in the late Rigvedic stage. <sup>70</sup>

From this synthetic argumentation it follows that not only is there no univocal model of Proto-Indo-European compounding, particularly of the *bahuvrīhi* compound, but the Proto-Indo-European model of the *bahuvrīhi* compound only apparently coincides with the Pāṇinian model. In fact, the Pāṇinian model of zero-ending for all the con-

<sup>63</sup> Such as vocative, imperative, etc.: cf. Dunkel 1999.

 $<sup>^{64}</sup>$  E.g. RV 1.48.14d; 1.12.12a; 8.44.14b; 8.56.5c; 10.21.8a; 10.45.7d ≈ MS 2.7.9d; KS 16.9d; TS 4.2.2.2d; VS 12.24d.

<sup>65</sup> Cf. Klein 2002; Ronzitti 2014, pp. 15-101.

<sup>&</sup>lt;sup>66</sup> RV 7.15.10ab ≈ AVŚ 8.3.26b; MS 4.11.5b; KS 2.14b; TB 2.4.1.6b.

<sup>&</sup>lt;sup>67</sup> E.g. MS 1.3.12b śukrāu śukraśociṣāu 'the two blazes whose flames are blazing'.

<sup>&</sup>lt;sup>68</sup> E.g. AVŚ 5.27.1b; TS 4.1.8.1b; MS 2.12.6b; KS 18.17b; VS 27.11b; ŚB 6.2.1.32.

<sup>&</sup>lt;sup>69</sup> For instance, the same structure is reproduced in the connotative compound, referring to the fire-clan, *citráśravastama* 'one whose fame is very shining' (*e.g.* RV 3.59.6c; 1.1.5b; 1.45.6a). In this case too, a complex metaphorical value is combined with a morphemic sequence, so that grammatical competence and poetic effect are closely correlated.

<sup>&</sup>lt;sup>70</sup> RV 10.112.5a; 1.178.5a; AVP 3.21.3d.

stituents is not valid for the bahuvrīhi compound only, but for any category of compounds;<sup>71</sup> moreover, it postulates not only a fully developed inflectional system,<sup>72</sup> but also a high degree of metalinguistic expertise. The very few cases of the above-mentioned Rigvedic bahuvrīhi compounds seem to account for a more variable situation: throughout the diachronic development of the Vedic textual *repertoire* not only does the inflectional system operate regularly, but derivational processes are also active either as innovative output or conservative archaism. Furthermore, a specific grammatical competence of a skilled category of "poets" is assumable, so that what may also be a relic of a hypothesised pre-flectional or semi-flectional stage (e.g. \*tuviśrávas < PIE \*tuH<sub>2</sub>-i \*kleuos) is combined with a morphological suffix (e.g. tuviśravastama) or employed as a solemnising archaism (uttānáhasta); the derivational suffix with root ablaut is used to increase the magic effect of the same root (e.g. śukrá – śocis). Indeed, it is evident that at least from both the late Rigvedic textual layer and mantric linguistic strata on, we find a competent use of linguistic devices aimed at heightening poetic register together with the adoption of an exegetic linguistic effort that attempts to shed new light also on common expressions. A primordial metalinguistic tendency was also developed, as attested in the *padapāṭha* ascribed to Śākalya.<sup>73</sup> As is well known, in this redaction of the *Rgvedasamhitā*, the *sandhi* is solved in a 'word-for-word' text, and compounds – as well as a few inflected forms – are analysed in their constituents, of which the first one is quoted as zero-ending. Thus, uttāna-hastāh, śukra-śocih, tuviśravaḥ-tamaḥ, pṛthu-śravasaḥ, indra-śatruḥ are found respectively in Śākalya's padapātha, attesting morpho-syntactic competence.<sup>74</sup>

Later on, Pāṇini shows that he is well acquainted with this Brahmanical scholarly tradition<sup>75</sup> and the Pāṇinian Sanskrit itself is correlated to it: given such a Brahmanical scholarly context, a sort of scholarly "grammatical" model of compounding is to be posited. This is consistent with the development of textual exegesis and metalinguistic competence in the Brahmanical scholarly framework, prior to the Pāṇinian model, which allowed Pāṇini's model of *bahuvrīhi* compound to be defined.

However, such a development of metalinguistic competence is combined with an apparently conservative linguistic trait, that is Sanskrit Vedic accentuation: in compounds in particular it is employed as a contrastive suprasegmental marker to distinguish the exocentric compound *versus* what is otherwise a non-detectable endocentric compound, since it is not saturated by any suffix.

<sup>&</sup>lt;sup>71</sup> Cf. A 2.4.71; CANDOTTI – PONTILLO 2019, p. 31: «The case-endings of both the constituents are equally zeroed in the same way in both exocentric and in endocentric compounds, irrespective of the fact that in endocentric compounds one of the members is the head of the compound».

<sup>&</sup>lt;sup>72</sup> Also, Dunkel 1999, p. 53.

<sup>&</sup>lt;sup>73</sup> As regards Śākalya's *padapāṭha* as an early case of *canonization* of the Rigvedic text, cf. Witzel 1997, pp. 324-326; also, Scharfe 2009, pp. 73-84.

<sup>&</sup>lt;sup>74</sup> Cf. the text of the *Padapāṭha* from http://gretil.sub.uni-goettingen.de. It is worth recalling that in Śākalya's *padapāṭha* open syntagma are used in place of the corresponding compound: cf. SCHARFE 2009 p. 83.

As regards the relationship between Śākalya's padapāṭha and Pāṇini's work, cf. Bronkhorst 1981; 1982, Cardona 1991.

ACCENTUATION AND VEDIC SANSKRIT SCHOLARLY "GRAMMATICAL" MODEL OF 
BAHLIVRĪHI COMPOLIND

As far as the accentuation is concerned, Panini's model is defined in the aforementioned A 6.2.1: the first constituent of the *bahuvrīhi* compound retains its 'natural'  $(prakrtv\bar{a})$  accent, that is on the syllable which would be stressed if the word was not combined with another one in order to form a compound. Such Pānini's model is consistent with the accentual behavior of the scholarly "grammatical" model accounted for by the case "indrasatru". On the other hand, according to the Proto-Indo-European reconstruction, the fact that the Vedic Sanskrit bahuvrīhi inherited the accentuation of the first juxtaposed element is demonstrated by the tendency to preserve a sort of Proto-Indo-European rhythmic principle which confers relevance on the initial position of a sentence. <sup>76</sup> Moreover, in accordance with the recent studies about Proto-Indo-European accentuation, patterns of accentual behavior can be reconstructed, such as the so-called Basic Accentuation Principle (BAP) formulated by Kiparsky, 77 whereby all accents are erased but the leftmost one, so that the accent is put on the leftmost syllable of an unaccented domain. Therefore, the accent on the first constituent of the Pāninian model of bahuvrīhi compound may be a relic of such Proto-Indo-European accentual behaviour, even though Pānini insists on the fact that the constituents of a compound bring their own original accent, as if they were independent pada. 78 However, as noticed above, Pānini's model of bahuvrīhi. despite the zero-ending for all the constituents, operates within an inflectional and derivational system, with affix which can operate as "dominant" morphemes, thus influencing the surface accentuation. Moreover, although the accentuation in the Sanskrit adopted by Panini and described in his work is in continuity with the early Vedic Sanskrit language, it is likely that the early Vedic accentuation was more affected by prosodical and metrical conditions than the Sanskrit language referred to in the Pāninian sūtras. Therefore, the fact that the accentuation on the first constituent is specified as a characterising trait of the bahuvrīhi compound, in the face of the determinative compounds, is not merely a relic form, but a morphologically relevant marker.

In actual fact, the accentuation of early Vedic Sanskrit is not so predictable: cases of fluctuation are frequent, especially in compounding, insofar as early Vedic Sanskrit presents characteristics of "tonal" language, with the surface accentuation determined by an inherent prosodic property of each constituent morpheme of a word<sup>79</sup> but, in any case, derivational and inflectional processes are fully developed,

 $<sup>^{76}</sup>$  Indeed, the beginning of the  $p\bar{a}da$  in the Rigvedic collection retains such a relevance so that vocative forms of  $bahuvr\bar{t}hi$  compounds also retract the accent on the first syllable. As for this acrotonic principle in the Rigvedic collection, especially in relation to verbal and vocative forms cf. KLEIN 1992, pp. 86-87; 111 n. 53.

<sup>&</sup>lt;sup>77</sup> Cf. Kiparsky e.g. 2010, p. 31.

<sup>&</sup>lt;sup>78</sup> Cf. Sharma 2001, p. 193.

<sup>&</sup>lt;sup>79</sup> Cf. Lubotsky 1988, pp. 4-5; and 1995; as for the Vedic accentuation cf. Macdonell 1910, p. 76ff.

so that they may affect specific accentual behaviour, and the accentuation can be employed even as a grammatical marker. 80 Therefore, although the majority of the Rigyedic bahuvrīhi compounds are accented on the first constituent, thus complying with both Kiparsky's BAP and the Proto-Indo-European model of compounding, we do find a relevant number of bahuvrīhi compounds stressed on the second constituent: for example, the aforementioned *prthuśrávas*. Moreover, this phenomenon appears to occur regularly in the case of bahuvrīhi compounds with -i and -u stem adjectives as the first constituent.81 These stems were affected by a specific Indo-Iranian laryngeal accent shift, 82 secondary to other Indo-Iranian linguistic processes. This triggered prosodic and accentual effects, as assumed by Jakob Wackernagel.<sup>83</sup> so that the second constituent of the bahuvrīhi compounds is stressed, instead of the first one, particulary on the last syllable, thus making them oxytones. 84 For example, bahuvrīhi compounds with \*tuvi 'strong' as first constituent, occurring in all the textual layers of the Rigvedic collection, can be barytone, either stressed on the first constituent, such as the aforementioned tuviśravastama, or stressed on the second constituent, such as tuvigriva 'strong-necked': 85 but also oxytone output are frequently found, such as tuvidyumná 'one whose splendor is strong', 86 tuvinrmná 'one whose manliness is mighty'. 87 Similarly, as far as the bahuvrīhi compounds with adjective prthú 'broad' as first constituent is concerned, either cases like prthúsrávas or cases like prthubudhná 'broad-based' are found, 88 both stressed on the second constituent, but the former is barytone and the latter is oxytone. 89 The oxytonical outcome would comply with another Proto-Indo-European accentual principle. the so-called Oxytone Rule (OR), as claimed by Paul Kiparsky, 90 whereby an accent is to be assigned to the rightmost edge of polysyllabic inflected stems. On the other hand, assuming that the Indo-European forms such as \*tuH<sub>2</sub>-i or pl tH<sub>2</sub>-u were unaccented, or better, characterised by low tone morphemes, the accentuation of compounds such as tuvigrīva or pṛthuśrávas would be in accordance with the BAP: the leftmost syllable within the accentuable domain is accented, that is the first syl-

The question of the accentual behaviour of the affix, especially in relation to the root ablaut, is one of the recent controversial issues in Indo-European studies: cf. Lundquist – Yates 2018, pp. 2129-2137, and Pooth 2018, with their bibliography. As for the Vedic Sanskrit accent as a grammatical marker, the case of the vocative once again provides an important example: the vocative has no surface accentuation except for the acrotonic position.

For example:  $purur\acute{u}pa$  'many-formed' with  $pur\acute{u}$  'much, many, abundant' ( $<*pl_{_l}H_{_l}-u$ ),  $p_rthup\acute{a}kṣas$  'broad-flanked' with  $prth\acute{u}$  'broad' ( $<*pl_{_l}tH_{_2}-u$ -),  $uruc\acute{a}kṣas$  'far-sighted' with  $ur\acute{u}$  'wide, broad' ( $<*tl_{_l}urH-u$ -),  $tuvigr\acute{t}va$  'strong-necked' with  $tuv\acute{u}$  'strong' ( $<*tuH_{_l}-i$ -).

<sup>82</sup> Lubotsky 1992.

<sup>83</sup> Cf. Wackernagel 1971, pp. 1108-1121.

This case would be dominant according to MACDONELL 1910, p. 92.

<sup>85</sup> E.g. RV 5.2.12a; 1.187.5d.

<sup>&</sup>lt;sup>86</sup> E.g. RV 4.21.2b; 6.18.16a; 8.90.2c; 1.88.3d.

<sup>87</sup> E.g. RV 10.61.3c; 1.43.7c.

<sup>88</sup> RV 4.2.5d; 1.169.6c.

<sup>&</sup>lt;sup>89</sup> As regard a complete list of the Rigvedic *bahuvrīhi* compounds, cf. Melazzo 2010.

<sup>90</sup> Cf. Kiparsky e.g. 2010.

lable of the second constituent. 91 However, despite the manifold "exceptions" to the head sūtra A 6.1.220, these peculiar cases are not evidently contemplated in the Pāninian linguistic variety, except for a hint in A 6.2.168; in a certain way one could say that they are levelled. Furthermore, in a diachronic perspective the application of Kiparsky's accentual principles should not simply be taken for granted: in the case of the derivational process of stems, the definition of the surface accent should depend on the OR, operating after erasing the inherent accent, and secondly the BAP should be activated: 92 that is to say that in the Proto-Indo-European linguistic stage in which morphological processes were developed, and later, in the Indo-Iranian linguistic stage and even in the early Vedic Sanskrit stage, oxytone outputs must have been widespread, thus contrasting with the tendency noticed above, that is the rhythmic relevance conferred on the opening position of speech. In actual fact, Kiparsky's approach has recently been further explored, better targeted, and even criticised in works that focus on the ambiguous outputs of a few verbal and nominal stems, correlated in particular to similar accentual behaviour in other languages (e.g. Old Greek):93 for example, a few nominal stems are attested with divergent accents that are either oxytone or barytone: e.g. nominal a- stem such as krsna 'black antelope' (RV 10.94.5) or Kýsna as a proper name (RV 8.85.3-4) vs krsná 'black' (e.g. RV 4.7.9); -u stem such as dāru 'wood' (RV 6.3.4; 10.155.3) vs dārú 'wooden' (RV 7.6.1; post-RV); 4 -ti stem such as śakti 'skill, ability' (e.g. RV 4.22.8; 7.20.10; etc.) vs śákti 'power, strength' (e.g. RV 10.36.6), 95 and matí 'thinking' (e.g. RV 5.67.5; 6.8.1; 3.39.1, etc.) vs máti 'inspired thought' (MS 4.9.6; post-RV). 96 In a synchronic perspective, this accentual fluctuation with evident divergent behaviour can be interpreted as diatopic and diastratic phenomena, in relation to different Vedic dialects. 97 Moreover, in the aforementioned cases the accent operates in a contrastive way as a suprasegmental marker of different morpho-syntactic functions: noun vs adjective or concrete name vs abstract name, 98 not dissimilarly from the application of the accent to compounding, as exemplified by the scholarly case of "indrasatru", later normalised by means of the Pāninian sūtras.

However, in the diachronic perspective, the tendency to barytonesis appears to develop more recently, when confronted with the oxytone outputs. 9 If we consider the evidence from Old Greek (e.g.  $\tau \dot{\phi} \mu o \zeta$  'slice' vs  $\tau \dot{\phi} \mu \dot{\phi} \zeta$  'cutting'), 100 it is assumable that this accentual shift phenomenon might have emerged even in the pre-Rigyedic peri-

<sup>&</sup>lt;sup>91</sup> Cf. Ivi, pp. 31-32.

<sup>&</sup>lt;sup>92</sup> Cf. *e.g.* Rhyne – Byrd 2016, pp. 263-266 focus on the phenomenon of de-accentuation; also Pooth 2018, p. 18, more critically.

<sup>93</sup> Cf. Keydana 2016; Sandell 2015; Pooth 2018.

<sup>&</sup>lt;sup>94</sup> Сf. Роотн 2018, pp. 6-7.

<sup>95</sup> Cf. Lubotsky 1988, p. 37; Ronzitti 2011; Lundquist 2015, p. 48 n. 10.

<sup>96</sup> Cf. Lundquist 2015.

<sup>97</sup> E.g. Kuiper 1942.

<sup>98</sup> Cf. Lazzeroni 1995; Pooth 2018.

<sup>99</sup> Cf. Lazzeroni 1995, pp. 42-43; Lundquist 2015; Yates 2019, pp. 205; 215-216.

<sup>&</sup>lt;sup>100</sup> Cf. Lubotsky 1988, p. 126ff.; Lazzeroni 1995.

od, although it would spread later, probably even correlated to a specific dialect trait: this would mean that the Rigvedic collection presents both conservative and innovative linguistic traits in a blended way, which would thus account for the fluctuant accentual behaviour. On the other hand, it is attested especially in the late Rigvedic textual layer and in the post-Rigvedic linguistic stage: it was from the late Rigvedic stage onwards, during the mantric and the prose periods, that barytonesis and oxytonesis came to be defined in an evident contrastive use (e.g. kṛṣṇá 'black' / kṛṣṇa 'black antelope'), and also in a productive way (e.g. dắru 'wood' / dārú 'wooden'). Hence, it is likely that barytonesis was progressively normalised in scholarly use: in Pāṇini's work the -ti stems are represented as oxytones only in relation to a mantra section (A 3.3.96-97), which would mean that they are normally barytone in Vedic prose and in the bhāṣā condition. 102

The Rigvedic *bahuvrīhi* compounds also show divergent accentual behaviour, such as the oxytone *tuvimaghá* 'one whose bounty is mighty' (RV 5.33.6c), and the barytone *tuvimagha* (RV 5.57.8b; 8.81.2b) with the accent on the first constituent; the barytone forms *tuvivája* 'one whose prizes are mighty' (RV 6.18.11b) with the accent on the second constituent, and *tuvívāja* (RV 1.30.13b) with the first constituent stressed. Similarly, another remarkable case is the compound "*pṛthu-budhna*", which is conventionally translated as *bahuvrīhi* 'broad based' and attested in the Rigvedic collection with twofold accentuation: two occurrences with an oxytone accent as *pṛthubudhná* (RV 4.2.5d; 1.169.6c), and two occurrences with an accent on the first constituent, as *pṛthúbudhna* (RV 10.47.3b; 1.28.1a).

Given these accentual fluctuations, the diachronic relationship between these compounds can only be tentatively hypothesized, also by aligning it with the supposed diachronic reconstruction of the nominal accentual behaviour, whose basic outline is given above: barytone cases such as *tuvivāja* 'one whose prizes are mighty' or *tuvigrīva* 'strong-necked', and oxytone cases such as *tuvidyumná* 'one whose splendour is strong' are probably simultaneous; both triggered by the laryngeal accent shift in the Indo-Iranian linguistic stage, so that they present the accentuation on the second constituent. On the other hand, barytone cases such as *tuviśravas-ta-ma*, with the first constituent stressed, must have emerged later, also as compared to *suśrávas-tama*, aligned with the laryngeal accent shift; instead, *tuviśravas-tama* is reasonably modelled both in compliance with the current tendency to use innovative forms of barytonesis, on an in parallel to other examples such as *prathamáśravas-ta-*

In such a fluctuant condition, a derivational contrastive accent shift may be an effective accentual criterium; cf. the alternative model by POOTH 2018.

<sup>&</sup>lt;sup>102</sup> Cf. Thieme 1935, pp. 39-40.

<sup>103</sup> In actual fact, as far as I know, current cases such as \*tuvivājá or \*tuvigrīvá and \*tuvidyúmna do not occur. As for the analogous case of su-śrávas 'one whose fame is good' in comparison to the oxytone Greek εὖ-κλεής, cf. Lundquist 2016.

<sup>104</sup> RV 3.45.5d; 8.45.8c; 1.91.17c.

As for the innovative tendency to apply barytonesis to compounds, see the case presented by YATES 2019, p. 205; as for the superlative suffix *-tama*, it is normally unaccented, with rare exceptions, such as the case of *puru-táma*, due to the usual effect of the aforementioned Indo-Iranian laryngeal accent shift.

ma 'one whose fame is especially the foremost' (RV 4.36.5a) or *citráśravas-tama* 'one whose fame is very shining', 106 thus apparently corresponding to the standard Proto-Indo-European prototype. In a certain way, the innovative tendency to use barytonesis is combined with the elaborated poetry that in the late Rigvedic period renovated poetic expression in a refined way: new compounds reflect the Proto-Indo-European model, with the first constituent stressed, but consciously, like a form of refined archaism. Likewise, cases such as *tuvívāja*, and *pṛthúbudhna* with the unexpected accent on the first constituent must be the result of an analogous process; it is worth noticing that these barytone forms are primarily transmitted and employed in the post-Rigvedic textual *repertoire*: 107 for example, unlike verse RV 6.18.11b with the form *tuvivāja*, the Rigvedic verse 1.30.13b in particular, in which the form *tuvivāja* occurs, is also mentioned in the other post-Rigvedic collections. 108

RV 1.30.13b indre santu tuvivājāḥ

índre santu tuvívājāḥ

Indra-LOC.M.SG be-IMP.3SG [mighty-STEM-prize-STEM]NOM.M.PL.

'Let there be they whose prizes are mighty in relation to Indra'

Here the *bahuvrīhi* compound is substantivised, unlike the case of *tuvivāja*: the form *tuvivāja* denotes the category of Indra's companions, endowed with mighty prizes as such; thus, this twofold accentuation of the same *bahuvrīhi* compound *tuvivāja* vs tu-vivāja appears to mark different morpho-syntactic functions contrastively: *tuvivāja* works as an adjective, *tuvivāja* as a substantivised epithet.

The case of "pṛthubudhna" 'broad-based' seems to confirm this tendency: both barytone and oxytone forms are found in the Rigvedic collection, but only the barytone one is transmitted and employed in the late Vedic textual repertoire; moreover, it comes to assume a technical meaning, denoting one of the stones used as a ritual tool for the soma-pressing: it is adopted in the phrase grāvan pṛthúbudhna, the 'broad-based stone', probably the mortar, which occurs in RV 1.28.1a.<sup>109</sup>

RV 1.28.1ab yátra grávā prthúbudhna ūrdhvó bhávati sótave

yátra	grāvā -	+	pṛthúbudhna
where.ADV	stone-NOM.M.SG		[broad-STEM-base-STEM]NOM.M.SG

<sup>&</sup>lt;sup>106</sup> RV 3.59.6c; 1.1.5b; 1.45.6a.

Also Macdonell 1910, pp. 92-93 points out that in the post-Rigvedic collections there is an increasing tendency to use the *bahuvrīhi* compound with the first constituent "regularly" stressed. Here is a list of the *bahuvrīhi* compounds with the accent on the first constituent, despite the Indo-Iranian laryngeal accent shift: *pṛthúśiras* (AVŚ 5.17.13a); *urúdhāra* (ŖV 8.93.3c, 8.1.10d; AVŚ 20.7.3c; TS 7.1.6.6b; VS 8.42b; ŚB 4.5.8.9; etc.); *urúyuga* (ŖV 8.98.9b; AVŚ 20.100.3b), *urúloka* (ŖV 10.128.2c; AVŚ 5.3.3c; AVP 5.4.3c, etc.). It is evident that they occur mainly in the late Rigvedic textual layer and subsequently.

<sup>&</sup>lt;sup>108</sup> E.g. AVŚ 20.122.1b; SV 1.153b; 2.434b; MS.4.12.4b; KS 8.17b; TS 1.7.13.5b; 2.2.12.8b; 4.14.4b.

<sup>&</sup>lt;sup>109</sup> It is also mentioned in AVŚ 12.3.14a, AVP 17.51.4a, VS 1.14.

ūrdhvó+bhávati+sótaveupright-NOM.M.SGbe-IND.PRS.3SGpress-INF.DAT.

'When the pressing stone, the broad based, is upright for pressing press'

Given such a pre-Pāninian scenario. Pānini's model of the bahuvrīhi compound accounts for the linguistic situation that developed in the post-Rigvedic scholarly context, especially in relation to the Brahmanical textual exegesis. In actual fact, Pānini's work only reports a few exceptions to the *sūtra* 6.2.1, that is only in the case of a specific lexicon is the accent posited on the second constituent (sūtras 6.2.111-120; 138), confirming that the *bahuvrīhi* compound retaining the original accent was uniformly accepted as the dominant model. This process developed from the late Rigvedic stage and spread within the Brahmanical scholarly *milieux*, as illustrated by the case of "indrasatru", normalising the contrastive modality of accentuation as compared to determinative compounds. It is worth noticing that it is this general contrastive rule itself that became a prescriptive rule from Pānini onwards: the later Brahmanical scholarly exegesis, represented by Sāyaṇa's commentary on the Rigvedic collection (XIV CE), which was aware of the peculiarity of bahuvrīhi such as pṛthúbudhna (RV 1.28.1a), tuvívāja (RV 1.30.13b), and the same tuvíśravas-tama (RV 3.11.6c), needs to regulate them by quoting the Pāṇinian rule: bahuvrīhau pūrvapadaprakṛtisvaratvam 'in the bahuvrīhi the accent of the original form is on the first constituent'. In the light of Pānini's sūtras the earlier tendency to barytonesis definitively becomes a rule.

## Conclusions

Pāṇini's model of the bahuvrīhi compound, as characterised by accentuation on the first constituent, combined with zero-ending for all the constituents, is the result of a process of linguistic uniformation and "normalisation" already operating in the earlier Brahmanical scholarly contexts and particularly correlated to that work of textual revision and canonisation fostered by the Kuru dynasty from the Middle Vedic period onwards. This was carried out by a category of skilled poet-exegetes, endowed with a refined textual and linguistic expertise, who turned the early Rigvedic textual formulation, of Indo-European heritage, into sophisticated metaphorical expressions, which were performatively very powerful, and which promoted new ideals of cosmic leadership. *Índrasatru*, the *locus classicus* of the Brahmanical scholarly model of the *ba*huvrīhi compound, is an output from such a cultural milieu. Pāṇini's work, acquainted with that Brahmanical scholarly knowledge, represents an important stage in such a process of linguistic regularisation: the bahuvrīhi compound is presented as zeroing in all its constituents which, on the one hand, is in continuity with the metalinguistic approach already developed within the learned Brahmanical context and, on the other, serves to account for the complex inflectional system, whence the morphological poly-

valence of exocentric compounds cannot be saturated by only one suffix. Nonetheless, such a morphological expertise has already belonged to the Middle Vedic "poet-exegetes" inasmuch as polyptotic constructions and etymological figures were used as poetic devices. Similarly, on the one hand, the accent on the first constituent is the token of the Brahmanical scholarly tradition, as attested by the *indraśatru* case, and it is in compliance with the tendency to develop a contrastive function of the accent, already attested from the late Rigvedic textual stage onwards. However, it is also the suprasegmental marker of that morphological polyvalency of exocentric compounds, which is otherwise not immediately detectable, since it combines with zero-ending for all the constituents. Thus, zeroing and contrastive accentuation of Pāṇini's model of *bahuvrīhi* compounds appear to be in continuity with ancient Vedic linguistic and poetic tendencies, which were progressively uniformed and normalised in the Brahmanical scholarly context. And the varied expressive potential of the later refined poetry will be also founded on the linguistic polyvalency of the *bahuvrīhi* compound, as "grammaticalized" by Pāṇini's model.

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