Resisting and justifying changes II

Testifying and legitimizing innovation in
Indian and Ancient Greek Culture

ed. by
ELISABETTA PODDIGHE and TIZIANA PONTILLO

PISA
UNIVERSITY
PRESS

To the Memory of
Alexander Dubyanskiy, Peter John Rhodes, Jaroslav Vacek

CONTENTS

4. MEDIEVAL AND MODERN INDIA

Davide Mocci[1], Tiziana Pontillo[2]
[1](PhD Candidate, IUSS Pavia)
[2](University of Cagliari)

HOW TO SELECT THE RIGHT VERBAL PERSON: A CHANGE OF PERSPECTIVE BETWEEN PĀṆINI AND HIS COMMENTATORS[*]

Abstract

In many languages verbs and subjects share the same person (as well as other relevant features such as number and gender; see Mereu 1995; Chomsky 2000: 122-124; Moro 1997: 60-70). The ancient Indian grammarian Pāṇini (IV c. BCE) formulated three rules (namely *Aṣṭādhyāyī* 1.4.105, 107, 108) to explicitly account for such a phenomenon in Sanskrit. In the present study we analyse 1.4.105, 107, 108, as well as Kātyāyana's and Patañjali's (III and II c. BCE) discussion of these rules, and achieve two main results. The first result is that Kātyāyana and Patañjali supplemented A 1.4.105, 107, and 108 with special devices – such as the *utsarga*/ *apavāda* opposition and the conflict resolution rule A 1.4.2 – in order to enable these three rules to yield the right verbal person in the syntactic environments involving a coordinative phrase of the form [*yuṣmad*- + X], [*asmad*- + X], or [*yuṣmad*- + *asmad*-] (where X stands for any nominal or pronominal base). The second result is that a proper understanding of the rule segment *sthāniny api* featuring in A 1.4.105 and 107 suffices to enable these rules to yield the right verbal person in those syntactic environments, so that the aforementioned special devices deployed by Kātyāyana and Patañjali become unnecessary and unwarranted. By combining these two results, we conclude that an innovation occurred in the history of the interpretation of A 1.4.105, 107, 108, and that such an innovation was the result of a misunderstanding, on the part of Kātyāyana and Patañjali, of the relevant *Aṣṭādhyāyī* rules (A 1.4.105, 107, 108).

1. *The selection of the verbal triplets in the* Aṣṭādhyāyī

In this section we shall examine the *Aṣṭādhyāyī* rules devoted to the selection of the Sanskrit verbal person, or, more precisely, of the Sanskrit verbal triplets. Before concentrating on the wording of these rules,

we briefly explain what verbal triplets really are in this grammatical system.

1.1. *What is a verbal triplet?*

Pāṇini refers to the verbal endings of the Sanskrit language as *tiṄ*. *tiṄ* is a siglum (*pratyāhāra*) which, according to A 1.1.71, denotes:
1. the initial item of the siglum;
2. all the items intervening between the initial item and the final marker of the siglum.

Thus, *tiṄ* denotes
1. *-ti* (i.e., the initial item of the siglum), which is the first of the series of endings listed in A 3.4.78 and reproduced in table (1);
2. all the items which intervene between *-ti* and the final marker of the last verbal ending listed in A 3.4.78, i.e., *Ṅ* of *mahiṄ*.

This is tantamount to saying that *tiṄ* denotes all verbal endings.

(1)

		Sg.	Du.	Pl.
	III	*tiP*	*tas*	*JHI*
Parasmaipada	II	*siP*	*thas*	*tha*
	I	*miP*	*vas*	*mas*
	III	*ta*	*ātām*	*JHA*
*Ā*tmanepada	II	*thās*	*āthām*	*dhvam*
	I	*iṬ*	*vahi*	*mahiṄ*

The eighteen items illustrated in (1) are indeed the verbal endings of the Sanskrit language: *-ti, -si, -mi, -ta, -thās, -i, -tas, -thas, -vas, -ātām, -āthām, -vahi, -ati/-anti* (= *JHI*), *-tha, -mas, -ata/-anta* (= *JHA*), *-dhvam, -mahi*.
Now, Pāṇini arranged the verbal endings denoted by *tiṄ* into two groups: the Parasmaipada diathesis (*-ti, -si, -mi, -tas, -thas, -vas, -ati/-anti, -tha, -mas*) and the Ātmanepada diathesis (*-ta, -thās, -i, -ātām, -āthām, -vahi, -ata/-anta, -dhvam, -mahi*). Each of these groups is further subdivided into three clusters, namely *prathama*, *madhyama*, and *uttama*:

A 1.4.101: *tiṅas trīṇi trīṇi prathama-madhyama-uttamāḥ*

'The triplets of *tiN* (i.e., the verbal triplets)[1] are called *prathama* (i.e., third person verbal triplet), *madhyama* (i.e., second person verbal triplet), and *uttama* (i.e., first person verbal triplet)'.

Thus, there are six clusters of endings: three clusters for the Parasmaipada diathesis, and three clusters for the Ātmanepada diathesis.

In accordance with A 1.4.102 (*tāny ekavacanadvivacanabahuvacanāny ekaśaḥ*), each of these six clusters contains three members, i.e., the *ekavacana*, *dvivacana*, and *bahuvacana* endings. *ekavacana*, *dvivacana*, and *bahuvacana* clearly correspond to our notions of 'singular', 'dual', and 'plural', as demonstrated by A 1.4.21 (*bahuṣu bahuvacanam*) and A 1.4.22 (*dvyekayor dvivacanaikavacane*). These rules provide that the *bahuvacana* ending occurs if many (*bahu-*) entities are to be signified, that the *dvivacana* ending occurs if two (*dvi-*) entities are to be signified, and – finally – that the *ekavacana* ending occurs if one (*eka-*) entity is to be signified.

In summary, we have two diatheses: Ātmanepada and Parasmaipada. Each of these diatheses contains three clusters of endings: the cluster of third person verbal endings, the cluster of second person verbal endings, and the cluster of first person verbal endings. Each of these clusters in turn contains three members (the singular, dual, and plural endings), and thus is a triplet. The Ātmanepada and Parasmaipada triplets containing the singular, dual, and plural endings of the third person are called *prathama*; the Ātmanepada and Parasmaipada triplets containing the singular, dual, and plural endings of the second person are called *madhyama*, while the Ātmanepada and Parasmaipada triplets containing the singular, dual, and plural endings of the first person are called *uttama*. The endings contained in each of these triplets exhaust the list of eighteen endings contained in A 3.4.78 and represented in table (1).

1.2. *Selection of a second person verbal triplet*

In A 1.4.105 Pāṇini teaches how a second person verbal triplet (*madhyama*) is selected: *yuṣmady upapade samānādhikaraṇe sthāniny api madhyamaḥ*.

- *yuṣmadi* is a locative of condition conveying the meaning 'in case *yuṣmad-* is used'. *yuṣmad-* is the second person pronoun 'you', which serves as a cover term for all inflected forms of 'you' (here for the nominative singular, dual, and plural forms). The phrase *upapade samānādhikaraṇe sthāniny api* serves as an apposition of *yuṣmadi*. To understand the meaning of *upa-*

---

[1]   Lit. "the verbal endings taken three by three".

pade samānādhikaraṇe sthāniny api, let us analyse the terms that make up this phrase.

- *upapade* is the locative singular of *upapada-*, which simply denotes a 'co-occurring word'.
- The interpretation of the locative singular *samānādhikaraṇe* is more complicated: *samānādhikaraṇa-* is a bahuvrīhi compound formed from *samāna-* 'same' and *adhikaraṇa-* 'substratum', and properly means 'having the same substratum'. Following Cardona (1997: 217), we shall translate *samānādhikaraṇa-* as 'co-referential' (cf. Gillon 2008: 2; Kiparsky 2009: 54; Lowe 2015: 331), co-referentiality being defined as follows: if it is possible to use a linguistic unit (e.g., a word or a suffix) U_1 and another linguistic unit U_2 to designate one the same entity X (or a specific set of entities) in a context C, then U_1 is co-referential with U_2. For instance, a speaker may use *utpala-* 'Nymphaea' to designate a specific flower before his/her eyes in a discourse context C; however, that speaker may also optionally use *nīla-* 'something blue' to designate the same flower in C; accordingly, *nīla-* and *utpala-* are co-referential in C^2. Now, *samānādhikaraṇe* is an attribute of *yuṣmadi* in A 1.4.105: thus, the second person pronoun *yuṣmad-* is co-referential with something else. Following Sharma (1999-2003, II: 309) and Cardona (1997: 151), we take this 'something else' to be *LA*[3]. *LA* is a fictitious term standing for *tiN*, i.e., for the whole set of verbal endings listed in A 3.4.78 (see §1.1 above). At the surface level of language, *LA* must be ultimately substituted by one of these verbal endings in accordance with A 3.4.77 (*lasya* 'in place of *LA*'). However, the use of *LA* as an umbrella term for the whole set of verbal endings serves to explain once and for all their meaning. Consider how. Indeed, *LA* can signify an agent (*kartṛ*), a patient (*karman*), or an eventuality (*bhāva*) in accordance with A 3.4.69[4]:

[2]   In point of fact, stems like *nīla-* and *utpala-* cannot designate an individual entity like a given perceptible flower unless they are turned into inflected words (*pada*s) specified for singular number: e.g., *nīlam* and *utpalam*. However, if *nīla-* and *utpala-* are taken not only as stems but also as lexemes, i.e., as umbrella terms standing for the whole set of inflected forms associated with *nīla-* and *utpala-* (see Bauer 2017: 4), then the definition of co-referentiality given in the text can still apply to *nīla-* and *utpala-*. We are thankful to an anonymous BSCO reviewer for drawing our attention to this point.

[3]   Here *LA* is written in all capital letters after Sharma (1999-2003).

[4]   The square brackets figuring in the quotation of the rule indicate that *dhātoḥ* continues from A 3.1.91 in A 3.4.69, and that *kartari* continues from A 3.4.67 in A 3.4.69. The mechanism which effects the continuation of a rule segment in one or more following rules is known as *anuvṛtti* (Joshi and Bhate 1984; Cardona 1997: 73-74).

A 3.4.69: [*dhātoḥ* 3.1.91] *laḥ* [*kartari* 3.4.67] *karmaṇi ca bhāve ckarmakebhyaḥ*,

'Any verbal ending (*LA*) attaches to a verbal base when either (i) or (ii) holds:

i. [an agent] or a patient is to be signified;

ii. [an agent] or an eventuality[5] is to be signified, provided an objectless verbal base is used'.

Now, in Pāṇini's framework of substitution, the substitutes (*ādeśa*s) of X trigger the same rules as X (i.e., are viewed as X by the rules), in compliance with A 1.1.56: *sthānivad ādeśo 'nalvidhau* 'The substitute (lit. "that which is specifically enjoined") is as if it were the placeholder, except in respect to a provision mentioning a sound (of the placeholder)'. This rule governs the possibility of applying the operations taught for the placeholder to the substitute and limits this possibility to operations taught in provisions that do not mention sounds of the placeholder (for a recent overview of the substitution framework in Pāṇini's grammar, see Candotti, Pontillo 2021, especially p. 390). Therefore, the verbal endings as substitutes of *LA* trigger the same rules as *LA*: this is tantamount to saying that these verbal endings can signify an agent (*kartṛ*), a patient (*karman*), or an eventuality.

Thus, for *yuṣmad-* to be co-referential with *LA* means that both the verbal endings replacing *LA* (which signify, e.g., an agent) and *yuṣmad-* may be used to designate the same entity: e.g., Devadatta. Considering that *tiṄ* is directly mentioned in A 1.4.101 (*tiṅas trīṇi trīṇi* 'the triplets of *tiṄ*' – see §1.1 above), one may wonder at this point why we are taking the unit with which *yuṣmad-* co-occurs and is co-referential to be *LA* and not *tiṄ* (i.e., the whole set of verbal endings). The answer to this question lies in the inner workings of co-referentiality. Indeed, in order to establish that two units are co-referential, we must know the meanings signified by those units. For instance, a speaker is able to establish that the adverbial *punar* 'again' cannot be co-referential with *yuṣmad-* (e.g., that *yuṣmad-* but not *punar* may be used to designate an individual like Devadatta) only because that speaker knows the meanings of *punar* and *yuṣmad-*. But Pāṇini does not directly teach the meaning of *tiṄ*. As detailed above, Pāṇini teaches the meaning of *LA* in A 3.4.69 and

---

[5]   As a first approximation, *bhāva-* denotes the basic idea expressed by a verb. Cf. the translation of *bhāva-* as 'root-sense' by Sharma (1990-2003, III: 638). Here we have rendered *bhāva-* as 'eventuality', which is a generic term for anything that can be predicated (property, state, activity, accomplishment, achievement, etc.): see Bach 1981: 67-69 and Lowe 2015: 95 n. 1.

subsequently teaches the replacement of *LA* by *tiṄ* in A 3.4.77: it is only because of this replacement that we come to know that *tiṄ* signifies 'agent', 'patient', and 'eventuality' on a par with *LA*. Thus, we are taking the unit with which *yuṣmad*- co-occurs and is co-referential in A 1.4.105 to be *LA* rather than *tiṄ* because co-referentiality only holds of meaning-bearing units, and because the meaning of *tiṄ* presupposes the meaning of *LA* in the *Aṣṭādhyāyī*[6].

- After this long digression on the interpretation of *samānādhikaraṇe*, we can turn to the complex segment *sthāniny api*. *sthānini* is the locative singular of *sthānin*-, a secondary derivative noun (technically called *taddhita* in the *Aṣṭādhyāyī*) formed from *sthāna*- 'place' and the possessive suffix -*in*-. Thus, *sthānin*- literally means 'having a place', 'occupying a position', 'placeholder', and properly conveys the concept 'substituendum' (i.e., that which is to be replaced when the substitution operation applies). On the other hand, *api* is an adverb conveying the meaning 'even', so *sthāniny api* properly means 'even when X is a *substituendum*'. Here X is to be identified with the second person pronoun *yuṣmad*-, because *sthāniny api* is an apposition of *yuṣmad*- in A 1.4.105: hence, the meaning of *sthāniny api* is 'even when *yuṣmad*- is a *substituendum*'. This leads us to wonder: what takes the 'place' (*sthāna*-) of *yuṣmad*- when *yuṣmad*- is used as *sthānin*? That is, what are the possible substitutes for *yuṣmad*- in the context of A 1.4.105? One of these substitutes is definitely the silent counterpart of *yuṣmad*-, which is identical to *yuṣmad*- except for the fact that the former is not phonetically realised, while the latter is phonetically overt (see, e.g., Kiparsky 2009: 55).

- After analysing all the segments of the *uddeśya* part of A 1.4.105 (*uddeśya* being 'that with reference to which a rule is stated' – Roodbergen 2008: 105), let us now consider *madhyamaḥ*, which constitutes the *vidheya* part of this rule (i.e., 'what the rule itself yields as output'). A 1.4.105 yields as output a second person verbal triplet, technically referred to as *madhyama* (see §1.1 above). The passage from the *madhyama* triplet to an individual verbal ending (e.g., the second person singular ending -*si*) is han-

---

dled by rules other than A 1.4.105 (specifically, by A 1.4.21-22), as explained in §1.1 above.

Putting together what has been said so far on the segments of A 1.4.105 gives us the following translation for that rule:

A 1.4.105: *yuṣmady upapade samānādhikaraṇe sthāniny api madhyamaḥ*.

'When (the second person pronoun) *yuṣmad-* co-occurs and is co-referential with *LA*, even if [*yuṣmad-*] is a *substituendum*, [then] a *madhyama* triplet occurs (i.e., *LA* is replaced by a second person verbal triplet)'.

The working of this rule is illustrated by the example in (2), where the term "[α]$_{LA}$" stands for 'α which is a substitute for *LA*'. For the sake of simplicity, we keep to the verbal triplets of the Parasmaipada diathesis here.

(2)   a. [yuṣmad-] + [[pac-] + [*LA*]]
       b. [tvam] + [[pac-] + [-si]$_{LA}$]
       c. *tvam pac-a-si* 'you are cooking'.
       d. [tvam$^{\varnothing}$] + [[pac-] + [-si]$_{LA}$]
       e. *pac-a-si* 'you are cooking'.

yuṣmad- co-occurs and is co-referential with *LA* (which is permitted to signify the agent of the action of cooking by A 3.4.69) in (2a): both *yuṣmad-* and *LA* may be used to designate the same entity (e.g., a specific man before my eyes called Devadatta) in (2a). A 1.4.105 requires that, when *yuṣmad-* co-occurs and is co-referential with *LA*, *LA* be replaced by a second person verbal triplet: as a consequence, *LA* is replaced by the second person verbal triplet (-*si*, -*thas*, -*tha*) in (2a) in compliance with A 1.4.105. In a subsequent derivational stage, the *ekavacana* ending -*si* is selected out of the second person verbal triplet in compliance with A 1.4.22 (*dvyekayor dvivacanaikavacane*; see §1.1 above), while *yuṣmad-* is inflected in the nominative (e.g., *tvam* 'you. SG') in accordance with A 2.3.46[7]: this allows us to get from (2a) to (2b). Finally, the finite form *pacasi* of (2c) is obtained by adding the thematic vowel in between the verbal base *pac-* and -*si*.

---

[7]   *prātipadikārtha-liṅga-parimāṇa-vacana-mātre prathamā* "A nominative triplet [applies to a nominal stem] when nothing more than the meaning, the gender, and the grammatical number of the nominal stem is to be conveyed" (Mocci, Pontillo 2020: 66).

Consider now (2d), where *tvam*$^{\varnothing}$ is a silent pronominal form that is synonymous with the overt pronominal form *tvam*: technically, *tvam*$^{\varnothing}$ is a zero-morph and *tvam* a morph of the morpheme *yuṣmad-* (see Pontillo 2003 on zero-morphs in Pāṇini). Now, A 1.4.105 lets us ascribe the status of *sthānin* 'substituendum' to *yuṣmad-*. Qua *sthānin*, *yuṣmad-* can be replaced by an item that is synonymous with *yuṣmad-* (the synonymity between X and Y is an implicit requirement for X to replace Y in this system). *tvam*$^{\varnothing}$ is synonymous with *tvam* by definition: since *tvam* is an inflected form of *yuṣmad-*, *tvam*$^{\varnothing}$ qualifies as synonymous with *yuṣmad-* as well. Accordingly, *tvam*$^{\varnothing}$ is allowed to replace *yuṣmad-*. That is, *tvam*$^{\varnothing}$ of (2d) is the *ādeśa* 'substitute' taking the place of *yuṣmad-* of (2a). Thus, just as *yuṣmad-* triggers the replacement of *LA* by a second person verbal triplet in (2a), *tvam*$^{\varnothing}$ likewise triggers the replacement of *LA* by a second person verbal triplet in (2d). Accordingly, the segment *sthāniny api* of A 1.4.105 licenses the formation of such sentences as (2e), where a silent second person pronoun co-occurs and is co-referential with a second person verbal ending.

1.3. *Selection of a first person verbal triplet*

In A 1.4.107 Pāṇini teaches how a first person verbal triplet (*uttama*) is selected: *asmady uttamaḥ*. In accordance with the ordinary interpretation of this rule (see, e.g., Cardona 1997: 151), the segment *upapade samānādhikaraṇe sthāniny api* continues from A 1.4.105 in 1.4.107 by *anuvṛtti*. Accordingly, the wording of 1.4.107 becomes as follows:

A 1.4.107: *asmady* [*upapade samānādhikaraṇe sthāniny api* 1.4.105] *uttamaḥ*.

'When (the first person pronoun) *asmad-* [co-occurs and is co-referential with *LA*, even if *asmad-* is a *substituendum*, then] an *uttama* triplet occurs (i.e., *LA* is replaced by a first person verbal triplet)'.

With the wording of A 1.4.107 thus established, we can read A 1.4.107 in parallel manner to A 1.4.105: a first person verbal triplet is that triplet which replaces *LA* when the first person pronoun *asmad-* cooccurs and is co-referential with *LA*; *asmad-* may in turn be inflected in the nominative (e.g., *aham* 'I'), as in (3b-c), or be replaced by a silent pronominal form (e.g., *aham*$^{\varnothing}$), as in (3d-e).

(3)   a. [asmad-] + [[pac-] + [*LA*]]
        b. [aham] + [[pac-] + [-mi]$_{LA}$]
        c. *aham pac-ā-mi* 'I am cooking'.
        d. [aham$^{\varnothing}$] + [[pac-] + [-mi]$_{LA}$]
        e. *pac-ā-mi* 'I am cooking'.

This way, the selection of -*mi* (*pacāmi*) in (3) is dealt with along exactly parallel lines as the selection of -*si* in (2).

1.4. *Selection of a third person verbal triplet*

In A 1.4.108 Pāṇini teaches how a first person verbal triplet (*prathamaḥ*) is selected: *śeṣe prathamaḥ*. The interpretation of this rule is controversial. *śeṣe* is a locative of condition from *śeṣa*- 'remainder', a noun formed from the verbal root *śiṣ*- 'to remain'. *śeṣa*- "is a device used more often in the A to lump together instances not covered so far, that is, by earlier rules relevant to the topic. […] Reference is always to a particular section" (Joshi, Roodbergen 1995: 255). In other words, *śeṣa*- means 'other than what has been stated in a particular section'[8]. The section at stake here is A 1.4.105-108, hence we have to identify the referent of 'what has already been stated in A 1.4.105-108' if we are to understand *śeṣa*- in A 1.4.108. The controversy surrounding A 1.4.108 in essence stems from the difficulty in identifying such a referent.

Katre (1987) takes the referent of 'what has already been stated in A 1.4.105-108' as being *yuṣmad*- and *asmad*- (i.e., the first and second person pronouns), so that *śeṣa*- means 'things other than *yuṣmad*- and *asmad*-'. As can be easily seen in his translation of A 1.4.108 reported below, he goes one step further by reducing the 'things other than *yuṣmad*- and *asmad*-' denoted by *śeṣa*- to third person pronouns only (e.g., *tad*-, *etad*-, *idam*-).

'*prathamá* (third person) triplets are introduced (after a verbal stem) when (a pronominal stem) other than (śeṣe) [*yuṣmád* 105 and *asmád* 107] co-occurs as a complementary word (*upapadá*) either expressed or implied and denotes the same thing [= or is in grammatical agreement 105]'. (Katre 1987: 104).

This translation also reveals that Katre explicitly continues the segment *upapade samānādhikaraṇe sthāniny api* from A 1.4.105 in 1.4.108 by anuvṛtti[9]. If we were to rephrase Katre's translation in the terms of

---

[8]   "A general rule is supposed to pervade its scope of application in its entirety. […] Since a particular rule is formulated with particular properties relative to the general, the scope of application of a particular must then be extracted from within the scope of its general counterpart. […] Rules whose application cannot be captured within the related class of general and particular have been classed as residual (*śeṣa*)" (Sharma 2010: 1). See also Cardona (2013: 104) on the use of *śeṣa*- in the section devoted to the selection of case endings, and Kobayashi (2021) on the use of *śeṣa*- in the compound section.

[9]   Note that Katre translates *samānādhikaraṇe* here as 'when X denotes the same thing' or as 'when X is in grammatical agreement'.

our paraphrasis of A 1.4.105 and 107 (see §§1.2-1.3 above) , we would get the following: a third person verbal triplet is that triplet that replaces *LA* when a third person pronoun co-occurs and is co-referential with *LA*.

On the other hand, Cardona (1997: 151), Kiparsky (2009: 54-56), and Sharma (1999-2003, II: 312) diverge from Katre. They follow in essence the *Kāśikāvṛtti ad* A 1.4.108: *śeṣaḥ iti madhyamottamaviṣayād anya ucyate. yatra yuṣmad-asmadī samanādhikaraṇe upapade na staḥ, tatra śeṣe prathamapuruṣo bhavati. pacati. pacataḥ. pacanti* "That which is other with respect to the domain of the second and first person verbal triplets is called 'śeṣa'. Where neither *yuṣmad-* nor *asmad-* is co-referential and co-occurs [with *LA*], there, namely in the remainder [circumstance], the third person verbal triplet is realised, such as in "he is cooking, they (two) are cooking, they are cooking". They identify the referent of 'what has already been stated in A 1.4.105-108' with the whole locative-marked segments *yuṣmady upapade samānādhikaraṇe sthāniny api* ('when *yuṣmad-* co-occurs and is co-referential with *LA*') and *asmady* [*upapade samānādhikaraṇe sthāniny api*] ('when *asmad-* co-occurs and is co-referential with *LA*') which recur in A 1.4.105 and by *anuvṛtti* in 1.4.107. In accordance with this interpretation, *śeṣa-* is basically 'the circumstance γ other than: i. the circumstance α in which *yuṣmad-* co-occurs and is co-referential with *LA*; ii. and the circumstance β in which *asmad-* co-occurs and is co-referential with *LA*'. In other words, *śeṣa-* is 'the circumstance in which neither *yuṣmad-* nor *asmad-* co-occurs and is co-referential with *LA*'. Thus, the locative of condition *śeṣe* would simply mean 'when neither *yuṣmad-* nor *asmad-* co-occurs and is co-referential with *LA*' in accordance with these authors (Kiparsky, for instance, explicitly translates *śeṣa-* as 'elsewhere', i.e., elsewhere with respect to the circumstances expressed by the two locative segments *yuṣmady upapade samānādhikaraṇe sthāniny api* and *asmady [upapade samānādhikaraṇe sthāniny api]* of A 1.4.105 and 1.4.107). All in all, the reading of A 1.4.108 which traces back to Cardona, Kiparsky, and Sharma may be paraphrased as follows: a third person verbal triplet is that triplet that replaces *LA* when neither *yuṣmad-* nor *asmad-* co-occurs and is co-referential with *LA*.

The rest of this subsection will show – essentially following Kiparsky (2009: 54) – that the existence of the *bhāve* construction in the Sanskrit language forces one to prefer the reading of A 1.4.108 advanced by Cardona, Kiparsky, and Sharma to the one advanced by Katre.

Let us consider the *bhāve* construction in (4). The expression '*bhāve* construction' refers to a construction, taught by Pāṇini in A 3.4.69 (see §1.2 above), in which the verbal ending of an objectless verbal base signifies *bhāva* (*bhāve* being a locative of condition from *bhāva-*). *bhāva*,

which we have translated as 'eventuality' in §1.2, is the basic idea expressed by a verb. Thus, in the context of (4c), the third person singular verbal ending *-te* signifies the eventuality of sleeping associated with the objectless verbal base *svap-* 'to sleep'.

(4)   a. [svap-] + [*LA*]
        b. [svap-] + [-ta]$_{LA}$.
        c. *sup-ya-te* 'the eventuality of sleeping is taking place'.

Let us now try to understand how (4c) is derived. We established in §1.2 that a second person verbal triplet (*madhyama*) is that triplet which replaces *LA* when *yuṣmad-* co-occurs and is co-referential with *LA*; we also established in §1.3 that a first person verbal triplet is that triplet which replaces *LA* when *asmad-* co-occurs and is co-referential with *LA*. Now, *yuṣmad-* and *asmad-* alike may be used to designate an individual that may potentially participate (e.g., as a *kartṛ* 'agent', *karman* 'patient', or *sampradāna* 'recipient') in a certain eventuality (*bhāva*): e.g., *yuṣmad-* or *asmad-* may designate Devadatta. In contrast, *LA* – which is permitted to signify the eventuality of sleeping by A 3.4.69 – designates some specific instance of sleeping in (4a), for instance the sleeping which took place in my room yesterday afternoon: it cannot simultaneously designate a specific instance of sleeping and an individual like Devadatta, the two being mutually incompatible[10]. Therefore, *yuṣmad-/ asmad-* and *LA* could not designate the same entity if *yuṣmad-/ asmad-* were to co-occur with *LA* in (4a): this is tantamount to saying that neither *yuṣmad-* nor *asmad-* can be co-referential with *LA* in (4a). Accordingly, the second person verbal triplet made up of *-thās*, *-āthām*, and *-dhvam* and the first person verbal triplet made up of *-i*, *-vahi*, and *-mahi* cannot replace *LA* in (4a). Thus only one possibility is left, namely that the third person verbal triplet made up of *-ta*, *-ātām*, and *-ata/-anta* replaces *LA* in (4a).

The question then arises as to whether the replacement of *LA* by the third person verbal triplet (*-ta*, *-ātām*, and *-ata/-anta*) in (4) complies with A 1.4.108. The reading of A 1.4.108 advanced by Cardona, Kiparsky, and Sharma offers a straightforward answer. Their reading states that a third person verbal triplet is that triplet that replaces *LA* 'elsewhere' (*śeṣe*), i.e., when neither *yuṣmad-* nor *asmad-* co-occurs and is co-referential with *LA*. But we have just seen that *yuṣmad-* and *asmad-* cannot be co-referential with *LA* in (4a). We thus conclude that

---

the replacement of *LA* by the third person verbal triplet made up of -*ta*, -*ātām*, and -*ata*/-*anta* is enjoined by A 1.4.108 in (4a). Furthermore, by applying A 1.4.22 (see §1.1 above), we select the *ekavacana* ending -*ta* out of the (Ātmanepada) third person verbal triplet in order to signify the fact that the eventuality of sleeping is exactly one in (4). This way, we obtain (4b). If we now combine the verbal base *svap*-, the suffix -*ya*- and the ending -*ta* (which is converted into -*te* by A 3.2.123[11]), we get the desired form *sup-ya-te* featuring in (4c)[12].

All in all, the reading of A 1.4.108 advanced by Cardona, Kiparsky, and Sharma manages to derive *bhāve* constructions such as (4). However, we still have to understand whether Katre's (1987) reading of A 1.4.108 can do the same. In Katre's reading, the replacement of *LA* by a third person verbal triplet in (4) is conditional upon some silent form of a third person pronoun co-occurring and being co-referential with *LA* in (4). Thus we now need to ask whether we can account for the replacement of *LA* by a third person verbal triplet in (4) by taking some silent form of a third person pronoun to co-occur and be co-referential with *LA* in (4).

To answer this question, let us confine our attention to *tad*- 'this', a demonstrative third person pronoun. The co-referentiality between *tad*- and *LA* in (4) does not seem to be logically impossible: *tad*- may be used to designate some specific instance of sleeping, i.e., the same thing which *LA* designates in (4). In point of fact, however, no overt form of *tad*- (or of any other third person pronoun) is ever attested as co-occurring and being co-referential with a verbal ending in the *bhāve* constructions in the whole Sanskrit corpus. One would therefore expect to find some rule in the *Aṣṭādhyāyī* that provides for third person pronouns to be obligatorily silent in *bhāve* constructions, but no such rule exists indeed.

We maintain that the absence of a rule of this kind casts serious doubts on the postulation of a silent form of *tad*- that co-occurs and is co-referential with *LA* in (4). With silent forms of *tad*- (and of other

---

[11]   *vartamāne laṭ* [*pratyayaḥ* 3.1.1, *paraś ca* 3.1.2, *dhātoḥ* 3.1.91] 'Affix *LAṬ* is introduced after a verbal base when an eventuality taking place at the current time is to be signified'.

[12]   The transformation of *svap*- into *sup*- is handled by the *samprasāraṇa* operation, which need not concern us here: see Cardona (1997: 269-270) for discussion. The suffix -*ya*- sandwiched between *svap*- and the verbal endings in (4c) is required by A 3.1.67: *sārvadhātuke yak* [*pratyayaḥ* 3.1.1, *paraś ca* 3.1.2, *dhātoḥ* 3.1.22, *bhāva-karmaṇoḥ* 3.1.66] 'Suffix *yaK* is introduced after a verbal base before a *sārvadhātuka* suffix when the eventuality (*bhāva*) or the patient is to be signified (by the *sārvadhātuka* suffix itself)'.

third person pronouns) thus excluded from (4), the replacement of *LA* by a third person verbal triplet in (4) would not be conditional upon any silent form of a third person pronoun co-occurring and being co-referential with *LA*. This is tantamount to saying that Katre's reading of A 1.4.108 fails to yield the third person verbal triplet in (4).

We have thus established that a reading of A 1.4.108 like Katre's, in which a third person verbal triplet is that triplet which replaces *LA* when some third person pronoun co-occurs and is co-referential with *LA*, is unable to yield a third person verbal triplet in *bhāve* constructions such as (4). On the other hand, a reading of A 1.4.108 along the lines suggested by Cardona, Kiparsky, and Sharma – in which a third person verbal triplet is that triplet that replaces *LA* when neither *yuṣmad*- nor *asmad*- co-occurs and is co-referential with *LA* – not only succeeds in selecting a third person verbal triplet in *bhāve* constructions but also manages to select a third person verbal triplet in sentences where (what contemporary linguistics refers to as) the subject is a third person pronoun, or a common/ proper noun. Thus, *LA* is replaced by a third person verbal triplet in the examples in (5) because neither *yuṣmad*- nor *asmad*- co-occurs and is co-referential with *LA* in (5).

(5)   a. *sa jayati* 'This (male) is winning'.
       b. *devadatto jayati* 'Devadatta is winning'.
       c. *jayati* (= *sa⁰ jayati*/ *devadatto⁰ jayati*) 'This (male) is winning'/ 'Devadatta is winning'.

All in all, Katre's reading of A 1.4.108 requires the postulation of an obligatorily silent form (i.e., a silent realisation of some third person pronoun occurring in *bhāve* constructions) for which there is no *Aṣṭādhyāyī*-internal evidence. On the other hand, Cardona's, Kiparsky's, and Sharma's reading of A 1.4.108 does not require the postulation of that obligatorily silent form: the wording of A 1.4.108 alone suffices to yield a third person verbal triplet in an ample range of constructions, including *bhāve* ones. We conclude that the latter reading is to be preferred to the former. Accordingly, we translate A 1.4.108 as follows[13]:

---

[13]   If we had translated A 1.4.105 and 107 as 'When (the second person pronoun) *yuṣmad*- co-occurs and is co-referential with a *madhyama* triplet, even if *yuṣmad*- is a *substituendum*, then a *madhyama* triplet occurs' and 'When (the first person pronoun) *asmad*- [co-occurs and is co-referential with an *uttama* triplet, even if *asmad*- is a substituendum, then] an *uttama* triplet occurs', respectively, then A 1.4.108 would have read as follows in accordance with the interpretation of *śeṣa*- endorsed here: 'Elsewhere (i.e., when *yuṣmad*- does not co-occur and is not co-referential with a *madhyama* triplet,

A 1.4.108: *śeṣe prathamaḥ*.

'Elsewhere (i.e., when neither *yuṣmad*- nor *asmad*- co-occurs and is co-referential with *LA*), a *prathama* triplet occurs (i.e., *LA* is replaced by a third person verbal triplet)'.

Thus, the segment *upapade samānādhikaraṇe sthāniny api* does not continue in A 1.4.108: this rule does not require that a third person pronoun or common/ proper noun co-occur and be co-referential with *LA*, the absence of this requirement being undoubtedly traceable to the need to account for the *bhāve* construction.

1.5. *Summary*

A 1.4.105 provides that a second person verbal triplet (*madhyama*) replaces *LA* when *yuṣmad*- co-occurs and is co-referential with *LA*.

A 1.4.107 provides that a first person verbal triplet (*uttama*) replaces *LA* when *asmad*- co-occurs and is co-referential with *LA*.

A 1.4.108 provides that a third person verbal triplet replaces *LA* when neither *yuṣmad*- nor *asmad*- co-occurs and is co-referential with *LA*.

2. *Commentaries on A 1.4.105, 107, and 108*

The present section will provide an overview of the discussion of A 1.4.105, 107, and 108 by commentators, such as Kātyāyana and Patañjali.

2.1. *Did the commentators on A 1.4.105, 107, and 108 neglect the* bhāve *constructions?*

The commentaries on A 1.4.105, 107 and 108 do not discuss *bhāve* constructions. This is indeed surprising, insofar as *bhāve* constructions are of help when it comes to establishing the proper interpretation of A 1.4.108: as we have attempted to show in §1.4 above, these constructions provide crucial evidence that the long locative phrase *upapade samānādhikaraṇe sthāniny api* of A 1.4.105 should not continue in A

---

and when *asmad*- does not co-occur and is not co-referential with an *uttama* triplet), a *prathama* triplet occurs'. This reading of A 1.4.108 is clearly untenable, inasmuch as *yuṣmad*- and *asmad*- always co-occur and are co-referential with a *madhyama* and an *uttama* triplet, respectively. The untenability of such a reading of A 1.4.108 is then evidence: i. against taking the unit with which *yuṣmad*- co-occurs and is co-referential in A 1.4.105 to be 'a *madhyama* triplet'; and ii. against taking the unit with which *asmad*-co-occurs and is co-referential in A 1.4.107 to be 'an *uttama* triplet'.

1.4.108 by *anuvṛtti*[14]. The fact that commentators do not feel the need to comment on this non-obvious reading of the textual sequence of rules is quite puzzling. One would have expected them to explicitly state that the proper reading of this sequence of rules is not determined by textual reasons but rather by the fact that any reading other than this one would have unacceptable consequences. Only the *Padamañjari* seems to consider that the denotation (*abhidheya*) of *LA* can also be a pure eventuality (*bhāva*), and hints at A 3.4.69, while commenting on the *Kāśikā-Vṛtti*'s explanation of *samānādhikaraṇa* as *samānābhidheya* 'having the same denotation'. *Padamañjari ad* KV *ad* A 1.4.105[15] interestingly emphasises the impracticability of establishing a *sāmānādhikaraṇya* 'co-referentiality' relation (i.e., a relation between two items that are co-referential with one another) with a *LA* that expresses an eventuality (*bhāva*):

> *trividhaṃ   cābhidheyaṃ   lakārāṇām   –   bhāvaḥ   karma   kartā ca,   tatra   dravyavācinor   yuṣmadasmador   bhāvavācinā   lāntena sāmānādhikaraṇyāsambhavāt kartṛkarmaṇor eva grahaṇaṃ ity āha – tulyakāraka iti*

'And the denotation of the *Lakāra*s (i.e., of *LA*) is threefold, namely eventuality, patient and agent. He maintained that while *yuṣmad-* and *asmad-* express an individual substance, there is the mention exclusively of the agent

---

[14]   To be noted that the presence of the locative *śeṣe* in A 1.4.108 does not automatically undermine such a continuation. In Joshi and Bhate (1984), the *anuvṛtti*-convention 20 reads: "A locative item is automatically continued until it is blocked by a new incompatible item". Convention 21 specifically dictates that "A new head in the locative does not cancel an old modifier in the locative". (Joshi and Bhate 1984: 271). Thus, in accordance with convention 21 the segment *upapade samānādhikaraṇe sthāniny api*, which is a modifier for *yuṣmadi* in A 1.4.105 and for *asmadi* in A 1.4.107, might also in principle be extended to *śeṣe* in A 1.4.108, without breaking the rules inherent in the traditional grammar.

[15]   KV ad A 1.4.105: *lasyety adhikṛtya sāmānyena tibādayo vihitāḥ. teṣām ayaṃ puruṣaniyamaḥ kriyate. yuṣmady upapade sati vyavahite cāvyavahite sati samānādhikaraṇe samānābhidheye tulyakārake sthānini prayujyamāne 'py aprayujyamāne 'pi madhyama-puruṣo bhavati. tvaṃ pacasi, yuvāṃ pacathaḥ, yūyaṃ pacatha. aprayujyamāne 'pi – pacasi, pacathaḥ, pacatha* 'After establishing the heading rule *lasya* "in the place of *LA*" (A 3.4.77), the endings beginning with *tiP* are enjoined in a general way. This restriction of the verbal person among these [endings] is made. When *yuṣmad* co-occurs, when it is contiguous or non-contiguous, when it is *samānādhikaraṇa*, i.e., sharing the same denotation (*abhidheya*), being in the same *kāraka*, when it is a *substituendum*, i.e., both when it is used and when it is not used, the second person verbal ending occurs: *tvaṃ pacasi* "you are cooking", *yuvāṃ pacathaḥ* "you (du.) are cooking", *yūyaṃ pacatha* "you (pl.) are cooking". Even when [the personal pronoun] is not used: *pacasi, pacathaḥ, pacatha*'.

and of the patient due to the fact that there is no scope for a co-referentiality relation with a word-form ending in *LA* that expresses an eventuality: [this is why in the KV] it is said "in the case of the same *kāraka*"'.

In fact there is no example of a verbal form conveying an eventuality in the KV, but in truth neither are there any passive verbal forms, since the examples are limited to the opposition between the two sets of Parasmaida singular, dual and plural forms of the second and first person (respectively in the commentary on A 1.4.105, 107) with and without the use of the corresponding personal pronouns (1. *tvaṃ pacasi, yuvāṃ pacathaḥ, yūyaṃ pacatha* vs. *pacasi, pacathaḥ, pacatha*; 2. *ahaṃ pacāmi, āvāṃ pacāvaḥ, vayaṃ pacāmaḥ* vs. *pacāmi, pacāvaḥ, pacāmaḥ*) and one single set of the Parasmaida singular, dual and plural forms of the third person *pacati pacataḥ pacanti* without any co-occurring pronoun[16].

All in all, the *Kāśikā-Vṛtti* seems to concentrate on the expression *sthāniny api* involved in both A 1.4.105 and 1.4.107, which is simply interpreted as enjoining the double option of using (*prayuj*-) or not using (*a-prayuj*-) the second and first person pronouns[17]. The term *sthānin* consequently seems to be read as if it conveyed the sense of 'subject to *lopa*'/ 'zero-replaced', and the examples proposed here are exclusively targeted on this double option. As we shall see below in other commentaries, this double option does not exhaust the possibilities proper to the surface language, because a second and first person dual or a plural verbal form may agree with a subject consisting of a coordinative phrase.

2.2. *A minor problem at the heart of Kātyāyana's* Vārttika*s ad A 1.4.105, 107, 108*

Kātyāyana discussed A 1.4.105, 107, and 108 in seven *Vārttikas*. Vt. 1 preliminarily states that the purpose of the set of rules A 1.4.105, 107, and 108 is a restriction: *yuṣmadasmaccheṣavacanam niyamārtham*.

Patañjali indeed wonders whether this restriction is

---

[16]   On the other hand, the exclusion of examples with passive verbal forms may be due to the fact that the passive verbal form for the present tense should include the passive suffix -*ya*-.

[17]   KV *ad* A 1.4.107 is even shorter: *uttamapuruṣo niyamyate. asmadyupapade samānābhidheye prayujyamāne 'py aprayujyamāne 'pi uttamapuruṣo bhavati. aham pacāmi. āvām pacāvaḥ. vayam pacāmaḥ. aprayujyamāne 'pi – pacāmi. pacāvaḥ. pacāmaḥ* 'The first person verbal ending is restricted. When *asmad*- co-occurs (with *LA*), when it shares the same denotation (*abhidheya*), both when it is used and when it is not used, the first person verbal ending occurs: *aham pacāmi* 'I am cooking'. *āvām pacāvaḥ* we (du.) are cooking". *vayam pacāmaḥ* "we (pl.) are cooking". Even when [the personal pronoun] is not used: *pacāmi. pacāvaḥ. pacāmaḥ*'.

- an *upapada-niyama*, i.e., it dictates that, when *yuṣmad-* or *as-mad-* is used, only (*eva*) a second or a first person verbal triplet respectively occurs after the verbal base. One may then say that, e.g., *yuṣmad-*, which is input to A 1.4.105, is restricted in the sense that it can yield one and only one output, namely a second person verbal triplet;
  or it is
- a *puruṣa-niyama*, i.e., it dictates that a second or a first person verbal triplet occurs after a verbal base only (*eva*) when *yuṣmad-* or *asmad-* is respectively used. One may then say that, e.g., a second person verbal triplet is restricted in the sense that it can be yielded as output by one and only one input, namely by *yuṣmad-*[18].

In the case of *puruṣa-niyama*, rule A 1.4.108 is mandatory to prevent the risk of applying a third person verbal triplet with *yuṣmad-* and *as-mad-*, which are not restricted.

yadi puruṣaniyamaḥ śeṣagrahaṇaṃ kartavyaṃ śeṣe prathama iti. kiṃ kāraṇam. madhyamottamau niyatau yuṣmadasmadī aniyate tatra prathamo 'pi prāpnoti. tatra śeṣagrahaṇaṃ kartavyaṃ prathamaniyamārtham. śeṣa eva pra-thamo bhavati nānyatreti. (M 1.351 ll. 17-19 *ad* Vt. 1 *ad* A 1.4.105, 107, 108)

'If it (i.e., the restriction acknowledged by Vt. 1) is a verbal person (*puruṣa*) restriction, the mention of the remainder has to be made, i.e., A 1.4.108 *śeṣe prathamaḥ*. Why? Because the two triplets, i.e., second and first person verbal triplets are restricted, but the two pronouns, i.e., *yuṣmad-* and *asmad-* are not restricted. There a third person verbal triplet also risks obtaining. There the mention of the remainder has to be made with the purpose of restricting the use of a third person verbal triplet: a third person verbal triplet occurs only where the remainder (*śeṣe*) is used, not elsewhere (*anyatra*) (in this case, a third person verbal triplet is restricted, in the sense that it can be yielded as output by one and only one input, namely, by the remainder)'.

On the other hand, A 1.4.108 is also mandatory to prevent the risk of using *upapada*s other than *yuṣmad-* and *asmad-* with a first and a second person verbal triplet, if such triplets are not restricted[19].

---

[18]   *athaitasmin niyamārthe vijñāyamāne kim ayam upapadaniyamaḥ. yuṣmadi madhyama eva. asmady uttama eva. āhosvit puruṣaniyamaḥ. yuṣmady eva madhya-maḥ. asmady eva uttama iti.* (M 1.351 ll. 15-17 *ad* Vt. 1 *ad* A 1.4.105, 107, 108).

[19]   It is noteworthy that Kobayashi (2021: 227) mentions this possible double function of constraining either the personal verbal triplet (*puruṣa*) or the co-occurring

athāpy upapadaniyama evam api śeṣagrahaṇaṃ kartavyaṃ śeṣe prathama iti. yuṣmadasmadī niyate madhyamottamāv aniyatau tau śeṣe 'pi prāpnutaḥ. tatra śeṣagrahaṇaṃ kartavyaṃ śeṣaniyamārtham. śeṣe prathama eva bhavati nānya iti. (M 1.351 ll. 20-22 *ad* Vt. 1 *ad* A 1.4.105, 107, 108).

'If it (i.e., the restriction acknowledged by Vt. 1) is a co-occurring word (*upapada-*) restriction, the mention of the remainder has however to be made, i.e., A 1.4.108 *śeṣe prathamaḥ*. The two pronouns, i.e., *yuṣmad-* and *asmad-*, are restricted; the two triplets, i.e., a second and a first person verbal triplet are not restricted. There these two triplets risk obtaining. There the mention of the remainder has to be made with the purpose of restricting the use of the remainder itself: when the remainder (*śeṣe*) is used, only a third person verbal triplet, and nothing else (*anyaḥ*), occurs (in this case, the remainder is restricted in the sense that it can yield one and only one output, namely, a third person verbal triplet)'.

The other six *Vārttikas* only focus on the potential problem created by coordinative phrases consisting of *yuṣmad-* or *asmad-* plus another item, when they are used as co-occurring words and co-referential with a verbal ending which conveys the sense of agent (e.g., *tvaṃ ca devadattaś ca* 'you and Devadatta'; *ahaṃ ca devadattaś ca* 'Devadatta and I' – M 1.352 ll. 4-5 *ad* Vt. 2 *ad* A 1.4.105, 107, 108).

Vt. 2 is indeed introduced by a further passage on the interpretation of the whole set of rules A 1.4.105, 107, 108 as a restriction in M 1.351 l. 23 - 352 l. 2, where a change in the wording of A 1.4.108 is advanced. If we stay with the *upapada-niyama* interpretation of the three rules, *śeṣe prathamaḥ* might be replaced by *prathamo bhavati*:

upapadaniyame śeṣagrahaṇam śakyam akartum. katham. yuṣmadasmadī niyate madhyamottamāv aniyatau tau śeṣe 'pi prāpnutaḥ. tataḥ vakṣyāmi prathamo bhavatīti. tan niyamārtham bhaviṣyati. yatra prathamaś cānyaś ca prāpnoti tatra prathama eva bhavatīti.

'When there is a co-occurring word (*upapada-*) restriction, it is possible to dispense with the mention of *śeṣe*. How? The two pronouns, i.e., *yuṣmad-* and *asmad-,* are restricted, while the two triplets, i.e., a second and a first person verbal triplet are not restricted. These two triplets risk obtaining when the re-

personal pronoun (*upapada*) as one of the examples that show that at least Patañjali considers some usages of śeṣe in the *Aṣṭādhyāyī* as non-mandatory. Indeed Patañjali's proposal for dispensing with the mention of śeṣe immediately follows these lines here quoted (see below M 1.351 l. 23 - 352 l. 2).

mainder (linguistic items other than *yuṣmad-* and *asmad-*) is used. Therefore I'll say "The third person verbal triplet occurs". The purpose will be a restriction: where the third person verbal triplet and something else can obtain, there only the third person verbal triplet occurs'.

Vt. 2 *ad* A 1.4.105, 107, 108 advances a tentative solution to a problem of over-extension in the application of A 1.4.108: there is a risk that the third person verbal triplet could be used when a phrase made up of a second or first person pronoun coordinated with something else co-occurs and is co-referential with *LA* since this coordinative phrase could be included in the range of linguistic items covered by *śeṣa* in A 1.4.108.

> *tatra yuṣmadasmadanyeṣu prathamapratiṣedhaḥ śeṣatvāt*

'Where *yuṣmad-*, *asmad-,* and other linguistic items are used, a prohibition of the third person verbal triplets [has to be added] because of the principle of *śeṣa* (i.e., since a third person verbal triplet is taught for the remainder with respect to *yuṣmad-* and *asmad-*)'. (Vt. 2 *ad* A 1.4.105, 107, 108)

Vt. 3 seems to advance an alternative solution to the tackled problem of over-extension. This alternative solution voids the additional prohibition mentioned in Vt. 2: there is no need to appeal to any additional prohibition of the third person verbal triplets, as the latter are somehow already prohibited by the occurrence of *yuṣmad-* or *asmad-*.

> *siddham tu yuṣmadasmadoḥ pratiṣedhāt*

'(The right form) is realised indeed on the basis of the prohibition [of the third person verbal triplets] in the case of *yuṣmad-* and *asmad-*'. (Vt. 3 *ad* A 1.4.105, 107, 108)

Kātyāyana does not specify exactly how the occurrence of *yuṣmad-* or *asmad-* should prohibit a third person verbal triplet, so we can only guess what his possible line of reasoning might have been. Arguably, Kātyāyana is interpreting A 1.4.105 and 107 along the following lines: a second person verbal triplet is that triplet that replaces *LA* when at least *yuṣmad-* co-occurs and is co-referential with *LA* (A 1.4.105); a first person verbal triplet is that triplet that replaces *LA* when at least *asmad-* co-occurs and is co-referential with *LA* (A 1.4.107)[20].

---

[20]   This is essentially the reading of A 1.4.105 and 107 advanced by Kiparsky (2009: 55).

Thus, when the phrase made up of *yuṣmad-* plus another item co-occurs and is co-referential with *LA*, as in, e.g., '[*yuṣmad-* + *devadatta-*] + [*pac-LA*]', then *LA* is replaced by a second person verbal triplet, because at least *yuṣmad-* co-occurs and is co-referential with *LA* in '[*yuṣmad-* + *devadatta-*] + [*pac-LA*]': *tvaṃ ca devadattaś ca pacathaḥ* 'you and Devadatta are cooking'. Likewise, when at least *asmad-* co-occurs and is co-referential with *LA*, as in, e.g., '[*asmad-* + *devadatta-*] + [*pac-LA*]', then *LA* is replaced by a first person verbal triplet: *ahaṃ ca devadattaś ca pacāvaḥ* 'Devadatta and I are cooking'.

Sastri (1957: 158) in fact translates Vt. 3 in a completely different manner: "The object is achieved by prohibiting *yuṣmad* and *asmad*". Joshi and Roodbergen (1995: 247) also seem to understand that this Vt. submits a new wording of rule A 1.4.108: "Vt. 3 says that we can have what we want by phrasing P 1.4.108 as *śeṣe prathamo yuṣmadasmador na* 'In the remaining domain (namely, that of the third person) a third person finite verb ending (is used), but not when (a form of) *yuṣmad* and *asmad-* (is also used)'" and they explicitly refer to 'the examples stated for Vt. II'. These two interpretations are well-tuned to Patañjali's reading of this Vt.

siddham etat. katham. yuṣmadasmadoḥ pratiṣedhāt. śeṣe prathamo yuṣmadasmador neti vaktavyam[21]. (M 1.352 ll. 8-9 *ad* Vt. 3 *ad* A 1. A 1.4.105, 107, 108)

'This is realised. How? On the basis of the prohibition [of the third person verbal triplets] when there is *yuṣmad-* or *asmad-*. *śeṣe prathamaḥ yuṣmadasmadoḥ na* should be the [new] wording of the rule'.

The meaning of the present *Mahābhāṣya* passage should be: a third person verbal triplet is enjoined when the remainder (i.e., something other than *yuṣmad-* and *asmad-*) is used, but needs to be prohibited when *yuṣmad-* and *asmad-* are also used (namely, when the remainder is made up of *yuṣmad-* and something else, or of *asmad-* and something else). Now, if we try to isolate Kātyāyana's own position, instead of overlapping his Vts. with the Bhāṣya's reading, it is tempting to interpret *yuṣmadasmadoḥ pratiṣedhāt* as a reference to an already existing prohibition of the third person verbal triplets. Such a prohibition is brought into effect by the combination of rules A 1.4.105 and 107 and

---

[21]   If our alternative reading of Vt. 3 is correct, it follows that here Patañjali fails to realise that indeed Kātyāyana is proposing exactly what he will criticise in M 1.353 ll. 12-17 *ad* Vt. 7 *ad* A 1.4.105, 107, 108 (for this passage see §2.4.1 below).

the śeṣe in A 1.4.108. More specifically, when *yuṣmad-* and *asmad-* are used, the triplet to be selected is already governed by A 1.4.105 and 107, so that A 1.4.108 only governs phrases where *yuṣmad-* and *asmad-* are not employed.

Some evidence is indeed available in favour of our fresh interpretation of Vt. 3. Let us consider the following reasoning. Vt. 3 features the segment *siddhaṃ tu*, which commonly signals an argumentative *caesura* with respect to the foregoing in the commentators' *usus scribendi*. The occurrence of *siddhaṃ tu* in Vt. 3 therefore suggests that the main argumentative *caesura* is located immediately after Vt. 2, i.e., between Vt. 2 and Vt. 3. It now remains to be understood which of the two interpretations of Vt. 3 considered here (i.e., the mainstream interpretation vs. our fresh interpretation) correctly predicts the position of the *caesura*.

Under the mainstream interpretation of Vt. 3, Kātyāyana alludes to the need of a specific prohibition in Vt. 2, and then he specifies this prohibition in Vt. 3; this way, there is no argumentative *caesura* between Vt. 2 and Vt. 3: the information contained in Vt. 3 does not by any means represent a departure with respect to the information contained in Vt. 2. By contrast, in accordance with our fresh interpretation of Vt. 3, Kātyāyana alludes to a specific prohibition of the third person verbal triplets in Vt. 2, but then (i.e., in Vt. 3) he explicitly states that any additional prohibition of the third person verbal triplets is to be dispensed with. This way, the information contained in Vt. 3 clearly clashes with the interpretation contained in Vt. 2: in other words, we do have an argumentative *caesura* between Vt. 2 and Vt. 3 under our fresh interpretation of Vt. 3.

Accordingly, unlike the mainstream interpretation of Vt. 3, our interpretation correctly predicts the argumentative *caesura* as taking place between Vt. 2 and Vt. 3. We can thus conclude that our interpretation is more faithful to Kātyāyana's text than the mainstream one.

The following Vtt. (i.e., Vtt. 4-7) are also consistent with our fresh interpretation of Vt. 3, insofar as both Vtt. 4-7 and Vt. 3 exploit *Aṣṭādhyāyī*-internal strategies to handle grammatical puzzles. As we have just seen, the puzzle tackled (and solved) in Vtt. 2-3 was (in a nutshell) the following: how can the speaker know that a third person verbal triplet should not replace *LA* when a coordinative phrase made up of a second or first person pronoun plus something else co-occurs and is co-referential with *LA*? Instead the puzzle tackled in Vtt. 4-7 may be summarised as follows.

A speaker has to choose which verbal triplet replaces *LA* when [yuṣmad- + asmad-] (i.e., a coordinative phrase made up of *asmad-* and *yuṣmad-*) co-occurs and is co-referential with *LA*. Both A 1.4.105

and 107 seem to be simultaneously applicable in this context: since at least *yuṣmad-* co-occurs and is co-referential with *LA* here, A 1.4.105 should apply, thereby enforcing the replacement of *LA* with a second person verbal triplet. Analogously, since at least *asmad-* co-occurs and is co-referential with *LA*, A 1.4.107 should apply, thereby enforcing the replacement of *LA* with a first person verbal triplet. Accordingly, we have a rule conflict between A 1.4.105 and 107. The puzzle tackled by Vtt. 4-7 is thus: how can the speaker resolve the conflict which arises between A 1.4.105 and 107 in a context like this, where both A 1.4.105 and 107 are applicable? From now on, we shall refer to this puzzle as Puzzle P.

Kātyāyana himself identifies three possible solutions to Puzzle P in Vt. 4, in Vt. 5, and in Vtt. 6-7, which we will now examine in turn.

To begin with, Kātyāyana's solution to Puzzle P in Vt. 4 capitalises on A 1.4.2 (*vipratiṣedhe paraṃ kāryam*), whose purpose is to resolve the conflict between two competing *Aṣṭādhyāyī* rules. In accordance with the commentarial tradition[22], A 1.4.2 provides that, when a conflict between two rules arises, what is enjoined by the following rule prevails over what is enjoined by the preceding rule. As we have just seen, a conflict arises between A 1.4.105 and 1.4.107 whenever a coordinative phrase made up of *asmad-* and *yuṣmad-* (e.g., *tvaṃ cāhaṃ ca*) co-occurs and is co-referential with *LA*. But A 1.4.107 (which teaches that a first person verbal triplet replaces *LA* when *asmad-* co-occurs and is co-referential with *LA*) follows A 1.4.105 (which teaches that a first person verbal triplet replaces *LA* when *yuṣmad-* co-occurs and is co-referential with *LA*) in the sequence of *Aṣṭādhyāyī* rules. Therefore, the triplets taught for *asmad-* prevail over the triplets taught for *yuṣmad-* by virtue of A 1.4.2[23].

---

[22]   In his PhD Thesis, Rajpopat (2021) convincingly shows how the traditional interpretation of A 1.4.2 is not faithful to Pāṇini's original aim. Pāṇini's rule should have taught that when two rules are simultaneously applicable to two elements, "the operation (*kārya*) that applies to the right-hand-side (*para*) prevails", whereas when two rules are simultaneously applicable to the same element, the more specific rule prevails. Of course, since we are interpreting the commentaries here, we must stick to the commentary reading of the rule. On the other hand, we shall see below that Pāṇini does not need to resort to A 1.4.2 to solve the problem raised by Kātyāyana.

[23]   As Patañjali also plainly explains (M 1.352 ll. 11-13 *ad* Vt. 4 *ad* A 1.4.105, 107, 108), when there is scope (*avakāśa*) for A 1.4.105, e.g., in *tvam pacasi*, and there is scope for A 1.4.107, e.g., in *aham pacāmi*, both the second and first verbal triplets risk obtaining, but due to the rule that solves the conflict between any two rules (A 1.4.2) only the latter rule properly obtains (*yuṣmadi madhyama ity asyāvakāśaḥ. tvaṃ pacasi. asmady uttama iti asyāvakāśaḥ. ahaṃ pacāmi. ihobhayam prāpnoti. tvaṃ cāhaṃ ca pacāvaḥ. asmady uttama ity etad bhavati vipratiṣedhena*).

yuṣmadi madhyamāt asmady uttamo vipratiṣedhena. (Vt. 4 *ad* A 1.4.105, 107, 108)

'A first person verbal triplet occurs in the presence of *asmad-*, rather than a second person verbal triplet, [even] in the presence of *yuṣmad-*, as an effect of the rule on conflict (A 1.4.2)'.

Thus, when the coordinative phrase *ahaṃ tvaṃ ca* is *upapada* and co-referential with, e.g., a present verbal ending conveying the sense of agent and attached to the verbal base *pac-*, the first person verbal triplet of the Parasmaipada diathesis (specifically replaced by the dual ending *-vas*) appears: *tvaṃ cāhaṃ ca pacāvaḥ* 'You and I are cooking'.

To sum up, Vt. 4 offers a solution to Puzzle P by exploiting A 1.4.2, which teaches the prevalence of a rule X over a rule Y (with X following Y in the sequence of *Aṣṭādhyāyī* rules) when X is in conflict with Y. A 1.4.107 is in conflict with, but also follows A 1.4.105: A 1.4.107 consequently prevails over A 1.4.105.

Let us now turn to Vt. 5. Here Kātyāyana makes use of the *ekaśeṣa* device to offer a second alternative solution to Puzzle P.

anekaśeṣabhāvārthaṃ tu (Vt. 5 *ad* A 1.4.105, 107, 108)

'But the purpose (of resorting to the rule on conflict) is for the condition in which there is no *ekaśeṣa*'. (Vt. 5 *ad* A 1.4.105, 107, 108)

In this Vt., Kātyāyana is restricting the recourse to A 1.4.2 to those cases in which A 1.2.72 (i.e., the so-called *ekaśeṣa* rule, teaching the single remainder device; see below, fn. 24 and §2.4.2), does not apply. In plain terms, he is saying that Puzzle P may be solved by means of A 1.4.2, but only when Puzzle P has not already been solved by means of A 1.2.72. This implies that the speaker is allowed, but not forced, to solve Puzzle P by means of A 1.2.72. What, then, makes the speaker opt for A 1.2.72 to solve Puzzle P? Patañjali gives us the answer: the application of the *ekaśeṣa* rule A 1.2.72 or its non-application purely depend on the speaker's intention (*vivakṣā*).

kadā caikaśeṣo na. sahavivakṣāyām ekaśeṣaḥ.   yadā na sahavivakṣā tadaikaśeṣo nāsti. (M 1.352 ll. 17-18 *ad* Vt. 5 *ad* A 1.4.105, 107, 108)

'And when is there no *ekaśeṣa*? There is *ekaśeṣa* when there is the speaker's intention to denote [*yuṣmad-* and *asmad-*] together. When there is no intention on the part of the speaker to denote [them] together, there is no *ekaśeṣa*'.

We have thus seen that there is a second alternative solution to Puzzle P which capitalises on the *ekaśeṣa* rule A 1.2.72 and is used when the speaker's intention is to denote the referents of *yuṣmad-* and *asmad-* together. We then have to specify what the solution capitalising on A 1.2.72 involves, and how the referents of *yuṣmad-* and *asmad-* are denoted together when this rule is enforced.

Let us start with the first point. For the sake of clarity, let us just recall the gist of puzzle P: given the context in which a coordinative phrase made up of inflected forms of *asmad-* and *yuṣmad-* co-occurs and is co-referential with *LA*, and given the conflict between A 1.4.105 and 107, which are both equally applicable in this context, how should the speaker resolve this rule conflict? Now, the *ekaśeṣa* rule A 1.2.72 provides that, when a pronoun α of the gaṇa *tyadādi* (also including *yuṣmad-* and *asmad-*) is coordinated with any nominal stem β, α will indeed be the sole remainder of the coordinative phrase made up of α plus β[24].

Kātyāyana then proposes exploiting A 1.2.72 as follows. Let α be *asmad-*, let β be *yuṣmad-*, and let the coordinative phrase made up of α plus β be *tvaṃ cāhaṃ ca*, which features the nominative singular form *aham* of *asmad-* and the nominative singular form *tvam* of *yuṣmad-* (alongside the coordinative particle *ca*). A 1.2.72 allows the speaker to replace the whole coordinative phrase *tvaṃ cāhaṃ ca* with an inflected form of *asmad-*, more specifically with *āvām* (nominative dual of *asmad-*), which thus qualifies as the sole remainder of *tvaṃ cāhaṃ ca*. With this replacement in place, the conflict between A 1.4.105 and 107 disappears. Let us consider how.

A 1.4.107 provides that, when an inflected form of *asmad-* co-occurs and is co-referential with *LA*, a first person verbal triplet replaces *LA*; on the other hand, A 1.4.105 provides that, when an inflected form of *yuṣmad-* co-occurs and is co-referential with *LA*, a second person verbal triplet replaces *LA*; the *āvām* which co-occurs alone and is co-referential with *LA* in, e.g., [[*āvām*] + [[*pac-*] + [*LA*]]], is an inflected form of *asmad-*; accordingly, only A 1.4.107 is applicable in [[*āvām*] +

---

[24]   A 1.2.72: *tyadādīni sarvair nityam* 'The pronouns of the gaṇa *tyadādi* (which encompasses *yuṣmad-*, *asmad-* and all the demonstrative pronouns used as third person pronouns) are mandatorily the remainder when they are used with any types of nominal stems'. The *ekaśeṣa* device is introduced by A 1.2.64 first of all to reduce more than one nominal stem having the same form (*sarūpa*), to one single form endowed with a single nominal ending (*ekavibhakti*), but according to rules A 1.2.65-73 it is extended to other combinations of nominal and pronominal stems which are not *sarūpa* – as in the case taken into account by Kātyāyana. See Pontillo 2013: 107-112 and Borghero, Pontillo 2020 for the interpretation of Pāṇini's *ekaśeṣa*-rules as substitution rules.

[[*pac*-] + [*LA*]]]. A 1.4.107 thus forces the speaker to choose a first person verbal triplet as the substitute for *LA* here, so that the sentence *āvāṃ pacāvaḥ* (where *LA* is replaced by the Parasmaipada second person dual ending -*vas*) is formed.

In short, the solution offered by Vt. 5 to Puzzle P is the following: when the *ekaśeṣa* rule applies, replacing, e.g., *tvaṃ cāhaṃ ca* with its remainder *āvām*, there is no longer scope for the application of A 1.4.105; accordingly, the speaker applies A 1.4.107 so that *LA* will be replaced by a first person verbal triplet.

Let us now consider the second point mentioned above, that is: how are the referents of *yuṣmad*- and *asmad*- denoted together when A 1.2.72 is enforced? To answer this question, consider the two sentences *tvaṃ cāhaṃ ca pacāvaḥ* and *āvāṃ pacāvaḥ*. In Kātyāyana's reasoning, *tvaṃ cāhaṃ ca pacāvaḥ* is realised when Puzzle P is solved via the rule on conflict (i.e., A 1.4.2), whereas *āvāṃ pacāvaḥ* is realised when Puzzle P is solved via the *ekaśeṣa* rule A 1.2.72. Now, the two sentences express the same meaning, in the sense that they both signify the same action (i.e., the action of cooking associated with *pac*-), the same type of relation between the action and its participants (i.e., the sense of agent, associated with -*vas*), and the same participants in the action (i.e., the referents 'you and I' associated with *tvaṃ cāhaṃ ca* as well as with *āvāṃ*, which tell us who the agents of the action of cooking are). Nonetheless, the way those participants in the action ('you and I') are envisaged or represented in the speakers' mind changes in *tvaṃ cāhaṃ ca pacāvaḥ* and *āvāṃ pacāvaḥ*. Specifically, 'you and I' are envisaged as a coherent pair of agents that contribute together to the action of cooking in *āvāṃ pacāvaḥ*; conversely, 'you and I' are envisaged as agents that contribute distinctly to the action of cooking in *tvaṃ cāhaṃ ca pacāvaḥ*.

Let us now proceed by analysing Vtt. 6 and 7, where we find Kātyāyana's third and last solution to Puzzle P (for the wording and translation of these *Vārttikas*, see below). Let us recall the context in which a coordinative phrase made up of inflected forms of *asmad*- and *yuṣmad*- co-occurs and is co-referential with *LA*. Since rules A 1.4.105 and 107 are both equally applicable in this context, a rule conflict arises. The question as to how the speaker should resolve this conflict was indicated here as Puzzle P. Now, Vt. 6 suggests that in this context the speaker may use two verbal forms, one for each pronominal stem found within the coordinative phrase that co-occurs and is co-referential with *LA* (i.e., one verbal form for *asmad*- and one for *yuṣmad*-). This resolves the conflict between A 1.4.105 and 107 in a straightforward way. Let us consider how.

A 1.4.107 provides that, when an inflected form of *asmad*- co-occurs and is co-referential with *LA*, a first person verbal triplet replaces *LA*;

on the other hand, A 1.4.105 provides that, when an inflected form of *yuṣmad-* co-occurs and is co-referential with *LA*, a second person verbal triplet replaces *LA*; the *tvam* which co-occurs and is co-referential with LA_1 in, e.g., '[[*tvaṃ cāhaṃ ca*] + [[*pac-LA_1*] + [*pac-LA_2*]]]', is an inflected form of *yuṣmad-*; conversely, the *aham* which co-occurs and is co-referential with LA_2 in '[[*tvaṃ cāhaṃ ca*] + [[*pac-LA_1*] + [*pac-LA_2*]]]' is an inflected form of *asmad-*. Accordingly, both A 1.4.105 and A 1.4.107 are applicable in '[[*tvaṃ cāhaṃ ca*] + [[*pac-LA_1*] + [*pac-LA_2*]]]'. The *LA* with which *yuṣmad-* co-occurs and is co-referential (i.e., LA_1) is not the same as the *LA* with which *asmad-* co-occurs and is co-referential (i.e., LA_2). Therefore, the application of A 1.4.105 does not interfere in any way with the application of A 1.4.107: a second person verbal triplet replaces LA_1 in compliance with A 1.4.105, while a first person verbal triplet replaces LA_2 in compliance with A 1.4.107. Thus, the speaker is free to apply both A 1.4.105 and 107 in '[[*tvaṃ cāhaṃ ca*] + [[*pac-LA_1*] + [*pac-LA_2*]]]', which thereby becomes *tvaṃ cāhaṃ ca pacasi pacāmi ca* 'You are cooking and I am also cooking' (the example is Patañjali's: M 1.352 ll. 22-23 *ad* Vt. 4 *ad* A 1.4.105, 107, 108). In brief, Vt. 6 solves Puzzle P by letting the speaker apply both A 1.4.105 and 107 at the same time.

Now, sentences with two or more verbal forms (e.g., *tvaṃ cāhaṃ ca pacasi pacāmi ca*) oppose sentences with a single verbal form (e.g., *tvaṃ cāhaṃ ca pacāvaḥ* 'You and I are cooking'). This opposition, created by Vt. 6, parallels the opposition created by Vtt. 4 and 5 between sentences with two coordinated pronominal bases (e.g., *tvaṃ cāhaṃ ca pacāvaḥ*) and sentences with a single pronominal base (e.g., *āvāṃ pacāvaḥ*).

In addition, the opposition between sentences with two or more verbal forms and sentences with a single verbal form implies that the speaker is once again free to choose between two options: a single verbal form vs. two or more verbal forms. The choice between these two options strictly depends on the speaker's free choice.

The picture emerging from Vtt. 4-6 is thus the following. The speaker can solve Puzzle P by means of the *ekaśeṣa* rule A 1.2.72 which leads to the appearance of a single pronominal base (Vt. 5). Alternatively, the speaker can solve Puzzle P by means of the rule on conflict, namely A 1.4.2 (Vt. 4), provided that Puzzle P has not already been solved by means of the *ekaśeṣa* rule A 1.2.72 (Vt. 5): the rule on conflict leads to the appearance of a single verbal form despite the use of two pronominal bases. The third option is to solve puzzle P by means of two separate verbal forms, provided that Puzzle P has not already been solved by means of either A 1.4.2 or 1.2.72 (Vt. 6). In other words, if the phrase

co-occurring and co-referential with *LA* consists of two pronominal bases (which is made possible by the non-application of A 1.2.72), the application of A 1.4.2 is not needed for the purpose of solving Puzzle P: the use of two separate verbal forms suffices, whence the example *tvaṃ cāhaṃ ca pacasi pacāmi ca*, which illustrates the content of Vt. 6 (M 1.352 ll. 22-23 *ad* Vt. 6 *ad* A 1.4.105, 107, 108). We now have all the ingredients to read and appreciate the difficult wording of Vt. 6.

na   vā   yuṣmadasmador   anekaśeṣabhāvāt   tadadhikaraṇānām   apy anekaśeṣabhāvād avipratiṣedhaḥ. (Vt. 6 *ad* A 1.4.105, 107, 108)

'Otherwise no, there is no need to resort to the rule on conflict because there is no *ekaśeṣa* also for those [verbal triplets] which have their substratum in *yuṣmad-* and *asmad-*, since they are in the condition of not having *ekaśeṣa* of *yuṣmad-* and *asmad-*'.

In the next and last Vt., Kātyāyana adopts a more philosophically oriented lexicon. He points out that, since the two actions are separate (e.g., the action of cooking conveyed by *pacasi* and that conveyed by *pacāmi*), the fact of perceiving separate individual substances (e.g., the two agents – envisioned as two separate individuals – of these two distinct actions of cooking) infers the option of using separate pronouns instead of their *ekaśeṣa*: such an option is indeed preferable when it comes to conveying the aforementioned perception of two separate individual substances.

kriyāpṛthaktve ca dravyapṛthaktvadarśanam anumānam uttaratrāneka-śeṣabhāvasya (Vt. 7 *ad* A 1.4.105, 107, 108)

'And when the actions are taken separately, the perception of separate individual substances is an inference for the condition of no *ekaśeṣa* in what is subsequent (i.e., no *ekaśeṣa* of the pronouns)'[25].

---

[25]   The aim of the present translation of *uttaratra* as 'in what is subsequent' is to make clear that the choice of the coordinated pronominal bases follows that of the verbal forms in the speaker's mind, and not in the utterance, as seems to be intended by Patañjali (see his example below in the main text). The speaker selects a verbal triplet and then the *upapada*s come as a consequence. This is in line with Joshi, Roodbergen (1995: 248): "Vt. VII states the reverse of Vt. VI. When there is a difference in action, as expressed by *pacasi* and *pacāmi*, then we see also a difference in *dravya* 'the individual (performing the action)', that is, the agent, as referred to by a pronoun. In this case, we infer that […] there is no *ekaśeṣa* of the two pronouns which refer to the *dravya*s involved".

This Vārttika uses a logic-oriented terminology to describe the procedure a speaker adopts in building up sentences like *tvaṃ cāhaṃ ca pacasi pacāmi ca*, i.e., sentences in which two coordinated pronominal bases co-occur, and are co-referential, with two coordinated verbal forms expressing two separate actions: the speaker first notes that the actions to be signified (in this case, the actions of cooking) are more than one (say, two); second, he or she becomes aware of the involvement of several (say, two) individual substances as agents of those actions; last, he or she infers from the involvement of such individual substances that the identity of the two agents involved (i.e., the information as to who these agents are) must be provided by two distinct pronouns.

Let us now note that Vt. 6 also describes the procedure the speaker uses to construct sentences like *tvaṃ cāhaṃ ca pacasi pacāmi ca*; there is however a difference between the approaches adopted by Vtt. 6 and 7 in describing such a procedure.

Thus, in accordance with Vt. 6, first the speaker operates on the *upapada* pronouns (in this case, by deciding not to use the *ekaśeṣa* of such pronouns), and then a certain verbal form results (in this case, more than one verbal form occurs). On the other hand, in accordance with Vt. 7, the speaker first operates on the *puruṣa* 'verbal triplet' (in this case, by becoming aware that more than one verbal triplet, i.e., more than one verbal form is used), and then a certain *upapada* pronoun results (in this case, two coordinated pronominal forms occur, which means that no *ekaśeṣa* of the *upapada* pronouns takes place).

Therefore, from our perspective, Vt. 7 mirrors, and is complementary with, Vt. 6. However, Patañjali's interpretation of Vt. 7 differs from ours. He proposes an example in which two coordinated pronouns follow two coordinated verbal forms (*pacasi pacāmi ca tvaṃ cāhaṃ ca*), so that the adverb *uttaratra* 'in what is subsequent' featuring in Vt. 7 comes to denote the coordinated pronominal bases themselves. Thus, the latter are "preceded" in this example by the verbal forms in the utterance itself, while, in our reading of Vt. 7, the coordinated pronominal bases are "preceded" by the verbal forms exclusively in the speaker's reasoning. Patañjali then explains that the speaker's inference does not proceed – as in our interpretation of Vt. 7 – from the presence of multiple actions (hence, of multiple agents of those actions) to the non-application of the *ekaśeṣa* of the pronouns (hence, to the presence of multiple *upapada* pronouns); rather, the speaker's inference is from the non-application of the *ekaśeṣa* of the pronouns to the presence of multiple actions. As a consequence, Patañjali makes Vt. 7 a sort of confirmation of Vt. 6.

tad anumānam uttarayor api kriyayor ekaśeṣe na bhavatīti (M 1.353 l. 1 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

'This is also an inference for the following two actions, when there is no *ekaśeṣa* (of the pronouns)'.

Let us now summarise this lengthy discussion of Kātyāyana's Vtt. 2-7: Vtt. 2-3 deal with the puzzle of how the speaker can know that a third person verbal triplet should not replace *LA* when a coordinative phrase made up of *yuṣmad-* or *asmad-* plus something else co-occurs and is co-referential with *LA*. This puzzle is solved by capitalising on the presence of *yuṣmad-* or of *asmad-*, which trigger the application of A 1.4.105 or 107, respectively.

Vtt. 4-7 instead deal with Puzzle P: how should the speaker resolve the conflict which arises between A 1.4.105 and 107 in cases when both A 1.4.105 and 107 are in principle applicable? Three possible solutions to Puzzle P are identified in these *Vārttika*s: first, the solution which capitalises on the rule on conflict, namely A 1.4.2 (Vt. 4); second, the solution which capitalises on the *ekaśeṣa* rule A 1.2.72 (Vt. 5); third, the solution which capitalises on two separate verbal forms and two separate pronouns (Vtt. 6-7). The three solutions to Puzzle P are reported in the table below (for convenience, the order in which the solutions are given slightly differs from the sequential order of the *Vārttika*s)[26].

	Coordinative phrase co-occurring and co-referential with a *LA*	*LA*
Vt. 5	Remainder of [*yuṣmad-* + *asmad-*] according to A 1.2.72.	A single verbal form with a single verbal triplet selected according to A 1.4.105 or 107.
	e.g., *āvāṃ*	*pacāvaḥ*
Vt. 4	No remainder of [*yuṣmad-* + *asmad-*].	A single verbal form with the prevalence of the first person verbal triplet according to A 1.4.2.
	e.g., *tvaṃ cāhaṃ ca*	*pacāvaḥ*

[26]   The examples illustrated in the table are drawn from Patañjali and involve verbal endings that convey the sense of agent but not that of *karman* or *bhāva*.

Vtt. 6-7	No remainder of [*yuṣmad-* + *asmad-*].	Two verbal forms with their respective verbal triplets selected according to A 1.4.105 or 107.
	e.g., *tvaṃ cāham ca*	*pacasi pacāmi ca*

All in all, Kātyāyana solves the puzzles encountered in Vtt. 2-7 by recourse to some *Aṣṭādhyāyī* rules and does not tamper with the wording of the problematic rules.

2.3. *Further reflections on the same minor problem in the* Mahābhāṣya

In his commentary on Vt. 7, Patañjali also extends the option of having multiple coordinate nominal bases that co-occur and are co-referential with the verbal triplets of multiple coordinate verbal forms, to a coordinative phrase including *yuṣmad-* and a noun, which require a second person verbal triplet and a third person verbal triplet respectively. Indeed. he returns back to the very first problem he tackled when commenting on Vt. 2 (M 1.352 ll. 4-5), i.e., how to select the right verbal triplets when the subject is a coordinative phrase like *tvaṃ ca devadattaś ca* or *ahaṃ ca devadattaś ca*.

tatrāpi hy evaṃ bhavitavyam. tvaṃ ca devadattaś ca pacasi pacati ca. ahaṃ ca devadattaś ca pacāmi pacati ceti (M 1.353 ll. 2-4 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

'Indeed it should be thus also in these cases: *tvaṃ ca devadattaś ca pacasi pacati ca* "You and Devadatta: you are cooking and he is cooking"; *ahaṃ ca devadattaś ca pacāmi pacati* "Devadatta and I: he is cooking and I am cooking".' (M 1.353 ll. 2-4 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

Moreover, Patañjali illustrates the option of using distinct coordinate pronouns and nouns which are *upapada* and *samānādhikaṇa* with the verbal triplet attached to a unique verbal form, substantially in derogation of rule A 1.2.72. Subsequently, Patañjali explains the specular option of using a unique noun as a remainder of three nouns with three verbal forms derived from distinct verbal bases.

First of all, he cites a *Ṛgveda* passage in which two pronouns are *upapada* and *samānādhikaṇa* with a unique verbal form.

yat tāvad ucyate na vā yuṣmadasmador anekaśeṣabhāvāt tadadhikaraṇānām apy anekaśeṣabhāvād avipratiṣedha iti. dṛśyate hi yuṣmadasmadoś cānekaśeṣas tadadhikaraṇānām caikaśeṣaḥ. tad yathā. tvaṃ cāham ca vṛtrahann ubhau samprayujyāvahā iti. (M 1.353 ll. 5-7 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

'As regards what is stated, i.e., that when there is no *ekaśeṣa* of *yuṣmad-* and *asmad-* if there was not even an *ekaśeṣa* of the items (i.e., the actions) which have these [pronouns] as their substratum, there is no conflict (= Vt. 6), indeed no *ekaśeṣa* of *yuṣmad-* and *asmad-* is seen on the one hand, and no *ekaśeṣa* of the items which have these [pronouns] as their substratum is seen either. For example, "Both you and I (*tvaṃ cāham ca*), o Vṛtrahan (i.e., Indra, the killer of the demon Vṛtra), let us two yoke ourselves (*ubhau samprayujyāvahai*)".'

Indeed, the passage quoted by Patañjali differs from the corresponding passage in the recension of the *Ṛgveda* that was handed down to us by the tradition: the order of *aham* and *tvam* is reversed and the dual pronoun *ubhau* is absent.

ahám ca tvám ca vṛtrahan sám yujāva saníbhya ā (ṚV VIII 62.11)
'I and you, o killer of Vṛtra, let us two yoke ourselves together for the victories!'

The second example explained by Patañjali *de facto* employs a fourth strategy to use nominals which co-occur and are co-referential with verbal triplets attached to multiple verbal forms. This strategy, which may seem paradoxical at first glance, was indeed suggested by Vt. 7 and goes beyond the three strategies advanced by Kātyāyana's *Vārttika*s 4-7 and resumed in the table in §2.2 above. The analysed sentence (namely, *akṣā bhajyantāṃ bhakṣyantāṃ dīvyantām*) is a grammatical example that had great fortune in the history of the tradition of ancient Indian linguistics and philosophy of language. It was used to show the simultaneous signification realised by a single linguistic item (i.e., the so-called *tantra* mechanism of linguistic signification)[27]. The unique plural form of the polysemous noun *akṣa-* conveying the sense of 'axle', 'seed' and 'die' is used as an *ekaśeṣa*, resulting in a sort of process of multiplying the signification of the single utterance by three, one for each *upapada* verbal form. Thus, a single noun co-occurs and is co-referential with the verbal triplets of three different verbal forms.

yad apy ucyate kriyāpṛthaktve ca dravyapṛthaktvadarśanam anumānam uttaratrānekaśeṣabhāvasyeti kriyāpṛthaktve khalv api dravyaikaśeṣo bhavatīti dṛśyate. tad yathā. akṣā bhajyantāṃ bhakṣyantāṃ dīvyantām iti. (M 1.353 ll. 8-9 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

---

[27]   The passages devoted by Bhartṛhari to this sentence (D 1.37 ll. 25–27 *ad* Vt. 18 and VP 2.465–466) are examined in Freschi, Pontillo (2013: 143).

'As regards what is stated (in Vt. 7), i.e., that when the actions are taken separately, to see separate entities is an inference for the condition of no *ekaśeṣa* in what follows (i.e., in the verbal forms), indeed the *ekaśeṣa* of entities is also seen. For example, *akṣā bhajyantāṃ bhakṣyantāṃ dīvyantām* "Let the axles be broken, the seeds be eaten, the die be played with!".'

	Coordinative phrase co-occurring and co-referential with *LA*	*LA*
M *ad* Vt. 7	No remainder of the pronoun *yuṣmad-* plus a nominal item according to A 1.2.72.	Two verbal forms with their respective verbal triplets selected according to A 1.4.105 or 107.
	e.g., *tvaṃ ca devadattaś ca* e.g., *ahaṃ ca devadattaś ca*	*pacasi pacati ca* *pacāmi pacati ca*
M *ad* Vt. 7	Remainder of three *sarūpa* nouns endowed with three different meanings according to A 1.2.64.	Three verbal forms with their verbal triplets selected according to A 1.4.108.
	e.g., *akṣā<ḥ>*	*bhajyantāṃ* *bhakṣyantāṃ dīvyantām*

2.4.1. *Back to the original discussion: the last portion of* Mahābhāṣya *ad A 1.4.105, 107, 108*

After providing his personal considerations on Vts. 6 and 7, Patañjali returns to the proposal advanced by Kātyāyana in Vt. 2 (i.e., the prohibition of the third person verbal triplets when *yuṣmad-* and *asmad-* plus other linguistic items are used), a proposal which is the starting point for the whole argumentation that we have examined so far. First of all Patañjali reflects on the hypothesis of including *śeṣa* plus another linguistic item in the mention of *śeṣa*. Patañjali seems to try to extend the same line of reasoning as emerges in his commentary on Vt. 4, i.e., in his explanation of the example *tvaṃ cāhaṃ ca pacāvaḥ* 'You and I are cooking'. Although he does not explicitly mention the examples he is commenting on here, we assume that the examples at stake are *tvaṃ ca devadattaś ca pacathaḥ* 'you and Devadatta are cooking'; *ahaṃ ca devadattaś ca pacāvaḥ* 'Devadatta and I are cooking' (i.e., the very first two examples, used to comment on the proposal in Vt. 2 – M 1.352 ll. 4-5 *ad* Vt. 2). This gives rise to a conflict. On the one hand, the presence of *yuṣmad-* or *asmad-* might trigger the selection of a second or a first person verbal triplet according to A 1.4.105 and 107, but, on the other, the presence of something which can be designated as *śeṣa* – namely

devadattaḥ in our specific example – might be sufficient to trigger the selection of a third person verbal triplet in accordance with A 1.4.108.

sa tarhi pratiṣedho vaktavyaḥ. na vaktavyaḥ. śeṣe prathamo vidhīyate na hi śeṣaś cānyaś ca śeṣagrahaṇena gṛhyate. bhavet prathamo na syān madhyamottamāv api na prāpnutaḥ. kiṃ kāraṇam. yuṣmadasmador upapadayor madhyamottamāv ucyete na ca yuṣmadasmadī anyaś ca yuṣmadasmadgrahaṇena gṛhyate. yad atra yuṣmad yac cāsmat tadāśrayau madhyamottamau bhaviṣyataḥ. yathaiva tarhi yad atra yuṣmad yac cāsmat tadāśrayau madhyamottamau bhavata evaṃ yo 'tra śeṣas tadāśrayaḥ prathamaḥ prāpnoti. (M 1.353 ll. 12-17 *ad* Vt. 7 *ad* A 1.4.105, 107, 108).

'Then the prohibition has to be taught. No, it has not to be taught. *śeṣe prathamaḥ* is enjoined (A 1.4.108: "a third person verbal triplet in the case of the remainder", i.e., when linguistic items other than *yuṣmad-* and *asmad-* are used as *upapada* and co-referential with *LA*). Indeed, [the coordinative phrase made up of] *śeṣa* plus another linguistic item is not included by the mention of *śeṣa* (i.e., it is not covered by it). So be it, a third person verbal triplet should not occur, but a first and a second person verbal triplet do not obtain either. Why? Because a second and a first person verbal triplet are uttered when *yuṣmad-* and *asmad-* are the *upapada*, and [the coordinative phrase made up of *yuṣmad-* or *asmad-*] *plus* another linguistic item is not included by the mention of *yuṣmad-* and *asmad-* (i.e., the coordinative phrase constituted of *yuṣmad-* plus another linguistic item is not covered by the mention of *yuṣmad-*, just as the coordinative phrase made up of *asmad-* plus another linguistic item is not covered by the mention of *asmad-*). Here [in contrast] a second and a first person verbal triplet will occur when they rely on the presence of *yuṣmad-* and *asmad-* (regardless of whether these pronouns are used in isolation or accompanied by other linguistic items). Just as in that case a second and a first person verbal triplet occur when they rely on the presence of *yuṣmad-* and *asmad-* (regardless of whether these pronouns are used in isolation or accompanied by other linguistic items), here a third person verbal triplet risks obtaining by relying on the presence of what is *śeṣa*'. (M 1.353 ll. 11-17 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

It is precisely here that Patañjali changes his line of reasoning, and begins to discuss the reading of the locative *śeṣe* which we discarded above (see §1.4), i.e., the reading whereby the long locative phrase of A 1.4.105 *upapade samānādhikaraṇe sthāniny api* continues in A 1.4.08 and agrees with *śeṣe*. Indeed, we excluded the *anuvṛtti* of such a segment because the resulting phrasing of the rule could not account for the *bhāve* construction, but – as emphasised above – neither Kātyāyana

nor Patañjali seem to have elaborated on this point. In this short section, Patañjali first concentrates on the word *upapada*, in the sense of *upoccārin* 'sounding near' and notices that, in the examples analysed here (namely, *tvaṃ ca devadattaś ca pacathaḥ* and *ahaṃ ca devadattaś ca pacāvaḥ*), what sounds near the verbal form cannot be designated as *śeṣa*, since indeed *yuṣmad-* and *asmad-* are involved.

> *evam tarhi śeṣe upapade prathamo vidhīyate. upoccāri padam upapadam. yac cātropoccāri na sa śeṣo yaś ca śeṣo na tad upoccāri. bhavet prathamo na syān madhyamottamāv api na prāpnutaḥ. kiṃ kāraṇam. yuṣmadasmador upapadayor madhyamottamāv ucyete. upoccāri padam upapadam. yac cātropoccāri na te yuṣmadasmadī ye ca yuṣmadasmadī na tad upoccāri.* (M 1.353 ll. 17-21 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

'If it is so, a third person verbal triplet is enjoined when the remainder is the *upapada. upapada* means the inflected word sounding near. And here what is sounding near is not the remainder and what is the remainder is not sounding near (in the examples *tvaṃ ca devadattaś ca pacathaḥ* and *ahaṃ ca devadattaś ca pacāvaḥ*, a coordinative phrase made up of *devadatta-* plus *yuṣmad-*/ *asmad-* is rather what sounds near the verbal form). So be it: a third person verbal triplet should not occur. But a second and a first person verbal triplet do not obtain either. Why? A second and a first person verbal triplet are uttered when *yuṣmad-* and *asmad-* are *upapada*s. *upapada* means the inflected word sounding near and here neither *yuṣmad-* (alone) nor *asmad-* (alone) are items "sounding near" [the verbal form *pacāvaḥ*] and the item "sounding near" is neither *yuṣmad-* nor *asmad-*'.

Secondly, Patañjali's argument moves toward the term *samānādhikaraṇa*, which is the second segment assumedly undergoing *anuvṛtti*.

> *evaṃ tarhi śeṣeṇa sāmānādhikaraṇye prathamo vidhīyate na cātra śeṣeṇaiva sāmānādhikaraṇyam. bhavet prathamo na syān madhyamottamāv api na prāpnutaḥ. kiṃ kāraṇam. yuṣmadasmadbhyāṃ sāmānādhikaraṇye madhyamottamāv ucyete na cātra yuṣmadasmadbhyām eva sāmānādhikaraṇyam.* (M 1.353 ll. 21-24 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

'If it is so, a third person verbal triplet is taught when there is a co-referentiality relation with the remainder*,* but the co-referentiality relation here is not exclusively with what is the remainder. So be it: a third person verbal triplet should not occur. But a second and a first person verbal triplet do not obtain either. Why? Because a second and a first person verbal triplet are uttered when there is a co-referentiality relation with *yuṣmad-* or *asmad-*, but the co-

referentiality relation here is not exclusively with *yuṣmad-* or exclusively with *asmad-*'.

2.4.2. At this point Patañjali explores on the consequences of continuing *sthāniny api* (i.e., the last segment of the locative phrase of A 1.4.105) in A 1.4.108, so that *sthāniny api* ends up agreeing with the locative *śeṣe*.

> *evaṃ tarhi tyadādīni sarvair nityam ity evam atra yuṣmadasmadoḥ śeṣo bhaviṣyati. tatra yuṣmadi madhyamo 'smady uttama ity eva siddham. na sidhyati. sthāniny apīti prathamaḥ prāpnoti. tyadādīnāṃ khalv api yat yat paraṃ tat tac chiṣyata iti yadā bhavataḥ śeṣas tadā prathamaḥ prāpnoti.* (M 1.353 ll. 24-27 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

'If this is so, according to (the *ekaśeṣa* rule A 1.2.72) "The pronouns of the gaṇa *tyadādi* are mandatorily the remainder "(*śeṣa*)" when they are used with any types of nominal stems", [the designation] "*śeṣa*" will belong to *yuṣmad-* and *asmad-*. There (namely, in the examples *tvaṃ ca devadattaś ca pacathaḥ* and *ahaṃ ca devadattaś ca pacāvaḥ*) [the desired form] is realised (i.e., the pronoun of the gaṇa *tyadādi* prevails over the nominal stem *devadatta-*), which is to say that a second person verbal triplet obtains when *yuṣmad-* occurs, and that a first person verbal triplet obtains when *asmad-* occurs (by resorting to A 1.4.105 and 107 respectively via A 1.2.72). No, [the desired form] is not realised. If it is said "even if it (i.e., the *śeṣa* item) is a *sthānin*", a third person verbal triplet risks obtaining. Indeed if it is also said that what remains (as *ekaśeṣa*) is whatever "follows" among the items in the *tyadādi* list, when [the designation] "*śeṣa*" belongs to *bhavat-*, then a third person verbal triplet risks obtaining'.

Even though the only translation of this passage known to us interprets *bhavataḥ* as 'in your opinion'[28], we are reading *bhavataḥ* as the genitive singular form of the honorific pronoun *bhavat-* 'your honour', which modifies *śeṣa-*: whence our translation of *bhavataḥ śeṣaḥ* as '[the designation] "*śeṣa*" belongs to *bhavat-*'. Direct support for our reading of *bhavataḥ* comes from the occurrence, in this same passage, of the comparable phrase *yuṣmadasmadoḥ śeṣaḥ bhaviṣyati* '[the designation] "*śeṣa*" will belong to *yuṣmad-* and *asmad-*'. Indeed, this is not a new reading of *bhavataḥ*, since it had already been proposed by Kaiyaṭa[29].

---

[28]   See Sastri's (1957: 163) translation of the whole sentence: "If, in your opinion, śeṣa refers to whatever follows in *tyadādis* there is a chance for *prathama* on that basis".
[29]   *Pradīpa* 2.445 ll. 15-17 *ad* M *ad* A 1.4.105, 107, 108: *yad uktaṃ 'bhavataḥ śeṣa' iti, tatrottaram āhuḥ 'yuṣmadasmadbhavatu' ity evaṃ na saṃniveśa āśra[ya]ṇīyaḥ.*

As we have seen above (in M 1.353 l. 11 *ad* Vt. 7 *ad* A 1.4.105, 107, 108: *śeṣaś cānyaś ca*), the present portion of Patañjali's commentary is devoted to the question of how to select the right verbal triplets when one of the members of the coordinative phrase (which co-occurs and is co-referential with *LA*) is a *śeṣa*, i.e., a (pro)nominal base other than *yuṣmad-* and *asmad-*. Examples featuring a coordinative phrase like [*asmad-* + *bhavat-*] are directly relevant to this question: here *bhavat-* is a *śeṣa*, and *asmad-* is *anya*.

As mentioned above, Patañjali lets *sthāniny api* modify the locative *śeṣe* by continuing *sthāniny api* in A 1.4.108. Since *śeṣa* is to be identified with *bhavat-* here, then *bhavat-* should be a *sthānin* in [*asmad-* + *bhavat-*]. And yet, Patañjali demonstrates that *bhavat-* cannot be a *sthānin* in [*asmad-* + *bhavat-*]. To appreciate this point, we first need to understand what a *sthānin* was for Patañjali, and especially in this passage.

We submit that, in the present passage of the *Mahābhāṣya*, the *sthānin*-version of an item Y is a form of Y that is signified but not pronounced[30]; for convenience, we shall notate the *sthānin*-version of Y as

---

tataś cāsmada eva śeṣo, na tu bhavataḥ. '*pūrvaśeṣadarśanāc ce'ti vacanād vā.* 'When it is said that [the designation] "remainder" belongs to *bhavat-*(*bhavataḥ śeṣaḥ*), they maintain that in this case the one that follows [should supersede the others], according to [the series] *yuṣmad-, asmad-, bhavatU* [in the *tyadādi* list]. [The designation "remainder"] has not to be based on the position [that the pronoun designated as "remainder" occupies in the *tyadādi* list]. And therefore [the designation] "remainder" indeed belongs to *asmad-*, not to *bhavat-*. Otherwise this [designation of *asmad-* as remainder] should depend on a rule which states that [the designation "remainder"] also [belongs to *asmad-*], when we perceive [the designation "remainder"] as belonging to the item that precedes [in the *tyadādi* list]'.

  [30]   See tr. Sastri (1957: 163): "No, it is not accomplished, since *prathama* will have chance to come, even if *śeṣa* is not pronounced." There are only 3 occurrences of *sthānin* in the *Aṣṭādhyāyī*. The most renowned is of course at the core of the general substitution rule A 1.1.56 (see above § 1.2). The second occurrence is that included in the first of the rules we are dealing with in the present paper, i.e., in A 1.4.105. The third intriguing occurrence of *sthānin* is a rule included in the section devoted to matching the seven nominal triplets to their specific meanings, especially to the so-called *kāraka*s: A 2.3.14: *kriyārthopapadasya ca karmaṇi sthāninaḥ* [*caturthī 13 anabhihite 1*] 'The dative ending [applies to a nominal base] to signify the patient of [an item X] whose *upapada* Y has an action Z as Y's purpose, when X is a placeholder (with X = Z) – provided that a patient is not otherwise signified'. A classic example of the application of this rule is the phrase *puṣpebho vrajati*, which is obtained by ascribing the status of *sthānin* to the infinitive *āhartum* in the supposed input sentence *puṣpān āhartum vrajati* 'he goes to pick flowers'. Unfortunately this rule is not commented on by Patañjali, but the traditional reading contained in *Kāśikā-Vṛtti ad* A 2.3.14 takes it that *sthānin* is merely the verbal base (*dhātu*) which is not used (*aprayujyamāna*): *kriyārthopapa-dasya ca sthānino 'prajujyamānasya dhātoh karmaṇi kārake caturthī vibhaktir bha-*

$Y^{\varnothing}$. Now, the ascription of the status '*sthānin*' to Y in the coordinative phrase [X + Y] yields [X + $Y^{\varnothing}$]. Crucially, [X + $Y^{\varnothing}$] (i.e., the fact that Y is signified but not pronounced while X is signified and pronounced) merely means that X is the *ekaśeṣa* – i.e., the 'unique (*eka-*) remainder (*śeṣa-*)' – of the coordinative phrase [X + Y] in the context of this *Mahābhāṣya* passage[31]. Thus, by saying that Patañjali demonstrates the impossibility for *bhavat-* to be a *sthānin* in [*asmad-* + *bhavat-*], we mean that Patañjali demonstrates that *asmad-* cannot be the *ekaśeṣa* of [*asmad-* + *bhavat-*]; more formally, Patañjali shows that [asmad- + bhavat-$^{\varnothing}$] is to be ruled out. Let us then examine the astute argument he uses to prove that *asmad-* cannot be the *ekaśeṣa* of [*asmad-* + *bhavat-*].

In fact, Patañjali mentions a criterion which should guide the speaker in applying the *ekaśeṣa* rule A 1.2.72. This criterion states that X can only be the *ekaśeṣa* of [X + Y] if X follows (i.e., is ordered after) Y in the *tyadādi* list (*tyadādīnāṃ khalv api yat yat paraṃ tat tac chiṣyate*)[32]. Thus, *asmad-* (inflected in the nominative dual as *āvām*) will be the *ekaśeṣa* of [*asmad-* + *tad-*] or of [*asmad-* + *yuṣmad-*] because *asmad-* follows both *tad-* and *yuṣmad-* in the *tyadādi* list. In other words, *tad-* cannot be the *ekaśeṣa* of [*asmad-* + *tad-*], and *yuṣmad-* cannot be the *ekaśeṣa* of [*asmad-* + *yuṣmad-*], because neither *tad-* nor *yuṣmad-* fol-

vati. dvitīyāpavādo yogaḥ 'When it is said *kriyārthopapadasya ca sthāninaḥ*, it means that when the *kāraka* to be signified is the patient of a verbal base which is not used, the fourth nominal triplet occurs as an exception rule with respect to the second nominal triplet'.

[31]   To be noted that the present reading of the *ekaśeṣa* procedure, whereby X is the *ekaśeṣa* of the coordinative phrase [X + Y] when Y but not X is ascribed the status of *sthānin*, should be confined to the *Mahābhāṣya* passage which we are examining here (i.e., M 1.353 ll. 24-27 *ad* Vt. 7 *ad* A 1.4.105, 107, 108); it should not be considered as the correct interpretation of the *ekaśeṣa* procedure in the rest of the *Mahābhāṣya*, or in Pāṇini, or in the Indian grammatical tradition more generally. For an analysis of the *ekaśeṣa* procedure in Pāṇini, see Borghero, Pontillo (2020).

[32]   The *tyadādi* list contains the following items in the following order: *tyad-* 'that', *tad-* 'that', *etad-* 'this', *adas-* 'that', *idam-* 'this', *eka-* 'one', *dvi-* 'two', *yuṣmad-* 'you', *asmad-* 'we', *bhavat-* 'your honour', *kim-* 'which, what, who'. The criterion at issue here seems to be traceable to Vt. 4 *ad* A 1.2.72 (*parasya cobhayavācitvāt* 'On account of *para* denoting both') and especially to what Patañjali explains before this *Vārttika*. In fact, Patañjali explicitly says that the purpose of rule A 1.2.72 is to ensure that the remainder is the item which follows (M 1.251 ll. 18-19 *ad* A 1.2.72: *idaṃ tarhi prayojanaṃ parasya śeṣaṃ vakṣyāmīti*). The phenomenon whereby *bhavat* results as being the proper *ekaśeṣa* when it is coordinated with another pronoun if the latter precedes *bhavat* in the *tyadādi* list is also mentioned by Kātyāyana in Vt. 11 *ad* A 1.1.27 (*bhavataḥ akaccheṣātvāni*), as one of the three objectives of the inclusion of *bhavat* in the list of pronouns (i.e. in the *sarvādi* list). The example given by Patañjali (M 1.89 l. 27 – 90 l. 1 *ad* Vt. 11 *ad* A 1.1.27) is *sa ca bhavāṃś ca bhavantau* "He and your honour [are called] *bhavantau* 'your honours (du.)'".

lows *asmad-* in the *tyadādi* list. Reasoning along the same lines, Patañjali must have concluded that *asmad-* cannot be the *ekaśeṣa* of [*asmad-* + *bhavat-*] because *asmad-* does not follow *bhavat-* in the *tyadādi* list. Thus, if we stay with the aforementioned criterion, *bhavat-* (concretely realised as the nominative dual *bhavantau*) should be the *ekaśeṣa* of [*asmad-* + *bhavat-*], because *bhavat-* does indeed follow *asmad-* in the *tyadādi* list.

Crucially, *bhavat-* selects a third person verbal triplet in Sanskrit. Therefore, according to Patañjali's reasoning, if we were to let *bhavat-* be the *ekaśeṣa* of [*asmad-* + *bhavat-*], an undesired third person verbal triplet would obtain (*yadā bhavataḥ śeṣas tadā prathamaḥ prāpnoti*) instead of a desired first person verbal triplet. The *ekaśeṣa* procedure turns out to be a failure in this case. From this Patañjali concludes that *sthāniny api* cannot continue in A 1.4.108 and, above all, that the *ekaśeṣa* rule A 1.2.72 does not suffice to block the application of A 1.4.108 – thereby yielding a third person verbal triplet – when a coordinative phrase made up of a *śeṣa* plus another item co-occurs and is co-referential with *LA*.

All in all, by showing that *bhavat-* cannot be a *sthānin* in [*asmad-* + *bhavat-*] (i.e., by showing that *bhavat-* should be the *ekaśeṣa* 'single remainder' of [*asmad-* + *bhavat-*]), Patañjali demonstrates that the *ekaśeṣa* procedure which Kātyāyana identified as one of the possible solutions to Puzzle P (i.e., 'how should the speaker resolve the conflict arising between A 1.4.105 and 107 in a scenario in which both these rules are applicable?' – see §2.1 above) is in essence invalid: the *ekaśeṣa* procedure indeed fails to take account of cases in which the coordinative phrase which co-occurs and is *samānādhikāra* with *LA* is made up of *asmad-* (or *yuṣmad-*) and *bhavat-*.

2.4.3. Let us just summarise what we learnt so far. Starting at least from M 1.353 ll. 11-17 *ad* Vt. 7 *ad* A 1.4.105, 107, 108, Patañjali has been addressing a thorny problem: how can we prevent A 1.4.108 from interfering with A 1.4.105 and 107 when a coordinative phrase made up of *śeṣa* (i.e., a nominal or pronominal form other than *yuṣmad-* and *asmad-*) plus *yuṣmad-* or *asmad-* co-occurs and is *samānādhikāra* with *LA*? His approach to this problem has thus far targeted the surface level of language, i.e., what is actually found in a concrete utterance: indeed, in the concrete utterance featuring the above-mentioned coordinative phrase, both *śeṣa* and *yuṣmad-/ asmad-* fail to qualify as *upapada* with *LA*, or as co-referential with *LA*, and this failure blocks A 1.4.105, 107, or 108 from applying, so that no verbal triplets can be selected (see M 1.353 ll. 17-24 *ad* Vt. 7 *ad* A 1.4.105, 107, 108); moreover, in that con-

crete utterance *śeṣa* fails to qualify as *sthānin* and this failure yields an undesired third person verbal triplet (see M 1.353 ll. 24-27 *ad* Vt. 7 *ad* A 1.4.105, 107, 108). As a consequence, an approach that seeks to prevent A 1.4.108 from interfering with A 1.4.105 and 107 by capitalising on the pure surface level of language is doomed to fail. Patañjali therefore abandons this approach in the following lines, and moves from the surface level of language to the meaning conveyed by *yuṣmad-* and by *asmad-* (see below, M l.354 ll. 6-9 *ad* Vt. 7 *ad* A 1.4.105, 107, 108).

First of all he tackles the problem of compound pronouns such as *paramatvam, paramāham*, which might also not be dealt with by A 1.4.105 and 107, respectively. He solves this problem by resorting to A 1.1.72 *yena vidhis tadantasya* 'The unit U_1 by means of which a provision is made denotes a unit U_2 which ends in U_1', which indicates that a term used in an operational rule refers to the word form that ends in the item denoted by the term (e.g., *yuṣmad-*, used in the operational rule A 1.4.105, refers to *paramatvam* because *paramatvam* ends with *tvam*, which is an inflected form of *yuṣmad-*). He then realises that this gives rise to two new problems, i.e., the risk of overextending A 1.1.72 to *atitvam, atyaham*, which select a third person verbal triplet, and the inapplicability of A 1.1.72 to the *taddhidānta*s derived from *yuṣmad-* and *asmad-*, such as *tvat-tara-, mat-tara*, which do not end in a pronominal stem but nonetheless select a second and first person verbal triplet. As a consequence, Patañjali proposes to rephrase A 1.4.105 and 107 by replacing *yuṣmadi* with *yuṣmad-vati* and *asmadi* with *asmad-vati*, so that a second and a first person verbal triplet can be assigned when an item "including" (-*vat*) the pronoun *yuṣmad-* and *asmad-*, respectively, is used. Nevertheless, when phrased this way, A 1.4.105 and 107 risk being overextended to such phrases as *atitvam* and *atyaham*, which instead select a third person verbal triplet.

> *yuṣmadi madhyamo 'smady uttama ity evocyate. tāv iha na prāpnutaḥ.*
> *paramatvaṃ pacasi. paramāham pacāmīti. tadantavidhinā bhaviṣyati. ihāpi*
> *tarhi tadantavidhinā prāpnutaḥ. atitvam pacati. atyahaṃ pacatīti. ye cāpy ete*
> *samānādhikaraṇavṛttayas taddhitās tatra ca madhyamottamau na prāpnutaḥ.*
> *tvattaraḥ pacasi mattaraḥ pacāmīti. tvadrūpaḥ pacasi madrūpaḥ pacāmīti.*
> *tvatkalpaḥ pacasi matkalpaḥ pacāmīti. evaṃ tarhi yuṣmadvaty asmadvatīty*
> *evaṃ bhaviṣyati. ihāpi tarhi prāpnutaḥ. atitvam pacati. atyaham pacatīti.* (M
> 1.353 l. 28-354 l. 5 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

'If it is said only *yuṣmadi madhyamaḥ asmadi uttamaḥ*, here these two are not realised, i.e., *paramatvam pacasi* "The supreme yourself is cooking (second person verbal triplet)", *paramāham pacāmi* "The supreme myself is cooking (first person verbal triplet)". They will be realised by means of rule A

1.1.72 (*paramatvam* ends with an inflected form of the pronoun *yuṣmad-*, i.e., *tvam*, and *paramāham* ends with an inflected form of the pronoun *asmad-*, i.e., *aham*). Then here these two also risk obtaining by means of A 1.1.72: *atitvam pacati* "the one surpassing you is cooking", *atyaham pacati* "the one surpassing me is cooking" (which feature a third person verbal triplet). And the following *taddhitānta*s whose formation is co-referential (with their etymon) risk failing to obtain a second and a first person verbal triplet: *tvattaraḥ pacasi* "More than you is cooking (second person verbal triplet)" and *mattaraḥ pacāmi* "More than me is cooking (first person verbal triplet)", *tvadrūpaḥ pacasi* "The one who has your visible appearance is cooking (second person verbal triplet)", *madrūpaḥ pacāmi* "The one who has my visible appearance is cooking (first person verbal triplet)", *tvatkalpaḥ pacasi* "The one who has your rules is cooking (second person verbal triplet)", *matkalpaḥ pacāmi* "The one who has my rules is cooking (first person verbal triplet)". If this is so, it (i.e., the rule) will be [rephrased as/or intended as] *yuṣmadvati* (instead of *yuṣmadi*) "when something containing *yuṣmad-* is used" and *asmadvati* (instead of *asmadi*) "when something containing *asmad-* is used". Then here these two also risk obtaining (i.e., a second and a first person verbal triplet risk obtaining instead of a desired third person verbal triplet): *atitvam pacati. atyaham pacati*'. (M 1.353 l. 28-354 l. 5 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

The two proposals which emerge from this argument were never rejected by Patañjali. The first proposes to rephrase A 1.4.105 and 107 as *yuṣmadi sādhane* and *asmadi sādhane*, i.e., when the requested sense is *yuṣmad-* and *asmad-*, respectively. The second is to consider A 1.4.108 as a general rule (*utsarga*), with respect to which A 1.4.105 and 107 are classified as *apavāda*s (special rules), which as such prevail over their *utsarga* every time there is even "the smell" of *yuṣmad-* and *asmad-*, respectively.

evaṃ tarhi yuṣmadi sādhane 'smadi sādhane ity evaṃ bhaviṣyati. evaṃ ca kṛtvā so 'py adoṣo bhavati yad uktaṃ tatra yuṣmadasmadanyeṣu prathamapratiṣedhaḥ śeṣatvād iti. atha vā prathama utsargaḥ kariṣyate tasya yuṣmadasmador upapadayor madhyamottamāv apavādau bhaviṣyataḥ. tatra yuṣmadgandhaś cāsmadgandhaś cāstīti kṛtvā madhyamottamau bhaviṣyataḥ. (M 1.354 ll. 6-9 *ad* Vt. 7 *ad* A 1.4.105, 107, 108)

'Then if this is so, it (i.e., the rule) will be [rephrased or intended]: *yuṣmadi sādhane* (instead of *yuṣmadi*) "when the requested sense is *yuṣmad-*", and *asmadi sādhane* (instead of *asmadi*) "when the requested sense is *asmad-*". After rephrasing [the rule] in such a way, what has been said there, i.e., that "Where *yuṣmad-*, *asmad-*, plus other linguistic items are used, a prohibition of the third person verbal triplets [has to be added] because of the principle of

śeṣa (i.e., since a third person verbal triplet is taught for the remainder with respect to *yuṣmad-* and *asmad-*)" is also free from shortcomings. Otherwise a third person verbal triplet will be established as the general rule. The exception (with respect to the third person verbal triplets) will be the second and first person verbal triplets as co-occurring with *yuṣmad-* and *asmad-*, respectively. There, when there is something (i.e., a trace, lit. "the mere smell") of *yuṣmad-* and something of *asmad-*, a second and a first person verbal triplet will occur'[33].

What clearly emerges in this passage is that Patañjali, who does not admit the *anuvṛtti* of the locative phrase of A 1.4.105 *upapade samānādhikaraṇe sthāniny api* in A 1.4.108, considers the third person verbal triplets as the default triplets (*utsarga* rule). The exceptions with respect to the third person verbal triplets are the second and first person verbal triplets (*apavāda* rules), restricted to those cases in which the respective meanings of *yuṣmad-* and of *asmad-* are conveyed. Of course the meaning of coordinative phrases such as *tvaṃ cāhaṃ ca* or *tvaṃ ca devadattaś ca* is always accessible to the speaker.

2.5. *Summary*

Kātyāyana's Vt. 2 centres on the following problem: which verbal triplet replaces *LA* when a coordinative phrase co-occurs and is co-referential with *LA*? Kātyāyana considers the wording of A 1.4.105 and 107 as being per se sufficient to solve this problem when the coordinative phrase at stake is made up of *yuṣmad-* or *asmad-* plus a (pro)nominal form other than *yuṣmad-* and *asmad-*. However, the wording of A 1.4.105 and 107 no longer suffices when the coordinative phrase is made up of *yuṣmad-* and *asmad-* (e.g., *tvaṃ cāhaṃ ca*): both 1.4.105 and 107 are in principle applicable in this circumstance, which means that there is a conflict between A 1.4.105 and 107. Kātyāyana then advances three strategies for resolving this conflict: the rule on conflict (A 1.4.2), the *ekaśeṣa* of the coordinative phrase made up of *yuṣmad-* and *asmad-* (A 1.2.72), and the chance to use two distinct verbal forms in combination with the coordinative phrase made up of *yuṣmad-* and *asmad-*. Kātyāyana's *Vārttika*s 4-7 all revolve around this specific case of conflict between A 1.4.105 and 107.

---

[33] The last lines of M *ad* Vt. 7 *ad* A 1.4.105, 107, 108 analyse the further problem of whether the forms *tvadbhavati* 'he becomes you' and *madbhavati* 'he becomes me' are correct. Such a doubt of course arises from the fact that the pronominal stems *tvad-* and *mad-*, which are specific forms of *yuṣmad-* and *asmad-*, respectively, are co-occurring and co-referential with a verbal form of *bhū-*, but A 1.4.105, 107, and 108 do not affect the secondary usages of the pronouns they cover.

The issues discussed by Patañjali in his commentary on A 1.4.105, 107, 108 seem to be distant from Kātyāyana's *Vārttika*s, but, in actual fact, all the new paths he explored lead us to reject the *ekaśeṣa*-based strategy, which is arguably the most interesting among the solutions considered by Kātyāyana in his *Vārttika*s. Patañjali concludes his reading of rules A 1.4.105, 107, and 108, by labelling A 1.4.108 as an *utsarga* rule with respect to the other two, which are *apavāda* rules, and, as an alternative he rephrases A 1.4.105 and 107 as respectively *yuṣmadi sādhane madhyamā* 'when the requested sense is *yuṣmad*-, a second person verbal triplet occurs', and *asmadi sādhane* 'when the requested sense is *asmad*-, a first person verbal triplet occurs'.

3. *A gap between Pāṇini and his commentators*

The previous section emphasised, among other things, the strategies put forward by Kātyāyana and Patañjali for solving the following puzzle: which verbal triplet should replace *LA* when a coordinative phrase of the form [*yuṣmad*- + X], [*asmad*- + X], or [*yuṣmad*- + *asmad*-] (with X = any nominal or pronominal base) co-occurs and is co-referential with *LA*? This section will now ponder on the strategy which Pāṇini might himself have used to solve that puzzle. We submit that the crucial ingredient of his strategy lies in the segment *sthāniny api* of A 1.4.105.

Thus, consider a context in which *LA* attaches to the verbal base *pac*- and *yuṣmad*- co-occurs and is co-referential with *LA*. *yuṣmad*- may receive the status of *sthānin* 'substituendum' in accordance with A 1.4.105, which means that we can replace *yuṣmad*- with an item that is synonymous with *yuṣmad*-, synonymy between X and Y being an implicit requirement for X to replace Y in Pāṇini's framework of substitution. Crucially, *tvaṃ ca devadattaś ca* 'you and Devadatta' (i.e., a coordinative phrase made up of an inflected form of *yuṣmad*- plus an inflected form of *devadatta*-) is synonymous with *yuvām* 'you two'; *yuvām* is an inflected form of *yuṣmad*-; accordingly, *tvaṃ ca devadattaś ca* is synonymous with *yuṣmad*-. The synonymy between *tvaṃ ca devadattaś ca* and *yuṣmad*- then allows *yuṣmad*- to be replaced with *tvaṃ ca devadattaś ca*, so long as *yuṣmad*- is a *sthānin*. In other words, *tvaṃ ca devadattaś ca* is the *ādeśa* 'substitute' which takes the place of *yuṣmad*-. As a rule, the *ādeśa* triggers the same rules as the *sthānin*, except for those rules mentioning some sound of the *sthānin* itself (see A 1.1.56). Thus, much as *yuṣmad*- triggers the replacement of *LA* with a second person verbal triplet when *yuṣmad*- co-occurs and is co-referential with *LA* (by A 1.4.105), *tvaṃ ca devadattaś ca* (i.e., the *ādeśa* of *yuṣmad*-) likewise triggers the replacement of *LA* with a second person

verbal triplet when *tvaṃ ca devadattaś ca* co-occurs and is co-referential with *LA*. More explicitly, we have the following state of affairs.

(6)   a. [yuṣmad-] + [[pac-] + [*LA*]]
       b. [tvaṃ ca devadattaś ca] + [[pac-] + [-thas]$_{LA}$]
       c. *tvaṃ ca devadattaś ca pacathaḥ* 'you and Devadatta are cooking'.

All in all, we have determined which verbal triplet replaces *LA* in cases like that of (6b), in which a coordinative phrase of the form [*yuṣmad-* + X] co-occurs and is co-referential with *LA*. In order to do this we resorted to a device involved in A 1.4.105 (namely, the substitution patterns made available by the segment *sthānini api*).

Let us now consider a second context in which *asmad-* co-occurs and is co-referential with *LA*, which again attaches to the verbal base *pac-*. *asmad-* may receive the status of *sthānin* in accordance with A 1.4.107, in which case *asmad-* is replaceable by items that are synonymous with it. Interestingly, both *ahaṃ ca devadattaś ca* 'Devadatta and I' (i.e., a coordinative phrase made up of an inflected form of *asmad-* plus an inflected form of *devadatta-*) and *tvaṃ cāhaṃ ca* 'you and I' (i.e., a coordinative phrase made up of an inflected form of *yuṣmad-* plus an inflected form of *asmad-*) are synonymous with *āvām* 'the two of us' and hence with *asmad-* as well, since *āvām* is an inflected form of *as-mad-*. Therefore, we can proceed by replacing *asmad-* with *ahaṃ ca devadattaś ca*, as in (7b), or with *tvaṃ cāhaṃ ca*, as in (8b)[34]. The fact that *ahaṃ ca devadattaś ca* and *tvaṃ cāhaṃ ca* are the *ādeśa*s which take the place of *asmad-* ensures that not only *asmad-*, but also *ahaṃ ca devadattaś ca* and *tvaṃ cāhaṃ ca*, trigger the replacement of *LA* with a first person verbal triplet, in compliance with A 1.4.107.

(7)   a. [asmad-] + [[pac-] + [*LA*]]
       b. [ahaṃ ca devadattaś ca] + [[pac-] + [-vas]$_{LA}$]
       c. *ahaṃ ca devadattaś ca pacāvaḥ* 'Devadatta and I are cooking'.
(8)   a. [asmad-] + [[pac-] + [*LA*]]
       b. [tvaṃ cāhaṃ ca] + [[pac-] + [-vas]$_{LA}$]
       g. *tvaṃ cāhaṃ ca pacāvaḥ* 'you and I are cooking'.

All in all, we have determined which verbal triplet replaces *LA* in cases, like that of (7b), in which a coordinative phrase of the form [*as-mad-* + X] co-occurs and is co-referential with *LA*. In addition, we have also determined which verbal triplet replaces *LA* in cases, like that of

[34]   Note that the replacement of *yuṣmad-* with *tvaṃ cāhaṃ ca* is blocked: *tvaṃ cāhaṃ ca* is not synonymous with *yuṣmad-*.

(8b), in which a coordinative phrase of the form [*yuṣmad-* + *asmad-*] co-occurs and is co-referential with *LA*. Both these results were achieved by resorting to the substitution patterns made available by the segment *sthānini api*, continuing from A 1.4.105 in 1.4.107 by anuvṛtti.

We have thus seen that Pāṇini's system contains a relatively easy solution to the puzzle which so intrigued Kātyāyana and Patañjali (i.e., which verbal triplet should replace *LA* when a coordinative phrase of the form [*yuṣmad-* + X], [*asmad-* + X], or [*yuṣmad-* + *asmad-*], with X = any nominal or pronominal base, co-occurs and is co-referential with *LA*?). This solution consists in taking *yuṣmad-* as *sthānin* with respect to [*yuṣmad-* + X], and *asmad-* as *sthānin* with respect to [*asmad-* + X] as well as to [*yuṣmad-* + *asmad-*]. We maintain that Pāṇini was in fact aware of this relatively simple solution, and hence that it is historically accurate to attribute this solution to him. Interestingly enough, such a solution seems to have been completely overlooked by both Kātyāyana and Patañjali, even though it was certainly within their grasp.

For instance, by stating that a second and a first person verbal triplet is selected when the requested sense is that of *yuṣmad-* and of *asmad-*, respectively, Patañjali seems to come very close to Pāṇini's notion of *sthāna*, and hence to the idea that items being synonymous with *yuṣmad-* and *asmad-* occur in the same places (*sthāna*) where *yuṣmad-* and *asmad-* are expected to occur[35]. Nevertheless, he never went as far as to consider *yuṣmad-* and *asmad-* as *sthānin* with respect to any coordinative phrase. Indeed, what allows a coordinative phrase like [*yuṣmad-* + X], [*asmad-* + X], or [*yuṣmad-* + *asmad-*] to select for the desired verbal triplets is, according to Patañjali, the reading of *yuṣmadi* and *asmadi* as *yuṣmadi sādhane* and *asmadi sādhane* in A 1.4.105 and 107, respectively, or the fact that A 1.4.108 is an *utsarga* and A 1.4.105 and 107 its *apavāda*s (see M l.354 ll. 6-9 *ad* Vt. 7 *ad* A 1.4.105, 107, 108, discussed in §2.4.3 above), but not the fact that such a coordinative phrase is a substitute for *yuṣmad-* or for *asmad-*[36]. Furthermore, although Patañjali does elaborate on the term *sthānin* in his commentary on A 1.4.105, 107, 108, he surprisingly reads *sthānin* as if it meant

---

[35]   See Candotti, Pontillo 2013: 125-126 where the double frame used by Patañjali in order to account for *lopa* is explained. Thus *lopa* is a replacement of a unit, which is expected in a given place (*sthāna*): i. either because its matching *artha* 'meaning' is apprehended there; ii. and/or because the unit itself would actually occur there, if *lopa* did not apply there, i.e., insofar as it is "potentially involved" (*prasakta*) there.

[36]   Nonetheless, Patañjali does not consider substitution and *utsarga/apavāda* frameworks as completely separate descriptive methods. See, e.g., Candotti, Pontillo 2013: 122-123 about M l.138 ll. 1-2 *ad* Vt. 15 *ad* A 1.1.56.

"signified but not pronounced" (see especially M 1.353 ll. 24-27 *ad* Vt. 7 *ad* A 1.4.105, 107, 108, also discussed in §2.4.2 above).

On the other hand, Kātyāyana appears to maintain that the wording of A 1.4.105 and 107 need not be altered to account for the selection of the correct verbal triplets when [*yuṣmad-* + X] or [*asmad-* + X] co-occur and are co-referential with *LA*: see our fresh interpretation of Vt. 3 in §2.2 above. However, owing to the cryptic nature of Vt. 3, we cannot be sure as to how Kātyāyana arrived at this conclusion. In addition, Kātyāyana maintains that a conflict arises between A 1.4.105 and 107 when a coordinative phrase of the form [*yuṣmad-* + *asmad-*] co-occurs and is co-referential with *LA*, because both 1.4.105 and 107 are in principle applicable in that circumstance. In order to solve this conflict, Kātyāyana provides three alternative solutions, namely the conflict resolution rule A 1.4.2, the application of the *ekaśeṣa* procedure to [*yuṣmad-* + *asmad-*], and the simultaneous use of [*yuṣmad-* + *asmad-*] with two distinct verbal forms (see §2.2 above). But the very fact that Kātyāyana resorts to these three alternative solutions clearly reveals that he did not by any means consider the replacement of *asmad-* by [*yuṣmad-* + *asmad-*] (i.e., the ascription of the status of *sthānin* 'substituendum' to *asmad-*) as the key to selecting a second person verbal triplet in cases where [*yuṣmad-* + *asmad-*] co-occurs and is co-referential with *LA*.

In sum, the following picture emerges from our survey of Pāṇini's rules A 1.4.105, 107, 108 and of the relevant commentarial passages by Kātyāyana and Patañjali: a puzzle exists as to which verbal triplets should replace *LA* when a coordinative phrase of the form [*yuṣmad-* + X], [*asmad-* + X], or [*yuṣmad-* + *asmad-*] co-occurs and is co-referential with *LA*. Kātyāyana and Patañjali solved this puzzle by tampering with the wording of the relevant *Aṣṭādhyāyī* rules (A 1.4.105, 107, and 108), or by setting these rules within the framework of the *utsarga*/ *apavāda* opposition, or indeed by making use of conflict resolution strategies such as the *ekaśeṣa* procedure. On the other hand, Pāṇini solved this selfsame puzzle by simply capitalising on the segment *sthāniny api* occurring in A 1.4.105 and (by *anuvṛtti*) 1.4.107, in accordance with our interpretation of A 1.4.105, 107, and 108. If the foregoing argument is tenable, then a gap exists between Pāṇini on the one hand, and Kātyāyana and Patañjali on the other hand: only Pāṇini managed to solve the aforementioned puzzle by exclusively resorting to segments of the relevant rules (A 1.4.105, 107, 108). In other words, the original content of A 1.4.105, 107, and 108, which reflects Pāṇini's own position, was no longer understood by Kātyāyana and Patañjali, who had to resort to special devices to solve that puzzle.

We therefore conclude that the interpretation of A 1.4.105, 107, and 108 by Kātyāyana and Patañjali constitutes an innovation with respect to the original content of these rules.

4. *Conclusion*

There are two takeaways from the present study.

The first takeaway is that Kātyāyana and Patañjali resorted to special devices not directly involved in A 1.4.105, 107, and 108 – such as the *utsarga*/ *apavāda* opposition and the conflict resolution rule A 1.4.2 – in order to permit A 1.4.105, 107, and 108 to yield the right verbal triplets in the syntactic environments in which [*yuṣmad-* + X], [*asmad-* + X], or [*yuṣmad-* + *asmad-*] co-occurs and is co-referential with *LA*.

The second takeaway is that the special devices deployed by Kātyāyana and Patañjali to permit A 1.4.105, 107, and 108 to yield the right verbal triplets in the syntactic environments involving [*yuṣmad-* + X], [*asmad-* + X], or [*yuṣmad-* + *asmad-*] are indeed unnecessary and unwarranted: a proper understanding of the rule segment *sthāniny api* occurring in A 1.4.105 and (by *anuvṛtti*) 1.4.107 per se suffices to permit A 1.4.105, 107, and 108 to yield the right verbal triplets in those environments.

When considered together, these two takeaways lead to an inescapable conclusion: that an innovation occurred in the history of the interpretation of A 1.4.105, 107, 108, and that such an innovation was the result of a misunderstanding, on the part of Kātyāyana and Patañjali, of the relevant *Aṣṭādhyāyī* rules (A 1.4.105, 107, 108). The present study is thus in line with other scholarship (e.g., Kiparsky 1979) in showing that the Indian grammatical tradition is anything but an unchanging monolith: rather, it is a dynamic accumulation of thoughts on a text and as such it may sometimes diverge from the original content of that text itself.

Bibliographic References

Primary Sources

A   *The Aṣṭādhyāyī of Pāṇini* – See Sharma 1999-2003.

D   [*Dīpikā*] *Mahābhāshya-Dīpikā* of Bhartṛhari, Fascicule IV, Āhnika I, crit. ed. by J. Bronkhorst, Poona, 1987.

KV   [*Kāśikāvṛttī*] *Kāśikā. A commentary on Pāṇini's Grammar*, 2 Vols., ed. by A. Sharma, K. Deshpande, and D.G. Padhye, Hyderabad, 1969-1970.

M   [Patañjali's *Mahābhāṣya*] *The Vyâkarana-Mahâbhâshya of Patanjali*, 3 Vols., ed. by F. Kielhorn, Bombay, 1880-1885.

RV   *Ṛgveda-Samhitā. With a Commentary of Sāyaṇācārya*, ed. by N.S, Sontakke, C.G. Kashikar. Poona,1933-1951.

Pradīpa [Kaiyaṭa's *Pradīpa*] Patañjali's *Mahābhāṣya with Kaiyaṭa's Pradīpa & Nāgojibhaṭṭa's Uddyota* by A.G. Shastri, ed. By B. Shastri, 6 Vols., 1999 [1938].

Padamañjari Nyāsa or Pañcikā Commentary of Ācārya Jinendrabuddhipāda and Padamañjarī of Haradatta Miśra on the Kāśikāvṛtti of Vāmana-Jayāditya crit. ed. by. Śastri - K.P. Shukla, 6 Vols., 1983-1985.

VP   *Vākyapadīya* by Bhartṛhari, ed. by W. Rau, Wiesbaden, 1977.

Vt   [Kātyāyana's *Vārttika*s] – See M.

Secondary Sources

Bach, E. 1981. "On time, tense and aspect: An essay in English metaphysics", in P. Cole (ed.), Radical pragmatics, New York, 62-81.

Bauer, L. 2017. *Compounds and compounding*, Cambridge.

Borghero, A.M., T. Pontillo. 2020. "Are the elliptic dual (and plural) provisions in Pāṇini's Grammar Substitution Rules? *Aṣṭādhyāyī* 1.2.64-73", *Incontri Linguistici* 43, 55-79.

Candotti, M.P., T. Pontillo. 2013. "The earlier Pāṇinian tradition on the imperceptible sign", in T. Pontillo and M.P. Candotti (eds.), *Signless Signification in Ancient India and Beyond*, Cultural, Historical and Textual Studies of Religions, London, 99-153.

Candotti, M.P., T. Pontillo 2021. "Singling out the place where rules apply. Materials from the discussion on *Pāṇini*'s description of substitution", in P.M. Scharf (ed.), Śabdānugama. Indian linguistic studies in honor of George Cardona. Volume *I Vyākaraṇa and Śabdabodha*, Providence, 385-430.

Cardona, G. 1975. "Some Features of *Pāṇinian derivation*", in H. Parret (ed.), *History of Linguistic Thought and Contemporary Linguistics*, Berlin, 137-158.

Cardona, G. 1997. *Pāṇini. His Work and Its Tradition. Background and Introduction*, Delhi.

Cardona, G. 2013. "Pāṇini and Pāṇinīyas on śeṣa relations", in P.C. Mural-eemadhavan (ed.), *Indological research: different standpoints*, Delhi, 99-146.

Chomsky, N. 2000. "Minimalist inquiries: the framework", in R. Martin, D. Michaels, and J. Uriagereka (eds.), Step by step: Essays On Minimalist Syntax in Honor of Howard Lasnik, Cambridge (MA): MIT Press, 89-155.

Freschi, E., T. Pontillo 2013. *Rule-extension-strategies in Ancient India: Ritual, exegetical and linguistic considerations Śrautasūtra, Mīmāṃsā and Grammar on* the tantra- *and* prasaṅga- *principles*, Frankfurt a.M.

Gillon, Brendan. 2008. "Exocentric Compounds in Classical Sanskrit", in G. Huet, A. Kulkarni (eds.), First International Sanskrit Computational Linguistics Symposium, Oct. 2007, Rocquencourt, France, *http://hal.inria.fr/ SANSKRIT/fr/.* <inria-00202860> [accessed February 2022].

Joshi, S.D., S. Bhate 1984. *The Fundamentals of* Anuvṛtti (PCASS, B, n° 9), Pune.

Joshi, S.D., J.A.F. Roodbergen 1995. *The Aṣṭādhyāyī of Pāṇini with Translation and Explanatory Notes*, Vol. IV (1.4.1-1.4.110), New Delhi.

Katre, S.M. 1987. *Aṣṭādhyāyī of Pāṇini. In Roman Transliteration by Sumitra M. Katre*, Austin.

Kiparsky, P. 1979. *Pāṇini as a variationist*. Pune-Cambridge.

Kiparsky, P. 2009. "On the Architecture of Panini's Gramma*r*", in G. Huet, A. Kulkarni, Peter M. Scharf (eds.), *Sanskrit Computational Linguistics*. Proceedings of the First and Second International Symposia, Rocquencourt, France, October 29-31, 2007 Providence, RI, USA, May 15-17, 2008, Revised Selected Papers (Springer Lecture Notes in Computer Science, 5402), Berlin-New York, 33-94.

Kobayashi, M. 2021. "*Pāṇini*'s definition of the *bahuvrīhi* as śeṣa 'remainder'", in P.M. Scharf (ed.), Śabdānugama. Indian linguistic studies in honor of George Cardona. Volume *I Vyākaraṇa and Śabdabodha*, Providence, 217-236.

Lowe, J. 2015. *Participles in Rigvedic Sanskrit: The Syntax and Semantics of Adjectival Verb Forms*, Oxford.

Mereu, L. 1995. Verso una tipologia dell'accordo verbo-soggetto. *Rivista di Linguistica* 7(2), 333-367.

Mocci, D., T. Pontillo 2020, "A Controversial Provision for the Nominative Ending: Nominal Sentences and *Aṣṭādhyāyī* 2.3.46", *JAOS* 140, 1, 49-81.

Moro, A. 1997. *The raising of predicates: Predicative noun phrases and the theory of clause structure*, Cambridge.

Pontillo, T. 2003. "Morfi 'zeromorfi' in Pāṇini: un'introduzione alle regole specifiche di formazione con zero fonologico nella posizione di dati morfemi", *AIWN. Annali Dip. Studi Mondo Classico e Mediterraneo Antico. Sez. Linguistica. Istituto Orientale Napoli*, 22 (2000) [2003], 129-184.

Pontillo, T. 2013. "'Where the sense is intended although the correspond-ing speech unit is not employed': the *ekaśeṣa* case", in G. Cardona (ed.), *Vyākaraṇa Across the Ages. Proceedings of the 15th World Sanskrit Confer-ence*, Delhi 5-10 January 2012 (Vol. II: Vyākaraṇa Session), New Delhi, 107-143.

Rajpopat, R. A. 2021. *In Pāṇini We Trust. Discovering the Algorithm for Rule Conflict Resolution in the* Aṣṭādhyāyī. PhD thesis, Faculty of Asian and Middle Eastern Studies, University of Cambridge.

Roodbergen, Jouthe A. F. 2008. *Dictionary of Pāṇinian Grammatical Termi-nology*, Pune.

Sharma, R.N. 1999-2003 (I ed. 1987). *The Aṣṭādhyāyī of Pāṇini. Second re-vised and enlarged edition with Index of Sūtras* (*translated and explained*), 6 Vols., New Delhi.

Sharma, R.N. 2010. "Rule Interaction, Blocking and Derivation in Pāṇini"*,* in Sanskrit Computationl Linguistics, 4th International Symposium, New Del-hi, India, December 10-12, 2010 (Lecture Notes in Artificial Intelligence 6455), Berlin, Heidelberg, 1-20.

Subrahmanya Sastri, P.S. 1957. *Lectures on Patañjali's Mahābhāṣya,* Volume V, Āhnikas 15-22, Tiruchirapalli [Reprint Mylapore, Chennai 2015].