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# FROM PĀṆINI TO PATAÑJALI: THE SEARCH FOR LINEARITY

(published: Bhandarkar Oriental Research Institute, Pune, 2004. (Post-graduate and  
Research Department Series, 46.))

[1]

§1. Beginning students of Pāṇini's grammar do not take long to become acquainted with the search for linearity that characterises the commentatorial literature. If they get introduced to the grammar with the help of the *Siddhāntakaumudī* — as most do —, they will find themselves confronted with this issue from the very first sūtras onward. The *Siddhāntakaumudī* begins with the so-called *Māheśvara sūtras* (or *Śiva sūtras*); each of these sūtras is a short list of sounds followed by a consonant. Together the *Māheśvara sūtras* cover most of the sounds of the Sanskrit language, and the final consonants play a role in the formation of the so-called *pratyāhāras*, abbreviated ways of referring to groups of sounds: any sound occurring in the *Māheśvara sūtras* combined with one of those final consonants designates the intervening sounds plus the initial sound itself. Since the first two *Māheśvara sūtras* read *a i u ṅ, ṛ ḷ k*, the *pratyāhāra ik* covers the sounds *i, u, ṛ, ḷ*. Numerous other examples of *pratyāhāras* are possible, and many of those are actually used in Pāṇini's grammar.

The *pratyāhāras* constitute an extremely useful device, which Pāṇini has taken care to explicitly introduce with the help of some sūtras of his *Aṣṭādhyāyī*. In order to create a *pratyāhāra* such as *ik* it is necessary to know that the final consonants of each *Māheśvara sūtra* has a special status: it is not one of the sounds enumerated, but a marker. Pāṇini calls these markers *it*, and does so in sūtra 1.3.3, which is the first sūtra from the *Aṣṭādhyāyī* cited in the *Siddhāntakaumudī*. This sūtra reads **hal antyam** “[In technical usage] a final consonant [is called *it*]”. This sūtra is required

to allow the introduction of the notion of *pratyāhāra* in the next sūtra introduced in the Siddhāntakaumudī (1.1.71): **ādir antyena sahetā** “An initial [speech sound mentioned] together with a final [speech sound] which is [called] *it* [stands for the [2] intermediate speech sounds]” (tr. Joshi & Roodbergen, 1991: 130).<sup>1</sup>

All this seems simple enough, yet the Siddhāntakaumudī sees a difficulty: The sūtra **hal antyam**, which is necessary to introduce *pratyāhāras*, makes itself use of a *pratyāhāra*. The expression *hal* ‘consonant’ is a *pratyāhāra* formed with the help of the Māheśvara sūtras, covering the sounds contained in Māheśvara sūtras 5 (**ha ya va ra ṭ**) to 14 (**ha l**). This means that the sūtras **hal antyam** (1.3.3) and **ādir antyena sahetā** (1.1.71), along with other sūtras, cannot be linearly ordered: the former needs the latter, and the latter needs the former. The Siddhāntakaumudī therefore offers the following way out. The expression *hal* is not only a *pratyāhāra*; Māheśvara sūtra 14, by chance or by design, has exactly the same form. Sūtra 1.3.3 **hal antyam** therefore allows of two different interpretations. The Siddhāntakaumudī accepts both, but first the one, and at some later stage the other. In the first interpretation *halantyam* is read as a compound, meaning “the final of [Māheśvara sūtra 14] *hal* [is called *it*]”. In this way one sound has been designated *it*, viz. the final sound l of Māheśvara sūtra 14. At this point the sūtra **ādir antyena sahetā** can operate on this single and isolated *it*-sound to create the *pratyāhāra hal*, which now covers all consonants. Now **hal antyam** can once again come into action and be interpreted to mean that all final consonants in technical usage are called *it*. This permits a second use of **ādir antyena sahetā** so as to create the numerous other *pratyāhāras* that are possible.

The beginning student who has gone through all this during his first class of Pāṇinian grammar may well wonder whether this is really the way Pāṇini intended his grammar to be interpreted. Other, even more technical, issues may soon distract his mind, and he may end up thinking like the text he studies, i.e., linearly.

<sup>1</sup> Note that already a vārttika (P. 1.1.71 vt. 1 [Mahā-bh I p. 182 l. 2]: *ādir antyena sahetety asaṃpratyayaḥ saṃjñīno 'nirdeśāt*) points out that this sūtra does not indicate what is designated by the *pratyāhāras* formed with its help.

The author of the *Siddhāntakaumudī* was not the first to try to linearly order the rules required to create *pratyāhāras*. A much longer discussion is dedicated to this issue in Patañjali's *Mahābhāṣya*, a text to which all surviving Sanskrit grammatical literature is indebted.

Attention is drawn to the difficulty in P. 1.3.3 vt. 3; two solutions are then suggested in the two following *vārttikas*. In the first solution *hal* is to be read as a compound meaning *hal ca* [3] *lakāś ca*; in the second one *hal* is supposed to mean *hal ca hal ca*, where each *hal* refers to something different.<sup>2</sup> Patañjali adds two more possible solutions that are no less artificial. Here it is clear that already Kātyāyana and Patañjali tried to impose a form of linearity on Pāṇini's grammar. What is more, in view of the artificiality of the solutions proposed it is clear that the imposed linearity was not part of the grammar as conceived of by Pāṇini.

A similar problem comes up in connection with P. 1.1.10 **nājja-lau**. This sūtra follows 1.1.9 **tulyāsyaprayatnaṃ savarṇam**, which states that two sounds that are produced with the same articulatory effort in the mouth are called *savarṇa* 'homogeneous'. Sūtra 10 specifies that vowels (*ac*) and consonants (*hal*) cannot be mutually homogeneous. The difficulty is that *ac* in 1.1.10 will cover certain consonants, by P. 1.1.69 **aṇudīṭ savarṇasya cāpratyayah**. The vowel *i*, for example, will cover the consonant *ś*. Sūtra 10 will then state that *ś* and *ś* are not mutually homogeneous, which is a problem.

Kātyāyana proposes that the difficulty results from the fact that the sentence prescribing homogeneity has not been completed (P. 1.1.10 vt. 4: *vākyāparisamāpter vā*), and Patañjali gives what must be the completed sentence:<sup>3</sup>

*varṇānām upadeśas tāvat / upadeśottarakāletsamjñā / itsamjñottara-  
kāla ādir antyena sahetā iti pratyāhārah / pratyāhārottarakālā sava-*

<sup>2</sup> For a clear analysis of the arguments, see Joshi & Roodbergen, 1994: 9-10.

<sup>3</sup> Mahā-bh I p. 64 l. 11-14 (on P. 1.1.19 vt. 4). Almost identical Mahā-bh I p. 178 l. 24 - p. 179 l. 1 (on P. 1.1.69 vt. 4).

*ṛṇasaṃjñā / savarṇasaṃjñottarakālam aṇudit savarṇasya cāpratyayaḥ iti savarṇagrahaṇam /.*

To begin with there is the teaching of sounds. After the teaching [of sounds] the name *it* [is introduced]. After the name *it* the *pratyāhāra* [is introduced] with the help of [sūtra 1.1.71:] **ādir antyena sahetā**. After the *pratyāhāra* the name *savarṇa* [is introduced]. After the name *savarṇa* [has been introduced] *savarṇa* [sounds] are included by [sūtra 1.1.69:] **aṇudit savarṇasya cāpratyayaḥ**.

We know already that the introduction of *pratyāhāras* presupposes knowledge of the name *it*, which itself presupposes knowledge of at least some *pratyāhāras*. The present passage skips this difficulty and moves on to resolve another one. Once we know the use of *pratyāhāras*, we can understand the sūtras (1.1.9 and 10) that [4] introduce the technical name *savarṇa*, because sūtra 10 (**nājjhalau**) makes use of them. Only after the introduction of the term *savarṇa* is it possible to state that certain sounds also cover their homogeneous (*savarṇa*) sounds, as happens in P. 1.1.69 **aṇudit savarṇasya cāpratyayaḥ**. By sticking to this order the problem disappears.

It goes without saying that this sequence gives rise to further problems. For example, can we ever apply P. 1.1.69 to 1.1.10? And can one apply it to itself? This is strictly speaking required if we want to understand 1.1.10 (**nājjhalau**) to state, not just that the sounds of the Māheśvara sūtras contained in the *pratyāhāra ac* cannot be homogeneous with consonants, but quite generally that no vowels can be homogeneous with consonants, which is clearly Pāṇini's intention. Moreover, if sūtra 1.1.69 does not apply to itself, one might conclude that long vowels as used in the Aṣṭādhyāyī do not also cover other vowels that are homogeneous with them (i.e., short and prolated ones, nasalized ones, etc.). In that case the occurrence in the grammar of long vowels followed by *t* (e.g. *īt, ūt*), where *t* is meant to exclude homogeneous variants whose duration is different (in

this case, short and prolated; by P. 1.1.70 **taparas tatkālasya**) would be strange.<sup>4</sup>

Patañjali deals with some of these problems, not with others. But whatever way he proposes to solve them, it is clear that the problems are to at least some extent of his own making: he creates them by imposing linearity on a grammar which was apparently not conceived as such.<sup>5</sup>

§2. Linearity, we learn from the above, is important for Patañjali. He considers it equally important within grammatical derivations, which must follow an orderly sequence, too. There is however more. Each step in this orderly sequence must be determined by the elements already in place. That is to say, in a derivation as envisaged by Patañjali it is not necessary to know what came before and what will come after. The elements in place must suffice to determine which next step will be taken. This, at any rate, is the ideal picture which Patañjali has of a grammatical derivation.

[5]

This picture can be applied without great difficulty to a large number of Pāṇinian derivations. A simple example is the derivation of *bhavati*, the third person singular present tense of the root *bhū* ‘be, become’. The form *bhavati* is the end product of a number of steps, in each of which an operation takes place which is determined by the situation at hand:

bhū-IAṬ	
bhū-tiP	3.4.78 <b>tiptasjhisipthasthamibvasmas...</b>
bhū-ŚaP-tiP	3.1.68 <b>kartari śap</b>
bhū-a-ti	1.3.9 <b>tasya lopah</b>
bho-a-ti	7.3.84 <b>sārvadhātukārdhadhātukayoḥ</b>
bhav-a-ti	6.1.78 <b>eco 'yavāyāvah</b>

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<sup>4</sup> Cf. Deshpande, 1972.

<sup>5</sup> Joshi & Roodbergen's following remark (1991: 127) may correctly express Pāṇini's position: “At all times the knowledge of all rules is presupposed for the understanding and application of all other rules.” It is however unlikely that this was Patañjali's, or indeed Kātyāyana's position.

The substitution of *av* for *o* in the last step can only take place here, and not earlier, for only here the sound *o* has made its appearance which can then be replaced by *av*. Similarly, the elision of markers can only take place once they have made their appearance; one might squabble about whether this elision should take place immediately after the appearance of the marker or somewhat later, but this does not change the fact that this elision does not need to know what happened earlier or what is going to happen later. One may also wonder whether substitution of *o* for *ū* in *bhū*, so as to arrive at *bho*, must take place before or after *ŚaP* has been inserted; in both cases *bhū* is followed by a *sārvadhātuka* suffix, so that both situations fulfil the requirements of 7.3.84

**sārvadhātukārdhadhātukayoḥ**. Whatever the answer to this question, it is clear that substitution of *o* for *ū* does not need to know anything about the earlier and later stages of the derivation.

As is well known, many of the technical discussions of Pāṇinian grammar concern issues like the ones just mentioned. Often they are about situations in which two or more rules apply simultaneously. The question that they try to resolve is: which of the two or three rules that apply takes precedence? The discussions are often complex, but a number of general principles stand out. I present them in a form which I have copied from a handout accompanying a lecture by S. D. Joshi and Paul Kiparsky during a presentation at the Pāṇini Workshop in honour of S. D. Joshi, held at Stanford University in March 2002:

- a. Rules apply at any opportunity, unless something prevents it. If rule A can feed rule B (create new inputs to B), it does.

[6]

- b. If more than one rule is applicable to a form, A supersedes B under the following conditions, in order of increasing strength:

- (1) if A follows B in the Aṣṭādhyāyī (A is *para*),
- (2) if A bleeds (eliminates inputs to) B, but not vice versa (A is *nitya*),
- (3) if A is conditioned internally to B (A is *antaraṅga*),
- (4) if the inputs to which A is applicable are a proper subset of the inputs to which B is applicable (A is *apavāda*).

This brief characterisation — point b of which can be considered a translation of Paribhāṣā 38 in Nāgeśa's Paribhāṣenduśekhara: **pūrvaparanityāntaraṅgāpavādānām uttarottaram balīyaḥ** — clearly shows that, according to the traditional view, decisions concerning the continuation of a grammatical derivation at any particular point are taken on the basis of the situation at hand. More specifically, no information about the earlier or later phases of the derivation is required to make a correct decision at any stage.

In reality this linear approach, as in the case of *pratyāhāras*, is often confronted with difficulties. Sometimes an awareness of what precedes in a derivation seems to be necessary. There are also derivations where knowledge of what will come later appears to be essential. We will consider a number of cases of both kinds, and study how Patañjali deals with them. We begin with some derivations of the first kind.

§3. George Cardona observed in 1970 (p. 53) that it is clear from a rule such as 3.4.86 (**er uḥ [loṭaḥ 85]**) — which substitutes *tu* for *ti* which is itself a substitute of *loṭ*, as in *paca-tu* derived from *paca-ti* — that Pāṇini considered the derivation history of elements pertinent to operations affecting them. This may be true, but there are reasons to think that Patañjali did not like looking back in the course of a derivation.

§3.1 Consider the derivation of *avadāta*, past passive participle of the root *daiP*, with marker *P*. The derivation can take the following form:

- (1) ava-daiP-Kta  
 (2) ava-dai-ta            1.3.9 **tasya loṭaḥ**  
 (3) ava-dā-ta            6.1.45 **ād eca upadeśe 'śiti**  
 [7]  
 avadāta

This derivation presents Patañjali with a problem. The verbal root *daiP*, once it takes the form *dā* in situation (3) by P. 6.1.45, should be called *ghu* by 1.1.20 **dādhā ghv adāp**. This in its turn would have the undesired

consequence that *dad* must be substituted for *dā* by 7.4.46 **do dad ghoḥ**, so that the correct form *avadāta* would not be obtained. The common sense solution to this problem lies in the circumstance that the root *daiP*, and therefore *dā* in situation (3) of the derivation, cannot be called *ghu*, since the expression *adāp* in sūtra 1.1.20 **dādhā ghv adāp** prevents this. For Patañjali the situation is less simple. Since for him the elision of the marker *P* has already taken place in situation (2), nothing in situation (3) prevents the application of P. 1.1.20 **dādhā ghv adāp**. The form *dā* which appears in situation (3) is not therefore *dāP*, and nothing prevents it from being considered *ghu*.

At this point Patañjali proposes that wherever elements with markers are involved, the notion of what came before must be taken into account (*etac cātra yuktaṃ yat sarveṣv eva sānubandhakagrahaṇeṣu bhūtapūrvagatir vijñāyate /*).<sup>6</sup> As a result the marker *P* will not be forgotten in situation (3), and the form *dā* which occurs there will be known to have that marker, and therefore to be really *dāP*. The exception *adāp* in sūtra 1.1.20 **dādhā ghv adāp** will as a result prevent the form *dā* in situation (3) from being considered *ghu*.

Patañjali's proposal starts from the assumption that elision of the marker *P* (by 1.3.9 **tasya lopah**) precedes the substitution of *ā* for *ai* (by 6.1.45 **ād eca upadeśe 'śiti**). To justify this particular order Patañjali adds the phrase: *anaimittiko hy anubandhalopas tāvaty eva bhavati*. This means no doubt: “For the elision of markers, being without cause, takes place first of all.”<sup>7</sup>

All this agrees with, or comes close to, the common sense understanding of the derivation of *avadāta*. However, it has obliged Patañjali to postulate that knowledge of preceding stages in the derivation is needed in order to proceed correctly at a subsequent stage. And this is not to his liking. He therefore makes a different suggestion. He proposes acceptance of a special rule — which he claims Pāṇini “makes known” (*jñāpayati*) elsewhere in his Aṣṭādhyāyī — that has the form **nānubandhakṛtam anejantatvam**. This rule lives on as Paribhāṣā 7 of

<sup>6</sup> Mahā-bh I p. 76 l. 10-11 (on P. 1.1.20 vt. 9).

<sup>7</sup> Cp. the French translation of Pierre Filliozat (1976: 89): “Car l'amuïssement, sans cause d'application, des indices se réalise en tout premier lieu.”

Nāgeśa's [8] Paribhāṣenduśekhara, and has been translated by Kielhorn (1874: 36) in the following way: “[A root which, when destitute of anubandhas, ends in either *e* or *o* or *ai*, must] not [be considered] to have ceased to end in either *e* or *o* or *ai*, when an anubandha has been attached to it.” Patañjali's proposal only makes sense on the assumption that the derivation of *avadāta* will follow a different order this time, viz.:

- |                  |                                    |
|------------------|------------------------------------|
| (1) ava-daiP-Kta |                                    |
| (2) ava-dāP-ta   | 6.1.45 <b>ād eca upadeśe 'śiti</b> |
| (3) ava-dā-ta    | 1.3.9 <b>tasya lopah</b>           |
| avadāta          |                                    |

Elision of the marker *P* follows this time the substitution of *ā* for *ai*.

Patañjali does not explain how attribution of the technical designation *ghu* to *dā* is prevented at stage (3). Whatever may have been his answer to this question (which is not recorded in the Mahābhāṣya), it is clear that his second proposal is meant to circumvent the requirement of needing to know what happened earlier in the derivation.

It seems however that even this second proposal does not fully satisfy Patañjali, for he comes up with a third one: *avadāta* is not derived from the root *daiP*, but from *dāP*. We are not going to try to follow Patañjali in all this. For our purposes it is sufficient to note that Patañjali was obviously not happy with the idea that an awareness of earlier stages of a derivation might be required to bring it to a good end.

**§3.2** The elision of markers gives rise to difficulties elsewhere, too. Patañjali deals with those which occur in the derivation of *gomān*. The relevant part of the derivation of this form is:

- |               |  |
|---------------|--|
| go-matUP-sU   |  |
| go-mat-s      | 1.3.9 <b>tasya lopah</b> (3x)          |
| go-māt-s      | 6.4.14 <b>atvasantasya cādhātoḥ</b>    |
| go-mā-nUṭ-t-s | 7.1.70 <b>ugidacām ...</b>             |
| go-mā-n       | 8.2.23 <b>saṃyogāntasya lopah</b> (2x) |

Patañjali discusses this derivation under sūtra 6.4.14 **atvasantasya cādhātoḥ**. The first part of this sūtra, *atu*, covers suffixes like *ḌavatU* and *KtavatU*, but should also include *matUP*. This last suffix, however, contains *atUP*, not just *atU*. A vārttika therefore [9] proposes that a special mention must be made of suffixes that have *P* as marker.

Patañjali disagrees and points out that once the marker *P* is elided by 1.3.9 **tasya loḥaḥ**, what is left is *atU*, which is precisely the form mentioned in the sūtra. At that point the suffix is no longer *atupanta*, but has become *atvanta*. This proposed solution gives, of course, rise to the objection that in a similar manner the suffix will no longer be *atvanta* once the marker *U* is elided. Patañjali responds feebly that by taking into consideration the notion of what was there before (viz. *atU*), this last problem is solved, but this only leads to the reproach that this same procedure takes us back to *atUP*. (*tat tarhy upasaṃkhyānaṃ kartavyam / na kartavyam / pakāralope kṛte nātubantaṃ bhavaty atvantam eva / yathaiva tarhi pakāralope kṛte nātubantaṃ evam ukāralope 'pi kṛte nātvantaṃ / nanu ca bhūtapūrvagatyā bhaviṣyaty atvantam / yathaiva tarhi bhūtapūrvagatyātvantaṃ evam atubantaṃ api / evaṃ tarhy āśrīyamāṇe bhūtapūrvagatir atvantaṃ cāśrīyate nātubantaṃ // na sidhyati /*).<sup>8</sup>

It is not necessary here to study the way in which Patañjali tries to solve the problem. It is clear that here, at any rate, he plays with *bhūtapūrvagati*, the notion of what was there before, but does not in the end accept it.

**§3.3** This resistance on the part of Patañjali is confirmed by other passages in the Mahābhāṣya. The idea that the notion of what came before has to be taken into account pops up in Patañjali's comments on P. 1.1.56 vt. 21. Here the derivation of the form *āttha* is discussed. The relevant part of this derivation is as follows (cp. Joshi & Roodbergen, 1990: transl. p. 105):

...  
brū-si

<sup>8</sup> Mahā-bh III p. 183 l. 25 - p. 184 l. 4 (on P. 6.4.14 vt. 1).

āh-tha	3.4.84 <b>bruvaḥ pañcānām ādita āho bruvaḥ</b>
āth-tha	8.2.35 <b>āhas thaḥ</b>
āt-tha	8.4.55 <b>khari ca</b>
āttha	

The difficulty which presents itself in this derivation is that P. 7.3.93 **bruva iṭ** prescribes the augment *iṭ* after *brū* and before a *sārvadhātuka* ending beginning with a consonant. Since *āh* is substituted for *brū*, it must be treated like *brū* by P. 1.1.56 **sthānivad ādeśo 'nalvidhau**. The ending *tha*, moreover, clearly [10] begins with a consonant, so that the incorrect form *\*āhītha* seems hard to avoid. However, if one were to proceed like this, sūtra 8.2.35 **āhas thaḥ** would no longer have any use. The fact that this sūtra nevertheless has its place in the Aṣṭādhyāyī obliges us to draw some conclusion. But which one exactly?

Here Patañjali (on P. 1.1.56 vt. 21) puts the following thought in the mouth of an opponent. This rule 8.2.35 **āhas thaḥ** has been formulated in order to let us know that the notion of what came before must be taken into account (Mahā-bh I p. 139 l. 14: *asti hy anyad etasya vacane prayojanam / kim / bhūtapūrvagatir yathā vijñāyeta* ). P. 8.2.35 prescribes substitution of final *h* of *āh* by *th*, if an ending beginning with a consonant included in the *pratyāhāra jhal* follows. After adding the augment *iṭ*, the ending will be *ītha* and will no longer begin with such a consonant. But at an earlier stage of the derivation the ending was still *tha*, and *did* begin with a consonant included in the *pratyāhāra jhal*. According to the opponent, therefore, P. 8.2.35 can be applied, presumably leading to some such incorrect form as *\*āhītha*.

Patañjali disagrees, of course. As a matter of fact, he uses the occasion to criticise the principle that the notion of what came before must be taken into account. If that principle were valid, not only the ending *tha*, but all endings before which *āh* is substituted for *brū* will have to be considered as beginning with a consonant included in the *pratyāhāra jhal*, for these five endings are substituted for *tiP*, *tas*, *jhi*, *siP* and *thas* respectively, each of which begins with such a consonant. That being the case, Pāṇini might as well immediately have substituted *āth* for *brū* in sūtra 3.4.84, which would then read: **\*bruvaḥ pañcānām ādita ātho**

**bruvaḥ**. The fact that Pāṇini has not formulated the sūtra in this manner shows that the opponent was wrong to begin with, and that the difficulty has to be resolved differently. It also shows that Patañjali, in this case too, has no sympathy for the idea that earlier stages of a derivation should be taken into consideration in subsequent ones. (Mahā-bh I p. 139 l. 15-16: *yady evaṃ thavacanam anarthakaṃ syāt / āthim evāyam uccārayet / bruvaḥ pañcānām ādita ātho bruva iti /.*)

§3.4 The Mahābhāṣya evokes the same principle in the context of P. 6.1.177 **nām anyatarasyām**, which optionally prescribes the udātta accent for the genitive plural ending *nām* in certain circumstances. This accent should, for example, be given to the final syllable *nām* of *agnīnām*, the genitive plural of *agnī*. The relevant steps of the derivation are:

[11]

agni-ām

agni-nUṬ-ām            7.1.54 **hrasvanadyāpo nuṭ**

agnī-nām                6.4.3 **nāmi**

agnī-nām                6.1.177 **nām anyatarasyām**

The difficulty in this derivation is that in 6.1.177 **nām anyatarasyām** there is anuvṛtti of *hrasvāt* (from 6.1.176 **hrasvanuḍbhyām matup**). The ending *nām* in *agnīnām* does not however follow a short vowel. And a discussion brings to light that sūtra 6.1.177 cannot be applied to any example where *nām* does follow a short vowel. Patañjali therefore proposes that the notion of what was there before must be taken into account. The final *i* of *agnī* was short, and this earlier circumstance has to be taken into account, so that sūtra 6.1.177 can be applied to *agnīnām*. (Mahā-bh III p. 109 l. 8-9: *āhāyaṃ hrasvāntād iti na ca nāmi hrasvānto 'stī tatra bhūtapūrvagatir vijñāsyate / hrasvāntaṃ yad bhūtapūrvam iti /.*)

Patañjali's subsequent discussion shows that, once again, he was not happy with the idea of taking into account earlier stages of the derivation. He settles for an interpretation of sūtra 6.1.177 in which the udātta accent is optionally prescribed for *nām* when it follows a word whose final vowel is short before the altogether different suffix *matUP*. Patañjali's interpretation raises serious questions as to his use of anuvṛtti

— the nominative *matup* of the preceding sūtra appears here as the locative *matau* —, but it is clear that he prefers this forced interpretation of 6.1.177 to making use of knowledge of earlier stages in the same derivation. (Mahā-bh III p. 109 l. 20-21: *athavā naivaṃ vijñāyate nāmsvare matau hrasvagrahaṇaṃ kartavyam iti / kathaṃ tarhi / nāmsvare matau hrasvād iti vartata iti //*)

The same derivation is at the centre of another discussion in the Mahābhāṣya, this one under P. 6.4.3 **nāmi**. The question here is why this sūtra is formulated **nāmi** rather than **\*āmi**. It turns out that in the latter case, at the stage *agni-ām*, lengthening of *i* (by the modified sūtra 6.4.3 **\*āmi**) would have precedence over adding *nUṬ* (by 7.1.54 **hrasvanadyāpo nuṭ**), because the former rule would be *nitya*. The discussion further shows that there would in that case be no use for sūtra 7.1.54. At his point Patañjali suggests that the notion of what was there before might have to be taken into account: *nUṬ* can then be added to *agni-ām* because the *i* of *agni* was short at an earlier stage.

This time Patañjali does not explicitly reject this line of reasoning. That does not mean that he pronounces the rule 6.4.3 **nāmi** badly formulated. No, he passes on to another justification of [12] the formulation given by Pāṇini: this particular formulation has been chosen in view of the later rule **nopadhāyāḥ**. It is hard to conclude with certainty whether or not Patañjali here accepted the reasoning based on the notion of what was there before as valid.

§3.5 Patañjali has occasion to invoke the principle under sūtra 6.3.66 **khity anavyayasya**. This sūtra prescribes shortening of the final vowel of a stem when followed by an *uttarapada* whose suffix has the marker *KH*. This accounts for forms like *kāliṃmanyā* “a woman who considers herself Kālī”. The relevant part of the derivation is as follows:

kālī-man-KHaŚ	3.2.83 <b>ātmamāne khaś ca</b>
kālī-man-ŚyaN-KHaŚ	3.1.69 <b>divādibhyaḥ śyan</b>
kālī-mUM-man-ya-KHaŚ	6.3.67 <b>arurdviṣadajantasya mum</b>
kālīm-man-ya-KHaŚ	6.3.66 <b>khity anavyayasya</b>
kālīṃmanyā	other rules

Patañjali does not tell us why he introduces *mUM* before considering shortening of *ī* in *kālī*, but we may assume that the fact that P. 6.3.67 comes after P. 6.3.66 and is therefore *para* with regard to the latter made him decide so.<sup>9</sup> The difficulty with this derivation is that *ī* is no longer the final vowel of *kālī* once the augment *mUM* has been added to it. Patañjali, after having explored some other possibilities first, proposes that the notion of what was there before should be taken into account. (Mahā-bh III p. 165 l. 22-23: *athavā khiti hrasvo bhavatīty ucyate / khity anantaro hrasvabhāvī nāstīti kṛtvā bhūtapūrvagatir vijñāsyate / ajantaṃ yad bhūtapūrvam iti //*.)

I am not sure whether I have fully understood Patañjali's remaining discussion on this sūtra. He concludes it with the statement: *tasmāt pūrvoktāv eva parihārau*, which I find particularly puzzling. This means something like “Therefore the two refutations mentioned earlier [must be accepted]”. I have not been able to identify the two refutations mentioned earlier. However that may be, it seems clear that Patañjali's proposal to take into account the notion of what was there before is part of a line of argument which he subsequently abandons.

**§3.6** Sūtra 7.2.37 **graho 'liṭi dīrghaḥ** is meant to account for forms like *grahītā*, with long *ī*. This is only possible, it is objected, if there is anuvṛtti in this sūtra of *iṭaḥ*, the genitive singular of *iṭ*. [13] This however is problematic, because the only *iṭ* used in the preceding sūtras is a nominative singular *iṭ* in P. 7.2.35 **ārdhadhātukasyeḍ valādeḥ**. The question therefore presents itself whether anuvṛtti of the two genitives *ārdhadhātukasya* and *valādeḥ* might suffice to arrive at the correct form. The derivation of *grahītā* passes through the following stages:

- |                       |  |
|-----------------------|--|
| (1) <i>grah-tā</i>    |  |
| (2) <i>grah-iṭ-tā</i> | 7.2.35 <b>ārdhadhātukasyeḍ valādeḥ</b> |
| (3) <i>grah-ī-tā</i>  | 7.2.37 <b>graho 'liṭi dīrghaḥ</b>      |

<sup>9</sup> This also appears to be Nāgeśa's position.

At stage (2) the root *grah* is indeed followed by an *ārdhadhātuka* suffix, but this suffix does not begin with a sound included in the *pratyāhāra val*, because it now begins with short *i*. However, at the preceding stage (1) the suffix began with *t*, which is included in *val*. Patañjali therefore suggests that the problem is solved by taking into account the notion of what was there before. (Mahā-bh III p. 294 l. 14-16 (on P. 7.2.37 vt. 6): *ārdhadhātukasyeti vartate / grahaḥ parasyārdhadhātukasya dīrghatvaṃ vakṣyāmi / ihāpi tarhi prāpnoti / grahaṇam grahaṇīyam / valāder iti vartate / evam api grahītā grahītum atra na prāpnoti / bhūtapūrvagatyā bhaviṣyati //*)

In what follows it is clear that Patañjali is not happy with this solution. In the end he accepts that *iṭaḥ* has to be understood in P. 7.2.37, to be explained by anuvṛtti with changed case-ending of *iṭ* from P. 7.2.35.

**§3.7** An equally hypothetical context is provided by the discussion of *daridrā* under sūtra 7.2.67 **vasv ekājādghasām**. This sūtra prescribes the augment *iṭ* before *vasU* after, among other things, a root having but one vowel. The formulation of this sūtra gives rise to doubts, for clearly the expression *ekāc* is meant to concern roots that have but one vowel after reduplication. It concerns forms like *pecivān*, not *bibhidvān*. Yet this special condition is not stated.

At some point in the discussion Patañjali proposes that the mention of *āt* in the sūtra shows that reduplicated roots are concerned, for there are no non-reduplicated roots in *ā* that have more than one vowel. This, an opponent points out, is not true. The root *daridrā* ends in *ā* and has more than one vowel. It is true that this *ā* is elided in the situation where P. 7.2.67 might apply. This elision, as P. 6.4.114 vt. 2 specifies, is *siddha* with regard to the prescription of suffixes. Patañjali on P. 7.2.67 adds that this elision is also *siddha* with regard to the prescription of the augment *iṭ*. All this means that *daridrā* cannot count in this context as a case of a [14] root in *ā* that has more than one vowel. The opponent is not disheartened. He insists that, also in this specific context, it is a root in *ā* having more than one vowel if one takes into account the notion of what was there before. (Mahā-bh III p. 300 l. 21-25 (on P. 7.2.67 vt. 1): *yat tarhy ākāragrahaṇam karoti na hi kaścid akṛte dvirvacana ākārānto 'nekāj asti / nanu cāyam asti daridrātiḥ / na daridrāter iṭā bhavitavyam / kiṃ kāraṇam / uktam etad*

*daridrāter ārdhadhātuke lopaḥ siddhaś ca pratyayavidhāv iti / yaś cedānīm pratyayavidhau siddhaḥ siddho 'sāv idvidhau / evam api bhūtapūrvagatir vijñāyate / ākārānto yo bhūtapūrva iti /*

It is not clear to what extent Patañjali took this argument seriously. He abandons the discussion of *daridrā* in order to concentrate on another indication which presumably shows that reduplicated roots with one vowel are intended in P. 7.2.67.

§3.8 One more hypothetical context is evoked in the Mahābhāṣya on P. 7.3.83 **jusi ca**. This sūtra is meant to account for the substitution of *guṇa* for *u* in the derivation of *ajuhavuḥ*. The relevant part of this derivation is as follows:

hu-IAÑ

hu-jha	3.4.78 <b>tiptasjhi...</b>
hu-ŚaP-jha	3.1.68 <b>kartari śap</b>
hu-Ślu-jha	2.4.75 <b>juhotyādibhyaḥ śluḥ</b>
hu-hu-Ślu-jha	6.1.10 <b>ślau</b>
hu-hu-jha	1.1.61 <b>pratyayasya lukślulupaḥ</b>
hu-hu-Jus	3.4.109 <b>sijabhyastavidibhyaś ca</b>
aṬ-hu-hu-Jus	6.4.71 <b>luñlañlṛñkṣv aḍ udāttah</b>
a-hu-ho-Jus	7.3.83 <b>jusi ca</b>
a-hu-hav-us	6.1.78 <b>eco 'yavāyāvah</b>
a-ju-hav-us	8.4.54 <b>abhyāse car ca</b>
etc.	

For reasons that do not concern us at present, Patañjali proposes to read P. 7.3.83 as **\*ajusi ca** and to understand in it *śiti* from 7.3.75

**ṣṭhivuklamucamām śiti**. The problem in this case is that P. 7.3.83 would not then be applicable to forms like *ajuhavuḥ*, because *hu* is not followed by something that has the marker Ś at the stage where it is to be replaced by *ho*. But at an earlier stage of the derivation *hu* was followed by *Ślu*, which did have that marker. Patañjali therefore proposes to take into account the notion of what was there before. This then turns out to be in need of some further specification. In the end Patañjali abandons the idea

of reading sūtra 7.3.83 in this strange manner, and with it his proposal to take [15] into account the notion of what was there before. (Mahā-bh III p. 335 l. 12-14 (on P. 7.3.83 vt. 1): *evaṃ tarhi śītīti vartate / evam api ajuhavuh abibhayur ity atra na prāpnoti / bhūtapūrvagatyā bhaviṣyati / na sidhyati na hy us śidbhūtapūrvah / us śidbhūtapūrvo nāstīti kṛtvosi yaḥ śidbhūtapūrvas tasmin bhaviṣyati // athavā kriyate nyāsa eva / ...*)

§3.9 One passage remains which, though not actually using the expression *bhūtapūrvagati* like the preceding ones, appears to refer to the same idea. This passage presents itself in the form of a ślokaṽrttika under P. 7.1.9 **ato bhisa ais**, which prescribes the substitution of *ais* for *bhis* in the derivation of forms such as *vṛkṣais*, the instrumental plural of *vṛkṣa* ‘tree’. The ślokaṽrttika concerned reads: *ettvaṃ bhisi paratvāc ced ata ais kva bhaviṣyati / kṛta ettve bhautapūrvyād ais tu nityas tathā sati //*. Joshi & Roodbergen (2003: 29) translate this as follows: “If the substitution of *e* (for a stem-final *a* is applied) before *bhis* (by P. 7.3.103 [**bahuvacane jhaly et**]) because it is the later rule (in relation to P. 7.1.9), then (the question is) where will *ais* (by P. 7.1.9) have scope? Even if the substitution of *e* has been applied (first, still) *ais* (can be applied) on account of its coming earlier (than *e*). This being so, (P. 7.1.9 becomes) *nitya* ‘invariably applicable’.”

Joshi & Roodbergen then explain this passage in the following words (p. 29-30):

[A]t the stage *vṛkṣa + bhis* two rules become applicable simultaneously, namely, P. 7.1.9 (*ais* in place of *bhis*) and P. 7.3.103 (*e* in place of the stem final *a*). This is a two-way conflict in the sense that whichever rule we apply first, the other rule will be debarred. The point is that P. 7.3.103 is conditioned by a suffix beginning with a *ghaL* sound (any consonant except a nasal). Once *bhis* has been replaced by *ais*, there is no *ghaL* sound any more. Now, to solve this conflict, suppose we invoke P. 1.4.2 [**vipratishedhe param kāryam**], as is done by tradition. Accordingly, P. 7.3.103 will prevail over P. 7.1.9. The form derived will be *vṛkṣebhiḥ*, instead of *vṛkṣaiḥ*. The consequence is that now the substitution of *ais*

is left without scope of application. In other words, P. 7.1.9 will be *anavakāśa*. Being *anavakāśa*, it must prevail. That seems to clinch the matter.

In the second line, first *pāda*, of the Ślokavārttika another solution is offered. The argument turns on what is called *bhūtapūrvagati* ‘the understanding of something that [16] was there in an earlier stage. ... The something meant here is the stem final *a*, like in *vṛkṣa + bhis*. We will now assume that even after the application of P. 7.3.103 (*vṛkṣe + bhis*) that stem-final *a* is still there. Therefore P. 7.1.9 can be applied. But, as stated in the second line, second *pāda*, this amounts to assuming that P. 7.1.9 has the character of a *nitya* rule which is to be applied irrespective of any other rule.

Once again, the use of *pūrvabhūtagati* is here completely hypothetical. The main interest of this passage lies in the circumstance that the device of looking backward is here not proposed by Patañjali, but by the author of a ślokavārttika. Since nothing is known about the authorship of the ślokavārttikas contained in the Mahābhāṣya, it is not easy to evaluate the significance of this fact.

§3.10 The above analysis of all the passages of the Mahābhāṣya that use the expression *bhūtapūrvagati* “notion of what was there before” allows us to conclude with great likelihood that Patañjali never accepts as his own the point of view which permits the use of knowledge of what happened at earlier stages of a derivation. The temptation to do so is yet great, as these discussions show. They also show that Patañjali was aware that such knowledge might be useful to assure the correct development of a derivation. Yet he is against it. On one occasion, as we have seen (see §3.3), he goes to the extent of explicitly criticising this point of view.

§4. To the extent possible, a derivation should only make use of the information that is available at any particular stage. Knowledge of what was there before is, where possible, avoided. The same is true for

knowledge about following stages. One does not, in principle, need to know what form is being derived, nor indeed what future stages will have to be passed through, in order to carry out a correct derivation. The rules and meta-rules of grammar will all by themselves lead the derivation to the correct result.

This is Patañjali's ideal. This ideal is all the more interesting in that Joshi & Kiparsky have recently argued that “lookahead” — i.e., knowledge of future stages of a derivation — is required to obtain correct results. This is not the place to examine Joshi & Kiparsky's position. I will rather concentrate on some [17] passages where Patañjali's attempt not to use lookahead is confronted with serious difficulties.

§4.1 Joshi & Kiparsky draw attention to the fact that the tradition did not manage to avoid lookahead altogether. They specifically cite in this connection Paribhāṣā 64 from Nāgeśa's Paribhāṣenduśekhara, which reads: **upasaṃjaniṣyamāṇanimitto 'py apavāda upasaṃjātanimittam apy utsargaṃ bādhatē** “An *apavāda* supersedes, even though the causes of its (application) are still to present themselves, a general rule the causes of which are already present” (tr. Kielhorn). This Paribhāṣā is mentioned by Nāgeśa in the context of the discussion of the derivation of *dadhati* “they put”. Joshi & Kiparsky contrast the in their view correct derivation of this word with a wrong one:

<u>Correct derivation</u>	<u>Wrong derivation</u>
dhā-jhi	dhā-jhi
dhā-ŚaP-jhi 3.1.68 <b>kartari śap</b>	dhā-ŚaP-jhi 3.1.68 <b>kartari śap</b>
dhā-(ślu)-jhi 2.4.75 <b>juhotyādibhyaḥ śluḥ</b>	dhā-ŚaP-anti 7.1.3 <b>jho 'ntaḥ</b>
da-dhā-jhi 6.1.10 <b>ślau</b> , etc.	dhā-(ślu)-anti 2.4.75 <b>juhotyādibhyaḥ śluḥ</b>
da-dhā-ati 7.1.4 <b>ad abhyastāt</b>	da-dhā-anti 6.1.10 <b>ślau</b> , etc.
dadhati (other rules)	*dadhanti (other rules)

They conclude: “Application of 7.1.3-4 must be deferred until reduplication has taken effect. This crucially requires lookahead.”

Paribhāṣā 64 agrees, and with it at least part of the traditional commentators. This does not however include the Mahābhāṣya. Paribhāṣā

64 does not occur in this text. Nāgeśa attributes it to the “modern” (*navīna*) grammarians, which means, according to his commentator Pāyagunḍa, to [Bhaṭṭoji] Dīkṣita etc. The question that interests us at present is: How did the Mahābhāṣya deal with the difficulties connected with the derivation of *dadhatī*?

The Mahābhāṣya does not discuss this derivation. In order to find out what Patañjali thinks about the kind of difficulties that arise in the derivation of *dadhatī*, we must stay a little longer with Nāgeśa to study what more he has to say about it.<sup>10</sup> In dealing with the difficulties, Nāgeśa first introduces two other Paribhāṣās. These read:

Pbh. 62: **pūrvam hy apavādā abhiniviśante paścād utsargāḥ**

Pbh. 63: **prakalpya vāpavādaviṣayam tata utsargo ‘bhiniviśate**  
[18]

Kielhorn offers the following translation, which is however influenced by Nāgeśa's specific interpretation:

“*Apavādas*, it is certain, are considered first (in order to find out where they apply); afterwards the general rules (are made to take effect in all cases to which it has thus been ascertained that the *Apavādas* do not apply.)”

“Or (we may say that) first all (forms) which fall under the *Apavāda* are set aside, and that subsequently the general rule is employed (in the formation of the remaining forms).”

The newly created Paribhāṣā 64 is supposedly based upon these two Paribhāṣās.

The statements known as Paribhāṣās 62 and 63 in the Paribhāṣenduśekhara occur a number of times in Patañjali's Mahābhāṣya, not however as Paribhāṣās but as ordinary sentences. They invariably

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<sup>10</sup> Cp. Bronkhorst, 1986: 133-35.

occur together, and appear to be connected by the word *ca* rather than *vā*.<sup>11</sup>  
The resulting combined sentence is:

*pūrvam hy apavādā abhiniviśante paścād utsargāḥ / prakalpya  
cāpavādaviśayaṃ tata utsargo 'bhiniviśate /*

Joshi & Roodbergen (1981: 43) translate this as follows:

“because special rules become effective first (and) general rules  
(only) afterwards, and after we have formed an idea of the domain of  
the special rule the general rule becomes effective”.

Most contexts in which these sentences occur are of no particular interest  
for us at present, but the following passage is.

Under P. 4.1.89 vt. 2 (Mahā-bh II p. 240 l. 24-25) we find,  
exceptionally, the sentences *pūrvam hy apavādā abhiniviśante paścād  
utsargāḥ* and *prakalpya cāpavādaviśayaṃ tata utsargo 'bhiniviśate*  
separated from each other. The case discussed here is not altogether  
dissimilar to that of *dadhati* studied above, as will become clear below. It  
concerns the derivation of forms like *gārgīyāḥ* ‘students of the descendants  
of Garga’

The general rule here is P. 2.4.64 **yaññañś ca**, which prescribes  
*luk*-elision in the plural of the suffix *yañ* used in the formation of *gārgya*  
‘descendent of Garga’. The plural of *gārgya* is therefore *gargāḥ*  
‘descendants of Garga’. A difficulty arises in the formation of *gārgīya*  
‘student of a descendent of Garga’, with the suffix *CHa* (= *īya*, by P. 7.1.2)  
prescribed by P. 4.2.114 **vṛddhāc chaḥ**. As long as one sticks to the  
singular there is no problem. However, in the formation of *gārgīyāḥ*  
‘students of descendants of Garga’, P. 2.4.64 threatens to take away the  
suffix [19] *yañ* by *luk*-elision, leaving *garga* instead of *gārgya*. *Garga*,  
unlike *gārgya*, is not called *vṛddha* (see P. 1.1.73 **vṛddhir yasyācām  
ādis tad vṛddham**), and cannot therefore take the suffix *CHa*. The

<sup>11</sup> See Joshi and Roodbergen, 1981: 43, fn. 156. Ashok Aklujkar has given a  
lecture about these two Paribhāṣās at the annual meeting of the American  
Oriental Society in 2003 (Nashville); he appears to prefer the reading *vā*.

situation is supposedly saved by P. 4.1.89 **gotre 'lug aci**, which prohibits *luk*-elision before certain suffixes beginning with a vowel, and which is therefore an exception to P. 2.4.64. This gives rise to the following scheme:

Correct derivation	Wrong derivation
gārgya	gārgya
gārgya-cha 4.2.114 <b>vṛddhāc chaḥ</b>	gārgya-luk 2.4.64 <b>yañāñoś c</b>
gārgya-īya 7.1.2 <b>āyaneyīniyiaḥ phadhakhachaghā</b>	garga
gārgya-(aluk)-īy: 4.1.89 <b>gotre 'lug aci</b>	<i>The suffix CHa cannot be added</i>
gārgy-īya 6.4.148 <b>yasyeti ca</b>	<i>at this point</i>
gārgīya 6.4.151 <b>āpatyasya ca taddhite 'nāti</b>	

If one accepts lookahead, application of 2.4.64 (with its exception 4.1.89) must be deferred until *CHa* (= *īya*) has been added. This is not however the way in which the Bhāṣyakāra explains the situation. Patañjali offers in fact three ways to deal with this derivation:

- (i) By teaching *aluk* before a *taddhita* suffix beginning with a vowel, Pāṇini indicates that *luk* and *aluk* must apply simultaneously. (Mahā-bh II p. 240 l. 21-22 (on P. 4.1.89 vt. 2): *yad ayaṃ bhūmni prāptasya luko 'jādau taddhite 'lukaṃ śāsti taj jñāpayaty ācāryaḥ samānakālāv etāv aluglukāv iti.*)
- (ii) *Aluk* takes effect at the point of the derivation where *luk* applies; in this way the suffix *CHa* connected with *aluk* is known. (Mahā-bh II p. 240 l. 24-25 (on P. 4.1.89 vt. 2): *yadi vā lukaḥ prasaṅge 'lug bhavati tathāsyā cchaḥ prasiddho bhavati.*) Here Patañjali adds: *pūrvam hy apavādā abhini-viśante paścād utsargāḥ.*
- (iii) *Luk* waits for *aluk* to apply; in this way *aluk* before *CHa* is established. (Mahā-bh II p. 241 l. 2-3 (on P. 4.1.89 vt. 2): *lug vā punar alukaḥ prasaṅgaṃ yadi pratikṣate tathāsyā cche 'luk siddho bhavati.*) Patañjali adds: *prakalpya cāpavādaviṣayaṃ tata utsargo.*

If we inspect Patañjali's words carefully and avoid reading these words in the light of their interpretation by later commentators, we do not find in them anything resembling lookahead. It is not suggested that we

need to know **what** will happen later in the derivation, merely that we do not use a rule until the circumstances have arrived that also give scope to its exception. In other words, Patañjali appears to treat this case on a purely step-by-step basis, without lookahead. And yet, a case very similar to this one — the derivation of *dadhati* — is cited both by [20] Joshi & Kiparsky and by Nāgeśa and other late grammarians in support of lookahead.

**§4.2** Joshi & Kiparsky illustrate the need for lookahead with the help of two examples. The first one is the derivation of *seduṣaḥ*, the genitive singular of the perfect participle of *sad* ‘sit’ (nom. sg. *sedivān*). Since this derivation is not discussed in the *Mahābhāṣya*, we turn immediately to the second example, the derivation of *apyata* “it was sowed”. The correct derivation of this form is:

vap-laṅ  
 vap-ta (at this point one must choose 3.1.67)  
 vap-yaK-ta 3.1.67 **sārvadhātuke yak**  
 up-ya-ta 6.1.15 **vacisvapiyajādīnām kiti**  
 ā-up-ya-ta 6.4.72 **āḍ ajādīnām**  
 apyata (other rules)

The following derivation is incorrect:

vap-laṅ  
 vap-ta (if we choose 6.4.71, the wrong form is derived)  
 a-vap-ta 6.4.71 **luṅlaṅṛṅkṣv aḍ udāttaḥ**  
 a-vap-yaK-ta 3.1.67 **sārvadhātuke yak**  
 a-up-ya-ta 6.1.15 **vacisvapiyajādīnām kiti**  
 \*op-ya-ta (other rules)

In this derivation the augment must “wait” for the correct root form, which does not however present itself until after the affixation of *yaK*.

Patañjali recognises the problematic nature of the derivation of *apyata* and resorts to a ślokaṅgīkā which recommends various

adjustments of Pāṇini's grammar so as to make the *vṛddhi*-substitution of *a-u* possible.<sup>12</sup> Interestingly, the Kāśikā under P. 6.4.72 offers a different solution, making use of Paribhāṣā 43 (counted as in Nāgeśa's Paribhāṣenduśekhara: **śabdāntarasya prāpnuvan vidhir anityo bhavati**). Patañjali knows and uses this Paribhāṣā, but not in the present context. It is however clear that both solutions for the derivation of *aupyata* — that of the Mahābhāṣya and that of the Kāśikā — try to propose a way in which the correct form will be obtained without lookahead.

[21]

§4.3 Consider next the derivations of *āyan* “they went” and *āsan* “they were”. Joshi & Kiparsky present these as demonstrating Pāṇini's awareness of lookahead. This derivation passes through the following steps:

i-laṅ

i-anti

i-an (up to this point, the desired augment *ā* could be derived by 6.4.72  
**āḍ ajādīnām**)

y-an 6.4.81 **iṇo yaṇ**

āyan 6.4.72 **āḍ ajādīnām** (in virtue of 6.4.22 **asiddhavad atrā bhāt**)

Joshi & Kiparsky explain:

Before a consonant, 6.4.71 **luṅlaṅlṛṅkṣv aḍ udāttaḥ** requires a short augment *a-*. The desired *ā* could be derived prior to applying 6.4.81, but “lookahead” precludes that. To get *ā-*, both 6.4.81 and 6.4.72 have been put into a section where all rules are *asiddha[vat]* with respect to each other (the *ā bhāt* section 6.4.22 ff.).

Accordingly we “pretend” that the root still begins with a vowel.

There was no other reason for putting the rules into that section.

This shows that Pāṇini assumed ... lookahead ... .

<sup>12</sup> Mahā-bh III p. 208 l. 17 ff. (on P. 6.4.74).

The derivation of *āsan* is similar:

as-laṅ

as-anti

as-an (up to this point, the desired augment *ā* could be derived by 6.4.72  
**āḍ ajādīnām**)

s-an 6.4.111 **śnasor allopaḥ**

āsan 6.4.72 **āḍ ajādīnām** (in virtue of 6.4.22 **asiddhavad atrā bhāt**)

These two derivations are a few times referred to in the Mahābhāṣya.<sup>13</sup>

Under P. 6.4.22 **asiddhavad atrā bhāt** Patañjali rejects the notion that one purpose of this sūtra is to allow the formation of *āsan* (as maintained by Joshi & Kiparsky, as we have seen). Quite on the contrary, according to Patañjali Pāṇini's grammar contains an indication to show that prefixing *ā* is stronger [22] than dropping *a*, and therefore takes place before the latter spoils the derivation. (Mahā-bh III p. 188 l. 9-10 (on P. 6.4.22 vt. 5): *astilopas tāvan na prayojayati / ācāryapravṛttir jñāpayati lopād āḍ baliyān iti yad ayaṃ śnasanor allopaḥ* [P. 6.4.111] *iti taparakaraṇaṃ karoti* /)<sup>14</sup> No lookahead is required if we accept Patañjali's solution. The same applies to the other 'solutions' which he offers in this context to account for *āsan*, *āyan* and other forms. In other words, Patañjali has found a way to avoid Joshi & Kiparsky's conclusion to the extent that the derivations of *āyan* and *āsan* show Pāṇini's awareness of lookahead.

**§4.4** Patañjali is less successful in warding off lookahead under sūtra 4.1.90 **yūni luk**. A problem arises in the derivation of *phāṅṭāhṛtāḥ* 'students of the *yuvan*-descendent of Phāṅṭāhṛti'.<sup>15</sup> Phāṅṭāhṛti is himself

<sup>13</sup> Mahā-bh I p. 143 l. 19 ff. (on P. 1.1.57); III p. 188 l. 5 ff. (on P. 6.4.22 vt. 5); III p. 209 l. 10 ff. (on P. 6.4.74 vt. 2).

<sup>14</sup> Cp. Geiger, 1909: 224.

<sup>15</sup> "[T]he word [*yuvan*] is given as a technical term in grammar in the sense of one, who is the son of the grandson or his descendant, provided his father is alive; the term is also applied to a nephew, brother, or a paternal relative of the grandson or his descendant, provided his elderly relative, if not his father, is alive; it is also applied to the grandson, in case respect is to be shown to him; cf. P. 4.1.163-167." (Abhyankar & Shukla, 1977: 317 s.v. *yuvan*).

the (*gotra*-)descendent of Phāṅṭāhṛta,<sup>16</sup> but this is less important in the present context. The *yuvan*-descendent of Phāṅṭāhṛti is also called Phāṅṭāhṛta, formed with the suffix *Ṇa* by P. 4.1.150

**phāṅṭāhṛtimimatābhyām ṇaphiñau**. The students of this last Phāṅṭāhṛta are called *phāṅṭāhṛtāḥ*; this word is formed through the *luk*-elision of *Ṇa* (by P. 4.1.90 **yūni luk**), and the subsequent adding of *aṆ* (by P. **iñāś ca**). The derivation unites in this way the following elements:

phāṅṭāhṛti-(luk of *Ṇa*)-aṆ

The difficulty is that *luk* of *Ṇa* takes place because a *prāgdīvyatīya* suffix beginning with a vowel follows (anuvṛtti of *aci* in 4.1.90 from the preceding rule). But the specific suffix *aṆ* — which does begin with a vowel — is conditioned by the fact that it is added to a stem in *iñ*, which is not the case until *Ṇa* has been elided.<sup>17</sup> How does Patañjali solve this problem?

[23]

Patañjali proposes the following solution. The locative *aci* in P. 4.1.90 **yūni luk (aci)** is not a locative which makes known that a suffix beginning with a vowel (*ac*) follows (it is not a *parasaptamī*); it is rather a *viśayasaptamī*, which means something like ‘locative of scope’. When a suffix beginning with a vowel is the scope and *luk*-elision has been carried out, the suffix that obtains should be added. (Mahā-bh II p. 242 l. 21-23 (on P. 4.1.90 vt. 2): *acīti naiṣā parasaptamī / kā tarhi / viśayasaptamī / ajādau viśaya iti / tatrāci viśaye luki kṛte yo yataḥ pratyayaḥ prāpnoti sa tato bhaviṣyati /*)

Patañjali does not clearly say what he means by all this. At first sight it would seem that here he does consider that later stages of the derivation have to be taken into account during an earlier one. In other

<sup>16</sup> “The word [*gotra*] is used by Pāṇini in the technical sense of a descendant except the son or a daughter; cf. ... P. 4.1.162.” (Abhyankar & Shukla, 1977: 144 s.v. *gotra*).

<sup>17</sup> Here we seem to be confronted with a case of circularity (or mutual dependence) which is not altogether dissimilar to what we found above in connection with the introduction of *pratyāhāras*. The consequences of this for the ‘extended *siddha*-principle’ cannot here be explored.

words, it would seem that in this case Patañjali, perhaps under duress, accepts and uses lookahead.<sup>18</sup>

Before we draw this conclusion it will be wise to see how Patañjali uses the expression *viṣayasaptamī* elsewhere in his Mahābhāṣya. He does so on three other occasions. On one of those, the ‘locative of scope’ is the locative of the one word of P. 2.4.35 **ārdhadhātuke**. If this had been a *parasaptamī*, there would be a difficulty in the derivation of *bhavyam*, which would become *bhāvyam* instead. The crucial step is the substitution of *bhū* for *as* by P. 2.4.52 in which *ārdhadhātuke* is still valid from P. 2.4.35. This difficulty has been explained in detail by Joshi & Roodbergen (2000: 60-61), whom I quote here:

[On the *parasaptamī* alternative], instead of *bhavyam* we would derive *bhāvyam* as follows:

A.	(1) <i>as-</i>	+ <i>ṆyaT</i>	P. 3.1.124
	(2) <i>bhū-</i>	+ <i>ya</i>	P. 2.4.52
	(3) <i>bhau</i>	+ <i>ya</i>	P. 7.2.115
	(4) <i>bhāv</i>	+ <i>ya</i>	P. 6.1.79
	(5) ( <i>bhāv</i>	+ <i>ya</i> ) + <i>sU</i>	P. 4.1.2
[24]			
	(6) ( <i>bhāv</i>	+ <i>ya</i> ) + <i>am</i>	P. 7.1.24
	(7) <i>bhāv</i>	+ <i>yam</i>	P. 6.1.107
		<i>bhāvyam</i> .	

The point is that in this derivation the *ārdhadhātuka* suffix *ṆyaT* is added immediately in the first stage of the derivation. This is possible, because by P. 3.1.124 *ṆyaT* must be added after a verbal base ending in a consonant, in our case, the *s* of *as-*.

On the other hand, the assumption that *ārdhadhātuke* is a *viṣayasaptamī* leads to the desired result, as follows:

B.	(1) <i>as-</i>		
	(2) <i>bhū-</i>		P. 2.4.52
	(3) <i>bhū</i>	+ <i>yaT</i>	P. 3.1.97
	(4) <i>bho</i>	+ <i>ya</i>	P. 7.3.84
	(5) <i>bhav</i>	+ <i>ya</i>	P. 6.1.78

<sup>18</sup> This would agree with Joshi & Roodbergen, 1971: transl. p. 3 fn. 1: “Patañjali often raises the question whether a particular locative is *viṣayasaptamī* or *parasaptamī*. The difference is that in the first case the grammatical operation is applied even if the environmental factor is not present in the first stage of the *prakriyā*, but is added only afterwards. ... So *viṣayasaptamī* means: first apply the rule, then add the environmental element, ...” Note that Patañjali uses the expression *viṣayasaptamī* only four times in his Mahābhāṣya.

(6) ( <i>bhav</i> + <i>ya</i> ) + <i>sU</i>	P. 4.1.2
(7) ( <i>bhav</i> + <i>ya</i> ) + <i>am</i>	P. 7.1.24
(8) <i>bhav</i> + <i>yam</i>	P. 6.1.107
<i>bhavyam.</i>	

Here the point is that the verbal base substitution takes place before the *ārdhadhātuka* suffix is actually added. Now *ṆyaT* cannot be added in the second stage of the *prakriyā*, because *bhū-* does not end in a consonant. On the other hand, the suffix *yaT* is added by P. 3.1.97. This rule says that *yaT* is to be added after a verbal base ending in a vowel.

In the then following pages Joshi & Roodbergen give a detailed analysis of the vārttikas and Bhāṣya on P. 2.4.35. They conclude (p. 64):

“Apparently, Kātyāyana is convinced that *ārdhadhātuke* is a *parasaptamī*. That is why he proposes to change the rule. The idea of *viśayasaptamī* seems not to be known to Kātyāyana, or at least not under that name. ... Patañjali, on the other hand, is acquainted with *viśayasaptamī* ...”

Joshi & Roodbergen then explain in more detail what the *viśayasaptamī* position is believed to accomplish in the Mahābhāṣya passage under consideration (p. 64-65):

Let us return to the difficulty to remove which Kātyāyana wants to rephrase the rule and Patañjali has recourse to [25] *viśayasaptamī*. The difficulty arises in the derivation of *bhavya* stated under ... A, above, which requires the substitution of *bhū-* for *as-*. By P. 1.1.56 *bhū-* is considered *sthānivat* ‘like the original’, except when a grammatical operation is conditioned by a speech sound. The addition of the *ārdhadhātuka* suffixes *ṆyaT* and *yaT* is conditioned by a speech sound, namely, a consonant and a vowel occurring in final position of the verbal base respectively. Since in this respect *bhū-* is not *sthānivat* and since it ends in a vowel, we can only add *yaT* by P. 3.1.97. This gives us the desired form, namely, *bhavya*. But the difficulty starts with the *parasaptamī* interpretation of *ārdhadhātuke*. This requires the presence of an *ārdhadhātuka* suffix before *as-* can be replaced by *bhū-*. Since *as-* ends in a consonant, this suffix can only be *ṆyaT*, by P. 3.1.124. Consequently, we derive the form *bhāvya*, which is not the desired form.

The *viṣayasaptamī* interpretation of *ārdhadhātuke* intends to remove this difficulty by taking into account the *ārdhadhātuka* suffix required at a later stage in the derivation, namely, the suffix *yaT*. Thereby the introduction of a specifier *ārdhadhātuka* suffix in the first stage of the *prakriyā* is postponed. In other words, taking into account the change or changes required at a later stage, in our case, the *ajanta* quality of the verbal base, the *viṣayasaptamī* interpretation maintains that for the replacement of *as-* by *bhū-* the mere assumption of an *ārdhadhātuka* suffix is sufficient. Only later on, after the replacement of *as-* by *bhū-* has taken place, the *ārdhadhātuka* suffix is specified.

Joshi & Roodbergen's formulation is somewhat confusing, because it contains expressions suggesting lookahead (“taking into account the *ārdhadhātuka* suffix required at a later stage in the derivation, namely, the suffix *yaT*”) beside others that don't (“the *viṣayasaptamī* interpretation maintains that for the replacement of *as-* by *bhū-* the mere assumption of an *ārdhadhātuka* suffix is sufficient”). Patañjali's precise formulation does not allow us to decide with certainty whether he here accepts lookahead or not. (Mahā-bh I p. 484 l. 6-7 (on P. 2.4.35 vt. 5): *asati paurvāparye viṣayasaptamī vijñāsyate / ārdhadhātukaviṣaya iti / tatrārdhadhātukaviṣaye jagdhyādiṣu kṛteṣu yo yataḥ prāpnoti pratyayaḥ sa tato bhaviṣyati /*) It is however clear that an interpretation of his words is possible in which lookahead is not required: the mere assumption of an *ārdhadhātuka* suffix is [26] responsible for the substitution of *bhū-* for *as-*; the precise form of the *ārdhadhātuka* suffix is determined subsequently.

A similar reasoning can be applied to the third passage where Patañjali uses the expression *viṣayasaptamī*. It here concerns the word *ārdhadhātuke* in P. 3.1.31 **āyādaya ārdhadhātuke vā**. (Mahā-bh II p. 41 l. 17-19 (on P. 3.1.31 vt. 4): *ārdhadhātuka iti naiṣā parasaptamī / kā tarhi / viṣayasaptamī / ārdhadhātukaviṣaya iti / tatrārdhadhātukaviṣaya āyādiprakṛter āyādiṣu kṛteṣu yo yataḥ pratyayaḥ prāpnoti sa tato bhaviṣyati /*)

Perhaps Patañjali's most revealing use of the term *viṣayasaptamī* occurs under P. 3.1.26 **hetumati ca**. Here the question is raised whether

the locative *hetumati* qualifies the meaning of the suffix to be added (*Ṇic*) or the meaning of the stem, i.e. the verbal root, to which it is to be added. The preliminary position is that, as a locative, it should qualify the meaning of the suffix; if it qualified the meaning of the stem, an ablative would have been required. (Mahā-bh II p. 31 l. 7-10 (on P. 3.1.26): *katham idaṃ vijñāyate / hetumaty abhidheye ṇij bhavatīti / āhosvid dhetumati yo dhātur vartata iti / yuktaṃ punar idaṃ vicārayitum / nanv anenāsamdigdhena pratyayārthaviśeṣaṇena bhavitavyaṃ yāvataḥ hetumatīty ucyate / yadi hi prakṛtyarthaviśeṣaṇaṃ syād dhetumata ity evaṃ brūyāt /*) Patañjali rejects this argument in the following words:<sup>19</sup>

*naitad asti / bhavantīha hi viśayasaptamyo 'pi / tad yathā / pramāṇe yat prātipadikaṃ vartate striyām yat prātipadikaṃ vartata iti / evaṃ ihāpi hetumaty abhidheye ṇij bhavati hetumati yo dhātur vartata iti jāyate vicāraṇā /*

“This is not the case. For here (in this grammar) *viśayasaptamīs*, too, are [used]. For example, [one can say:] ‘a nominal stem that expresses measure (*pramāṇe*)’; ‘a nominal stem that denotes a woman (*striyām*)’. In the same way also here (in this grammar) [one can say:] ‘when the meaning *hetumat* is to be expressed, there is [the suffix] *Ṇic*’, ‘a verbal root that is expressive of [the meaning] *hetumat*’. This is why a doubt arises.”

In this passage Patañjali uses the expression *viśayasaptamī* in order to refer to meaning conditions expressed by the locative. But if this is what the expression means here, its meaning in the three remaining cases where it is used cannot be very different.

[27]

On two occasions the Mahābhāṣya paraphrases a sūtra word in the locative by adding *viśaye*. The word *saṃjñāyām* in P. 5.2.23 is paraphrased as *saṃjñāyām viśaye* (Mahā-bh II p. 375 l. 4). In view of the preceding passage this may be understood to mean “when a *saṃjñā* is to

<sup>19</sup> Mahā-bh II p. 31 l. 10-12 (on P. 3.1.26).

be expressed”, or more generally “when it concerns a *saṃjñā*”.<sup>20</sup> However, there is a subtle difference between the locative *hetumati* in P. 3.1.26 and *saṃjñāyām* in P. 5.2.23 and many other sūtras. The meaning *hetumat* belongs to the verbal root to which a suffix will be added; Patañjali specifies this quite clearly, saying: *hetumati yo dhātur vartate*. The term *saṃjñāyām*, on the other hand, does not apply to the stem, but to the result of combining stem with suffix. This is the reason why Patañjali makes a general statement about the way *saṃjñāyām* in sūtras is to be understood:<sup>21</sup> “In the [rules] which are prescribed *saṃjñāyām*, [this term] is not understood as *saṃjñāyām abhidheyāyām* ‘when a *saṃjñā* is to be expressed’, but rather as follows: ‘if by [the stem] ending in the suffix a *saṃjñā* is understood’.” In spite of initial appearances to the contrary, this passage *does* say that *saṃjñāyām* means “when a *saṃjñā* is to be expressed” (but not by the stem alone, of course), and this is clearly presented as equivalent to *saṃjñāyām viṣaye*.<sup>22</sup> The paraphrase *chandasi viṣaye* (Mahā-bh II p. 64 l. 19) for the word *chandasi* understood in P. 3.1.85 (from 84) clearly means: “when it concerns Vedic usage”.

Elsewhere in his Mahābhāṣya Patañjali speaks of the three kinds of location (*adhikaraṇa*), which is what is primarily expressed by the locative. Location, he states there, can be covering (*vyāpaka*), touching (*aupaśleṣika*), or *vaiṣayika* (Mahā-bh III p. 51 l. 8-9: *adhikaraṇaṃ nāma triprakāraṃ vyāpakam aupāśleṣikaṃ vaiṣayikam iti*). The term *vaiṣayika* is derived from *viṣaya*. The third kind of location therefore concerns the *viṣaya*, the scope. It is however interesting to note that Patañjali, in presenting these three kinds of location, evidently talks about the non-technical use of the locative. Patañjali's use of the expression [28] *viṣayasaptamī*, too, may therefore refer to a non-technical use of the locative. Such a non-technical use of the locative — which can often be

<sup>20</sup> I propose no translation for the difficult term *saṃjñā*, but refer to the doctoral thesis of my student Maria-Piera Candotti (2006) for a detailed discussion.

<sup>21</sup> Mahā-bh II p. 68 l. 2-4 (on P. 3.1.112 vt. 3): *athavā ya ete saṃjñāyām vidhīyante teṣu naivaṃ vijñāyate saṃjñāyām abhidheyāyām iti / kiṃ tarhi / pratayāntena cet saṃjñā gamyata iti /*

<sup>22</sup> Candotti (see note 20, above) draws attention to a passage in the Kāśikā on P. 5.1.62 which shows that this much later commentary clearly distinguishes between *abhidheyasaptamī* and *viṣayasaptamī*: *abhidheyasaptamy eṣā, na viṣayasaptamī*.

translated in English with the help of some such term as ‘concerning’ — is indeed well-known and frequently used in Sanskrit.

In view of these considerations, we may conclude that the word *ārdhadhātuke* in sūtras 2.4.35 and 3.1.31, being a *viśayasaptamī*, means, in Patañjali's opinion, something like “when it concerns an *ārdhadhātuka* [suffix]”. A meaning condition, too, can be expressed with the help of a *viśayasaptamī*, because here, too, that particular non-technical use of the locative is involved. If our analysis of Patañjali's understanding of the term *viśayasaptamī* is correct, this term is not used to indicate that this or that grammatical element will appear later on in the derivation. Patañjali rather falls back on this ordinary use of the locative where the technical grammatical interpretation of this case (the *parasaptamī*) confronts him with insuperable difficulties. This technical grammatical use of the locative confronts him with insuperable difficulties in certain cases, precisely because he insists that the following element has to be there at the moment the next step is taken. For those who accept that lookahead is an essential part of Pāṇini's grammar, no such requirement can be made.

It is open to question whether Patañjali's trick to return to the ordinary use of the locative solves his problems. More recent grammarians in the Pāṇinian tradition treat the *viśayasaptamī* itself as something like a technical term, which is used when lookahead seems unavoidable to them. It is difficult to state with confidence what Patañjali may have thought about these for him difficult cases. It is however certain that he does not explicitly admit that lookahead is needed, even here. He suggests that the ordinary use of the locative, rather than its technical grammatical use, will do the job. We have seen that it doesn't.<sup>23</sup>

**§4.5** In four passages Patañjali introduces the notion of ‘future designation’ (*bhāvinī saṃjñā*) in order to deal with difficulties similar to the ones

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<sup>23</sup> J. A. F. Roodbergen (1991, esp. p. 310 ff.) argues that *sārvadhātuke* in P. 1.3.67 may have been meant as a *viśayasaptamī* by Pāṇini. Perhaps one should say that Patañjali does not use this expression in this context because he had more successfully succeeded in forcing the cases covered by this sūtra into his preferred scheme of derivations.

which he resolves with the help of a [29] *viṣayasaptamī*. All these passages contain the following comparison:<sup>24</sup>

*tad yathā / kaścit kaṃcit tantuvāyam āha / asya sūtrasya śāṭakam  
vayeti / sa paśyati yadi śāṭako na vātavyo 'tha vātavyo na śāṭakaḥ  
śāṭako vātavyaś ceti vipratīṣiddham / bhāvinī khalv asya  
saṃjñābhipretā sa manye vātavyo yasminn ute śāṭaka ity etad  
bhavatīti /.*

Take an example: Someone says to some weaver: “weave a cloth out of this thread”. He (i.e., the weaver) thinks: if it is (already) a cloth, it is not (still) to be woven. But if it is (still) to be woven, it is not a cloth. (To say,) it is (still) to be woven and it is a cloth becomes contradictory. Certainly, what he means is a designation (viz., ‘cloth’) yet to come (*bhāvinī saṃjñā*). That, I think, is to be woven, which, when woven, becomes the (thing called) cloth.<sup>25</sup>

This example is meant to illustrate Patañjali's position according to which it is common, and therefore justified, to use a designation before it becomes applicable. This is supposed to avoid difficulties, as in the following case.<sup>26</sup>

The Mahābhāṣya discusses under P. 2.1.51 the possibility of formulating a rule of the form *dvigusaṃjñā pratyayottarapadayoḥ* “The designation *dvigu* is conditioned by the presence of a (*taddhita*-) suffix or of a final member”. Both a vārttika and Patañjali's commentary agree that this might result in mutual dependence: the addition of the *taddhita*-suffix or of the final member is conditioned by the designation *dvigu*, and the designation *dvigu* is conditioned by the *taddhita*-suffix of the final

<sup>24</sup> Mahā-bh I p. 112 l. 10-13 (on P. 1.1.45 vt. 3); I p. 275 l. 6-8 (on P. 1.3.12 vt. 2); I p. 394 l. 13-16 (on P. 2.1.51 vt. 4); II p. 113 l. 18-21 (on P. 3.2.102 vt. 2). Tr. Joshi & Roodbergen, 1971: 35-36.

<sup>25</sup> Statements like this (“weave a cloth”, “make a pot”, etc.) occupied the minds of practically all philosophers of the early centuries of the common era, and led them to adopt various ontological and other positions, such as *satkāryavāda*, *sūnyavāda*, *ajātivāda*, *anekāntavāda*, etc. (see Bronkhorst, 1999). The fact that Patañjali is clearly untouched by the presupposition (the ‘correspondence principle’) that underlies all those philosophical discussions pleads for an early date of Patañjali, before this shared presupposition managed to take hold of all thinkers: Brahmanical, Buddhist and Jaina (and including Bhartṛhari).

<sup>26</sup> See Joshi & Roodbergen, 1971: 22 ff. for details.

member.<sup>27</sup> A subsequent vārttika (no. 4) claims that the problem [30] has been resolved, but does not tell us how. Patañjali makes some suggestions, among them the one in which the comparison with the weaver plays a central role. It states that the designation *dvigu* is formed, “when that follows to which [later on], when it has resulted, the designations *pratyaya* ‘suffix’ and *uttarapada* ‘final member’ apply”. (Mahā-bh I p. 394 l. 17-18 (on P. 2.1.51 vt. 4): *evam ihāpi tasmin dvigur bhavati yasyābhinirvṛttasya pratyaya uttarapadam iti caite saṃjñe bhaviṣyataḥ*.)

Kaiyaṭa, followed by Joshi & Roodbergen, explains that the Bhāṣya means to say that the form *pratyayottarapadayoḥ* is a *viśayasaptamī*. This is however open to question. Patañjali's formulation clearly indicates that the suffix or final member are in place at the time when the designation *dvigu* is formed. Only the **designation** *pratyaya* or *uttarapada* will be applied later. The example of the weaver presumably shows that no lookahead is required for this postponed designating.

One may wonder whether the solution of a ‘future designation’ is very convincing in this case. Patañjali himself may not have thought so, for he immediately turns to another solution of the problems surrounding P. 2.1.51, in which Pāṇini's own formulation (with *taddhitārtha-*) is then shown to be acceptable. The ‘future designation’ plays a role in the middle of the debate, but appears to be ultimately abandoned.

Something similar can be said about two of the remaining three passages that invoke the comparison with the weaver (on P. 1.1.45 vt. 3 and on P. 1.3.12 vt. 2).

The last passage that makes use of the expression *bhāvinī saṃjñā* occurs under P. 3.2.102.<sup>28</sup> Here, too, there is a problem of mutual dependence: the technical term *niṣṭhā* must apply to the suffixes *Kta* and *KtavatU* that are already there (by P. 1.1.26 *ktaktavatū niṣṭhā*), and these same two suffixes are brought into existence by the technical term *niṣṭhā* (by P. 3.2.102 *niṣṭhā [bhūte]*). (Mahā-bh II p. 113 l. 3-4: *satoḥ ktaktavatvoḥ saṃjñayā bhavitavyaṃ saṃjñayā ca ktaktavatū bhāvyete tad etad itaretarāśrayaṃ bhavati*.) Patañjali proposes as solution to look upon

<sup>27</sup> Once again we are confronted with the question whether perhaps Pāṇini was not disturbed by this kind of circularity; cp. § 3.1 and note 17 above.

<sup>28</sup> Cp. Scharfe, 1961: 89-90.

the term *niṣṭhā* as a “future designation” (*bhāvinī saṃjñā*): “Those two [suffixes] are used to express the past which, after having come into existence, will [later on] obtain the technical designation *niṣṭhā*.” (Mahābh II p. 113 l. 21-22: *tau bhūte kāle bhavato yayor abhinirvṛttayor niṣṭhety eṣā saṃjñā bhaviṣyati*.) Here, as elsewhere, one may wonder whether this circularity would have disturbed Pāṇini, or indeed whether this is really a case of [31] circularity.<sup>29</sup> It is however clear that Patañjali was disturbed by this presumed case of circularity, and that he was determined to get rid of it, by hook or by crook.

§5. At this point we must consider the passages where Patañjali appears to opt for influence of the form to be derived on the shape of the derivation to be chosen. I am referring to the passages where he interprets the word *para* in P. 1.4.2 **vipraṭiṣedhe paraṃ kāryam** to mean *iṣṭa* ‘desired’. In other words, at a stage of a derivation where two rules are in conflict, the operation that is desired must be carried out. The situation has been presented by Franz Kielhorn in the following manner (1887: 129):

In 1.4.2 Pāṇini prescribes that of two conflicting rules the subsequent (*para*) rule, in the order of the Aṣṭādhyāyī, shall take effect in preference to the preceding rule. Now Kātyāyana on various occasions shows that Pāṇini’s rule is not universally true, and he points out a number of *pūrva-vipraṭiṣedhas*, i.e. instances in which the preceding rule must take effect in preference to the subsequent rule. According to Patañjali, on the other hand, the special rules given by Kātyāyana are unnecessary, and the objections of that grammarian only show that he has not fully understood the word *para* in P. 1.4.2. *Para*, amongst other things, also means ‘desired’ (*iṣṭa*), and what Pāṇini really teaches is, that of two conflicting rules it is the *desired* rule that should take effect ...

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<sup>29</sup> See Scharfe, 1961: 90.

What is a desired rule? Kielhorn proposes the following explanation: “i.e. that rule, whatever be its position in the Aṣṭādhyāyī, the application of which will lead to correct words”. He then adds his comments: “Here ..., then, we ought to possess a perfect knowledge of the language, if we would rightly apply the rules of Pāṇini's grammar.”<sup>30</sup>

It is to be noted that Kielhorn's comments go well beyond that which Patañjali explicitly states. According to Patañjali, in a number of situations the desired rule should take effect. He does not say by whom that rule is desired. Kielhorn concludes that it is the rule desired by the grammarian who desires to arrive at correct forms, but that is neither stated nor even suggested by Patañjali. It [32] is much more in keeping with Patañjali's general approach to understand these remarks differently. The desired rule is the rule desired by Pāṇini. How do we know which is the rule desired by Pāṇini? From tradition. And how do we know which is the traditional position with regard to these specific derivations? By asking Patañjali.

I do not need to remind you that Patañjali is never shy to impose the view which he considers traditional to solve otherwise irresolvable problems. This is most clearly the case where he cites the phrase **vyākhyānato viśeṣapratipattir na hi saṁdehād alakṣaṇam**. This is Paribhāṣā 1 in a number of treatises on Paribhāṣās, including Nāgeśa's Paribhāṣenduśekhara; but it is first of all a Paribhāṣā which Patañjali frequently cites in his Mahābhāṣya. It means, in Kielhorn's translation (1874: 2): “The precise (meaning of an ambiguous term) is ascertained from interpretation, for (a rule), even though it contain an ambiguous term, must nevertheless teach (something definite).” The ‘interpretation’ in Kielhorn's rendering, which translates the Sanskrit *vyākhyāna*, is the traditional explanation, not just any explanation which a reader might feel like applying.<sup>31</sup>

<sup>30</sup> Similarly Cardona, 1970: 61.

<sup>31</sup> Patañjali explains his understanding of the word *vyākhyāna* in the following passage (Mahā-bh I p. 11 l. 20-23; on Paspasāhnikā vt. 11): *na hi sūtrata eva śabdān pratipadyante / kiṁ tarhi / vyākhyānataś ca / nanu ca tad eva sūtram vigrhītaṁ vyākhyānaṁ bhavati / na kevalāni carcāpadāni vyākhyānaṁ vṛddhiḥ āt aij iti / kiṁ tarhi / udāharaṇaṁ pratyudāharaṇaṁ vākyādhyāhāra ity etat samuditāṁ vyākhyānaṁ bhavati /* “... the words are not just known from *sūtra* ‘the rules’. Then how (do we know them)? From *vyākhyāna* ‘explanation’ also.

Readers of Nāgeśa's Paribhāṣenduśekhara will remember that the Jñāpaka of the Paribhāṣā **vyākhyānato viśeṣapratipattir na hi saṁdehād alakṣaṇam** is the double use of the marker *Ṇ* in the Māheśvara sūtras. Without explanation this double use can only give rise to confusion, because the precise meaning of the *pratyāhāras aṆ* and *iṆ* will be ambiguous. Pāṇini — according to Patañjali — has introduced this ambiguity in order to make clear to the users of the grammar that in case of doubt they depend on the traditional explanation. In this particular case they are informed that the *pratyāhāra iṆ* is to be understood with the second marker [33] *Ṇ*, whereas *aṆ* must be understood with the first marker *Ṇ* except in the case of sūtra 1.1.69 **aṇudit savarṇasya cāpratyayaḥ**. For our purposes it is important to note that Patañjali does not reconstruct, on the basis of the desired outcome, what *aṆ* and *iṆ* should mean. Quite on the contrary, he authoritatively provides the traditional interpretation of these two expressions, an interpretation which, as he suggests, comes directly from Pāṇini. In other words, the desired outcome of a derivation does not determine for Patañjali how a rule should be understood, neither here nor anywhere else.

Let us now return to Patañjali's proposed interpretation of *para* in P. 1.4.2 **vipraṭiṣedhe paraṁ kāryam**. In certain cases, he maintains, *para* means *iṣṭa* 'desired'. In view of Patañjali's general approach toward derivations, this cannot but mean that the choice of one rule at the expense of another that applies at the same time is *desired by Pāṇini*, and has nothing to do with the readers judgement as to what is the correct outcome.<sup>32</sup> When, therefore, Kielhorn states that that rule is desired, whatever be its position in the Aṣṭādhyāyī, the application of which will lead to correct words, he expresses a truism. But when he adds that we ought to possess a perfect knowledge of the language, if we would rightly

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But isn't it true that this very *sūtra* '(body of) rules', when divided up (into its constituent words) becomes the *vyākhyāna* 'explanation'? The mere (separate) words resulting from *carcā* '(the process of) repeating (the words of a given text)', as *vṛddhi*, *āt*, *aic* do not constitute *vyākhyāna* 'explanation'. Then (in) what (does *vyākhyāna* consist)? (In) *udāharaṇa* 'example', *pratyudāharaṇa* 'counterexample', (and) *vākyaādhyāhāra* 'completion of the utterance (by supplying words)'. All of that taken together becomes the *vyākhyāna* 'explanation'." (tr. Joshi & Roodbergen, 1986: 161-163.

<sup>32</sup> Cardona (1976: 191) understands Patañjali in the same way as Kielhorn, but disagrees with the former.

apply the rules of Pāṇini's grammar, he is mistaken. We do not need to know the correct outcome of a derivation in order to correctly apply the rules of Pāṇini's grammar. Quite on the contrary, we arrive at the correct outcome if we strictly follow his rules, along with the traditional explanation that comes along with them. This traditional explanation contains information as to which rules will have preference in specific situations.

Let us now consider a few passages where Patañjali uses the device of interpreting *para* in the sense of *iṣṭa* 'desired'.

§5.1 A whole series of examples occurs under P. 7.1.95-96 vt. 10. We will consider two of these.

(i) The correct derivation of *jatune*, dative singular of the neuter word *jatu* 'lac', is essentially as follows:

jatu-Ñe	4.1.2 <b>svaujas</b> <sup>o</sup>
jatu-nUM-e	7.1.73 <b>iko 'ci vibhaktau</b>
jatune	
[34]	

The problem is that at the first stage another rule — 7.3.111 **gher ñiti** — is applicable, which would substitute the guṇa vowel o for u of *jatu*. What is worse, 7.3.111 being *para* with regard to 7.1.73, it should have priority over the latter. To avoid this, P. 7.1.95-96 vt. 10

(*guṇavṛddhyauttvatṛjvadbhāvebhyo num pūrvavipratīṣiddham*) states that in this particular case the earlier rule has precedence. Patañjali is not of the opinion that such a special statement is necessary, for *para* here means *iṣṭa*.<sup>33</sup>

(ii) A similar problem arises in the formation of *atisakhīni*. Here the correct derivation

<sup>33</sup> Mahā-bh III p. 275 l. 24 - p. 276 l. 5: *tatra guṇasyāvakāśah / agnaye vāyave / numo 'vakāśah / trapuṇī jatunī / ihobhayam prāpnotī / trapuṇe jatune // ... // sa tarhi pūrvapratīṣedho vaktavyah / na vaktavyah / iṣṭavācī paraśabdaḥ / vipratīṣedhe param yad iṣṭam tad bhavatīti //*

atisakhi-Jas	4.1.2 <b>svaujas</b> <sup>o</sup>
atisakhi-Śi	7.1.20 <b>jaśśasoḥ śiḥ</b> (and 1.1.42 <b>śi sarvanāmasthānam</b> )
atisakhi-nUM-i	7.1.72 <b>napuṃsakasya jhalacaḥ</b>
atisakhī-n-i	6.4.8 <b>sarvanāmasthāne cāsaṃbuddhau</b>

is jeopardised by sūtras 7.1.92 **sakhyur asaṃbuddhau** and 7.2.115 **acoñṇiti**, which would substitute *vṛddhi* (= *ai*) for final *i* of *atisakhi*, instead of the addition of *nUM*. Once again the earlier rule has precedence according to Patañjali because *para* means *iṣṭa*.<sup>34</sup>

The same vārttika covers a number of further cases, all of which can be explained, Patañjali maintains, by understanding the word *para* in the sense *iṣṭa*. Patañjali cites this vārttika in advance under P. 1.4.2 **vipratīṣedhe paraṃ kāryam**, and proclaims there already his view that in these cases the word *para* expresses the meaning *iṣṭa* (Mahā-bh I p. 306 l. 1-10; on P. 1.4.2. vt. 7).

§5.2 Another example is the following. In the derivation of *vavṛte* from the root *vṛt* a dilemma presents itself. The relevant part of the derivation has the following shape:

vṛt - IIT	3.2.115 <b>parokṣe liṭ</b>
vṛt-vṛt-IIT	6.1.8 <b>liṭi dhātor anabhyāsasya</b>
vṛ-vṛt-IIT	7.4.60 <b>halādiḥ śeṣaḥ</b>
[35]	
va-vṛt-IIT	7.4.66 <b>ur at</b>
va-vṛt-ta	3.4.78 <b>tiptasjhi...</b>
va-vṛt-eŚ	3.4.81 <b>liṭas tajhayor eśirec</b>

At this point two rules apply. P. 1.2.5 **asaṃyogāl liṭ kit** stipulates that the substitute for *IIT*, i.e. *eŚ*, has the marker *K*, which prevents substitution of *guṇa* or *vṛddhi* in *vṛt* by P. 1.1.5 **kñiti ca**. On the other hand there is

<sup>34</sup> Mahā-bh III p. 275 l. 26 - p. 276 l. 1: *vṛddher avakāśaḥ / sakhāyau sakhāyaḥ / numah sa eva* (i.e., *trapuṇī jatunī*, JB) / *ihobhayaṃ prāpnoti / atisakhīni brāhmaṇakulānīti // ... etc.*

7.3.86 **pugantalaghūpadhasya ca**, which prescribes substitution of *guṇa* for the vowel of *vṛt*. Patañjali on P. 1.2.5 points out that 1.2.5 is no exception (*apavāda*) to 7.3.86. The two rules therefore apply simultaneously, and contradict each other. If one applies in this situation P. 1.4.2 **vipraṭṣedhe param kāryam**, one would have to prefer 7.3.86 **pugantalaghūpadhasya ca** which occurs later in the Aṣṭādhyāyī and arrive at an incorrect form *\*vavarte*. In this situation Patañjali states that *para* means *iṣṭa* ‘desired’. The desired rule in the situation is 1.2.5 **asamyogāl liṭ kit**, which leads to the correct form *vavṛte*. (Mahā-bh I p. 194 l. 14-16, on P. 1.2.5 vt. 2: *ihobhayaṃ prāpnoti / vavṛte vavṛdhe / paratvād guṇaḥ prāpnoti // idaṃ tarhy uktam iṣṭavācī paraśabdo vipraṭṣedhe param yad iṣṭam tad bhavatīti /.*)

§5.3 It is not necessary to consider all the passages where Patañjali uses this specific device. Sometimes it occurs in the middle of a debate in which it only plays a provisional role.<sup>35</sup> The main conclusion to be drawn is that Patañjali never explicitly states that we, the users of the grammar, are free to give precedence to the sūtra which we prefer. The ‘desired’ rule which has to be used in an ambiguous situation is the rule desired by Pāṇini, or perhaps one should say: by the tradition. This means that neither we nor indeed anyone else need to know which is the correct form to be attained at the end of the derivation. We simply must use, at each junction, the rule which is to be preferred, either because of some principle underlying Pāṇini's grammar, or because we know that that is the rule ‘desired’ by Pāṇini. The outcome will automatically be correct, and we do not need to worry about it.

§6. Patañjali does not always admit that the issue of linearity is open and can give rise to major complications. At times he proceeds as if the issue is resolved and a particular order is [36] presupposed. An example is his mention of the forms *pradīvyā* and *prasīvyā* in his discussion of P.

<sup>35</sup> The remaining passages are: Mahā-bh I p. 46 l. 14; p. 404 l. 26; II p. 237 l. 16; p. 279 l. 3-4; p. 337 l. 20; III p. 18 l. 1; p. 99 l. 12; p. 134 l. 16-17; p. 201 l. 5; p. 238 l. 10.

1.1.56 **sthānivad ādeśo 'nalvidhau**. The correct derivation of these two forms, Patañjali claims, depends on the correct interpretation of that sūtra.<sup>36</sup> The correct derivation of *prasīvyā* is as follows:<sup>37</sup>

pra-siv-Ktvā	3.4.21 <b>samānakartṛkayoḥ pūrvakāle</b>
pra-siv-LyaP	7.1.37 <b>samāse 'nañpūrve ktvo lyap</b>
pra-siv-ya	8.2.77 <b>hali ca</b>
prasīvyā	

Patañjali's concern is that *sthānivadbhāva* might treat the substitute *LyaP* like its substituend *Ktvā*, so that *iṭ* might then be prefixed to it by 7.2.35 **ārdhadhātukasyeṭ valādeḥ**. The sūtra prescribes prefixing of *iṭ* to an *ārdhadhātuka* suffix beginning with *val*, i.e. with any consonant except *y*. The interpretation Patañjali proposes for P. 1.1.56 is meant to avoid this difficulty.

Patañjali does not mention that the same difficulty might pop up at an earlier stage. Consider the following incorrect derivation:

pra-siv-Ktvā	
pra-siv-iṭ-Ktvā	7.2.35 <b>ārdhadhātukasyeṭ valādeḥ</b>
pra-siv-iṭ-LyaP	7.1.37 <b>samāse 'nañpūrve ktvo lyap</b>

This would give rise to incorrect *\*prasiviya*. By not mentioning this possibility, Patañjali avoids the issue.

Patañjali is equally taciturn in the case of the derivation of words like *yuşmat*, the ablative plural of *yuşmad*. Here the correct derivation is:<sup>38</sup>

yuşmad-bhyas	4.1.2 <b>svaujas°</b>
yuşmad-at	7.1.31 <b>pañcamyā at</b>
yuşma-at	7.2.90 <b>śeṣe lopah</b>
yuşmat	

<sup>36</sup> Mahā-bh I p. 133 l. 13 f. (on P. 1.1.56).

<sup>37</sup> See Joshi & Roodbergen, 1990: transl. p. 22 n. 89.

<sup>38</sup> Cf. Joshi & Roodbergen, 1990: transl. p. 29.

In this derivation there is no place for P. 7.2.86 **yuṣmadasmador anādeśe**, which prescribes substitution of long *ā* for final *d* of [37] *yuṣmad* before an ending beginning with a consonant, except when the ending itself is a substitute. This accounts for forms like loc. pl. *yuṣmāsu*. However, at the first stage *yuṣmad-bhyas* there is an ending that begins with a consonant, viz. *bhyas*. How can P. 7.2.86 be prevented to apply here? Patañjali does not say a word about it.

The expression *anādeśe* in 7.2.86 **yuṣmadasmador anādeśe** needs to retain our attention somewhat longer. It would seem to imply that from Pāṇini's point of view substitution of a suffix has to precede any operations on the preceding stem.<sup>39</sup> That is to say, Patañjali might have used the presence of this expression *anādeśe* to argue that sūtra 7.2.86 cannot apply at the first stage *yuṣmad-bhyas*. Surprisingly, he does not do so. As a matter of fact, when commenting on this sūtra he states in so many words that the expression *anādeśe* is superfluous. (Mahā-bh III p. 304 l. 17-18 (on P. 7.2.89): *anādeśagrahaṇam śakyam akartum / katham / halīty anuvartate na cānādeśo halādir asti // tad etad anādeśagrahaṇam tiṣṭhatu tāvat sāmnyāsikam //*.)<sup>40</sup> Elsewhere he tentatively suggests that this same expression makes known to us that substitutes are like their substituends. (Mahā-bh I p. 134 l. 2-4 (on P. 1.1.56 vt. 1): *evaṃ tarhy ācāryapravṛttir jñāpayati sthānivad ādeśo bhavatīti yad ayaṃ yuṣmadasmador anādeśe (= P. 7.2.86) ity ādeśapratishedham śāsti.*)

§7. It is clear from the above that Patañjali tries both to avoid looking back and looking ahead in explaining grammatical derivations. He does so, because he is determined to fit them into the straight jacket of linearity as he conceives of it. How do we explain that Patañjali avoids looking back and looking ahead even in situations where this forces him to consider sometimes highly complex (and often implausible) alternatives?

<sup>39</sup> Alternatively, it might be understood as a confirmation of the importance of lookahead, as maintained by Joshi & Kiparsky.

<sup>40</sup> Renou, Term. gramm. p. 334 s.v. *sāmnyāsika* explains: “*ī* conforme à la teneur originelle M du sū[tra] ... (dit d'un élément qui est à conserver, encore qu'on ne puisse le justifier).”

In order to get more clarity, let us try to characterise his method in broader terms.

The derivations as conceived of in the Mahābhāṣya ideally consist of a number of distinct stages in each of which an operation takes place that is exclusively determined by the elements at that moment in place. Earlier stages are not taken into consideration, and future elements play no role, so that the way a derivation will develop beyond the present stage has no effect on decisions to be [38] taken at present. That is to say, derivations are “pushed from the back”, they are never “pulled forward”. What is more, they are only pushed by the immediately preceding elements. We can conceive of these derivations as being causal processes which pass through distinct stages, each of which is determined by preceding factors that act blindly, without regard for the consequences.

It is understandable that Patañjali's understanding of grammatical derivations may have contributed to what Jan E. M. Houben (2003: 158 ff.) calls a myth in modern Pāṇinian studies, the myth of Pāṇini's grammar as a powerful, purely formal system. Houben cites various authors who emphasise the mechanistic aspect of the grammar, and the as yet unfruitful attempts that have been made to associate Pāṇini with the computer. A step by step derivation, in which each step completely determines what the next step will be like, no doubt resembles a mechanical process that might be carried out by a machine without the need of a human being to steer it. It is however to be kept in mind that this resemblance concerns Patañjali's understanding of Pāṇini's grammar, an understanding which — as we have seen — is to at least some extent forced upon it (and which, one may be tempted to add, does not always fit). The question whether grammatical derivations as conceived of by Pāṇini are equally conducive to a comparison with a computerised derivation remains open and may indeed be less obvious. Since the emphasis in this study is on the Mahābhāṣya's understanding of the Aṣṭādhyāyī, no more will be said about the details of how Pāṇini himself wanted his grammar to be understood.

It is probable that the oral tradition of grammatical derivation had been interrupted during the time between Pāṇini and his earliest commentators. There are clear indications that point in that direction, such

as the loss of accents from Pāṇini's text at the time of Patañjali,<sup>41</sup> the loss of the correct interpretation of the expressions for optionality,<sup>42</sup> and the failure to correctly interpret the term *asiddha*.<sup>43</sup> However, as far as the strict linearity imposed by the Mahābhāṣya is concerned, without looking back or looking ahead, this hypothesis does not explain enough. The reason is that this text presents sometimes highly complex explanations for derivations which are at first sight totally transparent. Beside or perhaps instead of such an interruption of the tradition we may have to consider the possibility that one or [39] more other factors played a role, factors which led to a complete change of outlook about the nature of a grammatical derivation.

§8. More than fifteen years ago I had the privilege and pleasure of delivering the third series of the “Pandit Shripad Shastri Deodhar Memorial Lectures”, here at the Bhandarkar Oriental Research Institute, dealing with some issues pertaining to the Mahābhāṣya.<sup>44</sup> In the third lecture (“The Mahābhāṣya and the development of Indian philosophy”) I had occasion to draw attention to the close parallelism which exists between certain ideas expressed in the Mahābhāṣya and ideas developed within the Abhidharma of the school of Buddhism called Sarvāstivāda or by its predecessors. (In order to avoid repeating clumsy formulations, I will use the expressions Sarvāstivāda to refer both to the school properly so called and to its possible predecessors whose names remain unknown to us.) I could point out that there are good reasons to think that certain linguistic ideas which we find in the Mahābhāṣya are heavily indebted to that school of thought. Patañjali's notions of words and sounds in particular appear to be reflections of the dharmas called *vyañjanakāya* and *padakāya* respectively by the Sarvāstivādins.

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<sup>41</sup> Thieme, 1935: 120 ff.

<sup>42</sup> Kiparsky, 1979.

<sup>43</sup> Bronkhorst, 1980; 1989.

<sup>44</sup> These lectures were delivered March 4-6, 1987, and published in that same year as *Three Problems pertaining to the Mahābhāṣya* (Post-graduate and Research Department Series No. 30).

Since that time I have been able to collect further evidence which confirms that Patañjali was acquainted with this school of thought. This further evidence concerns the use of certain expressions and acquaintance with a philosophical position that agrees with that of the Sarvāstivādins. Since I have published this additional material elsewhere,<sup>45</sup> I will only briefly recall the main points here. The Mahābhāṣya cites the following proverb: *āmrān pṛṣṭaḥ kovidārān ācaṣṭe* “Being questioned about mangoes he acquaints [one] with the *kovidāra* (trees)”. A very similar proverb is known from Buddhist literature. Patañjali speaks at one occasion about “sciences which have something auspicious in the beginning, in the middle and in the end” (*maṅgalādīni maṅgalamadyāni maṅgalāntāni śāstrāṇi*). He does so in connection with Pāṇini's Aṣṭādhyāyī, but it is clear that this characterisation does not fit very well. However, a number of Buddhist texts speak of the Dharma taught by the Buddha as being “auspicious in the beginning, in the middle and in the end” (*ādau* [40] *kalyāṇa*, *madhye kalyāṇa*, *paravasāne kalyāṇa* and similar terms in Pāli). Thirdly, a story told in the Buddhist canon about a certain ascetic who presumably did not hear the sound of a group of carts passing by, is told in the Mahābhāṣya about Śākaṭāyana. Patañjali also shows acquaintance with the philosophical position according to which a material object is a collection of qualities; he does not accept it, but we know that the Sarvāstivādins did.

This is not the occasion to evaluate all these different points in detail. As said before, I have tried to do so in some earlier publications. Today I wish to draw your attention to a feature of Sarvāstivāda thought which may help us understand the changes in grammar which I have documented in what precedes.

The Sarvāstivāda school of thought (or perhaps a preceding school of thought which subsequently exerted a profound influence on the Sarvāstivādins) underwent an intellectual revolution at some unknown date during the centuries preceding the Common Era. The outcome of this revolution was that it came to accept a thoroughly atomistic way of looking at the world. According to this way of looking at the world only momentary dharmas exist. The word *dharma* is used, within Buddhism, in

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<sup>45</sup> See Bronkhorst, 1995; 2002.

a rather special sense: it came to denote here the ultimate, and only, constituents of all that exists. Momentary dharmas succeed each other, and this succession of dharmas is governed by rules of causality, which draw their inspiration from the old Buddhist doctrine of origination in dependence (*pratīyasamutpāda*). That is to say, preceding dharmas condition subsequent dharmas.<sup>46</sup> This picture of reality has particular validity for mental processes, most of the dharmas being mental by nature, but not only there. All processes are conceived of as series of momentary stages which are conditioned by the immediately preceding one, and never by succeeding ones (nor by the anticipation of succeeding ones).

It is important to emphasise this last feature of causality as conceived of, first by the Sarvāstivāda Buddhists or their predecessors, and subsequently by other Buddhists. It confronted Buddhist thinkers with a number of difficulties, which they took great pains to solve. If only the immediately preceding stage of a causal sequence determines the immediately following one, certain causal sequences become difficult to understand. There should in that case be no gaps in the sequences of dharmas, because there would be no way to bridge those gaps. However, according to Buddhist thinking, certain meditative states interrupt by their very nature the mental processes into which they are inserted. Some of [41] these states imply the suppression of all mental activity and of consciousness itself; the term frequently used is *nirodha*. When a meditator arises out of such a state, the first moment of renewed consciousness does not succeed any immediately preceding mental dharma. Given the way the Sarvāstivādins and their intellectual successors conceived of causal processes, mental states such as *nirodha* should not be able to exist.

But causality conceived of in this manner has no place for teleology either. A causal sequence conceived in this manner cannot be guided by any future goal. This made it very difficult for these Buddhist thinkers to account for karmic retribution. Karmic retribution is, of course, a causal process, but not a blind one. It “aims at” retribution, and is therefore presumably guided by the intended outcome of the process. This,

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<sup>46</sup> See, e.g., Bronkhorst, 2000: 106 ff.

however, should be excluded by the very way in which causal processes were conceived of.

Buddhist thinkers took these difficulties very seriously, and came up with various solutions. The Sarvāstivāda Buddhists made the claim which is responsible for their name, viz., that past dharmas exist beside present and future dharmas, so that a past dharma can exert a direct influence on future dharmas. Most other Buddhists did not accept this counter-intuitive position. The Sautrāntikas, for example, proposed another solution: series of seeds (*bīja*) connect the deed with its effect. In the case of the meditational state of *nirodha*, the last moment before the suppression of consciousness is connected through this series with the first conscious moment after it. Again other Buddhists, particularly the Yogācāras, introduced the notion of *ālayavijñāna*, one of whose functions was, once again, to account for the gaps in continuity in the causal chains of dharmas.<sup>47</sup> It is not possible at present to deal with all these solutions in detail. They do show, however, how seriously the Buddhists took their vision of causal chains in which each following element is exclusively determined by the immediately preceding one.

If we now return to the Mahābhāṣya, it will be clear that this vision of the nature of a causal chain shares some important features with the interpretation of Pāṇini's grammar which we find in this grammatical text. Here, too, we find processes in which each stage is determined by the immediately preceding one, not by earlier stages, nor indeed by stages that are still to come. I take it that the close similarity between the ways in which the early [42] Pāṇinīyas and Sarvāstivādins conceived of processes is not due to coincidence. It seems indeed most likely that one of the two borrowed from the other. If borrowing took place, there can be no doubt as to its direction. The new way of conceptualising processes was for the Sarvāstivādins the result of rationalising various obscure early teachings ascribed to the Buddha, most notably the origination in dependence (*pratīyasamutpāda*). In the Pāṇinian school of grammar, on the other hand, this new way of thinking about processes was at the basis of a

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<sup>47</sup> Schmithausen, 1987; further Bronkhorst, 2000a: ch. 10 and 11; 2000: 108 f., 120 f.

complete break in the tradition, as we have seen. Clearly the new way of thinking was a foreign intrusion into grammatical thought.

I have elsewhere drawn attention to the extent of the influence of Sarvāstivāda thinking on other currents of thought in ancient India.<sup>48</sup> Essential features spread, not only to other schools of Buddhism, but also to currents of thought that were not Buddhist. Particularly striking is the influence that Sarvāstivāda thinking exerted on the Vaiśeṣika system of philosophy and on Jaina thought already in canonical times. It is not possible, nor indeed necessary, to treat this issue once again here. It is however important to remember that there are reasons to think that the atomistic vision that characterized Sarvāstivāda thinking became for some time a fundamental presupposition about the nature of the world (I have used the expression *episteme*) for all those engaged in serious reflection. Patañjali was therefore not alone in undergoing the influence of this Buddhist school.

§9. It will be clear from what precedes that there are good reasons for considering the following. The Mahābhāṣya contains a number of indications which suggest acquaintance with Buddhist literature and thought. Most interesting for us at present is that the Mahābhāṣya appears to have undergone the influence of Sarvāstivāda thought. The new thinking developed in this Buddhist school about the nature of causal processes was influential enough to thoroughly affect the way grammatical derivations were thought of in the Pāṇinian tradition.

The evidence I have presented in this study, along with the evidence published elsewhere which I have referred to, proves that this hypothesis deserves serious attention. Important work has been done in the past few decades to show that Pāṇini's grammar was not in all respects meant to be interpreted in the way it is interpreted in the Mahābhāṣya. But nobody seems to have [43] addressed the question why exactly this all-important commentary imposes a different interpretation — **this**

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<sup>48</sup> See Bronkhorst, 2006.

interpretation — on the Aṣṭādhyāyī. The hypothesis which I present here is able to answer this question.

Does this hypothesis agree — and if yes: to what extent — with other types of information which we have about the period concerned? And which period exactly are we talking about?

The date of the Mahābhāṣya has been frequently discussed.<sup>49</sup> This text contains some statements that refer to Greek invasions far into the Indian heartland. These allow us to conclude, with a fair amount of confidence, that Patañjali was alive at the time of these invasions; his Mahābhāṣya may therefore have been composed sometime after the year 150 B.C.E. I am aware that some scholars have reservations with regard to this date.<sup>50</sup> They usually refer to the objection formulated by La Vallée Poussin (1930: 202) and repeated by Frauwallner (1960: 300-303). Both these scholars are disturbed by the mention of the Śakas along with the Greeks (*śakayavanam*) in a passage which mentions people living outside the Āryāvarta “the domain of the āryas”.<sup>51</sup> However, the Śakas were there at the time, if perhaps mainly behind the Greeks seen from the point of view of the Gangetic plain. They constituted a threat for the Greek kingdoms in the north-west to which these latter were soon to succumb.<sup>52</sup> It seems far from improbable that Patañjali was aware of their presence. It is all the more probable in view of the fact that there are good reasons for thinking that Patañjali belonged to the north-west of the Indian subcontinent, to a place from where he would have to travel through Sāketa (Ayodhya) in order to reach Pāṭaliputra.<sup>53</sup>

With regard to Buddhism in the north-west, our present state of knowledge is reliably summed up by Richard Salomon in his recent book *Ancient Buddhist Scrolls from Gandhāra* (1999: 5):

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<sup>49</sup> See Cardona, 1976: 263 ff.

<sup>50</sup> The most recent example known to me is Pollock, 2003: 84.

<sup>51</sup> Mahā-bh I p. 475 l. 4 (on P. 2.4.10).

<sup>52</sup> Cp. Kulke and Rothermund, 1998: 71: “this [Bactrian] Greek kingdom finally succumbed to the Shakas, a Central Asian tribe, between 141 and 128 BC.”

<sup>53</sup> Cardona, 1976: 269 f.

It is generally assumed (though this remains to be confirmed historically and archeologically) that Buddhism was first introduced to Gandhāra around the middle of the [44] third century B.C. under the sponsorship of Aśoka, the great emperor of the Mauryan dynasty and patron of Buddhism, whose control of the region is attested by the sets of his rock edicts engraved in Kharoṣṭhī script at Shāhbāgarhī and Mānsehrā. A second testimony to an early presence of Buddhism in the northwestern edge of the Indian subcontinent is the famous “Questions of Milinda”, which purports to record a philosophical dialogue between King Menander, the greatest of the Indo-Greek rulers in the second century B.C., and a Buddhist monk named Nāgasena. Although the presumed Gāndhārī original of this text is lost, it survives in various Pali and Chinese versions and stands as the earliest explicit testimony of the encounter of Buddhism with the cosmopolitan cultures of Gandhāra — an encounter which, in later centuries, is vividly and abundantly illustrated in Gandhāran sculpture with its unique combination of Indian and Hellenistic or Roman themes and styles.

But other than these two sources, we have little direct evidence for this early phase of Gandhāran Buddhism, for it is not until the first century B.C. that we begin to find abundant physical remains, in the form of stūpas and other structural remains, figural and narrative sculpture, and, especially, Buddhist ritual and dedicatory inscriptions. From this point on we can begin to trace the history of Gandhāran Buddhism in relative detail, as Buddhist institutions grew, flourished, and expanded under the patronage of the successive “foreign” dynasties. By the first two centuries of the Christian era Gandhāra had become one of the major centers of Buddhism in India, and it was apparently at some point during this period that Buddhism began to make its way beyond the borders of its Indian homeland and establish footholds in parts of Iran and China.

There is compelling evidence that Gandhāran monks in particular were instrumental in the early expansion of Buddhism beyond India. For example, two Buddhist inscriptions in the Kha-

roṣṭhī script and the Gāndhārī language, which must have been written by monks from Gandhāra, have been found near the cities of Lo-yang and Chang-an, which were major early centers of Buddhism in China. Furthermore, the abhidharma literature of the influential Sarvāstivāda school, which for the most part survives only in Chinese translations, frequently refers [45] to a Gandhāran tradition, and it is generally agreed by modern scholars that some of the important abhidharma treatises extant in Chinese translations, such as the Abhidharma-hṛdaya, were originally composed in Gandhāra.

This long citation teaches us that Gandhāra became a major centre of Buddhism, and of Sarvāstivāda Buddhism in particular. It is true that the archaeological and inscriptional evidence for the period we are interested in — the second century B.C.E., perhaps already earlier — leaves to be desired.<sup>54</sup> It is yet very likely that there were Buddhists in that region at that time. It is equally likely that Patañjali the grammarian was acquainted with the form of Buddhism current in that region. Influence of north-western Buddhism on the Mahābhāṣya, which explains so many peculiarities of this text, can therefore be accepted as highly probable.

**§10.** What about the vārttikas in the Mahābhāṣya attributed to Kātyāyana?<sup>55</sup>

It may have struck you in the preceding pages that neither Kātyāyana nor his vārttikas played any role in most discussions. This is due to the fact that the problems we were dealing with were in large majority Patañjali's problems. It is therefore legitimate to ask whether perhaps only Patañjali underwent the claimed Sarvāstivāda influence; if that turns out to be correct, Kātyāyana may then be assumed to have lived

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<sup>54</sup> Behrendt, 2004: 41 n. 8, which refers to Errington's article "Numismatic evidence for dating the Buddhist remains of Gandhara", proposes a founding date no earlier than the late 2nd century B.C.E. for the Dharmarājikā complex in Taxila.

<sup>55</sup> On Kātyāyana see the appendix at the end of this study.

too early, or too far away, to undergo any such influence. A closer inspection of Kātyāyana's point of view is clearly called for.

In order to see as clearly as possible in these matters, we have to distinguish two approaches toward Pāṇini's grammar, both of which may translate into a demand for linearity: (i) avoidance of mutual dependence in the interpretation of rules, and (ii) imposition of linearity of a specific kind on derivations. I have so far mainly argued that Patañjali was concerned with the second of these two, imposition of a specially restrictive kind of linearity on derivations; at the same time there can also be no doubt that Patañjali [46] experienced mutual dependence in the interpretation of rules as a shortcoming.<sup>56</sup> Kātyāyana is to be associated with the first approach, avoidance of mutual dependence in the interpretation of rules. The question is: Do we find in his *vārttikas* evidence that he, too, tried to impose this special kind of linearity on derivations?

In the interpretation of P. 1.3.3 **hal antyam**, studied above, there can be no doubt that there is a risk of mutual dependence: in order to understand this sūtra we have to know it already; we have to know that the final consonant of *hal* is an anubandha, but the only Pāṇinian way to find this out is with the help of this selfsame sūtra. Kātyāyana finds this mutual dependence unacceptable, and tries to find a way around it. Mutual dependence is also present in the difficulties surrounding the sūtras 1.1.10 **nājjhalau** and 1.1.69 **aṇudit savarṇasya cāpratyayaḥ**. These difficulties arise when we interpret 1.1.69 in the light of 1.1.10 (as we should) **and** 1.1.10 in the light of 1.1.69. The solution, according to Kātyāyana *and* Patañjali, lies in a linear ordering of these rules. In these two cases there is however no question of imposing linearity on a derivation.

In all the passages we studied which did concern the imposition of linearity on a derivation, on the other hand, Kātyāyana's *vārttikas* play no role. Indeed, the expressions which betray Patañjali's concern with this issue — *bhūtapūrvagati*, *viśayasaptamī* and *bhāvinī samjñā* — do not even

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<sup>56</sup> Cp. the following sentence, which occurs numerous times in the Mahābhāṣya: *itaretarāśrayāṇi ca (kāryāṇi) na prakalpante*.

occur in the vārttikas.<sup>57</sup> The impression I have so far derived from this study is therefore that in this specific respect, Patañjali and Kātyāyana represent two different approaches: Patañjali imposes to the extent possible a strict form of linearity on grammatical derivations, where only the immediately preceding step is allowed to provide the information for the next operation; what happened earlier in the derivation or what will happen later is not supposed to play a role. In Kātyāyana's vārttikas we find a rejection of mutual dependence, and therefore a tendency to order the rules of Pāṇini linearly, but not, as far as I can see, the demand that a derivation has to be linear in the strict sense demanded by Patañjali. I do not exclude that further study may oblige us to modify this position, but for the time being I see no reason to abandon this observation.<sup>58</sup>

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§11. The analysis which I have submitted to you in this study suggests that a development took place from Pāṇini to Patañjali in which linearity came to play an increasingly important role. Kātyāyana was not happy with the mutual dependence which characterises some of Pāṇini's rules, and proposed ways to read these rules in a linear sequence so as to avoid this mutual dependence. Patañjali shared this dislike for mutual dependence of rules, but introduced another form of linearity as well. For him a grammatical derivation has to consist of a number of independent stages which fully determine which operation will apply next. Patañjali's linear model for derivations coincides in its essential aspects with the way systematised Sarvāstivāda — followed by other Buddhists — visualised causal processes. This suggests that Patañjali, but perhaps not Kātyāyana, underwent the influence of this Buddhist school of thought. Chronological and geographic considerations lend plausibility to this position.

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<sup>57</sup> The expression *itarctarāśraya(tva)* occurs numerous times in vārttikas. The term *bhūtapūrva* occurs twice (P. 1.1.29 vt. 1 and 2), both time in connection with the formation of a compound containing that expression.

<sup>58</sup> Paranjpe (1922) does not deal with this issue.

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## APPENDIX: KĀTYĀYANA

Scholars nowadays agree that the *vārttikas*, though included in the *Mahābhāṣya*, have not been composed by its author. The most widely held view is that they, or most of them, have an author whose name is *Kātyāyana*. However, grammarians have not always thought like this. *Bhartrhari* and his contemporaries made the division into portions of separate authorship quite differently from the way which has nowadays become customary. In a study which I dedicated to this issue in 1990 I reached the following conclusion:<sup>59</sup>

[T]he division of the *Mahābhāṣya* which came to be generally accepted was not taken for granted by *Bhartrhari*. Where we see in the short sentences which are commented upon in the *Bhāṣya* (the ‘*Vārttikas*’) the work of one author (or perhaps several of them), in the *Bhāṣya* the work of another, *Bhartrhari*’s idea on this matter was different. He too distinguished between at least two authors, but he drew the boundaries differently. We may not be able to say regarding each portion of the *Mahābhāṣya* to which author *Bhartrhari* ascribed it. It seems however clear that in his opinion many *Bhāṣya* portions and many, or most, *vārttikas* belonged together and had one single author. These parts of the *Mahābhāṣya* were called ‘*Vārttika*’ by *Bhartrhari*.

Subsequent authors in the grammatical tradition came to attribute most of the *vārttikas* to *Kātyāyana*. This attribution is clearly in place in *Kaiyaṭa*’s commentary on the *Mahābhāṣya*, which often characterises lines from that text as being a *vārttika*. *Kaiyaṭa* also distinguishes between the three munis of Sanskrit grammar, and lays down the well-known maxim *yathottaram munitrayasya prāmāṇyam* “the later the Muni, the greater his authority”.<sup>60</sup> *Kielhorn* (1876) has argued for the separate authorship of those *vārttikas*,

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<sup>59</sup> Bronkhorst, 1990: 139.

<sup>60</sup> *Kielhorn*, 1876: 53 n. \*, referring to *Kaiyaṭa* on P. 1.1.29 (I p. 293).

and drawn attention to the one passage in the Mahābhāṣya where the name Kātyāyana is mentioned in connection with a vārttika. It was also Kielhorn (1876) who formulated a criterion for distinguishing vārttikas from Patañjali's text, and who applied this criterion systematically in his edition of the Mahābhāṣya. Kielhorn argued for the single authorship, by Kātyāyana, for most of the vārttikas. This position has been [49] strengthened in subsequent years. Indeed, there are reasons to think that the vārttikas together constitute a single work that has been preserved in its entirety. Scharfe (1977: 135) presents the following arguments:

We have reason to believe that no vārttika has been left out: in the sometimes lengthy discussions ... we see a logical development of the argument. When Kātyāyana refers about a hundred times to another vārttika with *uktam* “It has been said” this reference can be found ...; all eight adhyāya-s conclude with the auspicious word *siddham* “it is correct”.

On following pages Scharfe reviews the information we have about the date and region of Kātyāyana. About the former he states (p. 138):

To determine when ... Kātyāyana lived we depend on incidental references. On Pāṇini VI 3 21 *ṣaṣṭhyā ākrośe* “[Before the second word of a compound there is non-disappearance of] the genitive ending if [the compound] expresses an insult” Kātyāyana's vārttika 3 demands an exception — *devānāmpriya*, the title of the Maurya kings. The elliptical expression *śāka-pārthiva* ‘vegetable [eating] king,’ i.e. ‘vegetarian king’ in vārttika 8 on Pāṇini II 1 69, can hardly refer to anybody but Priyadarśin Aśoka and suggests thus a date after 250 B.C. On the other hand, Kātyāyana cannot have lived much later than that because of the large derived literature (variant readings of the vārttika-s, polemics against them, etc.) quoted by Patañjali (c. 150 B.C.) in his Mahābhāṣya.

It will be clear that these arguments primarily provide a date after which Kātyāyana must have lived. While there can be no doubt that he must have

composed his *vārttikas* before Patañjali, the distance in time which separates him from the author of the *Mahābhāṣya* can hardly be specified on the basis of the fact that variant readings of *vārttikas* and polemics against them were known to Patañjali. If we imagine that Patañjali lived in an intellectually active age, many opinions may have found expression within a short or even very short span of time. It is moreover open to question to what extent Patañjali drew upon a “derived literature” (whether oral or written); opinions may have been known to him that had not been crystallised into texts. A [50] further point to be noted is that the Mauryas were not soon forgotten. Patañjali mentions them in a passage in which he provided information about some of their activities.<sup>61</sup>

Regarding Kātyāyana's region the evidence is confusing. Scharfe observes (p. 139):

Scholars have long assumed that Kātyāyana lived in the South, i.e. the Dekkhan, because of a statement of Patañjali. At the end of his very first *vārttika* Kātyāyana offers a parallel: *yathā laukika-vaidikeṣu* “... as in secular and Vedic [affairs].” On the question why Kātyāyana did not simply say: *yathā loke vede ca* “... as in the world[ly life] and in the Veda,” Patañjali suggests a) that Southerners are overly fond of secondary suffixes or b) that perhaps there is a special meaning to the longer formulation. Patañjali's suggestion has been taken by modern scholars as a statement that Kātyāyana was a Southerner but no such statement is implied; all we may conclude is that Patañjali thought it possible that Kātyāyana was a Southerner and that this may explain the unusual formulation.

Scharfe does not deny that Kātyāyana may have been a southerner — indeed, he provides some arguments that may support this idea —, he merely states here that Patañjali's suggestion does not prove it. Scharfe does not raise the question what exactly Patañjali may have meant by the expression southerner (*dākṣiṇātya*). The expression *dākṣiṇātya* — which,

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<sup>61</sup> Falk, 1994: 325 ff.

if Vishva Bandhu's *Vedic Word Concordance* (VWC) is to be believed, is unknown to Vedic literature — is derived from the indeclinable *dakṣiṇā* by P. 4.2.98 **dakṣiṇāpaścātpurasas tyak**. The indeclinable *dakṣiṇā* is formed by P. 5.3.36 **dakṣiṇād āc**, in the interpretation of which the word *adūre* from the preceding rule 35 (which will be cancelled by *dūre* in rule 37) has to be taken into consideration. *Dakṣiṇā* therefore means “nearby towards the south”, and *dākṣiṇātya* “someone who lives nearby towards the south”. It is hard to believe that Patañjali, whose acquaintance with Pāṇini's grammar cannot be doubted, used the word in any other meaning than this. We must conclude that there can hardly be any question of situating Kātyāyana in the Dekkhan. Since we do not know where exactly Patañjali lived (he may have lived as far north as Kashmir, as maintained by Yudhiṣṭhira Mīmāṃsaka, *saṃ* 2030: I: 335), Kātyāyana may have lived almost anywhere in north-western India if we are to be [51] guided by Patañjali's expression *dākṣiṇātya*. Unlike Scharfe, I tend to think that if Patañjali thought it likely that Kātyāyana was from the near south, we have good reasons to accept that he was indeed from the near south.

Scharfe further draws attention to the fact that Kātyāyana allows negated verb forms in Sanskrit (such as *apacasi*, *akaroṣi*) and points out that negated verb forms are strange to Sanskrit and the Indo-European languages in general, but are a common feature of the Dravidian languages. This makes it likely, he thinks, that Kātyāyana did indeed live in the south. However, taken by itself this feature has little probative force. I therefore now turn to Scharfe's most definite statement:

One thing is certain: Kātyāyana neither belongs to the West nor to the North of India because of his links with the White Yajurveda which was not represented in these areas; nor was he an Easterner because in his *vārttika* 8 on Pāṇini VII 3 45, he postulates the bird name *vartaka* ‘quail’ for the ‘eastern’ dialect while he apparently used *vartika* — as does the *Vājasaneyi Saṃhitā* XXIV 30.

If Kātyāyana did not belong to the west, nor to the north or the east of India, one may be tempted to conclude that he belonged to the south. All these exclusions are based on one single argument: Kātyāyana's presumed

links with the White Yajurveda. In support of this link Scharfe refers to a short article by B. A. van Nooten called “The grammarian Kātyāyana and the White Yajurveda school” (1968). But van Nooten cites with approval Thieme's observation to the extent that the Vājasaneyi Saṃhitā, i.e. the Saṃhitā of the White Yajurveda, belongs to an eastern part of India.

A closer inspection of the evidence does not confirm Scharfe's conclusions. van Nooten's evidence for a link between Kātyāyana and the White Yajurveda is far from compelling. It is based on a Vedic quotation in the Mahābhāṣya which van Nooten assumes could have originated with Kātyāyana. The link with Kātyāyana is clearly no more than hypothetical. But the link with the White Yajurveda is no less hypothetical. The Vedic quotation concerned cannot be found in Vedic literature, and the resemblance with passages in the Śatapatha Brāhmaṇa postulated by van Nooten is not close. The closest resemblance is with a line in the Kātyāyana Śrautasūtra, but even here there are important differences. As a whole, the White Yajurveda receives little attention in the Mahābhāṣya (which includes, of course, [52] Kātyāyana's vārttikas); this is Wilhelm Rau's conclusion at the end of an exhaustive study and identification of all Vedic quotations in that text.<sup>62</sup>

There is however another factor which might be considered to plead in favour of a link between Kātyāyana and the White Yajurveda. A vārttika on P. 4.3.105 **purāṇaprokteṣu brāhmaṇakalpeṣu** shows that Kātyāyana was acquainted with what Patañjali calls *yājñavalkāni brāhmaṇāni*; it also appears that he considered these statements as having been uttered more or less at the same time as Pāṇini's Aṣṭādhyāyī. It seems likely that these *yājñavalkāni brāhmaṇāni* have to be identified with statements attributed to Yājñavalkya that have been preserved in Bṛhadāraṇyaka Upaniṣad 3-4, and therefore in a part of the Śatapatha Brāhmaṇa, the Brāhmaṇa of the White Yajurveda.<sup>63</sup> [53] This part of the

<sup>62</sup> Rau, 1985: 103: “Dem Weissen Yajurveda wird verhältnismässig geringe Beachtung zuteil.”

<sup>63</sup> Horsch, 1966: 391 ff. Slaje (forthcoming), referring to earlier authors, argues that the word *brāhmaṇa* here refers to single formulations rather than to whole texts. In support of this he cites a passage from Renou (1948: 75 [885]) which he seems to have misunderstood. Renou does indeed say that in his opinion the expression *yājñavalkāni brāhmaṇāni* is not likely to refer to the Yājñavalkya-kāṇḍa of the Bṛhadāraṇyaka Upaniṣad (3-4), this because it concerns “les traités

Śatapatha Brāhmaṇa is associated with the more eastern region of northern India: The court of king Janaka, closely linked to the Upaniṣadic Yājñavalkya, was situated in Videha. Kātyāyana's acquaintance with these relatively new texts support the idea that he may have had special links with the White Yajurveda, or with that region of the subcontinent.

Scharfe accepts the position — first formulated by Max Müller (1860: 138) and Theodor Goldstücker (1861/1965: 204 ff.), and subsequently defended by Paul Thieme (1935: 96 ff.; 1937; 1958: 41 (749) ff.) and taken over by Louis Renou (1938: 173 ff.) — according to which Kātyāyana the Vārttikakāra and Kātyāyana the author of the Vājasaneyi Prātiśākhya of the White Yajurveda are one and the same person. This, if

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de Brāhmaṇa et de Kalpa', non des chapitres d'Upaniṣad". According to Renou, the expression refers to "sinon le Brāhmaṇa entier, du moins les portions non-śāṅḍilya". That is to say, Renou does *not* here understand the word *brāhmaṇa* to mean 'direct authoritative instruction', 'instructional formulation'.

It may here be useful to cite from an article by Harry Falk (1988: 226): "[D]as Wort *upaniṣad* im Sinne von '(oral fixiertem) Text über ein letztes, bewirkendes Prinzip' [ist] sehr jung ... . Upaniṣaden als Textgattung werden auch schon deshalb nicht namentlich zu erwarten sein, weil jeder Brahmane, der eine oder zwei davon auswendig lernen durfte, diese dem Begriff *veda*, genauer noch dem Begriff *brāhmaṇa* zugeordnet hätte. Denn, wie das Pratiñāsūtra (1,2) der Vājasaneyins sagt: *mantrabrāhmaṇayor vedanāmadheyam*, das heisst, man versteht unter *veda* die alten Verse und ein dazugehöriges Brāhmaṇa."

Referring to an article by Michael Witzel that has not yet appeared in print, Slaje also argues that Kātyāyana cannot refer to the Yājñavalkya-kāṇḍa of the Brhadāranyaka Upaniṣad, because the redaction of this Upaniṣad took place after Kātyāyana (cp. Witzel, 1987a: 399 n. 76: "The final compilation of [the Śatapatha Brāhmaṇa], made up of several independent portions, is probably a comparatively late one; yet the compiler was able still to put cross-references into the Vedic text: ... : the compiler still knew Vedic well enough to produce ... sentences referring forwards and backwards in the text. On the other hand: the compiler was different from the (much later) redactor who seems to have lived many generations after Yājñavalkya, even according to the various Vamśas found in [the Śatapatha Brāhmaṇa] and [the Brhadāranyaka Upaniṣad]. I suspect that he was a contemporary of the Kāṇva dynasty of the Sātavāhana dynasty. ... . It is only the redactor that was responsible for glorification of Yājñavalkya and for his authorship of the White [Yajurveda]; note that this information is added as the very last words of [the Śatapatha Brāhmaṇa] ...; note that the redactor already describes Janaka as presenting *land* to Yājñavalkya ... . Yet even the Satakarni inscription, 2nd cent. A.D., ... still mentions only presents of cows given as *dakṣiṇā* to Brahmins, and not a donation of land ... ."). However, given the fact that the final redaction presupposes an existing text, little can be concluded from the fact that the final redaction of the Upaniṣad had not yet taken place at a certain time.

Some pages later Slaje states: "there is a direct line from Yājñavalkya **Vājasaneyi**, the probable redactor and most prominent figure of the corpus of White Yajurveda texts including the [Brhadāranyaka Upaniṣad], to some key-figures in the early Mimāṃsā as were Jaimini and Kātyāyana. So it will not really come as a surprise that the **Vājasaneyin** Kātyāyana expressly referred to formulations (*brāhmaṇas*) of Yājñavalkya ..." (Slaje's emphasis). Must we conclude that the redaction of the Brhadāranyaka Upaniṣad had after all been completed before Kātyāyana?

true, might confirm the former's links with the White Yajurveda. I am not sure, however, whether and to what extent we can derive certain knowledge about Kātyāyana's whereabouts from this fact, if it is one.

We know more nowadays about the regional links of the White Yajurveda than at the time Scharfe wrote the above passage. Since the Vājasaneyi Saṃhitā may have been extracted from the Śatapatha Brāhmaṇa, we can concentrate on the latter. While books 1-5 of the Śatapatha Brāhmaṇa (Mādhyandina) are acquainted with more eastern regions, books 6-10 had their origin in a north-western location. Books 11-14 frequently mention not only eastern areas (Kosala, Videha) but also more western ones; the final collection and edition of this text portion was made in the east.<sup>64</sup> Subsequently the Mādhyandina school may have moved from the Prayāga-Kāśī area towards the west, and have reached Gujarat at an early point of time, in any case before 650 C.E. Since [54] the middle ages the Vājasaneyas have occupied all of northern India.<sup>65</sup>

Taking into consideration all these points, it will be clear that the question of Kātyāyana's region remains complex. On the one hand he lived near Patañjali's region but more to the south. On the other there are some reasons to think that he may have had special links with the White Yajurveda, whose centre was situated more towards the east. No certain conclusion seems possible.

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<sup>64</sup> Witzel, 1987: 197 ff.; cp. Mylius, 1965; 1972.

<sup>65</sup> Witzel, 1987: 201; 1985.

[55]

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Abbreviations:

BEPHE	Bulletin de l'École Pratique des Hautes Études, Paris
Mahā-bh	Patañjali, (Vyākaraṇa-)Mahābhāṣya, ed. F. Kielhorn, Bombay 1880-1885
P.	Pāṇinian sūtra
Renou, Term. gramm.	Louis Renou, Terminologie grammaticale du sanskrit, 3 vol. (BEPHE 280-282), Paris: Champion. Reprint in one volume, Paris: Champion, 1957

vt.

vārttika

VWC

A Vedic Word Concordance, by Vishva Bandhu, 5  
vols., Hoshiarpur: V.V.R. Institute, 1955-1965