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A NEW PERSPECTIVE ON PĀṆINI

Pāṇini Studies

Indian tradition and modern scholarship[1] alike usually consider Pāṇini's grammar an almost automatic device to create correct Sanskrit sentences – its definitions and meta-rules (*paribhāṣā*-s) steer the strings of operational rules in the build-up of forms. The definitions and some of the meta-rules are given in Pāṇini's grammar; other meta-rules have been established by a careful study of Pāṇini's formulations, by consid-

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1. S.D.Joshi and J.A.F.Roodbergen, *Patañjali's Vyākaraṇa-Mahābhāṣya, Bahuvrīhidvandvāhnika*, Poona 1974, p.ii: "In its derivational aspect Pāṇini's grammar works much like the machine mentioned by N.Chomsky in *Syntactic Structures*" and *Patañjali's Mahābhāṣya, Kārakāhnika*, Poona 1975, p.xvii "...both grammars, the *Aṣṭādhyāyī* and *Cāndravyākaraṇa*, being of a generative type, work like a machine. They work like a programmed machine designed to produce all correct Skt words. The words are produced in steps, each step corresponding to a particular state of the machine. In order to move from its initial state to the final state, the machine needs instructions, that is, symbols stating operational conditions. It is clear that these symbols should be sufficiently explicit to allow the machine to work mechanically." Paul Thieme, *StII* 8/9 (1982/83), p.15 (*Kl.Schr*. vol.II, p.1182) was less emphatic: "It is not the description of the Sanskrit language, but a description of the regular word formation of Sanskrit… It is throughout mechanistic…" Note the different opinion of P.S.Subrahmaniam, *Pa:ṇini's Aṣṭa:dhya:yi:*, Pune 1992, p.23 who denied that Pāṇini's grammar was intended as "a machine that automatically produces Sanskrit sentences." Rules like *anyebhyo 'pi dṛśyate* (III 3 130), *itarābhyo 'pi dṛśyante* (V 3 14), *anyeṣām api dṛśyate* (VI 3 137), gathered by G.Cardona in *Jambū-jyoti* (Fs. Munivara Jambūvijaya, Ahmedabad 2004, pp.91-107) show an observing rather than generative attitude: "Suffix X is seen also in others" etc., referring both to Vedic and non-Vedic usage.

erations of accepted logical principles, and by the knowledge of the cor-
rect Sanskrit forms. Nothing can be meaningless in this great work of
Pāṇini's, his followers declared, and the way in which he has formulat-
ed his rules can therefore give us indications as to his thinking. These
meta-rules (together with the definitions and meta-rules given in the
body of the grammar itself), once discovered, can guide the user secure-
ly in his application of the grammar, and lead him to the correct forms.
Questioned why Pāṇini did not give all these meta-rules in the body of
the grammar, the traditional scholar would reply that some of the meta-
rules are so common-place that they needed no formal declaration, that
they were taught by Pāṇini's predecessors and hence were well known,
and that yet others might have been taught by Pāṇini in his oral expla-
nation. These meta-rules – more than a hundred – not taught in the
grammar itself, have been collected in special collections by Indian
scholars of grammar – from the Paribhāṣā-vṛtti ascribed to Vyāḍi to
Sīradeva's Paribhāṣā-vṛtti and Nāgojībhaṭṭa's Paribhāṣêndu-śekhara.[2]

A major concern of these meta-rules is the sequence in which the
operational rules of Pāṇini's grammar are to be applied, and in case of
a conflict, which of them takes precedence. The operational rules
have, by traditional scholars, been placed in five categories of increas-
ing force: the preceding rule, the following rule, a *nitya* rule, an
antaraṅga rule, and an exception (*apavāda*), e.g. in Nāgojībhaṭṭa's
paribhāṣā 38.[3] The first category (a following rule prevails over a pre-
ceding rule) is based on Pāṇini's rule I 4 2 *vipratiṣedhe paraṃ kāryam*
"In case of a conflict, the latter is to be done." A rule is *nitya* if it ap-
plies whether the competing rule is applied or not, but removes the
base for the application of the other rule ("bleeds" the other rule in

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2. In K.C.Chatterji's edition of Candragomin's grammar an Appendix (part II,
Poona 1961, pp.396-398) contains a similar list of 86 meta-rules. Harṣanāth Miśra (*A
critical Study of Chandra Vyakaran Vritti*, New Delhi 1974), pp.165-173 was inclined
to accept them as authentic, since they match the peculiarities of Candragomin's
grammar. Other collections of *paribhāṣā*-s are mentioned by K.V.Abhyankar in his
Introduction to the second edition of Kielhorn's edition and translation of the
Paribhāṣenduśekhara, part I, Poona 1962, pp.4-8 and his Preface to part II, Poona
1960, p.4 (all numbers of *paribhāṣā*-s refer to this edition).

3. *pūrva-para-nityântaraṅgâpavādānām uttarôttaram balīyaḥ* "Of a preceding,
subsequent, constant, interior and exception [rule] each following [rule] possesses
greater force."

modern parlance). An *antaraṅga* rule is triggered by a cause within a stem as opposed to a *bahiraṅga* rule whose cause lies outside this stem. The relative force of *nitya* and *antaraṅga* rules is deducted from the observation of Pāṇini's rules and the knowledge of the correct Sanskrit forms. The dominance of the exception or special rule (*apavāda*) over a general command (*utsarga*) is based on logical principle. Occasionally Patañjali made a distinction between *apavāda* (special rule) and *anavakāśatva* (inability to apply otherwise).[4] He gave an example for the former: "Curds shall be given to the Brahmins, buttermilk to Kauṇḍinya [who is also a Brahmin] – even if it is possible [that curds are given also to Kauṇḍinya], the giving of buttermilk turns off the giving of curds"[5] and the latter: "Let the brahmins eat (but) let Māṭhara and Kauṇḍinya serve (food); thus they both don't eat now."[6] Kauṇḍinya and Māṭhara are both brahmins themselves; in the former example Kauṇḍinya could conceivably receive curds as well (though that is not intended), in the latter Kauṇḍinya and Māṭhara are excluded from eating – but only for the time being. Kātyāyana[7] twice declared that a rule was an *apavāda*, because it is *anavakāśa*, "[b]ut it is not clear why he [i.e. Patañjali. H.S.] uses the term *anavakāśa* wherever Kātyāyana says *apavāda*."[8] Later commentators often used the terms *apavāda* and *anavakāśatva* or *niravakāśatva* synonymously as indeed in grammar the exception always is meant to supersede the general command.[9]

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4. Bhagyalata Pataskar, *Nagoya Studies in Indian Culture and Buddhism: Saṃbhāṣā* 12 (1991), pp.1-8.

5. Mahābhāṣya I p.115,2f. *dadhi brāhmaṇebhyo dīyatāṃ takraṃ Kauṇḍinyāyêti saty api saṃbhave dadhi-dānasya takra-dānaṃ nivartakaṃ bhavati*; also III 6,23-25 and III 315,9-13.

6. Mahābhāṣya I 28,14f. *brāhmaṇā bhojyantāṃ Māṭhara-Kauṇḍinyau pariveviṣṭām, iti nêdānīṃ tau bhuñjāte*.

7. Mahābhāṣya II 53,10 *na vā kṣasyânavakāśatvād apavādo guṇasya*; cf. II 326,18 *na vânavakāśatvād apavādo mayaṭ*.

8. Bhagyalata Pataskar, *Nagoya Studies* 12 (1991), p.2.

9. George Cardona, *JIPh* 1 (1970), p.67 fn.18; S.D.Joshi, in *Essays on Pāṇini*, ed. D.D.Mahulkar, p.52. Kātyāyana and Patañjali differed on the conditions where *apavāda*-s prevail: Joshi/Roodbergen, *Patañjali's Mahābhāṣya, Anabhihitāhnika on II 3 1*, translation and notes, p.15; cf. below pp.14-16. Cf. Nāgojībhaṭṭa on *paribhāṣā* 57 and K.V.Abhyankar's introduction to the second edition of Kielhorn's edition and translation of the Paribhāṣenduśekhara, part I, p.30.

But there are many difficulties and contradictions involved in the application of these meta-rules. One of the most important (*asiddhaṃ bahiraṅgam antaraṅge* "What is outside a stem is [regarded as] non-effected in regard to [an operation] inside a stem")[10] has so may exceptions that six supplementary meta-rules[11] had to be formulated to account for them – and in the end tradition had to admit that those meta-rules that are inferred by studying Pāṇini's formulations (i.e., by the so-called *jñāpaka*-s) are not always valid.[12] Similarly the value of the *nitya*-prevalence is severely put in question, when several *paribhāṣā*-s are required to let us know when a procedure that should be *nitya* by the given definition is not[13] – or is *nitya* in spite of an obstacle. Even the first pairing that lets the later (*para*) rule prevail over the former (*pūrva*) – supposedly stated by Pāṇini himself in I 4 2 – has almost as many counterexamples as examples; Kātyāyana and the Ślokavārttikakāra listed twenty-seven instances where the former rule instead seems to prevail over the later one (the so-called *pūrva-vipratiṣedha*). This circumstance forced Patañjali in the end to claim that *para* here does not mean "following" but "desired"[14] in a blatant appeal to the

10. Nr. 50 in Nāgojībhaṭṭa's Paribhāṣenduśekhara.

11. *Ibid.*, *paribhāṣā-s* 51-56.

12. *Ibid.*, *paribhāṣā* 116 *jñāpaka-siddhaṃ na sarvatra* "What is established by a *jñāpaka* is not universally [valid]." *jñāpaka*-s are peculiarities in the formulation of Pāṇini's rules that make sense only – and are necessary – if a certain meta-rule is accepted as valid. Nāgojībhaṭṭa recognized only meta-rules that were based either on general principles (*nyāya*) or *jñāpaka*-s – provided they are accepted in the vārttikas or the Mahābhāṣya: Paribhāṣenduśekhara ed. [F.Kielhorn and] K.V.Abhyankar, part I, Poona 1962, p.1 (*jñāpaka-nyāya-siddhāni bhāṣya-vārttikayor nibaddhāni*). Nāgojībhaṭṭa has in many instances not followed his own definition: *paribhāṣā* 95 is neither based on a general principle nor on a *jñāpaka*, but is an independent statement of Patañjali's; *paribhāṣā* 98 is based on a general principle but not taught in the Mahābhāṣya, and *paribhāṣā* 44 is based on a *jñāpaka* but not found in the Mahābhāṣya; cf. F.Kielhorn, Preface to his edition and translation of the Paribhāṣenduśekhara, 2nd ed, vol.II, Poona 1960, pp. i and xii-xxii.

13. *Ibid.*, *paribhāṣā-s* 43-49. H.E.Buiskool, *Pūrvatrāsiddham*, p.65 and 74 observed that no rule of the Aṣṭādhyāyī points in its formulation to the existence the *nitya-paribhāṣā*.

14. Mahābhāṣya I 306,9f. *tad ya iṣṭa-vācī para-śabdas tasyêdaṃ grahaṇam. vipratiṣedhe paraṃ yad iṣṭaṃ tad bhavati.* This interpretation was accepted by H.E.Buiskool, *Pūrvatrāsiddham*, Amsterdam 1934, pp.74-76. J.Bronkhorst, *From Pāṇini to Patañjali: the Search for Linearity*, Pune 2004, p.33 assumed that Patañjali referred to forms "desired [by Pāṇini]" – for which the traditional interpretation (embodied in Patañjali's Mahābhāṣya) would be the authority; this assumption does not remove the arbitrariness.

user's knowledge of the desired form, making the rule useless.[15] Faddegon[16] was the first to claim that Pāṇini's rule I 4 2 *vipratiṣedhe paraṃ kāryam* was originally valid only in the *eka-saṃjñā* section of the Aṣṭādhyāyī (I 4 1 up to *kaḍāra*). There was no further impact of Faddegon's observation for many years.[17] In my 1956 Berlin dissertation[18] I made the same proposal and so did Betty Shefts independently in her 1955 Yale dissertation, both published in the same year.[19] Though we were both, at different times, students of Paul Thieme, I don't recall hearing the suggestion from him during my student years with him; the rediscovery apparently was made independently. But Paul Thieme laid the foundation for the rediscovery, when he stressed his utmost respect for the traditional scholars with their phenomenal command of the material and their incisive reasoning, while pointing out that there was no continuing tradition going back to Pāṇini himself. We should accept their statements based of the strength of their reasoning, not on their say-so. Only during the proofreading of my thesis I discovered Faddegon's earlier observation and referred to it in a footnote.[20] The next reference was to my thesis,[21] but soon Cardona only referred only to his own papers and was in turn quoted by others as their source. The restricted view of I 4 2 has now been widely accepted, but some authors have been non-committal (S.M.Katre,[22]

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15. Though Patañjali invoked the doctrine thirteen times, he actually relied on the device only six times and found other ruses to achieve the desired result for the remaining thirty-three instances of *pūrva-vipratiṣedha* suggested by Kātyāyana and the Ślokavārttikakāra (Joshi/Roodbergen, *Pāṇini* vol.IV pp.21-28); cf. also the discussion by Robert Birwé, *Studien zu Adhyāya III der Aṣṭādhyāyī Pāṇinis*, Wiesbaden 1966, pp.52-63.

16. Barend Faddegon, *Studies on Pāṇini's Grammar*, Verhandeling der Koninglijke Akademie van Wetenschappen te Amsterdam, Amsterdam 1936, pp.26f.

17. Faddegon's student H.E.Buiskool made no reference to his teacher's idea in his Amsterdam doctoral thesis of 1934 (*Pūrvatrāsiddham*, Amsterdam 1934) or in the English version of it published in Leiden 1939 under the title *The Tripādī*, though he listed Faddegon's publication of 1936 in the bibliography of *The Tripādī*.

18. *Die Logik im Mahābhāṣya*, Berlin 1961. The publication of it was delayed until 1961 because of my departure from the former East Germany in 1959.

19. B.Shefts, *Grammatical Method in Pāṇini: His Treatment of Sanskrit Present Stems*, New Haven 1961, pp.28f. fn.33.

20. B.Shefts did not refer to Faddegon's work.

21. G.Cardona, *JIPh* 1 (1970), pp.40f.

22. *Aṣṭādhyāyī of Pāṇini*, trans. Sumitra M.Katre, Austin 1987, p.77 (on I 4 2).

R.N.Sharma[23]) or have taken a negative attitude (Robert Birwé,[24] Frits Staal,[25] J.D.Singh[26]). Joshi/Roodbergen accepted the restricted view of I 4 2, but thought that the extended use fits in the majority of applications not too badly.[27]

In my thesis[28] I had suggested that there was no general principle in Pāṇini's grammar (such as I 4 2 in the traditional interpretation) that guided the user of the grammar in their application of all the rules; the user was familiar with the Sanskrit language and was guided by this knowledge – in the words of Herman E.Buiskool: "In thus being led by his acquaintance with the resulting forms, the reader is naturally by no means prevented from acting as the intricate system of *paribhāṣā*-s, among which the prevalence-*paribhāṣā*-s are the most important, may suggest him to."[29] Patañjali at times relied on known usage, as when he referred to the actual use of forms like *nibṛhyate* and *nibarhitum* (from the root √*bṛh*) where the internal nasal should not be dropped according to rules, and *bṛṃhayati* where it is retained, against expectations. Patañjali referred to these forms, saying that here "deletion" (*lopa*) of the nasal "is seen" (*dṛśyate*) in the case of the first two words, and "is not seen" (*na dṛśyate*) in the third.[30] In the discussion of open or closed a-vowels (closed /a/, but open /ā/ and /ā3/) Patañjali relied on usage: "Neither in the word[ly use] nor in the Veda is there an open (short) ă-sound. – What then? – A closed one. – That which exists, shall be [in the application of rules]"[31] and "Neither in the word[ly use] nor in the Veda are there closed long or extended [ā-sounds and ā3-sounds]. – What then? – Open ones. – Those that exist,

23. Rama Nath Sharma, *The Aṣṭādhyāyī of Pāṇini*, vol.II, New Delhi 1990, p.208 (on I 4 2).

24. Robert Birwé, *Studien*, 1966, pp.51-63.

25. Johan Frederik Staal in *Studies in the History of Linguistics*, ed. Dell Hymes, Bloomington 1974, p. 68.

26. J.D.Singh in *Charudeva Shastri Felicitation Volume*, ed. Satyavrat Shastri et al., Delhi 1974 pp.282f.

27. S.D.Joshi and J.A.F.Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.IV, pp. 7,16-20, and 28.

28. H.Scharfe, *Die Logik*, pp.50f.

29. H.E.Buiskool, *The Tripādī*, p.40.

30. Mahābhāṣya I 52,12-14.

31. Mahābhāṣya I 15,14f. *naîva loke na ca vede 'kāro vivṛto 'sti. kas tarhi? saṃvṛtaḥ. yo 'sti sa bhaviṣyati.*

shall be [in the application of rules]."[32] Kātyāyana in his vārttika 5 on II 1 36 had raised the question of the gender in adjectival compounds in expressions like *brāhmaṇârthaṃ payaḥ*, *brāhmaṇârthaḥ sūpaḥ* or *brāhmaṇârthā yavāgūḥ* "milk/soup/rice-gruel for the brahmins," to which Patañjali replied: "Injunction of gender (for the adjectival compound) is unnecessary as it follows the world."[33] On another occasion, Patañjali relied on the "usage of the learned" (*śiṣṭa-prayoga*) to avoid non-standard (colloquial, Prakrit influenced) forms like *āṇapayati*.[34]

My remark came in for some criticism by G.Cardona[35] who asked "whether, in extending the scope of I.4.2, commentators and interpreters of Pāṇini simply misused a rule or, on the contrary, extended certain principles justified by other aspects of Pāṇini's grammar." In the following pages Cardona elaborated several such principles that, in his opinion, provide an equally potent alternative guide. Even if Cardona should be correct, the extended use of I 4 1 would still be a misuse if measured against the author's intentions as well as philological principle. "They extended the principle of *paratva* to operation rules proper,"[36] i.e., beyond the definition rules for which it was formulated.

Cardona's solution consists essentially in lopping off the beginning of *paribhāṣā* 38 and relying only on *nitya*, *antaraṅga*, and *apavāda*. The principle of *apavāda* is natural in a description like Pāṇini's that is based on complement of the general (*sāmānya*) and the particular (*viśeṣa*), formulated as *utsarga* "general rule" and *apavāda* "particular/excepting rule." The general rule that root final /h/ is replaced by /ḍh/ before certain consonants is set aside for roots beginning with /d/ where it is replaced by /gh/; thus we obtain *līḍha* from √*lih*, but *dugdha* from √*duh* (VIII 2 31f.). The *nitya/anitya* principle[37]

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32. Mahābhāṣya I 16,8f. *naîva loke na ca vede dīrgha-plutau saṃvṛtau staḥ. kau tarhi? vivṛtau. yau stas tau bhaviṣyataḥ.*

33. Mahābhāṣya I 390,18f. *liṅgam aśiṣyaṃ lokâśrayatvāl liṅgasya.* In the first example, the words are neuter, in the second masculine, and in the third feminine.

34. Mahābhāṣya I 259,12f. *śiṣṭa-prayogād āṇapayaty-ādīnāṃ nivṛttir bhaviṣyati.*

35. G.Cardona, *JIPh* 1 (1970), p.41 and *Pāṇini. A Survey of Research*, The Hague 1976, p.191 (also Birwé, *Studien zu Adhyāya III der Aṣṭādhyāyī Pāṇinis*, pp.60f.).

36. G.Cardona, *JIPh* 1 (1970), p.48.

37. The first reference to it is found in the vārttikas of Kātyāyana, e.g. I 1 56 vārtt.12 (Mahābhāṣya I 137,3), I 3 60 vārtt. 4 (Mahābhāṣya I 286,9f.).

is derived from observation of Pāṇini's procedure: after the personal
ending *-ti* is attached to the root √*tud* (**tud-ti*), two operations could
apply, namely the addition of the stem-forming affix *-a-* (by III 1 77)
or *guṇa*-replacement for the penultimate sound (by VII 3 86). If the
latter is applied first (> **tod-ti*), the stem-forming affix *-a-* could still
be attached, resulting in a wrong form **tod-a-ti*; but if the former is
applied first (> *tud-a-ti*), VII 3 86 cannot be applied, since /u/ is no
longer the penultimate sound before *-ti*. Thus the rule III 1 77 is *nitya*,
prevailing over VII 3 86 and resulting in the correct form *tudati*.[38]

 The *antaraṅga/bahiraṅga* principle again is derived from obser-
vation of Pāṇini's procedure and appears in two forms: between words
and word-internally. In a sequence **a-yaja-i Indra-am* the internal
phonemic rules must be applied first, resulting in **ayaje Indram*, and
only then the external phonemic rules, giving the correct form *ayaja
Indram* "I worshipped Indra."[39] In the build-up of the instrumental
singular feminine *paṭvyā* from **paṭu-ī-ā* by the *nitya* principle the re-
placement *ī>y* before a vowel must precede the replacement *u>v* be-
fore a vowel, because it will take place whether /v/ replaces /u/ or not.
This would result in the incorrect form **paṭuyā*,[40] which can be avoid-
ed by recourse to rule I 1 57[41]: this rule retains for the replacement of
a vowel (caused by a following element) its original quality as far as a
preceding sound is concerned. But the correct form could also be at-
tained by recourse to the *antaraṅga* principle: in the build-up of
((*paṭu*)*ī*)*ā* the process "*u>v* before *ī*" is closer to the stem than the
process "*ī>y* before *ā*." In other words, the cause /ī/ for the former
process is inside the stem compared to the cause /ā/ for *ī>y* (which is

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38. Nāgojībhaṭṭa, Paribhāṣenduśekhara on *paribhāṣā* 42; cf. Kielhorn's trans.
p.211 fn.1.

39. Mahābhāṣya I 307,9-21; Cardona, *JIPh* 1 (1970), p.52. If the external sandhi
would be applied first, **a-yaja-i Indra-am* would wrongly result in **ayajêndram*.

40. Gāthā Avestan fem. instr. sg. *vaŋhuyā*, though strikingly similar (J.Schmidt,
Die Pluralbildungen der indogermanischen Neutra, Weimar 1889, p.212f. fn.1; J.
Wackernagel, *Altindische Grammatik*, vol.III pp.169f.) may actually be bi-syllabic
with the letter *u* merely indicating a shading of the consonant cluster: Robert S. P.
Beekes, *A Grammar of Gatha-Avestan*, Leiden 1988, p.20.

41. I 1 57 [56 *sthānivad ādeśo*] *acaḥ parasmin pūrva-vidhau* "A [vowel replace-
ment] conditioned by the following element [is treated like the original vowel] with
respect to an operation on what precedes it."

added only later). That, according to Patañjali[42] and Cardona, is the only possible procedure for the formation of the feminine instrumental singular *kartryā́*) with accent on the final syllable. If, on the other hand, in a sequence **kartŕ̥-ī-ā* the *nitya* rule *ī>y* were applied first (**kartŕ̥-yā*) and *r̥>r* second, the desired accent on the final vowel will not result. But if in **((kartŕ̥)ī)ā* the *antaraṅga* substitution *r̥>r* is effected first, the accent will shift from the vocalic *r̥* to the following *ī* (**kartrī́-ā*) and by the following replacement *ī>y* to the final *ā* (*kartryā́*) in accordance with VI 1 174[43] which rules that the endings are accented if the accented final vowel of a stem has been replaced by a semivowel and is preceded by a consonant. Patañjali, though, left himself another way out of the dilemma: by *paribhāṣā* 79 a consonant is discounted when it comes to an accent rule.[44] One may doubt that Pāṇini had this example in mind. The attestation of forms like *kartryā́* in accented texts is extremely rare and ambiguous,[45] and pitch accents as a feature of the spoken language had probably long since faded away in Patañjali's time, making him a witness of doubtful value.

The principle of the *antaraṅga-paribhāṣā* can be defended on linguistic grounds as "immediate constituent analysis" (R.Wells[46]). Cardona formulated his vision of Pāṇini's procedure thus: "After affixes are introduced which will condition operations, one works outwardly from the innermost brackets; all operations conditioned by these affixes which can obtain are then put in effect; once one has worked to the outermost brackets, one does not return to the interior unless an exterior operation has supplied the conditions for an interior

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42. Mahābhāṣya I 145,8.

43. VI 1174 [159 *udāttaḥ* 173 *nady-ajādī*] *udātta-yaṇo hal-pūrvat* "[The feminine suffix -*ī* and case suffixes beginning with a vowel are accented] after a semivowel replacing an accented vowel that is preceded by a consonant."

44. Mahābhāṣya I 145,20f. *svara-vidhau vyañjanam avidyamānavad bhavati* "In [respect to] a rule which is given with reference to an accent, a consonant is regarded as not existing"; cf. also Mahābhāṣya I 206,21f.: consonants are perceived as having accents by their proximity to the vowels which are the real carriers of the accent.

45. J.Wackernagel und A.Debrunner, *Altindische Grammatik*, vol. III, pp.165-173.

46. Rulon S.Wells, *Language* 23 (1947), pp.81-117.

operation."[47] Or, as P.Kiparsky[48] put it: "The first new point is that Pāṇini *should* have adopted a form of the *antaraṅga*-principle, i.e. word-internal cyclicity, for it is in fact rather well motivated by phonology/morphology interactions in Sanskrit. The second new point is that Pāṇini *could* not have done for reasons internal to his system." Even after accepting the reduced the role of the *para-vipratiṣedha*-rule in Pāṇini's grammar, Cardona still accepted the awkwardness of the *antaraṅga*, *nitya* and *apavāda* metarules with their numerous by-laws, sounding like an astronomer defending Ptolemaios' cycles and epicycles (whose number had reached 79 by the sixteenth century)[49] even after Copernicus had published his *De Revolutionibus Orbium Coelestium* in 1543.[50]

The difficulties with the *antaraṅga-paribhāṣā* in Nāgojībhaṭṭa's Paribhāṣenduśekhara have been expounded by J.Bronkhorst[51] who differentiated subclasses of this *paribhāṣā*. In recent publications S.D.Joshi and P.Kiparsky[52] have limited the range of the *antaraṅga-paribhāṣā* to a "word integrity rule" that puts word-internal processes ahead of interactions between words. At the same time, they expanded the *nitya/anitya* principle to the *siddha/asiddha* principle which has the advantage that at least *asiddha* is a term used by Pāṇini himself - *nitya/anitya*, *antaraṅga/bahiraṅga* and *utsarga/apavāda* are not.[53] Joshi and Kiparsky formulated the rule as *sarvatra siddham*[54] or *sar-*

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47. G.Cardona, *JIPh* 1 (1970), p.55.

48. P.Kiparsky, *On the Architecture of Pāṇini's Grammar*, pp.53f.

49. *The Columbia History of the World*, ed. John A.Garraty and Peter Gay, New York, 8th printing 1987, p.685.

50. Tycho Brahe, the great Danish astronomer, offers a striking parallel. He accepted Copernicus' view that the movements of the planets circled around the sun, but stuck to the traditional geocentric view: the sun, together with the planets and the firmament rotated around the earth (Thomas S.Kuhn, *The Copernican Revolution*, Cambridge/Mass. 1957 repr. 1985, pp.200-209).

51. J.Bronkhorst, *Tradition and Argument in Classical Indian Linguistics*, Dordrecht 1986.

52. S.D.Joshi and P.Kiparsky in *Current Approaches to Phonological Theory*, ed. Daniel A. Dinnsen, Bloomington 1979, pp.223-250.

53. They are first attested in Kātyāyana's vārttikas: *nitya* in III 454,20, *nityatva* in I 286,9; *antaraṅga/bahiraṅga* in III 84,4f.; *utsarga/apavāda* in II 11,15.

54. In: *Current Approaches*, p.228. They were anticipated by H.E.Buiskool, *Pūrvatrāsiddham*, who (on p.26) referred to the rules VI 1 1 up to VIII 1 with *sarvatra siddham* and declared (on p.128) "Afgezien van VI **4** 22 en gedeeltelijk van VI **1**

vatra siddhavat[55] which is neither contained in the Aṣṭādhyāyī nor formulated as a general doctrine in the Mahābhāṣya but takes its inspiration from expressions like *sarvatra siddham*, referring to the correct operation of individual rules, in the Mahābhāṣya.[56] With the exception of four sections where the *siddha*-principle is expressly negated[57] (I 1 56 *sthānivad ādeśo 'nal-vidhau*, VI 1 86 *ṣatva-tuk.or asiddhaḥ*, VI 4 22 *asiddhavad atrâbhāt*, and VIII 2 1 *pūrvatrâsiddham*) all rules apply to each other. The *para-vipratiṣedha*-rule applies only in the *eka-saṃjñā*-section which usually is taken to extend to II 2 38, but which S.D.Joshi and J.A.F.Roodbergen recently[58] redefined as the section I 4 1 to II 1 3, i.e. virtually only the fourth pāda of Adhyāya I. Joshi and Kiparsky made frequent use of the *utsarga/apavāda* principle.[59]

The Joshi-Kiparsky scheme is obviously an improvement over the traditional hierarchy (*pūrva-para-nitya-antaraṅga-apavāda*) and Cardona's attempt (*nitya-antaraṅga-apavāda*). It restricts the *pūrva-para* principle to the *eka-saṃjñā* section and avoids the terms *nitya* and *antaraṅga* for which there is no indication in the Aṣṭādhyāyī. Instead it relies on the concept of *siddha* which – while not explicit in the Aṣṭādhyāyī – is plausibly implied in the concept of *asiddha*. When Pāṇini said in VI 1 86 and VIII 2 1 that some rules are *asiddha* (or *asiddhavat* in VI 4 22) in a certain sphere, it probably indicates that

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86 is een *sūtra* **steeds** *siddha* ten opzichte van een ander, wanneer beide *sūtra's* in I–VIII **1** voorkommen" (With the exception of VI 1 22 and partially VI 1 86 a *sūtra* is always *siddha* with respect to another, if both *sūtra*-s occur in I–VIII 1). Patañjali's … *sarvatra siddhaṃ bhavati* Mahābhāṣya I 330,16f.) refers only to the definition of *saṃpradāna* in I 4 32.

55. Kiparsky, *On the Architecture of Pāṇini's Grammar*, p.13.

56. Mahābhāṣya I 121,8 and 330,16.

57. On these exceptions see below pp.54-64. There are also rules that block an otherwise applicable rule in certain situations, as VI 1 37 *na saṃprasāraṇe saṃprasāraṇam* "There is no vowel replacement for a semivowel before such a vowel replacement."

58. S.D.Joshi and J.A.F.Roodbergen in *Indian Linguistic Studies* (Fs. Cardona), Delhi 2002, pp.112-120. It seems odd, that the reference would be to *kaḍāra* in II 1 3, which is itself only a reference to *kaḍāra* in II 2 38; but if one accepts with the authors that the *samāsa* section (II 1 3 - II 2 37) is an insertion (by Pāṇini himself?), the original reference could still have been to II 2 38 and was reconfigured as a reference to II 1 3, after the insertion was made.

59. E.g., S.D.Joshi, in *Essays on Pāṇini*, ed. D.D.Mahulkar, Simla 1998, pp.50-56; Paul Kiparski, *On the Architecture of Pāṇini's Grammar*, pp.8-12.

rules are *siddha* elsewhere, or as Joshi and Kiparsky put it, *sarvatra siddham* or *sarvatra siddhavat*. It is less certain what we are to understand from this term. It is suggested that the *siddha*-principle is similar to the *nitya*-principle, or, in other words, "environment-changing rules apply first."[60] Kātyāyana[61] defined *asiddha* as *ādeśa-lakṣaṇa-pratiṣedhârtham* and *utsarga-lakṣaṇa-bhāvârtham* "blocking the substitution rule and asserting the basic/original rule" and Kiparsky said: "Or, to use terms common in linguistics, *asiddhatva* blocks *bleeding* and *feeding* between rules."[62] To define *siddha*, Kiparsky turned Kātyāyana's definition of *asiddha* around; *ādeśa-lakṣaṇa-bhāva* and *utsarga-lakṣaṇa-pratiṣedha* "assertion of the substitution rules and blocking of the basic/original rule." Kiparsky said: "In almost any derivation, the application of one rule creates scope for another rule to apply, that rule applies creating scope for a third rule, and so on."[63]

The relation of *utsarga* and *apavāda* is so well grounded in common sense that its application was less in need to be taught in the body of the grammar. But there are problems nevertheless. Patañjali occasionally distinguished two forms of special rules: *apavādatva* and *anavakāśatva* as pointed out above (p. 5). Applied to the grammar, it works as follows: In the build-up of certain verb forms, VI 1 1 teaches that the first syllable of roots is reduplicated (e.g., *pa[c]pāca* from the root √*pac*), VI 1 2 that of roots beginning with a vowel the second syllable is reduplicated, e.g., *aṭiṭiṣati* from the root √*aṭ*). Though it would be possible for the second rule to take effect after the first, the maxim tells us that the second rule must supersede the former, because its sphere (roots beginning with a vowel) is completely contained within the sphere of the first (all roots).

But if a special rule would have no chance to operate (*anavakāśa* or *niravakāśa*) unless it overruled a general rule (in its own narrow sphere), the general rule might still apply afterwards, if the conditions

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60. P.Kiparsky, *Some Theoretical Problems*, p.87.
61. Vārttika 1 on VI 1 86 (Mahābhāṣya III 65,9). J.Bronkhorst, *JIPh* 8 (1980), p.79 believed that Kātyāyana's definition is more fitting for *asiddhavat* than *asiddha*. In my opinion it is not necessary to assume that Kātyāyana was unclear about the distinction of *asiddha* and *asiddhavat* (see below p.56).
62. Kiparsky, *Some Theoretical Problems*, p.78.
63. *Ibid.*, p.79.

allow it. Take the formation of the word *rāmāyām* "in the dark one" (loc.sg.fem.): the locative case ending *ⁿi* is replaced by *ām* after a feminine noun ending in *-ā* (VII 3 116), resulting in **rāmā- ⁿi > *rāmā-ām*; these nouns receive also the augment *yāᵈ* (VII 3 113). The substitution *ⁿi>ām* would have no opportunity to apply after the addition of the augment *yā* which would separate it from the word stem: hence the substitution takes place first (**rāmā-ām*), and since the conditions for the addition of the augment are still present, VII 3 113 is enacted as well: **rāmā-yā-ām > rāmāyām*.[64]

The situation is different in the next case. VII 4 60 teaches that in the reduplication syllable only the initial consonant remains (**pac-pāc-a > papāca*), deleting the last sound of it. VII 4 97 teaches that /ī/ replaces [the last sound] of √*gaṇ* in the aorist form **a-gaṇ-gaṇ-at*. Patañjali rejected the notion that the /ī/ replacement overrules the deletion of the final consonant as an *apavāda*, but he insisted that it would do so on the grounds that there would be no opportunity whatever for the taking place of it, if it did not supersede the elision of /ṇ/ (*anavakāśatva*). Now rule VII 4 60 (elision of the final consonant) can no longer apply, since the /ṇ/ is gone (it has been replaced by /ī/). An undesired form **a-ga-ī-gaṇat* would result. For this reason Kātyāyana had to introduce a *paribhāṣā*: *na vâbhyāsa-vikāreṣv apavādasyôt-sargâbādhakatvāt* "Or not, for as changes of a reduplicative syllable are concerned, a special rule does not block a general rule."[65] Now the elision of the final /ṇ/ takes place first, and subsequently /ī/ is substituted for the final of what remains (of the reduplicative syllable, i.e. for the /a/ of *ga*): **a-gī-gaṇat*, resulting finally (by VII 4 62) in *ajīgaṇat* "he counted." Kātyāyana's vārttika is a crude ad hoc correction of the *utsarga/apavāda* principle; the *siddha*-principle would offer a simpler solution.

While Patañjali here made a distinction between *apavāda* and *anavakāśa*, the term *apavāda* is often used for both concepts: in Kātyāyana's vārttika 2 on VII 4 82 (just quoted) and *paribhāṣā* 58 *kva*

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64. Paribhāṣenduśekhara on *paribhāṣā* 57.

65. Mahābhāṣya III 357,1 (vārttika 2 on VII 4 82). Similar is *paribhāṣā* nr.66 in Nāgojībhaṭṭa's Paribhāṣenduśekhara: *abhyāsa-vikāreṣu bādhya-bādhaka-bhāvo nâsti* "So far as changes of a reduplicative syllable are concerned, rules (which teach those changes) do not supersede one another."

cid apavāda-viṣaye 'py utsargo 'bhiniviśata iti "Some-times the gen-
eral rule takes effect even where the *apavāda* has been applied."
Joshi[66] regretted this: "Unfortunately, in the Sanskrit grammatical tra-
dition the two concepts have not strictly been kept separate."

But even with the modifications proposed by Cardona, Joshi, and
Kiparsky, there are still features that make Pāṇini's grammar some-
thing less than a well-oiled word-generating machine. Is it not odd,
that the rules stating an exception must be applied first, before the
general rule can be applied? And how does the user know beforehand,
which rule is the general rule (*utsarga*) and which the exception
(*apavāda*) – or the exception to an exception? Patañjali offered two
similar procedures: *pūrvaṃ hy apavādā abhiniviśante, paścād ut-
sargāḥ. prakalpya vâpavāda-viṣayaṃ tata utsargo 'bhiniviśate* "For
first the exceptions come up [into one's mind], afterwards the general
rules. Or after setting aside all that falls under the exception, then the
general rules comes up [into one's mind]."[67] The first is, according to
Nāgojībhaṭṭa, the approach of one who is guided solely by the rules of
grammar, the second of one who is guided solely by the forms of the
Sanskrit language. Either way, attention must first be given to the ex-
ception.

Pāṇinian scholars in India no doubt had an almost unbelievable
command of the grammar[68] which they had memorized at an early
age; but even for them the demands to achieve the correct application
of the rules sometimes must have appeared daunting. The *sūtras* I 4

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66. S.D.Joshi in *Essays on Pāṇini*, p.52; also *The Aṣṭādhyāyī of Pāṇini*, vol.IV,
p.9. Cf. also Joshi/ Roodbergen, *Vyākaraṇa-Mahābhāṣya, Anabhihitāhnika*, p.15.

67. Mahābhāṣya I 463,1f.; *paribhāṣā*-s 62 and 63 in Nāgojībhaṭṭa's
Paribhāṣenduśekhara.

68. M.M.Deshpande reported that each of the 32 pādas of the Aṣṭādhyāyī is "di-
vided into groups of twenty rules, with the final group remaining as an odd lot. Then a
mnemonic string is created by selecting the first word from rules 1, 21, 41, 61, 81,
etc." To get the position of an individual rule, one keeps reciting from that rule on-
ward until one reaches one of these markers. One can thus quickly get their number
and the relative position with regard to other rules (Madhav M. Deshpande, in
Language and Text. Studies in Honour of Ashok R. Kelkar, ed. R.N.Srivastava et al.,
Delhi 1992, pp.18-20). The amazing virtuosity of Sanskrit scholars and their com-
mand of the grammatical rules are evident in the grammatical riddles enjoyed by tra-
ditional scholars: Nalini Balbir in *Jambū-jyoti* (Fs.Munivara Jambūvijaya,
Ahmedabad 2004), pp.269-309.

15-17 extend the definition of what is termed *pada* "word" to certain stems that a treated like words (e.g., the stem in the instrumental plural *payas+bhis > payobhis*). These include (in I 4 16 [14 *padam*] *s-it.i ca*) stems with a suffix that has a tag[69] /s/ (e.g., *GHaˢ*). I 4 18 creates a sub-class called *bha* for noun stems with a suffix beginning with either a vowel or /y/. We are faced with a dilemma: Are words with a suffix like *yaˢ* to be termed *pada* (by I 4 16: having a tag /s/) or *bha* (by I 4 18: beginning with /y/); they are allowed only one name (by I 4 1) and the one taught later should prevail (by I 4 2). Generally rule I 4 18 *y-ac.i bham* should be prevail over I 4 16 *s-it.i ca*, either by being taught later or as a special rule or *apavāda* of the preceding definitions of a *pada* – but instead I 4 16 is a *nirvakāśa* exception of I 4 18 *y-ac.i bham*. Why? There are only four suffixes with a tag /s/: *GHaˢ* (V 1 106), *CHaˢ* (IV 2 114), *yaˢ* (V 2 138), and *yuˢ* (V 2 123)[70] that are realized as *-iya*, *-īya*, *-ya*, and *-yu*, i.e. they all begin with either a vowel or /y/ and fall thus completely under the parameter of I 4 18. Rule I 4 16 would therefore have no opportunity to apply (i.e., no word having a suffix with a tag /s/ would be called *pada*); it must therefore supersede I 4 18: hence all words with suffixes with a tag /s/ are called *pada* – even if they begin with a vowel or /y/. But to know that, one must be aware, that there are only these four suffixes with the tag /s/ and that all of them begin with either a vowel or /y/ – otherwise I 4 16 would have an application and would not supersede I 4 18.[71] Can we take this awareness for granted? And would any grammarian have designed his work based on such an assumption?

Even more outlandish is the following. By III 2 139 the suffix *ᵏsnu* is attached to the roots √*glā*, √*ji* and √*sthā* (and to √*bhū* by III 2 138); but instead of the desired word *sthāsnu* we would get *sthīṣnu,

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69. "Tag" is a better translation of *it* or *anubandha* than "marker," because technical accents and nasalizations, and the retroflexation of /ṇ/ and /ṣ/ in the Dhātupāṭha, are also markers, but they are not tags. For the translation "tag" see Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya. Paspaśāhnika*, Pune 1986, p.188 fn.796. Cf. Kātyāyana's vārttika 13 on I 3 2 (Mahābhāṣya I 259,7) *svarânubandha-jñāpanāya* which distinguishes between (technical) accents and *anubandha*-s.

70. Cardona, *JIPh* 1 (1970), p.46 erroneously referred to VII 1 1 where, however, *YU* (→ *aka*) is quoted, not *yuˢ* (which is not replaced by *-aka*).

71. See G.Cardona, *ibid.*

since by VI 4 66 the tag ^{k} would call for the substitution of /ī/ for /ā/. The most common role of the tag ^{k} is, as every Pāṇinīya knows, the denial of guṇa and vṛddhi substitutions to the preceding element by I 1 5 *k-ṅ-it.i ca*. We want this denial in the case of the suffix ^{k}*snu* in III 2 139, but not the effect of VI 4 66 [63 *k-ṅ-it.i*] *GHU-mā-sthā-gā-pā-jahāti-sāṃ hali* that rules in a substitute /ī/ for the final of the named roots before an ārdhadhātuka suffix beginning with a consonant that has a tag ^{k} or ^{ṅ}. We want *jiṣṇu* "victorious" rather than *jeṣṇu*. [72] Kātyāyana was aware of the problem and proposed four amendments to deal with each of the four roots.

Patañjali, following a quoted older stanza (a so-called *śloka-vārttika*), suggested another possible solution: The suffix in III 2 139 is basically ^{g}*snu* rather than ^{k}*snu* where the original ^{g} is replaced with ^{k} by regular sandhi – avoiding thus the unwanted effect of VI 4 66, while the guṇa-blocking feature is preserved by including ^{g} in I 1 5 as *^{g}-k-ṅ-it.i ca*, resulting by sandhi in the attested sūtra I 1 5 *k-ṅ-it.i ca*. This fleeting suggestion – that was not known to Kātyāyana[73] and was not used by Patañjali in his discussion of rule I 1 5 or by Bhartṛhari in his Mahābhāṣyadīpikā on that passage – was accepted by Jayāditya[74] and Bhaṭṭojidīkṣita[75] as well as L.Renou,[76] G.Cardona[77] and

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72. *jiṣṇu* is attested from the Ṛgveda onward, *sthāsnu* first in Baudhāyana Śrautasūtra III 29,7f. (vol.I, p.180,6 in C.G.Kashikar's ed.) and Śāṅkhāyana Śrautasūtra I 11,1.

73. It is important that Kātyāyana was aware of the problem and tried to fix it, but was unaware of the device proposed by the author of the śloka-vārttika and by Patañjali – a potent argument against an authentic tradition concerning this interpretation.

74. In the Kāśikā on I 1 5 and III 2 139. Jayāditya was identified as the author of these comments by Jinendrabuddhi in his Nyāsa on Kāśikā I 1 5 (vol.I, p.85), Bhaṭṭojidīkṣita in his Śabdakaustubha (vol.I p.102) and others: Ojihara Yutaka, *JIBS* 9.2 (1961), p.11f. = *Mémorial OJIHARA Yutaka*, Tokyo 2007, pp.68f.

75. Siddhāntakaumudī nrs. 2972 and 4139. In his Śabdakaustubha on *kṅiti ca* (vol.I p.102), though, he considered both alternatives equally: the notion of a /g/ hidden in *kṅiti* and the proposal made by Vāmana (fn.79 below).

76. Louis Renou, *La grammaire de Pāṇini*, Paris 1966, p.4.

77. George Cardona, *Pāṇini. His Work and its Traditions*, Delhi 1988, p.66 (2nd ed. p.57); Cardona defended his position in the preface to the second edition of this work, Delhi 1997, pp.xiii f. and simply stated it as a fact in his contribution "The organization of grammar in Sanskrit linguistics" to vol.1 of the *History of Language Sciences*, p.159. Note also the observations by Kamaleswar Bhattacharya in his re-

R.N.Sharma;[78] Vāmana,[79] Puruṣottama,[80] Nārāyaṇabhaṭṭa,[81] O.Böhtlingk,[82] S.M.Katre,[83] H.Scharfe,[84] S.D.Joshi and J.A.F.Roodbergen,[85] and P.Kiparsky[86] did not. But since the voicing of the presumed tag ᵍ would be lost in III 2 139 (ᵏsnu) and the consonant /g/ would be lost altogether in I 1 5 (*k-ṅ-it.i*), the user of Pāṇini's grammar would have no inkling that a /g/ is hidden in these formulations and he would, therefore, not be able to generate the correct forms (*sthāsnu*, but *jiṣṇu*).[87] Furthermore, if Pāṇini intended to teach this distinction, he could surely have found a less ambiguous way of doing so.[88] The Pāṇinīyas clearly relied here, not on the strict application of Pāṇini's rules, but on their knowledge of the correct forms.

Abstruse as the suggested use of a tag ᵍ may seem, one might try to defend it as a legitimate scholastic device, if Pāṇini's grammar is seen as an iconic representation of the Sanskrit language (see below

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view of Cardona's *Pāṇini* (2ⁿᵈ ed.), *JAOS* 127 (2007), p.103.

78. Rama Nath Sharma, *The Aṣṭādhyāyī of Pāṇini*, vol.II, New Delhi 1990, pp.9-11.

79. In the Kāśikā on VII 2 11. Vāmana was identified as the author of these comments by Jinendrabuddhi in his Nyāsa on Kāśikā I 1 5 (vol,I, p.85) and others (see fn.74 above). Vāmana proposed an alternate solution to the problem – equally arbitrary but less complicated.

80. Bhāṣāvṛtti on I 1 5 (Louis Renou, *La grammaire de Pāṇini*, Paris 1966, p.4).

81. Nārāyaṇabhaṭṭa in his Prakriyāsarvasva (vol.II p.69) followed the suggestion made by Vāmana. Cf. S.V.Iyer, *Nārāyaṇabhaṭṭa's Prakriyāsarvasva. A Critical Study.* Trivandrum 1972, pp.102f.

82. Otto Böhtlingk, *Pânini's Grammatik*, Leipzig 1887, p.2.

83. Sumitra M.Katre, *Aṣṭādhyāyī of Pāṇini*, Austin 1987, p.8.

84. H. Scharfe, *JAOS* 109 (1989), pp.654f.

85. S.D.Joshi and J.A.F.Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, did not accept the inclusion of a /g/ in I 1 5 (vol.I, p.8) and VII 2 11 *śryukaḥ kiti* (vol.XI, pp.26-28, where they also discussed the alternative interpretations) and remarked: "Reading additional *anubandhas* into a suffix to justify a desired form is a commentator's device, often used by Patañjali" (vol.XI, p.xv).

86. P.Kiparsky, *Nagoya Studies in Indian Culture and Buddhism: Saṃbhāṣā* 26 (2007), pp.13-19.

87. G.Cardona, *Pāṇini*, 2ⁿᵈ ed. p.xiv conceded: "Of course, the same speakers, as students of the Aṣṭādhyāyī, have to interpret – or have interpreted for them by a commentator – that *kṅiti* is meant to refer to *k g ṅ*." Cardona failed to explain though, how anybody, without a commentator and the knowledge of the desired outcome, could reach the interpretation endorsed by him.

88. P.Kiparsky, *Nagoya Studies* 26 (2007), pp.17, suggested that Pāṇini could easily have included ᵏsnu in rule VI 4 69 *na lyap.i* by saying instead **na ksnu-lyap.oḥ.*

pp.87-90, 106). But even this attempt to salvage the traditional inter-
pretation would run into difficulties. The tag *g* is presumed to occur
three times in the Aṣṭādhyāyī: in I 1 5, III 2 139, and VII 2 11 – but in
all three instances it would have been eliminated by sandhi.[89]
Therefore, the tag *g* never physically appears in Pāṇini's text.
Furthermore, the introduction of a tag *g* would be aimed solely at the
sūtra III 2 139, indeed at the formation of a single word, viz. *sthāsnu*.
That goes against Pāṇini's standard procedure and against Patañjali's
repeated statement: *naîkam prayojanaṃ yogârambhaṃ prayojayati* "A
single application does not cause the formulation of a rule."[90]
Therefore even an iconic representation, where the tag *g* would be
present but hidden in the formula, is not an acceptable justification.
Thus the question remains: how can Pāṇini account for the word
sthāsnu? The plain answer is: he cannot. Kiparsky considered it "a
bug" and explained: "Again, a unique root plus suffix combination,
sthā-Ksnu, gives rise to an unforeseen application of a rule, an under-
standable oversight."[91] The attestation of the word[92] makes it even
possible that *sthāsnu* was not known to Pāṇini at all.

The intensity of the recent debate, beginning with Cardona's
claim in the first edition of his *Pāṇini*,[93] followed by the critique of
my review[94] of his book in his second edition[95] and then by
Kiparsky's remarks in *JIPh*[96] and Cardona's emphatic defense of his
position (also in the second edition), and finally Kiparsky's detailed
critique[97] raises the questions if we will ever settle the dispute in our

89. G.Cardona, *Pāṇini*, 2nd ed., p.xiv claimed that "in the Aṣṭādhyāyī recited in
continuous fashion **A** 1.1.4-5… (*na dhātulopa ārdhadhātuke kkṅiti ca*), with *kkṅiti* (←
gkṅiti)." On this alleged continuous recitation see below pp.43f. There is no credible
attestation of such *kkṅiti*.

90. E.g., Mahābhāṣya I 68,16.

91. P.Kiparsky, in: *Nagoya Studies* 26 (2007), pp.18f. One might speculate that
the root √*sthā* (leading up to *sthāsnu*, which is not attested in the older Vedic texts)
was added to rule III 2 139 as an afterthought by Pāṇini (or one of his followers) with-
out taking into account all consequences.

92. See above p.18 fn.72.

93. See above p.18 fn.77.

94. H. Scharfe, *JAOS* 109 (1989), pp.654f.

95. G.Cardona, *Pāṇini*, 2nd ed., pp.xiii f.

96. Paul Kiparsky, *JIPh* 19 (1991), p. pp.331-367.

97. Paul Kiparsky, *Nagoya Studies* 26 (2007), pp.13-19.

lifetime. It brings to mind a remarkable observation by the great phys-
icist Max Planck:

This experience gave me also an opportunity to learn a fact–a remarka-
ble one, in my opinion: A new scientific truth does not triumph by convinc-
ing its opponents and making them see the light, but rather because its oppo-
nents eventually die, and a new generation grows up that is familiar with it.[98]

If this can be said about the "exact" sciences, it would appear that
the situation in the humanities is even more precarious.

Paul Thieme put the problem how to apply Pāṇini's rules this
way: "In order to understand rules of his that are not exceptionally
simple, it is necessary first to know what they are supposed to teach:
to-day, when his language does not any longer live, but has to be
learned in school, a scholar who wants to freely handle and master his
injunctions, must possess a stupendous memory and a tremendous
amount of learning in the vast literature discussing the implicit sug-
gestions, silent assumptions and principles underlying his formula-
tions or supposed to underlie them."[99]

None of the many Pāṇinīyas whose works we have, has been able
to apply Pāṇini's grammar without resorting from time to time to his
knowledge of the forms taught. Not Kātyāyana who had to posit a me-
ta-rule (vārttika 2 on VII 4 82)[100] to correct a short-coming and who
listed thirty-three instances of *pūrva-pratiṣiddham*,[101] not Patañjali

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98. Max Planck, *Scientific Autobiography and Other Papers*, trans. Frank
Gaynor, Westport 1949, p.33f. In the original German, Max Planck, *Wissenschaftliche
Selbstbiographie*, Leipzig 1948, p.22, wrote: "Dabei hatte ich Gelegenheit, eine, wie
ich glaube, bemerkenswerte Tatsache festzustellen. Eine neue wissenschaftliche
Wahrheit pflegt sich nicht in der Weise durchzusetzen, dass ihre Gegner überzeugt
werden und sich als belehrt erklären, sondern vielmehr dadurch, dass die Gegner all-
mählich aussterben und dass die heranwachsende Generation von vornherein mit der
Wahrheit vertraut gemacht ist." Similar skepticism was also voiced already by
Charles Darwin, *On the Origin of Species* (authorized edition from 6th English ed.;
New York 1889; repr. New York and London 1927),vol. II, pp.295f. See also Thomas
S. Kuhn, *The Structure of Scientific Revolutions*, 2nd ed., enlarged, Chicago 1970,
p.151.
99. Paul Thieme, *Indian Culture* 4/2 (1937/38), p.202 (*Kl.Schr.* p.565).
100. See above p.15 with fn.65.
101. S.D.Joshi and J.A.F.Roodbergen, *The Aṣṭādhyāyī*, vol.IV pp.21-27.

who declared that the word *para* in I 4 2 denotes not "following" but "desired," i.e., the form that we desire based on our knowledge of Sanskrit,[102] and not the innumerable Pāṇinīyas that, like Nāgojībhaṭṭa, relied on numerous contradictory meta-rules (*paribhāṣā*) to guide them: *antaraṅga* rules prevail over *bahiraṅga* rules – but not when the absolutive suffixes are concerned (nr. 50, 54); *apavāda*-s prevail over *utsarga*-s – but not when the reduplicative syllable is concerned (nr. 57, 58, 66), etc. All meta-rules inferred through a close reading of Pāṇini's grammar are not universally valid (nr.116).[103] In his comment on *paribhāṣā*-s 114 and 116,[104] Nāgojībhaṭṭa referred to the avoidance of undesired forms as the final test in many instances – just as Patañjali did when he redefined *para* in I 4 2 as *iṣṭa* "desired."

On a first level he argued that Pāṇini formulated a certain rule or formulated it in a certain way, in order to avoid undesired forms. He defended Pāṇini's rules I 4 62 *anukaraṇam cân̐iti-param* "A sound imitation, if it is not followed by *iti* is also [called *gati*]" by saying that its purpose is to prevent undesired forms.[105]

On a second level Kātyāyana proposed amendments, because without them – in his opinion – the desired forms could not be obtained. Pāṇini had ruled in II 4 79 *tan-ādibhyas ta-thāsoḥ* "loss of /s/ after the roots √*tan* etc. before the personal endings -*ta* and -*thās*." In his vārttikas 1 and 2 on this rule Kātyāyana proposed two alternate amendments to either add *ātmanepadam* "middle voice" or *ekavacan-am* "singular" to the rule and argued in vārttika 3 that without one or

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102. See above p.6 with fn.14.

103. H.E.Buiskool, *Pūrvatrāsiddham*, pp.76-80 already pointed out the hopelessly compromised structure of the traditional meta-rules.

104. On *paribhāṣā* 114 he remarked: *iṣṭa-siddhir eva na tv aniṣṭâpādanam* "We derive only such results as may be desirable, but we must not derive any results that may be undesirable" and on 116 *tena jñāpaka-siddha-paribhāṣayâniṣṭaṃ nâpādanīy-am* "We are not to derive from a meta-rule which is established by a *jñāpaka* any result that may be undesirable."

105. Vārttika 1 on I 4 62 (Mahābhāṣya I 343,24) *anukaraṇasyêtikaraṇa-paratva-pratiṣedho 'niṣṭa-śabda-nivṛtty-arthaḥ* "The restriction against having the sound imitation being followed by the particle *iti* has the purpose to prevent undesired forms."

the other amendment wrong forms would result (*aniṣṭa-prasaṅgaḥ*).[106] In another sūtra, Pāṇini had ruled in I 4 80 *te prāg dhātoḥ* "these [particles called *gati*] precede the root"; Kātyāyana first proposed in his vārttika 2 on this rule an addition "in Vedic literature they may also follow or be separate,"[107] but in his vārttika 4[108] he rejected both amendments as unnecessary "because no undesired forms are seen"; nobody says, explained Patañjali, *pacatipra when *prapacati* is desired.[109] To give yet another example of this line of thought: in his vārttika 2 on IV 1 82 *samarthānāṃ prathamād vā* "After the first of the words with unified meaning commonly [one of the following taddhita suffixes is added]" Kātyāyana questioned the need to say *prathamād*, because the intended meaning would not be expressed, if the suffix were attached to another than the first word.[110]

On a third level Kātyāyana weighed different interpretations of a rule and rejected those that would result in undesired forms. Pāṇini had ruled in III 3 163 *praiṣâtisarga-prāptakāleṣu kṛtyāś ca* that "To denote order, permission, and appropriate time [besides the imperative] also *kṛtya* suffixes [are used]." Kātyāyana dismissed the idea that this rule might be a restriction ("*kṛtya* suffixes are used **only** to denote order, etc.") because undesired results would ensue; indeed, *kṛtya* suffixes are used in a much wider range of meanings. Therefore the rule

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106. Vārttika 3 on II 4 79 (Mahābhāṣya I 496,1) *avacane hy aniṣṭa-prasaṅgaḥ* "Because if that is not taught undesired [forms] would result." We want only *ataniṣṭa yūyam* "you have extended" (plural active voice!) and not a form without /s/. Patañjali found a way out: though *-ta* could be a suffix of both active or middle voice, *-thās* occurs only in middle voice, suggesting that its companion *-ta* is middle voice also – resulting in a middle voice form without /s/.

107. Mahābhāṣya I 345,16: vārttika 2 on I 4 80 *chandasi para-vyavahita-vacanaṃ ca*. This amendment has become part of the traditional text as sūtras I 4 81 *chandasi pare 'pi* and 82 *vyavahitāś ca*.

108. Mahābhāṣya I 345,20: vārttika 4 on I 4 80 *ubhayor anarthakaṃ vacanam aniṣṭâdarśanāt* "the teaching of both [amendments] is meaningless, because no unwanted forms are seen."

109. Mahābhāṣya I 345,21f. …*aniṣṭâdarśanāt*… *na hi kaś cit prapacatîti prayoktavye pacatiprêti prayuṅkte*. Similar I 435,8-10 *aniṣṭâdarśanāt. na hi kiṃcid aniṣṭaṃ dṛśyate. na hi kaścid rāja-puruṣa iti prayoktave puruṣa-rāja iti prayuṅkte*.

110. Mahābhāṣya II 234,9: vārttika 2 on IV 1 82 *prathama-vacanaṃ anarthakaṃ na hy aprathamenârthâbhidhānam*. We do not want to attach the patronymic suffix to the word *apatyam* by IV 1 92 *tasyâpatyam* "his off-spring," but to the name of a person represented by *tasya*: *Upagor apatyam > Aupagavaḥ*.

is a positive injunction, needed because without it the wide ranging
kṛtya suffixes would be set aside by the special injunction to use the
imperative suffixes.[111] In rule IV 2 100 *raṅkor amanuṣye 'ṇ ca* "After
Raṅku (the name of a region) besides the suffix -*āyana* also -*a* is at-
tached if the reference is not to a human." We get *rāṅkavāyaṇa* or
rāṅkava "an antelope from Raṅku" but only *Rāṅkavaka* "a man from
Raṅku" by IV 2 134 *manuṣya-tatsthayor vuñ* "The suffix -*aka* is add-
ed if the adjective refers to a man or something on him." Kātyāyana
wondered whether the restriction "if the reference is not to a human"
is really necessary, if the suffixation of -*aka* blocks the suffixes -*āya-
na* and -*a*. Or did Pāṇini by stressing "not to a human" indicate that
-*āyana* and -*a* can also be used to refer to "something on a human"?
Kātyāyana rejected this reasoning by saying that "this is not
desired."[112]

Patañjali also carried on similar deliberations on his own initia-
tive. In the formation of a bahuvrīhi there is a problem with the suffix-
ation of pronouns. The common noun suffix -*ka* (taught in V 3 70) is
superseded (by V 3 71) for indeclinables and pronouns by -*aka* (e.g.,
uccakais, *ahakam*, *tvakam*). Patañjali feared that from *ahakaṃ pitâsya*
"I am his father" wrongly a compound **makat-pitṛkaḥ* "having me as
his father" could result, whereas *matka-pitṛkaḥ* is desired; similarly
*tvakat-pitṛkaḥ instead of *tvatka-pitṛkaḥ* "having you as his father."[113]
To prevent these wrong forms, it was necessary to deny these pro-
nouns their name of 'pronoun' when they occur at the beginning of a
bahuvrīhi. This is achieved by including these pronominal forms un-
der the "*sarva* etc." in I 1 29 *na bahuvrīhau* "[*sarva* etc. are] not
[called pronouns] in a bahuvrīhi compound." Now only *matka-* and

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111. Mahābhāṣya II 167,1+4: vārttika 1 on III 3 163 *praiṣâdiṣu kṛtyānāṃ
vacanaṃ niyamârtham iti cet tad aniṣṭam* and vārttika 2 *vidhy-arthaṃ tu 'striyāḥ
prāg' iti vacanāt.* Rule III 1 94 that would allow alternate forms cannot help reliably
because it is challenged by III 3 94.

112. Mahābhāṣya II 292,5+9: vārttika 1 on IV 2 100 *raṅkor amanuṣya-
grahaṇânarthakyaṃ manuṣya-tatsthayor vuñ-vidhānāt* and vārttika 2 *amanuṣye
manuṣyasthe sphag-aṇor jñāpakam iti cen nâniṣṭatvāt.* Patañjali stressed that only
-*aka* is desired in reference to "something non-human found on a human."

113. Mahābhāṣya I 91,11f. *ahakaṃ pitâsya makat-pitṛkaḥ; tvakaṃ pitâsya
tvakat-pitṛka iti prāpnoti. matka-pitṛkaḥ tvatka-pitṛka iti cêṣyate.* The stems *ahal/mad*
and *tva/tvad* are in a supplementary relation with *asmad* and *yuṣmad*.

tvatka- are allowed at the beginning of the compound. But this comes at a heavy price. The formation of a compound is an operation involving outside elements (*bahiraṅga*), whereas the forms *ahakam*, and *tvakam* are previous results of an internal (*antaraṅga*) build-up. "How can you, however much you may so desire, allow the *antaraṅga*-rule be overruled by the *bahiraṅga*-restriction? A *bahiraṅga*-rule overrules even *antaraṅga*-rules"[114] – in contradiction to the commonly accepted meta-rule that internal operations prevail over external factors, and under the weight of the obvious fact that *makat-pitṛkaḥ and *tvakat-pitṛkaḥ are wrong forms.

In the famous debate between a grammarian and a charioteer/bard (*sūta*) the former asked: "Who is the urger-on of this chariot (*rathâsya pravetṛ*)?" The sūta said: "Sir, I am the driver (*prājitṛ*)." The grammarian said: "Wrong word!" The sūta said: "Your excellence knows [only] what should result [from a mechanical application of the rules of grammar] but not what is desired [by good speech usage: such-and-such a form is desired]."[115] Here it is clear that an application of grammatical rules without the guidance provided by knowledge of actual usage can lead the user astray. In this case the issue is essentially lexical. Though *pravetṛ* is apparently formed correctly, the expression is not idiomatic; *pravetṛ* is not attested in any surviving texts.

In our times, George Cardona while making an emphatic case for determinism[116] in the Aṣṭādhyāyī, too, had to admit contradictions. After stating that "prior to applying morphophonemic replacements conditioned by affixes, affixes should be introduced" and "Here again, as with affixation, augmentation precedes the application of sound replacement rules" he continued: "There are cases where a sound re-

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114. Mahābhāṣya 91,12f. *kathaṃ punar icchatâpi bhavatā bahiraṅgena pratiṣedhenântaraṅgo vidhiḥ śakyo bādhitum? antaraṅgān api vidhīn bahiraṅgo vidhir bādhati.*

115. Mahābhāṣya I 488, 18-20 *evaṃ hi kaś cid vaiyākaraṇa āha: ko 'sya rathasya pravetêti? sūta āha: āyuṣmann ahaṃ prājitêti. vaiyākaraṇa āha: apaśabda iti. sūta āha: prāpti-jño devānāṃpriyo na tv iṣṭi-jña 'iṣyata etad rūpam' iti.*

116. G.Cardona, *JIPh* 1 (1970), p.61 with fn.83, where he expressed his belief that "Pāṇini nowhere requires" a knowledge of the language (i.e., of the desired forms) for the rules to be applied properly. Cardona would not deny that a good command of the Sanskrit language is required for understanding the rules in the first place.

placement must precede the introduction of an element."[117] In *teṣām*
(gen.pl.masc of *tad*) *tad* has to lose its final /d/ by VII 2 102, before in
*ta[d]-ām the augment /s/ can be added to *ām*, because /s/ can only be
added after a pronoun ending in /a/ (VII 1 52). **ta-sām* finally (by VII
3 103 and VIII 3 57) emerges as *teṣām.* Cardona concluded the argu-
ment: "An example such as *teṣām* does not, of course, counter the
principle noted in section 4.2 above [i.e., in the preceding paragraph
of Cardona's article. H.S.]. Affixes and augments which serve as envi-
ronments for sound replacements must obviously be introduced before
these morphophonemic rules can apply; in some cases, in order to in-
troduce an affix or augment which will be the environment for a sound
replacement, it is necessary to let another sound replacement occur
first."[118] Here, as so often, the use of the words "of course" signals an
author's attempt to sneak in a weak argument under the radar, as it
were.

    S.D.Joshi and S.Bhate who have studied the use of the particle *ca*
in Pāṇini's grammar wrote towards the end of their study: "....the
scope of the continuation of the components of the disjunctive state-
ment cannot be defined always by means of interpretative devices.
Sometimes we have to take an *ad-hoc* decision depending on the actu-
al facts covered by the rule concerned" and "It is unfortunate that the
final interpretation of rules does not depend only on the principle of
coordination but also on external factors like attested usage."[119]

    If then Pāṇini's grammar is nothing like "Fowler's automaton"[120]
to create correct Sanskrit words and sentences, how did it function?
Pāṇini's grammar mirrors the Sanskrit language of his contemporaries
– and any attempt to understand and apply Pāṇini's rules presupposes
a good command of Sanskrit. Joshi[121] correctly differentiated between

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117. G.Cardona, *JIPh* 1 (1970), pp.50f.
118. G.Cardona, *ibid.*, p.51.
119. S.D.Joshi and S.Bhate in *Proceedings of the International Seminar on
Studies in the Aṣṭādhyāyī of Pāṇini*, edd. S.D.Joshi and S.D.Laddu, Pune 1983*, pp.207
and 209.
120. Murray Fowler, *JAOS* 85 (1965), pp.44-47. The expression "Fowler's
Automaton" was coined by J.F.Staal, *JAOS* 86 (1966), p.206 (= J.F.Staal, *Universals*,
Chicago 1988, p.181).
121. S.D.Joshi in *Essays on Pāṇini*, ed. D.D.Mahulkar, pp.51 and 53.

the *utsarga/apavāda* principle of rule-organization and the *utsarga/apavāda* principle of rule-application. All that his presentation has established, however, is the validity of the former; it is the way Pāṇini organized his material and his rules, and thus the *utsarga/apavāda* principle does not direct the user in his application of the grammar. It is the difference between a construction manual of a device (an engine or some computer software) whose patterns can often be discovered by "retro-engineering" on the one hand, and a user's manual on the other – it is the former that Joshi and Kiparsky have achieved.

The decoding of Pāṇini's Grammar

There is a strong tradition that Pāṇini hailed from Śalātura (mod-
ern Lāhur), some twenty miles north-west of Attock Bridge, north of
the Kabul River and west of the Indus. Even the extreme dates pro-
posed, ranging from 500 B.C. to about 350 B.C.,[1] imply that he was a
subject of the Achaemenid Empire, since the land west of the Indus
was a tributary of the Persian kings at least from the time of Darius
and until Alexander's conquest of the empire. Indeed, Pāṇini's lan-
guage is so close to the Vedic usage that he can hardly be much later
than 500 B.C.[2] Pāṇini taught the formation of the word *lipi-kara* which
probably meant "scribe."[3] It is therefore probable that Pāṇini knew
some script and that the local language even had a word for it. It is an-
other question, if he himself could write. The script that he would
have seen (or known), was first the Aramaic script[4] that was used in
the Empire's administration. Until recently no Aramaic texts had been

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1. Recently suggestions have been made to lower Pāṇini's date, based on
Pāṇini's reference (in V 2 120) to coins with an image (*rūpya*). Joe Cribb, in *South
Asian Archaeology 1983*, ed. J. Schotsmans and M.Taddei, Naples 1985, pp.535-554
claimed that Indian punch marked coins probably originated in Gandhāra early in the
4th century B.C. in imitation of Greek (and Iranian) coins. But Pāṇini may refer to
Greek or Persian (δαρεῖκος) coins current in NW India in his time. It is therefore not
a conclusive argument for a very late date of Pāṇini (ca. 350 B.C.) as Oskar von
Hinüber, *Der Beginn der Schrift und frühe Schriftlichkeit in Indien*, Wiesbaden 1989,
p.34, Harry Falk, *Schrift im alten Indien*, Tübingen 1993, pp.303f., and Jan E.M.
Houben, *Asiatische Studien* LVII (2003), p.162 have argued. Minting of coins origi-
nated in Western Asia Minor early in the sixth century B.C. and spread soon through
Greece and Persia, with the first δαρεῖκος attested around 515 B.C.: *Der Neue Pauly.
Enzyclopädie der Antike*, edd. Hubert Cancik und Helmuth Schneider, vol.3 (Stuttgart
1997), col.322 (δαρεῖκος) and vol.8 (Stuttgart 2000), coll.447f.; engl. *Brill's New
Pauly, Encyclopaedia of the Ancient World*, ed. Christine F.Salazar, Leiden, vol.4
(2004), col.90 and vol.9 (2006), col.148.
2. F.Kielhorn, *Göttinger Nachrichten* 1885, pp.186f. (*Kl.Schr.* pp.189f.); B.
Liebich, *Pāṇini*, Leipzig 1891, pp.38-50; P.Thieme, *Pāṇini and the Veda*, p.80; P.
Kiparsky, *Pāṇini as a Variationist*, p.249 fn.4.
3. O.von Hinüber, *Der Beginn der Schrift*, p.57 mentioned the possibility that it
could refer to a "painter" derived from the root √*lip*. But the Old Persian word *dipi*
"script" and the later Indian use of *lipi* "script" argue against this suggestion.
4. Oskar von Hinüber, *Der Begin der Schrift*, p.58; Harry Falk, *Schrift in alten
Indien*, p.258.

found in the Eastern provinces of the empire;[5] but now documents
written in Aramaic script on leather and wood in Achaemenian times
have been discovered in Bactria and published.[6] That is in accord with
the fact that King Aśoka used the Aramaic language and script (along
with Greek language and script) in his inscriptions in Eastern
Afghanistan, and also from the development of a derived Indian
script: the Kharoṣṭi[7] that shared with the Aramaic script the forms of
many letters, the right-to-left ductus, and the marking of the vowel on-
set.[8] While Kharoṣṭi retained the consonantal skeleton of the Aramaic
script, it developed a way of marking the vowels. Still, short and long
vowels were not differentiated, and the consonant clusters so common
in Sanskrit could be expressed only with difficulty.

   These were the scripts[9] that Pāṇini could have used to write down
his grammar.[10] We might speculate that he used such writing, inade-
quate as it was, to help in organizing his material; but it is hard to im-

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   5. That is also true of the Elamite script and language that was used in the ad-
ministration of the Empire and in inscriptions; but no traces have been found in the
eastern provinces of the Empire. There is a homology of Pāṇini's combination of het-
erophones, real sounds and tags (as in ${}^{\S}PHa^{\tilde{n}}$) and the Babylonian script with its ideo-
grams, phonetic sounds, and determinatives both before and after a word: Hans
Jensen, *Die Schrift*, Berlin 1958, p.87 and Jerrold S.Cooper in *The World's Writing
Systems*, ed. Peter T. Daniels & William Bright, New York 1996, pp.43, 52f., and 56.
   6. Shaul Shaked, *Le satrape de Bactriane et son gouverneur. Documents ara-
méens du IVe s. avant notre ère provenant de Bactriane*, Paris 2004.
   7. Richard Salomon, *Indian Epigraphy*, New York 1998, p.13.
   8. Initial vowels would be indicated by attachments to the vowel onset as they
are otherwise within the word indicated on the preceding consonant sign: ʔa, ʔi, ʔu
just as *ka*, *ki*, *ku*; cf. R.Salomon, in *The World's Writing Systems*, edd. Daniels, Peter
T. & William Bright. New York 1996, pp.375. If the writing e.g. of the Śivasūtras in
Kharoṣṭi would be authoritative, it would create a problem. Rule I 1 71 *ādir antyena
sahêtā* rules that the first [sound] is combined with the last tag to comprise the whole
sequence: *a^c* comprises /a,i,u,e,o,ai,au/. But if ʔ comes first, ʔ^c would leave it unclear,
where exactly the sequence begins: with ʔa, ʔi, ʔu, ʔe, ʔo, ʔai or ʔau.
   9. We have to give up the notion that Pāṇini could have used the Brāhmī script
which was created well after his time: below p.32 fn.22. and p.44.
   10. Those modern scholars that, under influence of contemporary linguistics,
speak of "right hand" and "left hand" context, when dealing with Pāṇini's suffixes or
his sandhi rules, are in an awkward position when they are faced with a text written
from right to left or with a strictly oral tradition. Whenever Pāṇini spoke of *pūrva* and
uttara (I 1 66f.) or *para* (III 1 2) he clearly referred to temporal "earlier" and "later."

agine that his grammar could have been written down adequately.[11] The grammar was passed on orally, with pitch accents and nasalized vowel tags (along with consonantal tags) added on as markers. A *svarita* accent marked an *adhikāra* "heading," and roots were marked in the Dhātupāṭha with *udātta*, *anudātta* or *svarita* accents to indicate various peculiar features. Vowels that served as indicative tags (*anubandha* or, in Pāṇini's terminology, *it*) were nasalized. None of these articulative features have survived in our text of the Aṣṭādhyāyī.[12] If a written form of the grammar was handed down along with the oral transmission, if would have played a secondary role in backing up the student's memory. There is no way in which the pitch accents and nasalization could have been indicated.

The earliest surviving work on Pāṇini's grammar are Kātyāyana's annotations (*vārttika*). At least six times Kātyāyana referred to the interpretation of other scholars with *eke* "[Thus say] some,"[13] and once he rejected an idea expressed in a stanza later quoted by Patañjali:[14] that stanza, too, and its author hence may well be older than Kātyāyana. He probably lived further to the East and South and was familiar with the White Yajurveda that was popular in the Eastern Ganges Valley. Kātyāyana obviously received the text of the Aṣṭādhyāyī in a form that was deficient in several aspects. In I 2 27 *ū-*

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11. See below pp.66-69.

12. An exception is I 1 17/18 *uña ūm* – because this is a quote from the well known padapāṭha of the Ṛgveda (P.Thieme, *Pāṇini and the Veda*, p.129). It is not fair, when H.E.Buiskool, *Pūrvatrāsiddham*, p.33 and *Tripādī*, p.155 ascribed to Pāṇini an excessive "veneration for word-memory, primitive tendency of Hindu civilization" when the whole Vedic culture was passed on in oral tradition, and whatever writing was available in some places (and only at late periods) was inadequate. We should also stop speaking of "mnemotechnical devices" when speaking of Pāṇini's *anubandha*-s, contractions, etc.; we would not call, e.g., $(a+b)^2 = a^2 + 2ab + b^2$ a mnemotechnical device but an algebraic formula.

13. F.Kielhorn, *Indian Antiquary* 16 (1887), p.103 (*Kl.Schr.* p.222): Mahābhāṣya I 211,16; 365,9; II 133,17; 216,6; III 265,4; 377,12. An alleged seventh instance, viz. II 19,21, is not a vārttika according to A.Wezler, *Bestimmung und Angabe der Funktion von Sekundär-Suffixen durch Pāṇini*, Wiesbaden 1975, p.35 fn.66.

14. Mahābhāṣya II 398,13-15. The stanza (line 13) had suggested an explicit restriction that the suffix *-in* is proper only after the nouns *śikhā* etc., *ika* only after *yava*, *khada* etc. Kātyāyana (line 15, vārttika 1 on V 2 116) considered the restriction redundant, since there are no such other forms in use: *śikhin* from *śikhā*, but *yavika* from *yava* etc.

kālo 'j jhrasva-dīrgha-plutaḥ terms for vowels of three different
lengths (short, long, protracted) are seemingly matched with a single
example – and Kātyāyana had to infer by exacting reasoning that *ū-
kālo* here is a contraction of *u-ū-ū3-kālo* "having the length of *u*, *ū*,
and *ū3*," an imitation of a rooster's cry (or the cries of some other
birds): "What has the length of *u-ū-ū3* is short, long and
protracted."[15] Did Kātyāyana still have an oral tradition of the accents
(*svara*) and nasalized tags (*anubandha*), when he in his vārttika 13[16]
on I 3 1 demanded the recitation of the root list (*dhātu-pāṭha*) to show
these technical accents and tags? Or did he only know a Dhātupāṭha in
a form similar to the one now commonly attached to the
Siddhāntakaumudī, where groups of roots are called "accented and
having unaccented tags"[17] etc., i.e. where the inherent characterization
by recitation has been replaced by verbal description?[18] There is also
doubt regarding his vārttika 3 on VI 1 67 *ver apṛktasya* "Or it comes
out correctly, if (or: because) the /v/ is nasalized."[19] Would he have
offered his solution as an option if he had actually known the sūtra
with a nasalized /v/? Already Franz Kielhorn pointed out that

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15. See below p.66.

16. Mahâbhāṣya I 259,8: vārttika 13 on I 3 1 *svarânubandha-jñāpanāya ca*;
bhūvādi-pāṭhaḥ must be supplied from vārttika 12 (*ibid.*, line 4).

17. E.g. after I 37 *edhâdaya udāttā anudāttêta ātmanebhāṣāḥ* "The roots *édha*
(i.e. √*edh*) etc. are accented and have an unaccented tag."

18. The tags in most instances pose no problem in the Dhātupāṭha: all final con-
sonants are tags (*it*) by rule I 3 3 *hal antyam* (as are certain initial ones: I 3 5), and all
final vowels in the Dhātupāṭha are tags, since they were nasalized in the original (by I
3 2 *upadeśe 'j anunāsika it*). Even though the nasal pronunciation in the Dhātupāṭha
was lost, the status of these vowels attached to roots was never in doubt – but their ac-
cent was. The accent could be ascertained by reasoning based on the desired forms or
by an express verbal statement (as in modern versions of the Dhātupāṭha). Uncertainty
prevails in the text of the grammar itself. Is the vowel in the *taddhita* suffix *ᶜPHañ* a
tag? No; *PH* is replaced by -*āyan*- (according to VII 1 2) which, together with the re-
maining /a/ makes up the suffix -*āyana* (as in *Kauñjāyana* from *Kuñja* IV 1 98). The
/u/ in *tu* (genitive singular *toḥ* in VIII 4 40) is a tag by I 1 69 making /t/ comprise all
dental consonants, but not in *tuk* (VI 1 71 *hrasvasya piti kṛti tuk*) because we want on-
ly /t/ attached in words like *agni-ci-t*, not /d/ or /dh/; but here /u/ is not used phoneti-
cally either. So what makes it disappear? For a possible solution see H. Scharfe,
Pāṇini's Metalanguage, Philadelphia 1971 (Memoirs of the American Philosophical
Society vol.89), p.8 and below pp.69-72.

19. Vārttika 3 on VI 1 67 (Mahâbhāṣya III 45,18) *vasya vânunāsikatvāt siddham*.

Kātyāyana's discussion of I 3 11 *svaritenâdhikāraḥ* "A heading is in-
dicated by a *svarita* accent" and the alternative interpretation *svarite
nâdhikāraḥ* "It is not a heading when there is a *svarita* accent" pro-
posed by someone,[20] showed that Kātyāyana did not know where the
svarita accents were. Had he known the position of the *svarita* ac-
cents, he would have rejected the alternative interpretation as absurd.
And regarding Patañjali, Kielhorn remarked "that Patañjali so far as
the position of the svarita is concerned, did not feel bound by any
written text, by any tradition going back to Pāṇini himself."[21] Paul
Thieme demonstrated the close similarity of Kātyāyana's vārttika-s
(on Pāṇini's grammar) and Kātyāyana's Vājasaneyi-prātiśākhya, and
he made it virtually a certainty that the two authors were one and the
same. He called the Prātiśākhya a grammar for reading: instead of just
pronouncing the adverb *antáḥ* with an *udātta* pitch, the author of the
Vājasaneyi-prātiśākhya I 162 said (or wrote) *antar anādy-udāttam*
"*antar* with high pitch not on the first syllable". There are indications,
as we shall see, that Kātyāyana may have received the Aṣṭādhyāyī in
the form of a manuscript with continuous writing – something almost
certainly true for Patañjali.[22] Within a sūtra, sandhi rules are observed
with certain limitations due to the necessities of the meta-language.[23]

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20. I.e., that the *svarita* accent marked the end of a section (Mahābhāṣya I
272,14-21).

21. F.Kielhorn, in *Gurupūjākaumudī*, (Fs. A.Weber), Leipzig 1896, pp.29-32
(*Kl.Schr*. pp.290-293). A.C. Sarangi, *Gleanings in the Sanskrit Grammatical
Tradition*, p.82, pointed out that Patañjali's uncertainty whether rule II 1 1 *samarthaḥ
pada-vidhiḥ* is an *adhikāra* or a *paribhāṣā* shows the absence of accents in his text of
the Aṣṭādhyāyī: *adhikāra*-s were supposed to be marked with a *svarita* accent.

22. P.Thieme, *Pāṇini and the Veda*, pp.53 fn.1, 120f., 124 and 128f. If
Kātyāyana lived around 250 B.C. (H.Scharfe, (*ZvS* 85 [1971], pp.223-225), he could
have had before him a text written in Brāhmī script which was probably developed in
the early years of the Maurya dynasty: S.R.Goyal, in *The Origin of the Brāhmī Script*,
edd. S.P.Gupta and K.S.Ramachandran, Delhi 1979, pp.1-53; O.von Hinüber, *Der
Beginn der Schrift*, pp.59-62, H.Falk, *Schrift im alten Indien*, p.165; S.R.Goyal, *The
Indica of Megasthenes. Its Contents and Reliability*, Jodhpur 2000, p.33-56 and
Brāhmī Script, Jodhpur 2006; H.Scharfe, *JAOS* 122 (2002), pp.391-393. See also
above pp.28-30 and below pp.74-76. A.C.Sarangi, *Gleanings in the Sanskrit
Grammatical Tradition*, Delhi 1995, p.28 proposed four stages: (1) Pāṇini's text was
written without accent marks, (2) later such marks were added, (3) then they were lost
(before Kātyāyana!), (4) the text was passed on without accent marks.

23. H.Scharfe, *Pāṇini's Metalanguage*, pp.9-12.

Thus I 4 56 *prāg r-īśvarāt* "Up to *r-īśvara*" refers to I 4 97 *adhir īśvare* (recited *adhirīśvare*) "*adhi* in the meaning of 'ruler over'." It is remarkable that Pāṇini felt the need to differentiate this word *īśvara* in I 4 97 (by including the preceding consonant /r/) from the occurrences of the word *īśvara* in II 3 9 and 39, III 4 13, and VII 3 30, even though the *īśvara* in I 4 97 occurs first in the succession of rules.

We have no independent assurance that the division of sūtras in our traditional text is always the one intended by Pāṇini. In two sūtras (IV 1 163 *jīvati tu vaṃśye yuvā* "But when a senior ancestor is still alive, [the off-spring is called] *yuvan*" and VIII 2 98 *pūrvaṃ tu bhāṣāyām* "But in ordinary speech [only] the first [final vowel is protracted]") a phrase with *tu* in the second position is separate in our traditional text from the preceding sūtra with which it shares the field of operation. In seven other sūtras such a phrase is united with the preceding phrase in one sūtra, e.g. I 2 37 [33 *ekaśruti* 36 *vibhāṣā chandasi*] *na subrahmaṇyāyāṃ svaritasya tûdattaḥ* "[Everything may be spoken with even pitch in sacred literature;] not in the *subrahmaṇyā* [formula], but a high pitch [is substituted] for the *svarita*."[24] Joshi and Roodbergen proposed to divide all these rules into two: because *tu* functions like a boundary marker, and because the second part contains an incompatible *vidheya* (predicate).[25] Our traditional text apparently is not consistent. Is there a reason why in two instances the phrases with *tu* are separate, in seven instances not? The two phrases that are separate are longer and are formulated in normal Sanskrit without artificial terms. Hence their different status could well have been intended by Pāṇini himself. I would therefore hesitate to follow the lead of Joshi and Roodbergen.

The vārttikas are, according to a popular definition, an "investigation of what is said, has not been said, and said badly"[26] or, according to the great commentator Nāgojībhaṭṭa, "an investigation of what has not been said or said badly in the sūtra."[27] Nāgojībhaṭṭa's more narrow

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24. Other such sūtras are II 4 83; V 3 68; VI 1 99; VII 3 3; VII 3 26; VIII 3 2.
25. S.D.Joshi and J.A.F.Roodbergen, *Aṣṭādhyāyī*, vol. II p.63 and vol.VIII pp.157-159.
26. In Hemacandras Abhidhānacintāmaṇi nr. 256 (p.42)
    uktânukta-duruktârtha-cintākāri tu vārttikam /
27. Nāgojībhaṭṭa, Uddyota on I 1 1 vārttika 1: *sūtre 'nukta-durukta-cintāka-ratvaṃ vārttikatvam* (Rohtak ed., vol.I p.125).

definition does not assume that Kātyāyana would just explain passages of the Aṣṭādhyāyī; but often his discussion of a possible shortcoming amounted to an explanation of what has been said, when he reached the conclusion that Pāṇini's formulation should stand as it is. Among Kātyāyana's tools were emendations of Pāṇini's rules and a technique called *yoga-vibhāga*.[28] The latter term is usually translated as "division of a rule which has been traditionally given as one single rule, into two"[29] or "«scission d'une règle» en deux ou plus des deux...sans en modifier la teneur, ou à réaménager le text..."[30] The character of *yoga-vibhāga* becomes clearer when contrasted with *sūtra-bheda*.[31] Abhyankar defined *sūtra-bheda* as "(1) splitting up of a grammatical rule (*yogavibhāga*); (2) change in the wording of a rule"[32] and Renou, again more correctly, as "changement (dans la teneur) d'un sū."[33]

sūtra-bheda, first attested in a *ślokavārttika* quoted in the Mahābhāṣya,[34] was defined by Patañjali: "Here something that is not done is postulated, and something that is done is rejected – this is made a *sūtra-bheda* 'cutting of the thread'."[35] The term is used in re-

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28. A *śloka-vārttika* quoted by Patañjali uses *vigraha* instead of *yoga-vibhāga* (Mahābhāṣya I 200,16). G.V.Devasthali, *Bulletin of the Deccan College Research Institute* XXXV (1975), pp.42-48 studied several applications of *yoga-vibhāga* which he wrongly attributed to an attempt to "up-date" Pāṇini's grammar; however, Devasthali has offered no evidence that Kātyāyana's remarks referred to linguistic developments between Pāṇini's and himself. He criticized Kātyāyana's procedure to include such innovations by *yoga-vibhāga* in Pāṇini's grammar as "unhistorical." Kātyāyana, like Pāṇini, was certainly not a historical linguist. He tried to interpret Pāṇini's rules in a way that would include forms known to him.

29. K.V.Abhyankar, *A Dictionary of Sanskrit Grammar*, 2nd ed., Baroda 1977, p.318.

30. L.Renou, *Terminologie grammaticale du Sanskrit*, Paris 1942, pt.II, p.64; cf. also L.Renou, *La Durghaṭavṛtti*, pp.95-97. Cf. earlier statements by F.Kielhorn, *IA* 16 (1887), pp.179-181 and 247f. (*Kl.Schr.* pp.227-229 and 236f.).

31. Kātyāyana used *yoga* for individual rules throughout, *sūtra* possibly once (vārttika 1 of the *paspaśā*; Mahābhāṣya I 11,16) for the whole text of the grammar. Patañjali used *sūtra* both for the whole text (I 39,11) and the individual rules in it (I 296,11f.); individual rules were also called *yoga* (I 55,21).

32. K.V.Abhyankar, *A Dictionary*, p.432.

33. L.Renou, *Terminologie*, pt. II p.149.

34. Mahābhāṣya II 232,1.

35. Mahābhāṣya II 22,11f. *iha kiṃcid akriyamāṇaṃ codyate kiṃcic ca kriyamāṇaṃ pratyākhyāyate. sa sūtra-bhedaḥ kṛto bhavati.* Note Meghadūta II 9

ferring to the deletion of the vowel /ḷ/ in the *samāhāra-sūtra* 2 (*ṛ ḷ ᵏ*) which was considered unnecessary,[36] and to Kātyāyana's proposed insertion of *sārvadhātuke nityam* (and Patañjali's alternate insertion of *śap.i nityam*) in III 1 31.[37] Regarding rule IV 1 98 *gotre kuñjâdibhyaś cPHañ* "The suffix *-āyana* is attached after [the names] Kuñja etc. to denote distant offspring" Patañjali considered that one could make do with one tag /k/ instead of both /c/ and /ñ/[38] in the suffix *ᶜPHa�ñ* (i.e. *-āyana*); but use of *PHaᵏ instead of *ᶜPHa�ñ* would create problems in V 3 113. Hence *ᶜPHa�ñ* is retained: "There should be no *sūtra-bheda*!"[39] While Patanjali did not reject all material alteration of sūtras, it is striking that he used the word *sūtra-bheda* only when he rejected a proposed alteration ("There should be no *sūtra-bheda*!") as if it was an undesirable concept. Śabarasvāmin's general dislike of *vākya-bheda* "splitting of a sentence" (though it was permitted in certain contexts in the Mīmāṃsā-sūtras!) comes to mind.[40]

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bhinna-sūtrair hāraiḥ "with necklaces with cut threads," *sūtra-bhid* "tailor" (*Śabda-ratnāvali, An Early Seventeenth Century Kośa Work*, ed. M.M.Chaudhuri, Calcutta 1970, p.123).

36. Mahābhāṣya I 21,26f. *sa eṣa sūtra-bhedena ḷkârôpadeśaḥ pluty-ādy-arthaḥ san pratyākhyāyate* "This teaching of /ḷ/, being for the sake of *pluti* etc., is rejected by *sūtra-bheda*." Vocalic /ḷ/ is extremely rare in Sanskrit; the root √*kḷp* is taught as √*kṛp* in the Dhātupāṭha with a substitution r>l only late in the grammatical process (VIII 2 18).

37. Mahābhāṣya II 41,14f. Pāṇini III 1 31 taught *āy-ādaya ārdhadhātuke vā* "The suffixes *-āy* etc. are commonly added before an *ārdhādhatuka* suffix." Kātyāyana proposed to add *sārvadhātuke nityam* "Always before a *sārvadhātuka* suffix," and Patañjali instead proposed *śap.i nityam* "Always before the present class suffix *śap*."

38. Attached to a secondary noun suffix, the tag /k/ rules in accent on the last syllable and vṛddhi of the first vowel of the stem. The tag /c/ rules in accent on the last syllable, and the tag /ñ/ accent and vṛddhi in the first syllable: *Kauñjāyanáḥ* from *Kuñja*. The influence of the tag /ñ/ on the accent is overruled here by the tag /k/ that would be without application otherwise.

39. Mahābhāṣya II 253,15. Words with the suffix *ᶜPHaᑒñ* receive in the singular (and dual) by rule V 3 113 the additional suffix *-ya* (→ *Kauñjāyanyáḥ*) to which stems with the suffix *PHaᵏ* (IV 1 99) are not entitled (→ *Nāḍāyanáḥ*). The use of the different tags is here a device to differentiate between two suffixes *PHa* (= *āyana*).

40. Śabara-bhāṣya on I 4,5 sūtra 8 (vol.II, p.294,2f.): *guṇa-vidhi-pakṣe hi sarva ime vākya-bhedâdayo doṣāḥ prādurbhavanti*. The later Mīmāṃsaka Śālikanātha-miśra took a similar stand in his Prakaraṇa-pañcikā ch. 13: *ata eva yathā-kathañcid ekavākyatvôpapattau vākyabhedasyānyāyyatvam*. Cf. G.V.Devasthali, *Mīmāṃsā: The Ancient Indian Science of Sentence Interpretation*, 2nd ed., Delhi 1991, pp.163-182;

Twice we are told that a proposed modification is not a *sutra-bhe-da*. Patañjali proposed to change VII 4 46 *do dad GHOḥ* into *do 'd GHOḤ* and continued: "Even so a *sūtra-bheda* is made. – This is not a *sūtrabheda*. – What does one attend upon as a *sūtrabheda*? – Where it is made into another or a larger sūtra; for if it is made by contraction, this is not a *sūtrabheda*."[41] That *yoga-vibhāga* and *sūtra-bheda* are different, becomes clear also from Patañjali's discussion of rule III 1 46 [45 *ksaḥ*] *śliṣa āliṅgane* "[The aorist suffix *-sa* is attached] after the root √*śliṣ*, when it means 'embracing'."[42] Kātyāyana expressed concern that the rule might not properly act as a restriction, and that 1) the suffix *-sa* could wrongly be deployed in the aorist passive (instead of a correct *upāśleṣi* "was embraced") and 2) the aorist suffix *-a* would fail to deploy when the meaning is other than "embrace." Kātyāyana therefore first proposed two amendments: the aorist suffix *-sa* would deploy within the sphere of the aorist passive suffix *ciṇ,* and when the aorist suffix *-a* is taught for several roots in III 1 55 (of the type *aga-mat*), a restriction should be added: after the root √*śliṣ* only when it does not mean "embrace." Patañjali at first accepted the proposals: "It gives the right results. The thread is cut then. – It shall remain as it is. – Was it not said...?" But then Kātyāyana had already rejected both proposals in his vārttika 4: *yoga-vibhāgāt siddham* "It gives the right results because of *yoga-vibhāga*." Patañjali explained: "*yoga-vibhāga* will be made: *śliṣaḥ* '[the suffix *-sa*] comes after the root √*śliṣ*'. – For what purpose? – The suffix *-a* wrongly results, because [the root √*śliṣ*]

Irene Wicher, *WZKS* 43 (1999), pp.139-166. Devasthali, p.163 quoted also (without reference) Kumārila: *sambhavaty eka-vākyatve vākya-bhedaś ca nêṣyate* "Splitting of a sentence is not desired, if one sentence is possible." *vākya-bheda* does not involve changing of the wording (as *sūtra-bheda* does), but merely breaking up the unit (similar to *yoga-vibhāga*).

41. Mahābhāṣya III 351,12-15 *nâsau sūtra-bhedaḥ. sūtra-bhedaṃ kam upā-caranti? yatra tad evânyat sūtram kriyate bhūyo vā. yad dhi tad evôpasaṃhṛtya kri-yate nâsau sūtra-bhedaḥ.* The amendment considered above for IV 1 98 is a *sūtra-bheda*, because it is alteration, not merely an abbreviation, even though it happens to make the sūtra minimally shorter.

42. As in *āślikṣat kanyāṃ Devadattaḥ* "Devadatta embraced the girl" (Kāśikā on III 1 46); Patañjali gave as counterexamples *upāśliṣaj jatu ca kāṣṭham ca* "He clung to the lac and the wood," and *samāśliṣad brāhmaṇa-kulam* "He attached himself to the Brahmin clan" (Mahābhāṣya II 54,3) – of which the former is also quoted in the Kāśikā.

is taught among the roots √*puṣ* etc.[43] in rule III 1 55; that must be pre-
vented. Then [we apply:] *āliṅgane* "and to express embracing [after
the root √*śliṣ* the suffix -*sa* is attached]." – What is the purpose of
that? – For the sake of restriction. After the root √*śliṣ* only when it de-
notes embracing. It should not be [used] here: *upāśliṣaj jatu ca
kāṣṭhaṃ ca* "He clung to the lac and the wood," *samāśliṣad
brāhmaṇa-kulam* "He attached himself to the Brahmin clan."[44] Here
instead of the two proposed amendments, to which Patañjali referred
by saying "the thread is cut" we have an interpretation that leaves the
text (*sūtra*) intact, but splits the rule (*yoga*) in two.

   There may be legitimate questions, whether the division of sūtras
that Kātyāyana received was in all instances the one intended by
Pāṇini; Joshi and Bhate considered arguments whether I 2 17 *sthā-
GHV.or ic ca* and III 4 103 *yāsuṭ parasmaipadeṣûdātto ṅic ca* should
each better be considered as two sūtras instead of one. Our Pāṇini text
reads IV 3 116 *kṛte granthe* and 117 *saṃjñāyām* as two *sūtra*-s.
Kātyāyana's vārttika 3 on IV 3 116[45] suggests that he postulated the
division (implying that he knew the two as one sūtra). Joshi/Bhate
have suggested instead, that originally *saṃjñāyām* was joined with the
following sūtra IV 3 118 to read *saṃjñāyāṃ kulālâdibhyo VUñ.*[46]

   In the twenty-six instances of *yoga-vibhāga* invoked by
Kātyāyana, he applied the sections of a sūtra in stages. The purpose
was to achieve the desired forms without changing the words in
Pāṇini's sūtras. The opposite is *eka-yoga* "[leaving it as] one rule"
which Kātyāyana used five times during the defense of his *yoga-vi-
bhāga.* He had proposed to divide I 4 58/59 (*prâdaya upasargāḥ kri-
yā-yoge* in our text) into two rules: first [56 *nipātāḥ* 57 *asattve*] *prâ-
dayaḥ*, then *upasargāḥ kriyā-yoge*, so that *pra* etc. could also be
termed *nipāta* "particles" – but if it is a single rule (*eka-yoga*), the
term *nipāta* (from sūtra 56) would be set aside by the new term *up-
asarga* (in sūtra 58/59). The later tradition, e.g. the Kāśikā and the
Siddhāntakaumudī, accepted the division into two sūtras which ac-

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43. The roots 73-137 of the fourth class in the Dhātupāṭha.
44. Mahābhāṣya II 54,11-21.
45. Vārttika 3 on IV 3 116 (Mahābhāṣya II 317,1).
46. S.D.Joshi and Saroja Bhate, *The Fundamentals of Anuvṛtti*, p.146.

counts for the double number given in modern editions of the Aṣṭādhyāyī.

In his vārttika 10 on Pāṇini's rule I 1 62 *pratyaya-lope pratyaya-lakṣaṇam* "When a suffix is muted, its function [remains]" Kātyāyana voiced concern, that the word *parivīr* "wound round" could not be correctly formed. The underlying structure is *pari* + $\sqrt{vye^{\tilde{n}}}$ + $^{k}VI^{p}$. First the zero-suffix $^{k}VI^{p}$ is muted[47] by VI 1 67, followed by a substitution *y>i* (by VI 1 15) and *ie>i* (by VI 1 108) resulting in *parivi. As the application of I 1 62 restores the potency of the muted suffix, two mutually exclusive rules apply: the augment *tu^{k}* (i.e., *-t*) should be added to a root ending in a short vowel if followed by a suffix with the tag ^{p} (by VI 1 71), and the final vowel of stem, if it replaced an original semi-vowel, should be lengthened (by VI 4 2). Rule I 1 62 opens the possibilities of (incorrect) *parivit and (correct) *parivī* (nom.sg. *parivīs*, attested in several recensions of the Yajurveda). The two rules, though, are not in a technical conflict capable of solution, because they are caused by the same rule I 1 62 (i.e., by *eka-yoga-lakṣaṇatva*).[48] The rule on technical conflict (*vipratiṣedha*), as understood by Pāṇinīyas, prescribes that the rule taught later in the grammar prevails; but here the conflicting elements would be brought up by the same sūtra.

Pāṇini had ruled in II 4 83 [58 *luk* 82 *sup.aḥ*] *nâvyayībhāvād ato 'm tv apañcamyāḥ* "After an avyayībhāva compound ending in /a/ there is no [dropping of the case suffix]; but *-am* [is substituted] – except for the ablative" that indeclinable compounds ending in /a/ loose their case suffix and receive instead a suffix *-am*, except if the underlying case is an ablative. Thus we get *upakumbham*; the counter-examples are *adhistri* (a compound ending in /i/) and *upakumbhāt* (a compound with an ablative ending). Kātyāyana proposed a hiatus (*vyavasāna*) in the rule after *nâvyayibhāvad ato*, so that the blocking of *-am* in the case of ablatives can take effect. If there were *eka-yoga*, the negation would block not only the appearance of *-am* but also the cessation of *luk*: the ablative would loose its ablative suffix. Patañjali expanded on Kātyāyana's argument: "After *nâvyayibhāvad ato* there

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47. *lopa* "deletion" is defined as a technical term in I 1 60 *adarśanaṃ lopaḥ* as "not being seen."

48. Mahābhāṣya I 163,4-8.

should be a hiatus in the rule: 'There is no dropping [of the case suf-fix] after an avyayībhāva compound that ends in /a/.' Then: *am tv apañcamyāḥ* 'But -*am* [is substituted] except for an ablative suffix.' – For what purpose is the rule divided? – So that [the substitution of] -*am* is prohibited for an ablative suffix. For if there were a single rule, both would be prohibited: [the substitution of] -*am* and the non-drop-ping [of the ablative suffix]."[49]

While Kaiyaṭa and Nāgojībhaṭṭa had little or nothing to say on this matter and the comment in the Kāśikā is very brief, the sub-com-mentaries Nyāsa and the Padamañjarī make the technicalities very clear: After the dropping of case endings is cancelled, a positive ruling establishes a substitute -*am*, to which an exception is attached ("not for the ablative suffix"). If, however, the sūtra moves in a single step, the double negation (*na…apañcamyāḥ*) would leave *luk* "dropping" in force. Therefore both commentaries accept the use of two sentences (*vākya-dvayam*, *vākya-bhedas*) in the practical procedure (*vṛtti*), but they refrain from openly splitting the sūtra into two. Patañjali called it *yoga-vibhāga*; why did Kātyāyana not use this term, but used in this single instance instead the unique *yoga-vyavasānam*?[50] The explana-tion is this, that it was not necessary to split the rule II 4 83 in two,[51] because *tu* "but" in the sūtra itself established the restriction, as

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49. Mahābhāṣya I 498,14-20 [***nâvyayībhāvād ata iti yoga-vyavāsanam*** vārttika 1]. *nâvyayībhāvād ata iti yogo vyavaseyaḥ. nâvyayībhāvād akārântāt supo lug bha-vati. tato 'm tv apañcamyā iti. kim-artho yoga-vibhāgaḥ?* [***pañcamyā am-pratiṣed-hârtham*** vārttika 2] *pañcamyā amaḥ pratiṣedho yathā syāt.* [***eka-yoge hy ubhayoḥ pratiṣedhaḥ*** vārttika 3] *eka-yoge hi saty ubhayoḥ pratiṣedhaḥ syād amo 'lukaś ca. sa tarhi yoga-vibhāgaḥ kartavyaḥ. na kartavyaḥ.* [***tur niyāmakaḥ*** vārttika 4] *tuḥ kriyate; sa niyāmako bhaviṣyati: am evâpañcamyā iti.*

50. The word *vyavasānam* occurs otherwise once in Mānava-śrauta-sūtra II 4,2,25 "pauses [in the recitation]," the related verb *vyavaset* in V 2,8,20 "shall make pauses." Kātyāyana used the related participle *vyavasita* "separated, distinct" in his vārttikas 2 and 13 on I 3 3 to indicate that e.g. the suffixes *VUñ* and *CHaṇ* at the be-ginning of rule IV 2 80 *VUñ-CHaṇ-ka-ṬHaj-ila…* should be recited with a slight gap between them (*vyavasita-pāṭha*). That way it would be clear that the /ñ/ of *VUñ* be-longs to the first of the cited suffixes, and not to the second: Mahābhāṣya I 266,10-15. *vyavasyantaḥ* "separating" contrasts with *samasyantaḥ* "combining" (in recitation) in Ṛgveda-Prātiśākhya XV 12; *vyavasanti* "they make a pause" occurs in Ṛgveda-Prātiśākhya XVIII 29.

51. Joshi/Roodbergen, *Aṣṭādhyāyī*, vol.VIII, pp.156f. claimed erroneously that al-ready Kātyāyana introduced the idea of *yoga-vibhāga* concerning this rule (Patañjali did).

Kātyāyana himself pointed out in his fourth vārttika (*tur niyāmakaḥ*) on that sūtra: *luk* is discontinued in the midst of the sūtra.

We notice a change in Patañjali's Mahābhāṣya, which is first a commentary on Kātyāyana's vārttika-s, then also an independent investigation in Pāṇini's grammar. Patañjali clearly assumed a text of the Aṣṭādhyāyī that ran without breaks between sūtras, as might be expected of some manuscripts. Patañjali quoted sūtras I 1 1 *vṛddhir ād aic* and I 1 2 *ad eṅ guṇaḥ* together and with sandhi: *vṛddhir ād aij ad eṅ guṇaḥ*. He wondered why final consonant rules were only selectively observed: a final palatal stop should have been replaced with a velar stop (*aic* first replaced by *aik, then replaced by *aig), and yet only one of the two rules is observed, viz., that a voiceless final stop is replaced with a voiced stop, if the next word begins with a voiced sound (original *aic* replaced by *aij*). Likewise he quoted sūtras I 1 50/51 together: *sthāne 'ntaratama ur aṇ ra-paraḥ*, presenting us with an ambiguity, whether the rule contains a nominative *antaratamaḥ* or a locative *antaratame* – because both would sound the same in connected speech, when the sandhi-rules are applied.[52] There are procedural consequences of this difference; which is more appropriate: the substitute for the closest original or the closest substitute for the original? Patañjali decided in favor of the second alternative.

Twice Patañjali deviated from the traditional division of sūtras by transferring the first word of a sūtra into the previous sūtra. In dealing with I 3 10 *yathāsaṃkhyam anudeśaḥ samānām* "When [two sequences] having the same number of members are stated in rules, [their members] are related in a one-to-one order" and I 3 11 *svaritenâdhikāraḥ* "A heading is marked with a *svarita* pitch accent," he joined *svaritena* with the previous rule, i.e., *I 3 10 *yathā-saṃkhyam anudeśaḥ samānāṃ svaritena*, followed by just *I 3 11 *adhikāraḥ*. *svaritena* is then dittoed into I 3 11 from the preceding rule.[53] In his discussion of IV 1 75[54] he proposed to move the first word of IV 1 18 into the previous sūtra: IV 1 17 *prācāṃ ṣPHa taddhitaḥ [sarvatra]* and IV 1

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52. Mahābhāṣya I 120,22-24 *sā kiṃ prakṛtito bhavati: sthāniny antaratame ṣaṣṭhîti; āhosvid ādeśataḥ: sthāne prāpyamāṇānām antaratama ādeśo bhavatîti. … ubhayathâpi tulyā saṃhitā: sthāne 'ntaratama ur aṇ rapara iti.*

53. Mahābhāṣya I 271, 12-14 *athaîvaṃ vakṣyāmi: yathā-saṃkhyam anudeśaḥ samānāṃ svaritena. tato 'dhikāraḥ; adhikāraś ca bhavati svaritenêti.*

54. Mahābhāṣya II 228,22-24.

18 <*sarvatra*> *lohitâdi-katantebhyaḥ*. It is not necessary in the present context to go into the respective merits of the readings, since here only the ease with which different divisions are contemplated is at issue. In Pāṇini's original formulation each sūtra must be presumed to have been distinct; it is unlikely that even Kātyāyana still knew them that way, as the following two examples show.

In his vārttika 8 on Pāṇini's rule I 1 3[55] Kātyāyana suggested that the problem of rule VII 2 114 *mṛjer vṛddhiḥ* could be solved by a *yoga-vibhāga* involving VII 2 115 *ac.o ñṇ -it.i*. While I 1 3 *ik.o guṇa-vṛddhī* taught that *vṛddhi* is substituted for the vowels /i/u/ṛ/ḷ/, rule I 1 72 *yena vidhis tad-antasya* "That by which a grammatical operation [is pre-scribed], stands for [the element] which ends in that" could be taken to suggest that *vṛddhi* is substituted for the final consonant of the root √*mṛj*. Hence VII 2 115 is split, and the first part of it joined with VII 2 114, resulting in a changed sequence 114 *mṛjer vṛddhir acaḥ* "*vṛddhi* is substituted for the vowel of √*mṛj*" and 115 [*vṛddhir aco*] *ñṇ-it.i* "[*vṛddhi* is substituted for the vowel] before a suffix with a tag *ñ* or *ṇ*."

In his vārttika 6 on VIII 2 23[56] Kātyāyana suggested a *yoga-vib-hāga* that would take the first word of rule VIII 2 24 into VIII 2 23:

> VIII 2 23 *saṃyogântasya lopaḥ* 24 *rāt sasya*

"The last consonant of a word ending cluster is deleted; after an /r/ only an /s/ is deleted"

would be reformulated as

> VIII 2 23 *saṃyogântasya lopo 'rāt* 24 *sasya*

"The last consonant of a word ending cluster is deleted after any-thing but an /r/; an /s/ is deleted," replacing *rāt* with *arāt* in the proc-ess. Though Kātyāyana in neither case explicitly said that the first part of the following sūtra should be joined with the preceding sūtra, Patañjali expressed that conclusion, and it is hard to see, how Kātyāyana could not have shared his view. Merely splitting VII 2 115 would not have solved the problem in VII 2 114, only subsequent merger of its first element with VII 2 114 could. The same is true for VIII 2 23/24.[57]

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55. Mahābhāṣya I 47,25.
56. Mahābhāṣya III 401,20.
57. Mahābhāṣya III 401,10-23.

Patañjali had no knowledge where the pitch accents[58] and nasal-
ized tags were placed in the Aṣṭādhyāyī. He had to reconstruct their ex-
istence and position from his knowledge of the desired forms and from
a study of internal consistencies. Already the author of the *kārikā* 2 on
Pāṇini III 1 123 quoted by Patañjali[59] was unfamiliar with Pāṇini's ac-
cent rules, and Patañjali's discussion of I 3 11 *svaritenâdhikāraḥ* shows
that the technical accents were not part of the text before him.[60] Had he
had a text with these accents before him, he would not have puzzled
over whether rule II 1 1 *samarthaḥ pada-vidhiḥ* was an *adhikāra* or a
paribhāṣā:[61] the former would have been marked by a *svarita*, the lat-
ter not. He proposed three applications for three different kinds of
adhikāra: 1) to mark a continuing charge of a word to continue into the
following rules (*adhikāra-gati*), 2) to mark an additional operation
(*adhikaṃ kāryam*), and 3) a superior agent or word that overrules later
rules that would otherwise prevail (*adhikaḥ kāryaḥ*).[62] An example of
the first would be that the word *strī* in rule I 2 48 *go-striyor upasarja-
nasya* shall be pronounced with a *svarita* accent (*svarayiṣyate*), so that
the amendment proposed by Kātyāyana in vārttika 2 on that sūtra
would not be needed.[63] An example of the second type would be the
definition I 4 24 *dhruvam apāye 'pādānam*, to be pronounced with a
svarita accent[64] to indicate that *apādāna* denotes not only physical sep-
aration from a locality, but also mental separation as in "The people of

58. It is not clear, which syllable of an *adhikāra* was supposed to have the *svari-
ta* accent. K.V.Abhyankar, *A Dictionary of Sanskrit Grammar*, 2nd ed., Baroda 1977,
p.441 under *svaritapratijñā* offered speculative suggestions.

59. Mahābhāṣya II 87,21f. Cf. P.Thieme, *Pāṇini and the Veda*, pp.19-22 and
121f.

60. F.Kielhorn, *Gurupūjākaumudī*, Leipzig 1896, pp.29-32 (*Kl.Schr*. pp.290-
293); P.Thieme, *Pāṇini and the Veda*, pp.120f. Rama Nath Sharma in his *The
Aṣṭādhyāyī of Pāṇini*, vol.I, New Delhi 1987, p.63 took the position of a traditional
scholar: "But since the Aṣṭādhyāyī has been handed down to us orally it is difficult to
ascertain where the *svarita* mark was intended." It is precisely because the oral tradi-
tion was interrupted and because early writing had no signs for accents that the ac-
cents were lost. And it is not just the question where the *svarita* mark was intended –
it was actually there in the original recitation of Pāṇini's grammar.

61. Mahābhāṣya I 359,4 *kiṃ punar ayam adhikāra āhosvit paribhāṣā?*

62. This interpretation would make the dubious device of *pūrva-vipratiṣedha*
proposed by Kātyāyana (cf. p. 6 above) unnecessary.

63. Mahābhāṣya I 223,22-224,2.

64. Mahābhāṣya I 273,12-17 …*svaritenâdhikaṃ kāryaṃ bhavati*….

Pāṭaliputra are better looking than those of Sāṃkāśya,"[65] involving a comparison: the compared item, too, is considered *apādāna* and is therefore expressed by a word with ablative endings. An example of the third type are the vārttikas 10 and 11 on the rule VII 1 95, which demand that the augments *num* and *nuṭ* prevail over their rivals, even though they are taught earlier and should hence by sūtra I 4 2 (in the traditional understanding) give way; but *num* and *nuṭ* shall be pronounced with a *svarita* accent (*svarayiṣyete*) and thus prevail as a "superior agent."[66] Only an apparent exception is the rule I 1 17/18 *uña ūṃ*, where the nasalization was retained or perhaps rather restored: *ūṃ* is a quote from Śākalya's padapāṭha of the Ṛgveda that any Veda student would have been aware of. Patañjali received the Aṣṭādhyāyī in a written form, where pitch accents and nasalizations were not marked – as in so many Vedic texts. Still, he must have received also some oral instruction, because the text was hardly understandable without a teacher's guidance. The manuscript that he would have had before him would have been written continuously without sentence breaks. The authentic (oral) tradition originating with Pāṇini would certainly have had breaks in the recitation, since nobody could have recited all sūtras, even those contained in one *pāda*, in a single breath.[67] It has been said that the whole Aṣṭādhyāyī could be recited in two hours.[68]

Patañjali's remarks on rule I 1 50,[69] his reading of III 4 12+13 *śaki ṇamul-kamulāv īśvare tosun-kasun.au* as one sūtra with sandhi combination,[70] his discussion of I 1 1+2 as if it were one sūtra,[71] and the many deliberations of *yoga-vibhāga*, i.e., whether to take a se-

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65. Mahābhāṣya I 273,13f. *Sāṃkāśyakebhyaḥ Pāṭaliputrakā abhirūpatarā[ḥ].*

66. Mahābhāṣya I 273,18-20.

67. The statement of Joshi/ Roodbergen (*Pāṇini's Aṣṭādhyāyī*, vol.I, p.123), that the Aṣṭādhyāyī was "orally transmitted in continuous recitation" must therefore be modified: it was originally transmitted orally, and later put down in continuous writing.

68. I could not trace the reference. My own experiment showed that it would require a virtuoso reciter; I recited *adhyāya*-s one to four in a leisurely way, taking more than two hours. These four chapters are almost half the text: in continuous printing (as an appendix to the edition of the Siddhāntamaumudī) they occupy thirteen pages out of twenty-seven pages for the whole Aṣṭādhyāyī.

69. See above p.40.

70. Mahābhāṣya I 340,4.

71. Mahābhāṣya I 41,5-16.

quence as one sūtra or two, indicate a text without breaks between sūtras. But at the present state of our understanding of the development of writing in India, it is extremely unlikely that Pāṇini himself could have produced a written text of his grammar. Even Thieme who (in 1935) still believed in an original written form of the Aṣṭādhyāyī, held that this written text ("an imperfect reflection of his actual work, which lived in his and his students' recitation") was more of an author's crutch rather than a text to be spread through copies.[72]

It is now assumed that the Brāhmī script was invented under the orders of a Maurya king, probably Aśoka.[73] The new script noted the proper lengths of vowels and allowed somewhat better writing of consonant clusters. But there were no signs for pitch accents or most nasalizations. Many Vedic texts lost their accentuation when they were eventually written down and their oral transmission was interrupted; those Vedic texts that are showing accents and nasalizations use signs that are post-Pāṇinian,[74] probably even very much later than Pāṇini. We must assume that Kātyāyana and Patañjali similarly received an imperfect tradition: a written text without accents and technical nasalizations, without definite sentence breaks, aided perhaps by some limited instruction on how the rules are to be applied.

Patañjali's use of *eka-yoga* is different from that of Kātyāyana described above on page 37. Patañjali proposed to treat I 1 1 + 2 as one *sūtra*: *vṛddhir ād-aij ad eṅ guṇaḥ*, followed by I 1 3 *iko guṇa-vṛddhī*. The purpose was to avoid continuing *vṛddhi* into I 1 2, which would have made the vowels /a,e,o/ carry the names of both *vṛddhi* and *guṇa*;[75] there would, however, be no dittoing within sections of one *sūtra*, ruling out the application of *vṛddhi* to /a,e,o/. Patañjali pursued the opposite goal by proposing to merge II 4 32 and 33[76] into one

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72. P.Thieme, *Pāṇini and the Veda*, p.124. See also below pp.66-72.

73. Cf. above p.32 fn.22.

74. P.Thieme, *Pāṇini and the Veda*, p.129.

75. Mahābhāṣya I 44,8f. Patañjali followed a similar purpose when he proposed to treat VII 2 115/116 as one sūtra (*eka-yoga*): *ac.aḥ* "for a vowel" shall continue into VII 2 117, but not in the intervening VII 2 116: Mahābhāṣya III 314,24-315,2.

76. II 4 32 *idamo 'nvādeśe 'ś anudāttas tṛtīyâdau* "In referring back, a low-pitched *a* is substituted for *idam* before [the suffixes of] an instrumental, etc." and II 4 33 *etadas tra-tasos tra-tasau cânudāttau* "[A low-pitched *a*] is substituted for *etad* before the suffixes -*tra* and -*tas*, and -*tra* and -*tas* are low-pitched."

sūtra: he needed *idam.as* from II 4 32 and *etad.as* from II 4 33 to continue together into II 4 34,[77] so that the stem *ena* can be substituted for both pronouns in the accusative, the instrumental singular, and the genitive/locative dual (*enam*, *enena*, *enayos*, etc.). Rules II 4 32 and 33 teach different substitutions and are definitely not a single application. There would be difficulties to continue *idam.aḥ* from II 4 32 into II 4 34, leapfrogging the intervening rule. But if both rules are merged into one *sūtra*, this will allow parts of both *sūtra*s to be continued into II 4 34. The artificiality of this interpretation is obvious, and Patañjali considered also other alternatives.[78]

He weighed the advantages and disadvantages whether the four rules IV 2 67-70 should be treated as one rule (*eko yogaḥ* or *eka-yogaḥ*) or separate rules (*nānā-yogāḥ*), and he found support for the notion that there is no dittoing within a *sūtra* and also for the opposite position.[79] The same purpose underlies other proposals to merge *sūtra*s. Patañjali proposed to merge VI 1 15 (which rules in *saṃprasāraṇa* reduction of the root before suffixes tagged with a ^{k}) and VI 1 16 (that rules in the same reduction for some other roots before suffixes tagged with a $^{\dot{n}}$),[80] so that both can be dittoed together in the following *sūtra* VI 1 17 (reduction in the reduplication syllable), making it unnecessary to specify that this rule applies both to suffixes tagged with ^{k} or with $^{\dot{n}}$.[81] Patañjali rejected the suggestion that *sūtra* VI 2 175 *bahvor nañ-vad uttara-pada-bhūmni* could be eliminated, if *bahvor* would be included in VI 2 172 *nañ-su.byām* so as to read **nañ-su-bahu.bhyaḥ*. For "even if there is a single *yoga*…" there

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77. II 4 34 [32 *idamo… anudāttas* 33 *etadas*] *dvitīyā-taûssu enaḥ* "[low-pitched] *ena* is substituted [for *idam* and *etad*] before the [suffixes of] the genitive, the instrumental singular, and the genitive/locative dual."

78. Mahābhāṣya I 482,17f. '*athavaîkayogaḥ kariṣyate. idam.o 'nvādeśe 'ś anudāttas tṛtīyâdāv etadas tra-tas.os tra-tas.au cânudāttau*'. *tato* '*dvitīyā-ṭaûs.sv ena idama etadaś ca*'.

79. Mahābhāṣya II 286,24-287,11.

80. Mahābhāṣya III 25,17-19. Patañjali here abbreviated the long list of roots named in VI 1 16 with "√*grah* etc." That does not necessarily mean that he intended to shorten this rule; he may merely have shortened the reference to this very long rule for the sake of convenience.

81. The same purpose is the basis of the proposed *eka-yoga* for the sūtras VI 3 47/48 (Mahābhāṣya III 162,1-3)

would be difficulties.[82] In these instances he went far beyond Kātyāyana's manipulation of rules.

In his book *Pāṇini as a Variationist* Paul Kiparsky has demonstrated that already Kātyāyana and Patañjali had lost the original distinction of the terms *vā*, *vibhāṣā*, and *anyatarasyām* that indicated the optional application of rules in Pāṇini grammar. That Pāṇini should have used three different words to denote the same form of optionality, would be hard to explain. That he would use such a long word as *anyatarasyām*[83], when the short word *vā* was available, is even more bothersome. Patañjali tried to explain the variation with the wide range of Pāṇini's grammar that aimed to cover all Vedic schools, as if he had obtained these different terms from different Vedic traditions (of which there is no indication). Kiparsky showed by the inner logic of Pāṇini's definitions and by the correspondence with the linguistic facts in Pāṇini's own language use as well as the bulk of the surviving literature, that the three terms were not equal. He translated *vā* as "preferably," *vibhāṣā* as "marginally," and *anyatarasyām* as "optionally." His thesis has been accepted by many researchers in the field of Pāṇini studies; some have rejected it or expressed reservations. While I wholeheartedly agree with his claim that the tree terms reflect different degrees of optionality, a remark by G.V.Devasthali cannot be easily dismissed. "The concept of a word (or a phrase) being more preferable or marginally preferable appears to be foreign to the ancient Sanskrit grammatical works and grammarians. As is generally known, they only treat of *sādhu-śabda*-s, and do not appear to have concerned themselves with any idea of their *sādhutva* or gradation on that ground."[84] All words of that eternal divine language are correct, leaving out only *apaśabda*-s and the words of the *mleccha*-s. The idea that

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82. Mahābhāṣya III 137,15-20 …*eka-yoge 'pi sati*…

83. I found the earliest attestation of *anyatarasyām* outside the Pāṇinīya literature in Āśvalāyana-śrauta-sūtra IX 6,4 (Uttaraṣaṭka III 6,4; p.383,15), "on the other hand" in H.G.Ranade's translation (Āśvalāyana śrauta-sūtra trans., pt.2, Poona 1986, p.77). The word calls for a feminine noun of reference. Āśvalāyana-śrauta-sūtra II 7,17 …*anyatarāṃ gatiṃ gacchati* and Chāndogya-upaniṣad IV 16,1f. …*tasya manaś ca vāk ca vartanī. tayor anyatarāṃ manasā saṃskaroti*… suggest a word denoting "path" such as *gati* or *vartani*.

84. G.V.Devasthali, in *Proceedings of the International Seminar on Pāṇini*, Pune 1983, p.165 fn.37; also *ABORI* 62 [1981], pp. 211f. and 64 [1983], p.148.

the forms found in one Vedic *śākhā* would be better than those in an-
other, goes against the sanctity of the Veda and of the language in
which is phrased. A second problem is this, that terms like "prefera-
bly" and "marginally" presume a generative role of the grammar
which cannot be taken for granted. It is doubly questionable, if Pāṇini
(in VI 4 136) would have called *rājani* "preferred" or "better" than
"marginal" *rājñi*,[85] or (in VI 4 79f.) *striyam* "better" than "marginal"
strīm.[86] All these forms (which do occur in Vedic texts) he would
have called correct (*sādhu*). It is therefore preferable to speak of more
commonly or more rarely used forms without passing a value judg-
ment on them.

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85. Kiparsky, *Variationist*, p.52.
86. Kiparsky, *Variationist*, p.141. Kiparsky asserted erroneously that forms like
strīm and *strīḥ* appeared only in Classical Sanskrit and were absent in older texts.
strīm is attested in KapKS VII 7 and XXX 11, AitB VI 3 and ŚāṅkhĀr XI 4 (the refer-
ence in Vishva Bandhu's *Vaidika-padānukrama-koṣa* to JaimB 111 [ed. Caland] cor-
responding to I 330 [ed. Raghu Vira] seems to be wrong), *strīḥ* in ŚatB XIII 2,2,4. Cf.
Heiner Eichner, *Die Sprache* 20 (1974), pp.32-35.

The Cohesion of the Text of the Aṣṭādhyāyī

It may be difficult for us to believe that a work like the
Aṣṭādhyāyī could have been composed without the use of writing. But
the capabilities of authors in oral traditions have often been underesti-
mated. If we assume, that the Aṣṭādhyāyī is the product of the Vedic
oral tradition, we can find good supporting evidence. In written litera-
ture an author frequently emends his text, adding or deleting passages
and changing formulations that he finds infelicitous at a later time.
Such practices are less common in oral literature. Stanzas prescribing
and outlawing the practice of *niyoga* ("levirat") are found side by side,
as are different attitudes towards vegetarianism and different cosmo-
gonic speculations in the Mānava Dharmaśāstra.[1] One may also think
of the Bhagavadgītā, where widely divergent concepts are found
alongside each other, or the alleged practice of teachers like
Kātyāyana to mend a shortcoming by adding a new statement rather
than reformulating an existing one.

Kātyāyana and Patañjali discussed the build-up and meaning of
the word *vyākaraṇa* "grammar." They considered and then rejected
the option that "word" was the essence of grammar. In the course of
this discussion (assuming for argument's sake that *vyākaraṇa* meant
"words") Patañjali asked why Kātyāyana in his vārttika 13 in the in-
troductory section (Paspaśā) had referred to two sūtras of Pāṇini's (IV
3 53 *tatra bhavaḥ* "being in it" and 101 *tena prôktam* "proclaimed by
him") that fail to give a workable build-up of *vaiyākaraṇa*
"grammatical,"[2] when a reference to the second sūtra alone could be
a blanket provision for both, and answered. "First the teacher (i.e.
Kātyāyana) saw this: '[a secondary suffix] denoting <u>being in it</u>' and

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    1. P.Hacker, in *Jñānamuktāvalī* (Fs. Johannes Nobel, ed. Claus Vogel, New
Delhi 1959), pp.77-91; L.Alsdorf, *Beiträge zur Geschichte von Vegetarismus und
Rinderverehrung in Indien*, Mainz (AWL 1961 no.6), esp. pp.572f. P.Olivelle,
Manu's Code of Law, Oxford 2005, pp.29-36 and p.53 saw the Manu-smṛti as the
work of one author who used traditional material, at times juxtaposing conflicting
opinions in a technique he (i.e., Olivelle) called "anthologizing" (*ibid.*, p.33).
    2. A grammatical rule is not in the word but in the sūtra (*yogo vaiyākaraṇaḥ*),
and it is the sūtras that are proclaimed by Pāṇini, Āpiśali and Kāśakṛtsna, not the
words (*Pāṇinīyam vyākaraṇam*, etc.): Mahābhāṣya I 12,1-6.

recited it. Then he saw at a later time: '[these suffixes denote also] <u>proclaimed by him etc.</u>', and he recited that. And the teachers now do not take back sūtras after they have made them."[3]

Joshi and Bhate[4] have studied in great detail the use of *ca* "and" in the Aṣṭādhyāyī and found that *ca* links statements, while dvandvas link items. The statements are linked by way of conjunction or – if that is not possible – (inclusive) disjunction. Conjunctive connection is found in III 1 1-3 *pratyayaḥ; paraś ca; ādy-udattaś ca* "[Now comes] suffix; and it follows; and it is accented on the first syllable," where all three processes can be co-applied in one and the same derivation. Disjunctive connection is found in I 1 52 + 53 *alo 'ntyasya; ṅ-ic ca*, where the two processes are not to be co-applied. According to the first rule, a substitute consisting of a single sound[5] takes the

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3. Mahābhāṣya I 12,6-10 (for an extended discussion of this passage see below pp.92-95). The same statement is made twice more with reference to Kātyāyana's vārttikas: III 151,11-15 and 392,24-393,3. There is perhaps more involved than a teacher's reluctance to admit to a shortcoming. Note how Śunaḥśepa "saw" the Vedic ritual of immediate pressing in Aitareya-brāhmaṇa VII 17. An authoritative teacher's pronouncements are a revelation of a truth than cannot be set aside. Joshi/Roodbergen, *Patañjali's Vyākaraṇa-Mahābhāṣya, Paspaśāhnika* p.168 fn.692 took it as "another instance of Patañjali's critical attitude with regard to Kātyāyana…Nowadays the *ācāryas* produce sloppy pieces of work. Just look at what Kātyāyana does here." This is certainly unfair. If the use of *idānīm* "nowadays" carries any weight, it would contrast an inspired teacher like Pāṇini possessing direct perception of the truth (*bhagavataḥ Pāṇiner ācāryasya* in Mahābhāṣya I 6,14f.) with ordinary scholars like Kātyāyana. Or we might, with P.-S.Filliozat (*Le Mahābhāṣya,* vol.1 p.124) and Jan E.M.Houben, assume that "it emphasizes here more the sequence of argumentation" (J.Houben in *India and Beyond* [Fs. F.Staal], p.302 fn.37). Yutaka Ojihara, *Indologica Taurinensia* 6 (1978), pp.219-234 (*Mémorial OJIHARA Yutaka*, p.201-221) saw here an ironic use of *nivartayati* in a meaning found in ritual literature "cutting short, trimming." While one might argue that in I 12,9f. the expression involves a potential shortening of vārttika 13 of the Paspaśā <*bhave*> *proktâdayaś ca taddhitāḥ*, in III 151,14f. the entire vārttika 3 on VI 3 34 and in III 393,2f. the entire vārttika 9 on VIII 2 6 would be redundant, because in the former case the preceding vārttika 2 and in the other the following vārttika 10 would comprise the content of the other vārttika. It is not really a question of shortening a vārttika, but of eliminating it. Furthermore, *nivartayati*, *nivartaka* and *nivṛtti* in the sense of "turning away, removing" are common in the Mahābhāṣya; cf. Joshi/Roodbergen, *Patañjali's Vyākaraṇa-Mahābhāṣya, Paspaśāhnika*, p.168 fn.692.

4. S.D.Joshi and S.Bhate in *Proceedings of the International Seminar*, pp.167-227; also in *The Fundamentals of Anuvṛtti*, Pune 1984, pp.98-112.

5. This is implied by I 1 55 which makes a special ruling for substitutes consisting of more than one sound.

place of the last sound of the element under discussion; according to
the second rule also a substitute consisting of more than one sound
(that would normally by I 1 55 take the place of the whole element un-
der discussion) takes the place of the last sound only – if it is tagged
with a ^{n}. The particle *ca* also plays a role in the abbreviating process
called *anuvṛtti* "dittoing, continuing." The suffix ^{k}*tvā* (of the absolu-
tive, e.g. in *uktvā*) in I 2 7 would be dittoed in I 2 8 if it were not
blocked by the incompatible suffix *sa*^{n} (of the desiderative); but since
its continuance in I 2 8 is desired, the continuance is indicated by *ca*,
i.e. *saṃś ca*. Thus both can be considered tagged with ^{k}.[6]

Words denoting option (*vā*, *vibhāṣā* or *anyatarasyām*) are discon-
tinued, if in a following sūtra a new process is introduced; if the option
is, however, also desired in this following sūtra, their continuance is in-
dicated by *ca*. Take e.g., *vā* "commonly" in IV 1 118 *pīlāyā vā* "[The
suffix -*a*] is added commonly after *pīlā*" shall continue in IV 1 119
DHa^k *ca maṇḍūkāt* "The suffix -*eya* is also [commonly] added after
maṇḍūka" – this continuance is achieved with the use of *ca*. In some
cases, *ca* "and" indicates a boundary. Following II 4 42 *hano vadha
liṅ.i*; 43 *luṅ.i ca*; 44 *ātmanepadeṣv anyatarasyām* we have the root sub-
stitution √*han* >*vadha* in the optative, also in the aorist, but only alter-
natively in the aorist middle. Here *ca* marks the end of the continuance
of the optative (*liṅ*); only the aorist (*luṅ*) is continued into II 4 44. *ca*
also serves as an indicator that a rule is separate from the one that pre-
cedes, as in I 1 4 +5 *na dhātu-lopa ārdhadhātuke; k-ṅ-it.i ca* "No [*guṇa*
or *vṛddhi*] before an *ārdhadhātuka* suffix that entails some loss of the
root; and before [a suffix] with a tag ^{k} or ^{n}." Here without *ca* the two
rules would appear to be one, with undesired results (viz., that only
ārdhadhātuka suffixes with the tags ^{k} and ^{n} would block *guṇa*).

Often, though, the regularity Joshi and Bhate discovered is
spoiled by subsequent rules joined with a "redundant" *ca*. The word
avyayam "indeclinable" in I 1 37 *svar-ādi-nipātam avyayam* "*svar* etc.
and the particles are indeclinables" is continued in the next sūtras I 1
38-41, where the continuance is indicated with a "redundant" *ca* in I 1

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6. I 2 8 [5 *kit* 7 *ktvā*] *ruda-vida-muṣa-grahi-svapi-prach.aḥ saṃś ca* "[^{k}*tvā*] and
the desiderative suffix -*sa* after the roots √*rud*, √*vid*, √*muṣ*, √*grah*, √*svap* and √*pṛch*
[are considered having the tag ^{k}]."

38[7] and 41, but not in I 1 39 + 40. Joshi and Bhate were baffled: "Since the use of *ca* is regulated by strict conventions, we are at a loss to explain the purpose of *ca* in such rules."[8] They noticed that these rules with "controversial" *ca* often deal with compound formation and secondary noun formation, and they concluded that these sections were added from another source and by another redactor at a later time. In rule I 1 19 [11 *pragṛhyam*] *īd-ūd.au ca saptamy-arthe* "/ī/ and /ū/ in the meaning of a seventh [locative case ending] are also exempt from sandhi" the particle *ca* is not needed to assure the continuance of *pragṛhyam* – but one might claim that it marks the end of the *pragṛhyam* section. The rule I 1 19 deals with Vedic forms, and I 1 38 (mentioned above) deals with secondary noun suffixation (*taddhita*). Similarly *ca* is not needed to assure the continuance of *avyayam* in I 1 41 [*avyayam*] *avyayībhāvaś ca* "Also an adverbial compound [is called indeclinable]." The rule deals with the formation of nominal compounds (*samāsa*). The authors have suggested that rules regarding Vedic forms, nominal compounds and secondary noun formation are additions from a different source.[9] "Therefore, our conjecture is that vedic rules have been added to the original text of the *A*. from a different source….We find that here the redundant *ca* is used in rules dealing with *taddhita*- and *samāsa*-formations, but not so in the rules dealing with *kṛt*-formations."[10] Where do these "redundant" *ca* come from? "Since some additions in the present text of the *A*., coming from Kātyāyana, contain redundant *ca*, the hypothesis that pre-Kātyāyana grammarians also used this redundant *ca*, seems reasonable. Moreover, wherever additions are made it is natural to use *ca* 'also'. In this way the statements made by later grammarians have already been marked by the use of redundant *ca*. Therefore, the redundant *ca* becomes purposeful, because it offers a clue for a later addition."[11]

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7. In rule I 1 38 [37 *avyayam*] *taddhitaś câsarva-vibhaktiḥ* "Also a secondary noun derivative which does not admit all case ending [is called indeclinable]" the particle *ca* is not needed to assure the continuation of *avyayam*.

8. S.D.Joshi and S.Bhate in *Proceedings*, p.196.

9. Joshi/Roodbergen, in *Proceedings of the International Seminar*, pp.62f., and S.D.Joshi and S.Bhate, *The Fundamentals of Anuvṛtti*, Pune 1984, pp. 252f.

10. S.D.Joshi and S.Bhate in *Proceedings*, pp.216f.

11. *Ibid.*, p.217.

There are, in the view of the authors, two likely sources for the sūtras that do not conform to Pāṇini's regular use of *ca* as postulated by them. Pāṇini may have taken them over from earlier authors whose use of *ca* was similar to Kātyāyana's, and they may have been the work of later authors who added their insertions with a telling *ca* "and, also". But Joshi and Bhate are definitely wrong in their last statement, that "the redundant *ca* becomes purposeful, because it offers a clue for a later addition." While such *ca* may serve us modern philologists as an indicator of insertions, it is definitely not "purposeful," because their author had no intention of marking his alleged insertions this way.

Joshi's and Bhate's approach runs into difficulties in some much discussed sūtras that should follow Pāṇini's "regular" pattern and yet have a "redundant" *ca*. Rules I 4 49-51 define *karman* "object": *kartur īpsitatamaṃ karma; tathā yuktaṃ cânīpsitam; akathitaṃ ca* "What is most desired by the agent is [called] object; also what is not desired [but] similarly connected [with the action]; also that [whose role] is not told." In a sentence "He drinks milk" the milk is obviously the desired object, in "He drinks poison" poison is similarly connected but is not desired, and in "He milks milk from the cow" the function of the cow, while being the source of the milk, is not focused on by the speaker. According to Joshi and Bhate, *ca* in I 4 51 is not required to assure continuance of *kārake* (I 4 23) and *karman* (I 4 49) in I 4 50. They interpreted *īpsitatamam* as "directly reached" and argued, therefore, that the unexpressed factor (they spoke of an "indifferent object") can be included in I 4 49 as "disliked objects and indifferent objects." I 4 50, they said, covers indirect objects, i.e. instances of double accusative construction, which leaves rule I 4 51 without any purpose. "Therefore, the present rule which contains a redundant *ca* may be considered a later insertion made after P. 1.4.49 and 50 had been wrongly interpreted." [12] But P.Thieme [13] has argued (convincingly, I believe), that Joshi/Roodbergen's (and Bhate's) interpretation of these sūtras is wrong. *akathita*

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12. *Ibid.*, p.220; cf. Joshi/Roodbergen, *Patañjali's Vyākaraṇa-Mahābhāṣya, Kārakāhnika,* pp.168-176. P.Kiparsky, *On the Architecture of Pāṇini's Grammar*, p.29 thought that I 4 51 referred to elliptic expressions where the "primary goal of the agent" is not expressed, but the verb is transitive nevertheless.

13. P.Thieme, *ZDMG*, Supplement V, Wiesbaden 1983, pp.280-288 (*Kl.Schr.* pp.1202-1210).

does not refer, as some modern interpreters have assumed, to a relation that is not covered by the relations defined in the preceding sūtras, but to a relation that the speaker does not care to characterize, because the focus is on another item and relation. That interpretation had already been considered by Kaiyaṭa[14] and was accepted by Bhaṭṭojīdīkṣita in his Siddhānta-kaumudī.[15] Rule I 4 51 should not be removed as an interpolation, even if it should go against Pāṇini's general use of *ca* as perceived by Joshi and Bhate. This example shows the dangers in marking each use of "redundant" *ca* as a sign of another author at work. Too many indispensable sūtras[16] have a "redundant" *ca* to make such radical surgery probable, and the authors cannot always propose a good solution.[17]

Joshi, Bhate and Roodbergen in their joint publications have studied the common practice of continuing expressions (so-called *anuvṛtti*, sometimes translated as "dittoing") through following rules (even whole chapters), and they have discovered some principles regarding the eventual cancellation of continuation and the use of *ca* "and" as an indicator of inclusion or exclusion. These principles, especially those concerning the use of *ca*, are often not followed in the rules dealing with noun composition (*samāsa*) and secondary noun suffixes (*taddhi-ta*), and Joshi and his collaborators have concluded that these sections are additions to Pāṇini's grammar by later authors; Vedic rules are alleged to have been taken over from another source. We end up with a severely truncated grammar,[18] where sūtras that do not suit these

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14. Pradīpa on I 4 51 in the Rohtak ed. of the Mahābhāṣya, vol.II p.418.

15. Siddhāntakaumudī 775 *akathitaṃ ca. apādānâdi-viśeṣair avivakṣitaṃ kārakaṃ karma-saṃjñam syāt.* Hari Dikṣita explained in his Bṛhacchabdaratna (ed. Sitaram Shastri, Varanasi 1964, vol.I p.654) *na câkathita-śabdo nâpradhāna-paraḥ, kiṃtu kriyā-śabdo 'kīrtita-paryāya iti vācyam…iti cen na* followed by Nāgojībhaṭṭa in his Bṛhacchabdenduśekhara (ed. Sītārāmaśāstrī, Varanasi 1960, vol.II p. 826) on this passage: *akathita-śabdo 'trâkīrtita-paryāyā* [wrong for *-paryāyaḥ*], *nâpradhāna-para iti bhāvaḥ* "The word *akathita* is here a synonym of *akīrtita* 'not talked about'; it does not mean 'unimportant' – that is the meaning." They both rejected thus the tentative suggestion found first in the Mahābhāṣya I 323,19f. and in the Padamañjarī (vol.I pp.575f.), that it refers to the *apradhāna*. For a more detailed discussion of this topic see below pp.129-131 and pp150f.

16. S.D.Joshi and S.Bhate in *Proceedings*, pp.197, 215f., 220f.

17. *Ibid.*, pp.195-198.

18. The grammar would have looked somewhat like the original Kātantra, before sections dealing with primary and secondary word formation, compounds and the

modern scholars' concept are declared spurious.

Take for example Joshi/Roodbergen's treatment of I 1 56-58.[19] To understand the problem in its complexity, we have first to study and differentiate the three terms *asiddha*, *asiddhavat*, and *sthānivat* as they are used in Pāṇini's grammar. There are still unresolved questions in spite of a flurry of scholarly activity in recent years.

The last three *pāda*-s of *adhyāya* VIII of the Aṣṭādhyāyī are introduced with the heading *pūrvatrâsiddham* "[What follows] is unrealized in any [operation or rule that comes] before." None of the rules that are taught in these three *pāda*-s (the so-called Tripādī) may be the basis for operations taught in the preceding seven-and-a-quarter chapters or even in a preceding rule in the Tripādī itself. Since these rules are involved in the final steps that build up words and sentences, one can well say that "they haven't happened – yet." I disagree therefore with the common rendition of *asiddha* in VIII 2 1 as "als nicht geschehen zu betrachten (Böhtlingk), "(…est à entendre comme) ne prenant pas effet" (Renou), "is considered inoperative" (Katre) or "regarded as not having taken effect" (Joshi/Roodbergen),[20] and stay closer to Bronkhorst's "has not taken effect."[21] The elision of final /n/ in a noun stem (e.g. *rājan*-) by VIII 2 7 is "unrealized" in the earlier rule VII 1 9 that rules in the substitution *-bhis > -ais* as the instrumental plural ending after stems ending in a short /a/ (as in *aśva+bhis > aśvais*); since *rājan*- has not yet lost its final /n/, the substitution does not take place in *rājan+bhis*. Only later will the /n/ be deleted by VIII 2 7: *rājan+bhis > rājabhis.* Within the Tripādī all rules are also "unrealized" with regard to all previous rules. We have, as it were, a very long row of brackets, each covering the preceding rules like the layers of an onion. While VIII 2 30 [26 *jhal.i*] *coḥ kuḥ* rules in the substitution of a velar for a

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formation of feminine nouns were added by other authors: B.Liebich, *Zur Einführung in die indische einheimische Sprachwissenschaft.I. Das Kātantra*, Heidelberg 1919, pp.9f. The Kātantra was however – as already its name indicates – a simple textbook for beginners, whereas Pāṇini's grammar aimed at an exhaustive and penetrating representation.

19. S.D.Joshi, in *CASS Studies* 6 (1981), pp.153-168; Joshi/Roodbergen, *ABORI* LXIX (1989), pp. 217-228 and *The Aṣṭādhyāyī of Pāṇini* vol.I, p.93.

20. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.IX, p.82.

21. J.Bronkhorst, *JIPh* 8 (1980), p.72.

palatal before a suffix beginning with a consonant (e.g. **pac+ta* > **pak+ta*), VIII 2 52 [42 *niṣṭhā-t.o*] *pac.o vaḥ* prescribes the substitution *t > v* in the verbal adjective *-ta* of the root √*pac* "cook": **pac+ta* > **pac+va* "ripe"). Without the interference of the *asiddha* rule VIII 2 1 the substitution *t > v* would take precedence over the substitution *c > k*, because it would remove the condition of the application of the latter (/v/ is a semi-vowel, not a consonant). But the substitution of VIII 2 52 is *asiddha* – it hasn't happened yet. I would disagree therefore with Joshi/Roodbergen who stated: "The point is that, although P. 8.2.52 is applied first, its output will be regarded as *asiddha* 'not having taken effect' with regard to the other simultaneously applicable rule."[22] It is not just regarded as not having taken effect, but it actually hasn't.

Rule VI 4 22 *asiddhavad atrâbhāt* states "Here up to [the term] *bha* (i.e., in rules up to and including VI 4 129 *bhasya* or rather to the end of the *bha* section at VI 4 175) [every operation] is as if it were unrealized." An example is the formation of the 2nd sing. imperative active of √*śās*: √*śās+hi* should result in the deletion of the final /s/ of √*śās* before the suffix *-hi* (by VI 4 35), and *-dhi* should be substituted for *-hi* after roots ending in a consonant (by VI 4 101). Each of these operations threatens[23] to pull the ground from under the other; but by VI 4 22 they are treated as if they were unrealized – even though they are indeed both realized in *śādhi*.[24] If Pāṇini had said *asiddham atrâbhāt* "Everything is unrealized here up to *bha*" he would have invalidated many of his rules for good.[25] Kātyāyana in his vārttika 1 on VI 4 22 used only *asiddha*; but that does not necessarily mean that he

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22. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.IX, p.86.

23. G.Cardona has argued that the substitution *hi>dhi* is *nitya* and would apply first; then *śas>śā* could apply, if *dhi* is treated like the original according to I 1 56 (in *New Horizons of Research in Indology*, Poona 1989, pp.55). But I 1 56 explicitly exempts phonetic shape (*an-alvidhau*). Kātyāyana's vārttika 3 on VI 4 22 referred to *śādhi* as one of the purposes of VI 4 22, and Patañjali offered a string of suggestions how *śādhi* could be explained without recourse to VI 4 22 (Mahābhāṣya III 187,17-23). Patañjali rejected also many of the other purposes suggested by Kātyāyana for VI 4 22 (Joshi/Roodbergen, *ibid.*, p.76).

24. P.Kiparsky, *Some theoretical Problems in Pāṇini's Grammar*, Poona 1982, pp.105-111.

25. J.Bronkhorst, *JIPh* 8 (1980), p.71. The resulting form would have been *śāsdhi.

actually read the sūtra as *asiddham atrâbhāt or that he considered asiddha and asiddhavat as synonyms, since he only referred back to his own vārttikas on VI 1 86 that contain the word asiddha.

The concept of asiddha is at the core of asiddhavat, but it would not be proper to accept asiddha and asiddhavat as synonyms[26] – assuming that asiddhavat is the authentic reading in VI 4 22. As the author of the Padamañjarī understood it, all rules in this section are mutually irresponsive: "[Between two rules,] when both ābhīya[27] rules depending on one and the same cause have a chance to apply, in this way one becomes 'as-it-were-unrealized' (asiddhavat) with regard to the other."[28] Joshi/Roodbergen recognized at least two differences in the usage of the two terms: asiddhavat applies only word-internally, asiddha also across the word-boundary; and while the relation of earlier/later plays a role in the Tripādī, it does not in the asiddhavat section. "But, to our opinion, these two differences do not warrant the addition of a meaningful suffix vat to the term asiddha" and "if asiddha is rendered as 'regarded as not having taken effect,' asiddha and asiddhavat become synonyms."[29] The authors rejected the position taken by the Padamañjarī (and P.Kiparsky[30]) regarding the mutual irresponsiveness of the rules in this section.[31] They argued that śās>śā would take prece-

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26. While Kātyāyana and Patañjali are silent on this topic, the Nyāsa and Kaiyaṭa on this rule consider the terms as synonyms, and Kaiyaṭa argued that the suffix -vat must be understood even in the use of asiddha. Cf. Bernhard Geiger, *Mahābhāṣya zu P.VI,4,22 und 132*, pp.9-12 and Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.IX, pp.65f. See also p.62 below on Pāṇini's avoidance of synonymous terms.

27. ābhīya is an adjective made from ā bhāt "up to bha" denoting the rules from VI 4 22 to VI 4 175.

28. Padamañjarī on Kāśikā on VI 4 22 (vol.V p.366 lines 16f.) *yady ubhe apy ābhīye ekam eva nimittam āśritya prāpnutaḥ, evam anyo 'nyasminn asiddhavad bhavati.* I agree with Bronkhorst, *JIPh* 8 (1980), pp.71f., that nothing in the wording of VI 4 22 suggests the simultaneous application of rules that Joshi and Kiparsky (in: D.Dinnsen (ed.), *Current Approaches to Phonological Theory*, Bloomington 1979, p.242 with fn.84) and P.Kiparsky, *Some Theoretical Problems*, Poona 1982, pp.107) have suggested.

29. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol. IX, p.82.

30. P.Kiparsky, *Some Theoretical Problems in Pāṇini's Grammar*, Poona 1983, pp.105-111.

31. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol. IX, pp.82f. and 87, where Joshi reversed his earlier position (see fn.28 above).

dence over *dhi > hi*, since it is a special rule (*apavāda*) applicable to just one word, whereas *dhi > hi* applies to a whole class. Then, by the force of VI 4 22, the substitution *śās>śā* would be "as it were unrealized" when the substitution *dhi >hi* comes up.[32] That appears to be correct and it will not be necessary to invoke mutual irresponsiveness, of which there is no indication in the Mahābhāṣya. But if Pāṇini's *asiddhavat* were synonymous with *asiddha*, as Joshi/Roodbergen claimed, it raises the question how an "unrealized" *śās>śā* would be put back into reality. I believe therefore, that *asiddhavat* is the authentic reading, and that Pāṇini did not indulge in the needless use of synonyms. As Kiparsky[33] has demonstrated, Pāṇini used the suffix -*vat* to extend the reach of a term: *sthānivat* "like the original" in I 1 56, *karmavat* "like goals" in III 1 87, and *vartamānavat* "like present time" in III 3 131. This is a conscious effort by Pāṇini towards transfer or extension (*atideśa*), not careless use of a synonym.

The use of *asiddha* "unrealized" in rule VI 1 86 [84 *ekaḥ*] *ṣatva-tuk.or asiddhaḥ* "The [substitution of] one is unrealized at [the substitution of] *ṣ* and the [augment] -*t*-" poses a problem, because it refers to an operation that "has already happened."[34] The restriction narrowly aims at two rules. The section VI 1 84-111 teaches a single substitute for the previous and following sound (e.g., *iha asti > ihâsti*), part of a larger section VI 1 72-157 dealing with vowel sandhi. These rules VI 1 84-111, however, are "unrealized" (*asiddha*) according to VI 1 86 when it comes to the insertion of the augment -*t*- (VI 1 71) and the substitution *s>ṣ* (VIII 3 59) – in spite of having been realized already! Here are the specifics:

An example for the augment /t/ is the formation of the gerund *adhītya* "having studied." In the sequence *adhi+√i+ya* by rule VI 1

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32. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol. IX, p.67

33. P.Kiparsky, *Some Theoretical Problems*, p.106.

34. Rule VI 1 86 challenges the claim by Yajan Veer Dahiya, *Pāṇini as a Linguist*, Delhi 1995, pp.26f. and 38: *asiddhavat* with reference to actions already taken that come into the realm of later action; *asiddha* rules are late in the process and cannot be involved in earlier actions. J.Bronkhorst (*JIPh* 8 [1990], p.73) stated that "the term *asiddha* determines in what order rules are to be applied. The term *asiddhavat*, on the other hand, does no such thing." According to P.Kiparsky (*Some Theoretical Problems*, p.110) the role of the Tripādī is essentially "to cancel the siddha-principle"

101 [84 *ekaḥ*] *akaḥ savarṇe dīrghaḥ* "A single long [vowel] is substituted for a vowel before a [vowel] of the same class" the two /i/ would be contracted: **adhī-ya*. Now the insertion of the augment /t/ would no longer be possible, because it applies only after a short vowel: VI 1 71 *hrasvasya piti kṛti tuk* "A [root] ending in a short vowel receives the augment /t/ before a *kṛt* suffix with the tag *ᵖ*." To get the desired form *adhītya* "having studied" it was necessary to state that the vowel contraction is not realized at rule VI 1 71.

The example for the substitution s>ṣ is **kas asiñcat > ko 'siñcat* "Who sprinkled?" The elision of /a/ in [*a*]*siñcat* is taught in VI 1 109, the substitution s>ṣ after vowels other than /a/ or /ā/ in VIII 3 59. The latter operation is not realized at VI 1 109[35] but would take place later, resulting in an undesired form **ko 'ṣiñcat*. Therefore the elision of /a/ in [*a*]*siñcat* must be unrealized (*asiddha*) with regard to the substitution s>ṣ – even though it has already been realized in VI 1 109.

If we ask what caused the complication in Pāṇini's organization of rules, we may have a historical explanation. We might say that the phonetic merger of preverb and verb was a development in the earliest Sanskrit that was later than the insertion of /t/ or that the elision of /a/ in **ko <a>siñcat* was later than the *ruki* rule.[36] But this is immaterial, because Pāṇini gave a strictly synchronic description of the language.[37]

One point to consider is that other rules in the section VI 1 72-157 have problems. It is problematic that VI 1 113[38] + 125[39] refer to "pro-

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35. It is *asiddha* by VIII 2 1.

36. The term *ruki* used by modern linguists indicates the four sounds /i,u,r,k/ that affect a following /s/. The process s>ṣ was prehistoric and is well established in the oldest Indian texts, whereas the elision of /a/ after /e/ or /o/ (*abhinihita-saṃdhi*) is post-Ṛgvedic. Cf. H.E.Buiskool, *Pūrvatrāsiddham. Analytisch onderzoeg aangaande het systeem der Tripādī van Pāṇini's Aṣṭādhyāyī*, Amsterdam 1936, p.20 opmerking 1.

37. H.E.Buiskool, *Pūrvatrāsiddham*, pp.163f. and *Tripādī* pp.71f.: "In the theoretical development in Pāṇini's system, the processes which have been put in the *Tripādī*, are, as it were, "of later date" than those in regard to which they are *asiddha*." He stressed at the same time that Pāṇini by no means had historical development in mind when he composed his rules.

38. VI 1 113 [111 *ut*] *ato ror aplutād aplute* "/u/ is substituted for *ru* after an /a/ that is not *pluta*, before /a/."

39. VI 1 125 *pluta-pragṛhyā aci nityam* "Protracted and separated vowels are always unchanged before a vowel."

tracted vowels" (*pluta*)[40] and the intermediary sound r^u (the replacement for word final -*s*, as in *vṛkṣas* > *vṛkṣar, that is replaced with /u/ by VI 1 113/114) that are introduced[41] only in the Tripādī (*pluta* in VIII 2 82-108, r^u in VIII 2 66) and should therefore be "unrealized" in earlier operations according to VIII 2 1. The problem would vanish if the vowel contraction rules were placed in the Tripādī after VIII 3 59. Indeed Joshi/Roodbergen have suggested that a change – that moved the vowel contraction rules from the Tripādī into their present position in book VI – was made when the formation of compounds and secondary noun suffixation were incorporated into Pāṇini's grammar, something they called a pre-Kātyāyana development.[42] It is improbable that Pāṇini would have composed a grammar without these topics; but it is conceivable that he included these topics after he had composed the bulk of his grammar.

But if the suggestion of Joshi/Roodbergen were accepted – that the vowel contraction rules originally were part of the Tripādī – there would be other problems with the linear sequence of rules inside the Tripādī, as J.Bronkhorst[43] has pointed out. Also, it would be redundant to call the vowel contractions *asiddha* if a rule VI 1 86 were placed in the Tripādī. One would have to postulate that *ṣatva-tuk.or asiddhaḥ* was not the original wording before the transfer. It is preferable therefore to disregard the suggestion of such a large-scale transfer of rules from the Tripādī.

It is best for these reasons to follow the lead of Bronkhorst (and Kiparsky) and the observation that operations are called *asiddha* always in express relation to something else (whereas *asiddhavat* is valid within a defined section). Rule VI 1 86 then states that the vowel contraction taught in VI 1 84-111 are not realized in relation to the operations taught in VI 1 71 and VIII 3 59, though they are generally *siddha*

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40. Patañjali noticed the conflict and declared that *apluta* should here be understood as *apluta-bhāvin* "non-*pluta* which will materialize later" (Mahābhāṣya III 85,9).

41. There is, however, the definition of *pluta* in I 2 27.

42. Joshi/Roodbergen, in: *Proceedings*, pp.83f.

43. J.Bronkhorst, *JIPh* 8 (1980), pp.80-82. Bronkhorst (p.84 fn.17) admitted that the difficulties concern mostly "two derivations of *adas*," viz. *amuyā* and *amuṣmai*. Yet they are hard to eliminate without rewriting the grammar.

"realized" in accordance with the maxim *sarvatra siddham* proposed by Joshi/Kiparsky. There would be no problem then with the results of the vowel operations showing up in the actual spoken language, because they were "unrealized" only with reference to a certain rule.

Declaring an operation "unrealized" has two aspects: VI 1 86 *ṣatva-tuk.or asiddhaḥ* allows the insertion of the augment /t/ to go forward (because the merger *i+i>ī* is not realized), and it prevents the substitution *s>ṣ* (because he elision of /a/ is not realized). Kātyāyana defined the purpose of declaring something *asiddha* as "blocking rules based on the substitute and establishing the rules based on the original."[44] But he saw philosophical difficulties. How can the rules based on the original apply, when this original is no longer there? And if it is argued that a rule based thus on the original is properly realized because the substitution is unrealized, one has to admit that the non-realization of one thing does not mean the existence of another. Or, as Patañjali said, the killing of Devadatta's killer does not bring Devadatta back to life.[45] Kātyāyana proposed a remedy: it must be taught both that [the substitute] is like the original and that [the substitution] is unrealized. Ultimately, however, Kātyāyana found it meaningless to teach that [the substitute] is like the original, because it is the rules that are not realized (and not the operations).[46]

That is the position accepted by most Pāṇinīyas, but it was hardly Pāṇini's. Kātyāyana's discussion clearly started with the assumption that it is the operations that are unrealized. Only when he found problems that he considered insurmountable, did he suggest that it is the rules that are unrealized. In parsing rule VIII 2 1 *pūrvatrâsiddham* it would be possible to supply *sūtram* or *lakṣaṇam* to go with *asiddham* (which as a verbal adjective calls for a noun to be implied), but this is

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44. Mahābhāṣya III 65,9 *ṣatva-tukor asiddha-vacanam ādeśa-lakṣaṇa-pratiṣedhârtham utsarga-lakṣaṇa-bhâvârthaṃ ca* "Calling it unrealized regarding the [substitution of] /ṣ/ and the [augment] /t/ has the purpose of blocking the rules based on the substitute and the purpose of [establishing] the existence of the rules based on the original."

45. Mahābhāṣya III 65,19f. *na hi Devadattasya hantari hate Devadattasya prādurbhāvo bhavati*.

46. Vārttika 5 on VI 1 86 (Mahābhāṣya III 66,4) *sthānivad-vacanânarthakyaṃ śāstrâsiddhatvāt* "It is meaningless to state that it is like the original, because it is the rule that is unrealized."

not possible in VI 1 86 *ṣatva-tuk.or asiddhaḥ* where the masculine *ekaḥ* is continued from VI 1 84. The Kāśikā paraphrased the rule with *ṣatve tuki ca kartavye ekâdeśo 'siddho bhavati* "When /ṣ/ and -t- are to be carried out, the substitution of one is unrealized."[47] For Kātyāyana apparently the philosophical problem weighed heavier than the one posed by syntax. No commentary addressed the syntactic problem, even though the Padamañjarī, following Kātyāyana, assumed that it is the rules (*śāstra, śāstra-svarūpa*) that are realized or non-realized.[48]

Philosophical problems bothered Kātyāyana also in the interpretation of the rules I 1 56-58. Rule I 1 56 *sthānivad ādeśo 'nalvidhau* states that "A substitute is treated like the original, except when a grammatical operation is conditioned by a[49] speech sound." The rule has many applications. When √*bhū* is substituted in certain tenses for √*as*, it retains the status of √*as* as a root; when the gerund suffix ᵏ*tvā* is replaced by ˡ*yaᵖ* whenever the verb is joined with a preverb, ˡ*yaᵖ* blocks full grade of the root all the same (even though it lacks the tag ᵏ), and it has the same syntactic function as ᵏ*tvā*, etc.[50] But the rule would be too wide without a restriction: it must not cover phonetic features. The initial sound, e.g., of the gerund ˡ*yaᵖ* (i.e., -*ya*) interacts with a preceding sound like any /y/, not like the /t/ of ᵏ*tvā* (i.e., -*tvā*). But this restriction is again too narrow, because in cases where a semi-vowel replaced a vowel, it still interacts with a preceding sound the same as the original vowel (I 1 57). If the adjective *paṭu* is joined with the feminine suffix -*ī* and the instrumental suffix -*ā* (*paṭu-ī-ā*), the rules require the replacement ī>y before /ā/ which would leave the final /u/ of *paṭu* unchanged (**paṭu-y-ā*). But the replacement /y/ for /ī/ is like the original, resulting in a replacement u>v and a correct form *paṭvyā*. And then again this limitation put on the restriction is too wide and has to be set aside in nine different situations that are enumerated: in word final position, in the doubling of a consonant, etc. (I 1 58).

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47. Kāśikā on VI 1 86 (vol.IV, p.550 line 2).

48. Padamañjarī on Kāśikā on VI 1 86 (vol.IV, p.364, line 16) *ato vyāpakatvāc chāstrasyaîvâsiddhatvam.*

49. Some commentators assume that *analvidhau* includes also rules based on more than one speech sound; the Sanskrit term is ambiguous; cf. S.D.Joshi and J.A.F.Roodbergen, *JAOS* 105 (1985), pp.469-477.

50. The Kāśikā on I 1 56 (vol.I, pp.186-188) gives a list of such retained functions.

Kātyāyana, in his vārttikas 2-6 on I 1 57 had some qualms. If the substitute is like the original, it may be necessary to say that it is *asiddha* "unrealized" with regards to certain other rules.[51] But if this were done, one would have to re-state the original, because the negation of the substitute alone would not re-instate the original.[52] It would be necessary to state two things: that it is like the original and that it is unrealized.[53] Finally he referred to the solution that he proposed in his remarks on a later rule, viz. VI 4 86: it is not the operation that is unrealized but the rule.[54] Pāṇini's rules I 1 56-58 need not be altered.

Joshi took Patañjali's explanation of *sthānivat*, viz. *sthānivad bhavati, sthānivan na bhavati* "Like the original it is, like the original it is not"[55] to mean "Feeding based on the properties of the original is allowed" [and] "Feeding contradictory to the properties of the original is not allowed" and to imply that he considered *sthānivat* and *asiddha* as synomyms.[56] Pāṇini surely should not be guilty of using two terms (i.e., *sthānivat* and *asiddha*) with identical value,[57] and Kātyāyana in two of his *vārttika*-s indeed made a distinction between the two terms.[58] To remove this oddity, Joshi proposed to limit the role of *sthānivat* to a positive or "feeding" role, where the substitute "feeds"

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51. Vārttika 2 on I 1 57 (Mahābhāṣya I 146,17) *tatrâdeśa-lakṣaṇa-pratiṣedhaḥ* "There must be blocking of the substitution rule."

52. Vārttikas 3 and 4 on I 1 57 (Mahābhāṣya I 146,21 and 24) *asiddha-vacanāt siddham iti ced utsarga-lakṣaṇānām anudeśaḥ* (similar to vārttika 2 on VI 1 86 [Mahābhāṣya III 65,15]) and *asiddha-vacanāt siddham iti cen nânyasyâsiddha-vacanād anyasya bhāvaḥ* (identical with *vārttika* 3 on VI 1 86 [Mahābhāṣya III 65,18]).

53. Mahābhāṣya I 147,3 *tasmāt sthānivad-vacanam asiddhatvam ca* "Therefore the treatment like the original and the fact of not being realized [must both be taught]." This is identical with vārttika 4 on VI 1 84 (Mahābhāṣya III 66,1). Cf. G. Cardona in *New Horizons of Research in Indology*, Poona 1989, pp.54f.

54. Mahābhāṣya I 147,6 *uktam vā* "Or it has been said" which refers to vārttika 5 on VI 1 86 (Mahābhāṣya III 66,4) *sthānivad-vacanânarthakyam śāstrâsiddhatvāt* "It is meaningless to state that it is like the original, because it is the rule that is unrealized."

55. Mahābhāṣya I 147,16.

56. S.D.Joshi, *CASS Studies* 6 (1982), pp.154-160.

57. S.D.Joshi, *ibid*., p.160: "It is quite unlikely that Pāṇini would introduce two synonymous theoretical terms in his system. Elsewhere also in the *Aṣṭādhyāyī*, Pāṇini uses the theoretical terms with complete consistency." He referred also to P.Kiparsky, *Pāṇini as a Variationist*, pp. 229-234.

58. Vārttika 5 on I 1 57 *tasmāt sthānivad-vacanam asiddhatvam ca* (Mahābhāṣya I 147,3) = vārttika 4 on VI 1 86 (Mahābhāṣya III 66,1).

the operation of the preceding item due to the properties of the original, and he denied that it could block or "bleed" the operation applicable to the preceding item due to the properties of the substitute (but blocked by the original). In this way, *sthānivat* would be different from *asiddha*.[59] This second "bleeding" aspect of *sthānivat*, he claimed, has some undesirable consequences which, in Pāṇini's system, are dealt with in I 1 58. Since Joshi rejected the second aspect of *sthānivat*, Pāṇini's rule I 1 58 was no longer necessary for Joshi who declared it a later addition – added after the tradition had wrongly interpreted I 1 56/57 to cover the cases of "bleeding."[60]

Joshi's interpretation creates a problem in the derivation of the gen./loc. dual *vāyvoḥ*, where the /y/ should be elided before /v/ by VI 1 66;[61] this elision is blocked or "bled" by I 1 56/57 according to the traditional interpretation, because the /v/ is a substitute for /u/ (*vāyu-oḥ* > *vāyvoḥ*) by VI 1 77) and, being a substitute, should be treated like the original. Yet Joshi denied just such a "bleeding" role of *sthānivat.* This problem "requires a totally different answer. In fact, it requires major surgery in the body of the rules of the A[ṣṭādhyāyī] in its present form, namely, the transference of the sandhi-rules in the sixth *adhyāya* to the *tripādī*-section."[62] Such boldness should give us some pause.

Joshi's argument is based on the assumption that Patañjali's definition of *sthānivat* would mean the same as *asiddha*. One need only place *asiddha* in I 1 56 to see that this is not true: **asiddha ādeśo 'nalvidhau* "The substitute is not realized, except when a grammatical operation is conditioned by (one or more) speech sounds." First, it contradicts the fact that the substitution has already taken place; second, the rule would create almost the opposite of the desired meaning; third, we require a statement that the substitute "inherits" the properties of the original. That is in fact the tenor of I 1 56 to which the next two rules only offer minor adjustments. Rule I 1 56 is similar to I 1 62

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59. S.D.Joshi, *CASS Studies* 6 (1982), pp.167.

60. *Ibid.*, pp.163f.

61. VI 1 66 *lopo vy.or val.i* "Deletion of /v,y/ before any semivowel or consonant except /y/."

62. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.I p.90. On their suggestion that at least some sūtras may have been moved around see above p.59.

pratyaya-lope pratyaya-lakṣaṇam "When a suffix is deleted, an opera-
tion conditioned by the suffix [will still take place]" which is followed
by a restriction: I 1 63 *na lumatâṅgasya* "[But] not regarding a stem, if
[the deletion is caused by an element] containing *lu*."[63] If *sthānivat* is
not synonymous with *asiddha*, there is no need to tamper with the ex-
isting text of the Aṣṭādhyāyī. *sthānivat* is closer to *asiddhavat* in that
both terms refer to operations that have already taken place.[64] But
asiddhavat has a wider grasp, since it includes, besides substitutions,
also deletions, augments, and suffixes.[65] Could Pāṇini have said
**asiddhavad ādeśo 'lvidhau* "A substitute [behaves] as if it were unre-
alized, when a grammatical operation is conditioned by (one or more)
speech sounds"? No, because the rule would lack the basic require-
ment that in general a substitute does behave "like the original." We
do want *ᴵyaᵖ* to behave like *ᵏtvā* except in sandhi, which will not hap-
pen without a special statement. Thus the rule is to be taken as it
stands.

Pāṇini may have taken over rules from predecessors, but I also
consider the likelihood that he himself added sūtras here and there –
without changing the existing sūtras that preceded or followed. That
procedure could have produced the slight deviations from standard
practice that have bothered some modern interpreters. While an under-
lying design of the grammar is still visible, many sūtras dealing with
specific features of the language have been placed where convenient
dittoing and associations attracted them. When later the author wanted
to include additional material, perhaps with an attaching *ca* ("and"),
the existing patterns of dittoing and of the use of *ca* could be disturbed
– but not enough to force the author to revamp all preceding rules. It

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63. Therefore deletions which are effected by *luk*, *ślu* or *lup*, deny the deleted
suffix any influence on the stem.

64. *sthānivat* in I 1 56 has to be an adverb, while *asiddhavat* in VI 4 22 could
be an adverb or a nominative neuter; the Nyāsa and the Padamañjarī (vol.V p.364)
supply *kāryam*.

65. It is a later development when Patañjali argued, with a quoted stanza, that
all modifications are substitutions of the whole word, because modification of a part
would violate the doctrine of the permanence of words: Mahābhāṣya I 75,13f. and III
251,12f.

> *sarve sarva-padâdeśā Dākṣi-putrasya Pāṇineḥ /*
> *ekadeśa-vikāre hi nityatvaṃ nôpapadyate //*

could well be that Pāṇini added the rules dealing with secondary noun suffixes and compounds after he formulated more basic rules, and the Vedic rules could have been added still later. We do not need to presume the hand of another author or authors. Joshi and Roodbergen conceded that possibility themselves, when they wrote in a footnote that Pāṇini could be the author of the disputed sūtras after all, since it "could be that after having worked out the original text consisting of a *saṃjñā*-section (including *paribhāṣās*), a *kāraka*-section, a *vibhakti*-section,…and the problem of rule-ordering in the *asiddha-kāṇḍa*, he simply lacked the time to deal with *taddhitas* and *samāsa* in an exhaustive manner, and in a manner consistent with the grammar which he had phrased so far."[66] Paul Kiparsky remarked: "The importance of the J&R theory is to have given Pāṇini studies their own counterpart of the 'Homeric question', as radical and far-reaching as the original."[67] And just as questionable.

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66. Joshi/Roodbergen, in: *Proceedings*, p.83 fn.37.
67. P.Kiparsky, *JIPh* 19 (1991), p.333.

Inadequacies of Early Writing

I had pointed out above (pp.30f.) that Pāṇini's rule I 2 27 *ūkālo 'j jhrasva-dīrgha-plutaḥ* (seemingly "A vowel having the length of /ū/ is short, long, and protracted") is rather odd: three terms (*hrasva* "short", *dīrgha* "long" and *pluta* "protracted") are paired with a single word of description (*ūkālo*). Already Kātyāyana and Patañjali had recognized that the long /ū/ has to stand for three vowels: /u/, /ū/, and /ū3/. Little attention was given to the way the three vowels were merged in a long /ū/. The sub-commentary Nyāsa on I 2 27[1] relied on Pāṇini's rule VI 1 101 *akaḥ savarṇe dīrghaḥ* "When a vowel if followed by one of the same class, the long vowel is substituted for both" which is adequate to explain *dadhi iha >dadhîha*, but does not really apply to *u+ū+ū3 > ū*. As Böhtlingk remarked in his translation of I 2 27, "Man hätte ^3kalae erwartet" (One would have expected *ū3kālo*).[2] The written sign for *pluta* vowels is attested only rather late and was not available, when Pāṇini's grammar was first written down. There is only one in-stance, unless I have overlooked something, of a marked *pluta* vowel in the whole Aṣṭādhyāyī: VI 1 130 [129 *aplutavad*] *ī3 Cākravarma-ṇasya* "According to [the recitation/opinion of] Cākravarmaṇa *ī3* [is treated as if it were not *pluta*]." This rule is found in a context of sev-eral rules dealing with the padapāṭha of the Ṛgveda[3] and perhaps other ancient Vedic texts.[4] Cākravarmaṇa who is not otherwise well known[5]

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    1. Nyāsa, vol.I p.302,19f.; thus also Joshi/Roodbergen, *Aṣṭādhyāyī*, part II p.43.
    2. Otto Böhtlingk*, Pâṇini's Aṣṭādhyâyî*, p.15. The choice of the u-vowel rather than the a-vowel would still be rather odd, unless the expression *ūkālo* really is the imitation of a natural sound: the sounds made by various birds (ṚVPr XIII 20) or the crowing of cocks (Viṭṭhala on Prakriyākaumudī I 2,27 [vol.I p.21,8] and Nāgojibhaṭṭa, Laghuśabdenduśekhara on sūtra I 2 27 = sūtra 9 in the Siddhāntakaumudī [p.84,7]).
    3. The reference to Śākalya in VI 1 127 points to the Ṛgveda.
    4. The example given by Patañjali on VI 1 129 (*suślokā3 iti > suślokêti*) points to the Yajurveda (TS I 8, 16,2; KS XXXVIII,4 [p.377,21]): Mahābhāṣya III 90,18f.
    5. Yudhiṣṭhira Mīmāṃsaka, *Saṃskṛta vyākaraṇa-śāstra kā itihāsa*, vol.I, 3rd ed., Sonipat saṃvat 2030, pp.34 and 155 has listed a few references to this author: Uṇādisūtra III 144; a reference in the Kātantra-pariśiṣṭa under *hetau vā*, and Bhaṭṭojidīkṣita in his Śabdakaustubha (ed. G.Nene vol.1 p.165,16f.) on sūtra I 1 27 quoting someone saying that *dvaya* was called a pronoun (*sarvanāman*) in Cākravarmaṇa's grammar.

was most likely another redactor of a Vedic text. Kātyāyana suggested that the rule was given with reference to instances where the words were not followed by *iti* (called *upasthita*) (as in the dissolved forms of the padapāṭha or kramapāṭha),[6] and Patañjali gave the examples *cinu hī3 idam* versus *cinu hîdam* and *sunu hī3 idam* versus *sunu hîdam*.[7] The former recalls Vaikhānasa-gṛhyasūtra[8] I 14:15 *cinuhī*, where apparently a long *ī* is written meaning to express a *pluta* vowel; the sentence is difficult, and W.Caland[9] translated *cinuhī* tentatively with "the accumulating one (?)." In Kaṭha-saṃhitā 40,5 and Taittirīya-saṃhitā V 7,8,1 *cinuhi* is the archaic 2nd imperative active[10]; I do not have, at this time, access to the padapāṭha of the Kaṭha-saṃhitā and the kramapāṭha of either text.[11]

It is therefore probable that the pluta *ī3* in Pāṇini's rule VI 1 130 (and Kātyāyana's and Patañjali's remarks on it) was based not on the tradition of the Aṣṭādhyāyī itself but on the surviving oral tradition of a Vedic text. Note how in Pāṇini's rule I 1 17/18 *uña ūm̐* the nasalization (that was otherwise lost in the Aṣṭādhyāyī) was preserved or restored based on the oral tradition of the padapāṭha of the Ṛgveda.[12] The text of the Mahābhāṣya has several occurrences of *pluta* vowels where they are direct outcomes of rules under discussion and where the lengthened form of the vowel was indicated by the context as in Mahābhāṣya III 85,6 and 17 *susrotā3 atra nv asi* (which may well be a

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6. K.V.Abhyankar, *A Dictionary of Sanskrit Grammar*, 2nd ed., Baroda 1977, p.90 has quoted different concepts of *upasthita*.

7. Mahābhāṣya III 91,12f. The editions separate *cinu hi*, apparently to avoid the obsolete form *cinuhi*.

8. Vaikhānasagṛhyasūtram and Vaikhānasadharmasūtram ed. W.Caland, Calcutta 1927 repr. New Delhi 1989 (p.15,5).

9. Vaikhānasasmārtasūtra trans. W.Caland, Calcutta 1927-1929, repr. Delhi 1982, p.29.

10. The suffix *-hi* eventually disappeared in verbs of the fifth (*-nu*) class, probably by analogy under the influence of the 2nd sing. imperative of the thematic verbs: L.Renou, *Grammaire de la langue Védique*, Paris 1952, p.265.

11. The padapāṭha of the Taittirīya-saṃhitā has unaccented *cinuhi*: Taittirīyasaṃhitā-padapāṭha ed. M.A. Vaidyanāthaśāstrī, M.Nārāyaṇaśāstrī, Sonipat 1985, p.463,22.

12. E.g. in Ṛgveda I 34,6 where the padapāṭha has *ūm̐* for the *u* of the saṃhitāpāṭha; cf. P.Thieme, *Pāṇini and the Veda*, p.129.

Vedic quote, too).[13]

There is yet another instance where the early script may have represented a pronunciation inadequately. Thirty-seven times Patañjali said in the course of a debate: *ātaś ca* "and for that reason." Kaiyaṭa in his comment[14] on Mahābhāṣya vol.I p.12,27[15] tried to explain: *āta iti nipātaḥ. ataś ca hetor ity arthaḥ* "*ātas* is a particle. The meaning is 'and for that reason'." Not much else has been said about this particle, which is not found in any other text and is not listed by Pāṇini among the particles. Heinrich Lüders saw it as a more emphatic expression than the common *atas* "hence": "und deshalb sage ich…" (and therefore I say…).[16] Joshi/Roodbergen remarked on the same passage: "Not listed by Pāṇini. The lengthening of the first vowel may be due to emphasis added by the speaker which has come to be accepted in orthography" and they translated "for the additional reason."[17] I suggest that the formulaic *ātaś ca* is an imperfect rendition of *ā3taś ca*.[18] Such use of *pluta* vowels for emphasis was not noted by Pāṇini, perhaps because he considered it not a question of grammar but of speech – just like louder or softer pronunciation, faster or slower deliverance.[19] Another possibility to explain *ātas* is the, apparently emphatic, lengthening of the initial syllable as it is found in names and other address forms: Nārāyaṇa for "offspring of Nara" (*Narâyaṇa), *pāradārin* "adulterer" (for *para-

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13. W.Rau, *Die vedischen Zitate im Vyākaraṇa-Mahābhāṣya*, Mainz 1985, p.74. Though the text of the Mahābhāṣya is unaccented, it contains numerous Vedic quotations carrying the old accents.

14. Kaiyaṭa's Pradīpa, vol. I pp.46,16-47,13.

15. Mahābhāṣya I 12,26f. *sūtrata eva hi śabdān pratipadyante. ātaś ca sūtrata eva: yo hy utsūtram kathayen nâdo gṛhyeta* "For one understands the words from the rules only; and for that reason from the rules only: for whoever says [something] beyond the rules, that would not be accepted."

16. H.Lüders, *SPAW* 1916, p.729 = *Philologica Indica*, pp.420f.

17. Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Paspaśāhnika*, Pune 1986, p.184 with fn.780.

18. Such *pluta* indicated only by a long vowel without the added sign "3" is occasionally found in Vedic texts: H.Oertel, *JAOS* 23 (1902) p.329 fn.3; A.Debrunner in his *Nachträge zu Band I* in the 2nd ed. of Jakob Wackernagel, *Altindische Grammatik*, Göttingen 1957, p.172.

19. In most instances *pluti* is imposed on the last vowel in a word; but in a few cases, the first vowel is *pluta*: Pāṇini's rules VIII 2 86 and 91; cf. also VI 1 113. Patañjali has the vocatives *Ā3gnidatta* and *De3vadatta* (Mahābhāṣya III 85,6 and 418,3) which according to VIII 2 86 reflects eastern usage.

dārin) or *ādhoraṇa* "mahout" (for *adhas-raṇa lit. "whose legs are down") that derive from adoring, abusive or commanding vocatives.[20]

One has to wonder, how the nasalized semivowels in Mahābhāṣya vol.I p.16,12 would have been written in the early Brāhmī script. It was argued in a quoted metrical line (and the following paraphrase)[21] that a rule demanding lengthening of the [always closed] vowel /a/ would wrongly produce a closed /ā/[22] just as an *anusvāra* would produce in internal sandhi a nasalized semivowel (as in *sam + yantā, sam + vatsaraḥ*). *tadyathā: saỹyantā savvatsaraḥ yallokaṃ tallokam iti. anusvāraḥ sthānī yaṇam anunāsikaṃ prakalpayati.* "As in *saỹyantā, savvatsaraḥ, yallokam, tallokam* the original *anusvāra* creates a nasalized semivowel." Here again the context makes it clear that the semivowel is nasalized, and a later scribe would have no difficulty to insert the *anunāsika* sign, where there was none in the older manuscript before him.

Many of Pāṇini's rules are formulated so dense that it is not easy to see how they could be pronounced, let alone be understood and applied. Take VII 2 5 [1 *vṛddhiḥ* 3 *ac.aḥ na*] *hmyanta-kṣaṇa-śvasa-jāgṛ-ṇi-śvy-edit.ām* "[*vṛddhi* is not substituted for a vowel of roots] ending in /h,m,y/, √*kṣaṇ*, √*śvas*, √*jāgṛ*, [roots with derivative] *-i*, √*śvi*, [and roots] with a tag *e*" must have been recited slowly: *h-m-y-anta…* to be understandable. In VI 1 3 [1 *dve* 2 *aj-āder dvitīyasya*] *na ndrāḥ saṃyogâdayaḥ* "[If a root begins with a vowel, the second syllable is reduplicated] but not /n,d,r/ at the beginning of a consonant cluster" similarly *n-d-rāḥ* must have been recited very slowly.[23] Difficult would also be the distinction of two nasals in VII 2 115 *aco ññiti.*

What may be difficult[24] becomes virtually impossible when two

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20. P.Thieme, *Münchener Studien zur Sprachwissenschaft* 44 pt.1 (1985) (Fs. Karl Hoffmann), pp.248-252 (*Kl.Schr.* pp.1063-1067). Or shall we assume here, too, *pluta* forms?

21. Mahābhāṣya I 16,10f. *sthānī prakalpayed etāv anusvāro yathā yaṇam / saṃvṛtaḥ sthānī saṃvṛtau dīrgha-plutau prakalpayed, anusvāro yathā yaṇam.*

22. The long /ā/ in Sanskrit is always an open sound.

23. Kātyāyana postulated such "mini-pauses" in the recitation of IV 2 80 (above p.39 fn.50).

24. Some initial clusters have been attested since the earliest texts, e.g. *kṣmā* "earth" and *tsaru* "a crawling animal" in the Ṛgveda. Pāṇini would not necessarily have been bound by what was possible or current in Sanskrit – but he had to be intelligible.

stops are involved. In III 4 107 Pāṇini wanted to teach that personal endings beginning with /t/ or /th/ receive an augment /s/ (*su^t*); but a genitive dual **t-th.oḥ* would have been more than difficult to pronounce. Rule III 4 107 therefore appears as *suṭ tith.oḥ*. In VIII 2 38 he referred to a suffix beginning with /t/ or /th/ instead with *tath.oḥ*: VIII 2 38 [37 *baśo bhaṣ*] *dadhas tathoś ca* "[/dh/ is also substituted for /d/] of the reduplicated root *dadh* before [endings beginning with] /t/ or /th/." In VII 2 104 [103 *kim.aḥ*] *ku tih.oḥ* "*ku* is substituted [for *kim*] before [case endings] beginning with /t/ or /h/." Here again **t-h.oḥ* would be difficult to pronounce let alone be understood properly. None of the endings referred to in III 4 107 (viz. *-ta*, *-tam*, *-thas*, *-tham*) justifies the '*ti*' of Pāṇini's sūtra, nor do the endings referred to in VII 2 104 (*ku-taḥ*, *ku-tra*, *ku-ha*). If the /i/ in III 4 107 (*ti-th.oḥ*) and in VII 2 104 (*ti-h.oḥ*) do not represent an /i/ in the object language (i.e., Sanskrit), they could be tags, bound to vanish as the Sanskrit words emerge. They would have been marked with a nasal pronunciation that was subsequently lost. No unwanted forms would result, since no tag /i/ is taught except in connection with roots. We would have a vacuous application; the commentators explain the insertion of /i/ as *uccāraṇârtham* "for the sake of pronunciation."[25]

But this explanation would not be acceptable in other cases, e.g. in VI 1 71 *hrasvasya piti kṛti tuk* "Before a primary suffix with a tag ^*p*^ an augment /t/ is added after [a root] ending in a short vowel." We obtain thus from **sarva-ji-^k^vi^p^* first **sarva-ji-tu^k^+^k^vi^p^* and finally *sarva-ji=t* "conquering all." The augment /t/ is tagged with a ^*k*^ which indicates that the /t/ is added at the end of the root.[26] But what is the status of the /u/ in *tu^k^*? It is not a valid sound of the word in the object language (i.e., Sanskrit), and it cannot be a tag because of unwanted consequences. A tag ^*u*^ indicates that a stop denotes its whole class, i.e., *tu*[27] denotes /t,th,d,dh,n/, except when it is a suffix: I 1 69 *aṇ-udit*

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25. Kāśikā on III 4 107 (vol.3, p.234,4) and Kāśikā, Nyāsa, and Padamañjarī on VII 2 104 (vol.5, p.792).

26. Sūtra I 1 46 *ādy-antau ṭakit.au* "What has the tag ^*ṭ*^ or ^*k*^ is added at the beginning and the end respectively."

27. G.Cardona, *IIJ* 15 (1973), p.213 suggested that *nuṭ* in VII 1 54 should also include /t/ etc., potentially leading to a wrong genitive plural **puruṣa-tām* instead of *puruṣā-ṇām*; this would be prevented only by a hint in Pāṇini's rule VI 4 3 *nām.i* that

savarṇasya câpratyayaḥ. Since *tu^k* is not a suffix, we would get the undesired forms *sarva-jith, sarvajid*, etc. along with the correct *sarva-jit*. The correct form of Pāṇini's sūtra should be *hrasvasya piti kṛti t^k*.

In the aorist form *apaptat* "he fell" Pāṇini did not recognize the reduplication of the root √*pat*; he assumed an infix /p/ (i.e., *apa*[*p*]*tat*) that is tagged with a ^{m} to mark it as an infix[28]: VII 4 19 [16 *aṅ.i*] *pataḥ pu^m* "[before the aorist suffix -*a*] the infix /m/ is inserted after the vowel of the root √*pat*." Again, *pu* would include not only /p/, but also /ph,b,bh,m/ which is not desired. The correct form of Pāṇini's sūtra should be *pataḥ p^m*.

In Pāṇini's sūtra III 1 108 *hanas ta ca* "And /t/ is substituted for the final of √*han*"[29] the correct form should be *hanas t ca.* It is obvious, I think, that *hrasvasya piti kṛti tk, pataḥ pm* and *hanas t ca* would be difficult to pronounce and even harder to understand – or to apply correctly. But with slow and careful recitation and proper explanation the listener could grasp the meaning of the rules.

In my booklet *Pāṇini's Metalanguage*, published thirty-eight years ago, I suggested that Pāṇini's metalanguage had an auxiliary vowel /ə/ "which could only unsatisfactorily be presented in the Devanāgarī script" and "It may well be that the author was not even aware that he used it."[30] I would modify my position now in two respects. The present written text might be accepted as original, where a vacuous application of a tag would not cause wrong forms; and this vowel that I had postulated, I now contend was totally imaginary, i.e., that /a,i,u/ were inserted by scribes who centuries after Pāṇini tried to write down

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indicates the existence of an ending -*nām* (which would not, however, exclude the possibility of the wrong forms -*tām*, -*thām* etc.). Pāṇini exclusively used the tenuis for such groupings (*k^u, c^u, ṭ^u, t^u, p^u*), even though his formulation in I 1 69 only states that a sound tagged with an ^{u} denotes a (or: any) sound of its group. But if the /u/ in *nu^t* is not of Pāṇini's making, the problem does not arise at all.

28. Sūtra I 1 47 *mid aco 'ntyāt paraḥ* "What has the tag ^{m} follows the last vowel."

29. A.Wezler, *Kratylos* 18 (1973/74), p.25 and G.Cardona, *IIJ* 15 (1973), p.210 argued that *ta*, etc. as consonant names are original and inherited. Indeed *ma-kāra* "/m/" occurs already in Aitareya-brāhmaṇa V 32 besides *a-kāra, u-kāra*; but these are forms of ordinary speech, different from Pāṇini's formulaic style – which may weaken their argument.

30. H.Scharfe, *Pāṇini's Metalanguage*, Philadelphia 1971, pp.7-9; cf. also H. Scharfe, *Grammatical Literature*, Wiesbaden 1977, p.90.

what they believed they had heard. They were not always consistent, perhaps trying to establish secondary distinctions; the /s/ added before a morpheme is called su^t,[31] the /s/ after a morpheme however sa^k.[32] The /r/ added before and after a morpheme is called ru^t resp. ru^k, but inserted it is called ra^m.[33] My earlier suggestion regarding this vowel has been met with skepticism by several writers. D.M.Joshi,[34] A.Wezler,[35] and G.Cardona,[36] following the lead of the commentators[37] thought that these vowels are there for the ease of pronunciation (*uccaraṇârtham*), which is certainly true; the question is whether Pāṇini employed them consciously or whether they are the product of later scholars trying to write Pāṇini's rules down.[38] The problems with the first alternative have hardly been answered by the critics. Following the reasoning of Wezler and Cardona, based on the ancient *ma-kāra* and the names *ta* and *pa* for the consonants /t,p/ in the Śiva-sūtras, the above mentioned augments should have been ta^k and pa^m – with no unwanted side effects, since short /a/ is not specifically introduced as a tag.[39] It could be, though, that the scope of such secondary vowel insertions by scribes was less than I had assumed in my earlier publication.

The Brāhmī script and the Devanāgarī script that evolved from it have rightly been praised for being more or less phonemic scripts;[40]

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31. III 4 107; VI 1 135; VII 1 52; VIII 3 5+70.

32. VII 2 73.

33. VII 1 6; VII 4 91; VI 4 47.

34. D.M.Joshi, *Indian Linguistics* 33 (1972), p.95.

35. A.Wezler, *Kratylos* 18 (1973/74), p.25.

36. G.Cardona, *IIJ* 15 (1973), pp.207-221.

37. Kāśikā on VII 1 58 (vol.V p.594,2f.) *uccaraṇârtho niranunāsika ikāraḥ paṭhyate* "The /i/ is recited without nasalization (i.e. not as a tag) [only] for the sake of pronunciation"; Siddhāntakaumudī comments at the end of the Śiva-sūtras (p.3,2f.): *hakārâdiṣv a-kāra uccaraṇârthaḥ* "the /a/ [attached to the consonant] in *ha* etc. is for the sake of pronunciation."

38. If one should argue that forms *cphañ* (in IV 1 98), *kṅiti* (in I 1 5) or *kta-ktavatū* (in I 1 26) besides *tithoḥ* and *tuk* would expose the scribe to the charge of inconsistency – would it be more acceptable, if Pāṇini himself would be the inconsistent one?

39. /a/ is used as a tag with roots in the Dhātupāṭha – but with no function except as a carrier of indicative pitch accents and as protector of the final consonant from deletion by I 3 9 [2 it 3 *hal antyam*] *tasya lopaḥ* "[A final consonant is a tag and] is deleted."

40. M.M.Deshpande (in *History of the Language Sciences*, vol.1, pp.143f.) considered reasons why the ancient catalogue of sounds (and the scripts based on it) is not totally phonemic.

they were created to serve secular ends by people trained in the an-
cient science of phonetics (*śikṣā*). The downside of this character is
the limited ability to denote non-phonemic features. The manuscripts
of the Ṛgveda, etc. do not express features of recitation like the *kampa*
(a "quiver") of certain passages with *svarita* accent[41] and other fea-
tures (e.g., the *raṅga*)[42] that are even now part of the oral tradition and
may be very old.[43] Prātiśākhyas and Śikṣās give us a glimpse of what
we are missing. Similarly, the Devanāgarī script could not denote the
involuntary sounds that sometimes occur in the pronunciation of clus-
ters of stops as, e.g., possibly in the rules of Pāṇini's grammar. The
Avesta script, on the other hand, was created to record the exact pro-
nunciation of the Avestan texts that was still available when the text
was written down under the Sassanid rulers of Iran, and it abounds in
signs for allophones. "It has been compared for accuracy with the
modern 'international phonetic alphabet'."[44]

   The Pada-pāṭha of the Ṛgveda is the oldest surviving philological
treatment of the Ṛgveda (and the same may be said about the Pada-
pāṭha-s of the other Saṃhitās), but it has been suggested that it was

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   41. L.Renou, *Terminologie*, pt. III, pp.49f.; M.Deshpande, on Caturādhyāyikā
III 3,16 with note pp.437-439.
   42. On *raṅga* (forms of nasalization) see L.Renou, *Terminologie*, pt. III,
pp.124f.; V.Raghavan, *The Present Position of Vedic Recitation and Vedic Sakhas*,
Kumbakonam 1962, p.20. K.V.Abhyankar, *Veda-padapāṭha-carcā* Poona 1974,
pp.32-35 gave further instances**.** According to Pāṇini's rule VIII 4 58 and
Ṛgvedaprātiśākhya IV stanza 3 …*purohitaṃ yajñasya*… in the first line of the
Ṛgveda should be recited as …*purohitay̐ yajñasya*…
   43. L.Renou, *Diogenes* 2 (1952), pp.58f.; V.Raghavan, *The Present Position*,
p.20. Barend A. van Nooten and Gary B.Holland, *Rig Veda: a Metrically Restored
Text*, Cambridge 1994, have not attempted to indicate these features. G.Cardona,
Pāṇini: *His Work and its Traditions*, 2nd ed., pp.li-lii referred to "conservative edi-
tions" like Daulatram Gaur's edition of the Vājasaneyi-saṃhitā (Varanasi 1965; not
seen by me) "which reflect pretty faithfully what is taught in prātiśākhyas" with a
number of additional diacritical signs. But unless these editions can be proven to re-
flect the actual recitation practice of traditional reciters, they must be presumed to be
merely scholarly exercises of applying *śikṣā* and *prātiśākhya* rules to the text, compa-
rable to accented versions of Pāṇini's Aṣṭādhyāyī or redactions of old Prakrit texts on
the basis of the much later Prakrit grammarians. Their testimony carries no more
weight than the *śikṣā* and *prātiśākhya* texts themselves. Still, Cardona's remarks are a
useful reminder of what the modern reader of printed Vedic text editions is missing.
   44. Mary Boyce, *Zoroastrians. Their Religious Beliefs and Practices*, London
1979, p.135.

not the oldest such work altogether.[45] H.Humbach and M.Witzel have pointed out that the text of the Avesta, the sacred text of Zarathustra and his followers, shows striking similarities.[46] Some of these features appear only in diminished form in important modern editions of the ancient Indian and Iranian texts. The word divider, a vertical line called *daṇḍa*, is omitted in Max Müller's handy Ṛgveda edition with the saṃhitā-pāṭha and pada-pāṭha printed on opposite pages.[47] In his authoritative, though incomplete, edition of the Avesta, Karl Friedrich Geldner moved the parts of a compound (that are written apart in the manuscripts) together "for easier understanding" but retained the dot that marked the division.[48] All these omissions or alterations, though, concern only the written form of these sacred texts that are merely reflections of earlier oral traditions.

If the current assumption that puts the invention of the Brāhmī script at about 300 B.C. is correct, it establishes a datum post quem for the written form of the pada-pāṭha; its original oral form, however, was known to Pāṇini, Yāska and the authors of the Prātiśākhyas, and is referred to in Aitareya-āraṇyaka III 2,6 and possibly already in Aitareya-brāhmaṇa V 4,3.[49] No early inscription shows the *avagraha* sign

45. J.F.Staal, in *Harānandalaharī* (Fs. Minoru Hara), Reinbek 2000, p.353.

46. Johannes Bronkhorst, *IIJ* 24 (1982), p.185; Helmut Humbach, *The Gāthās of Zarathushtra*, Heidelberg 1991, vol.I, p.60; Michael Witzel, in: *Inside the Texts, Beyond the Texts*, ed. M.Witzel, Cambridge 1997, p.323 with note 349, where he refers to Avestan passages that remind of the Brāhmaṇas, Śrauta-sūtras, Dharmasūtras and Nighaṇṭus. W.Malandra, in *Indian Linguistic Studies*, pp.229f. has speculated on the possibility of an Iranian scholastic tradition older than the fixation of our Avesta text.

47. This (along with some other modifications) was justified by M.Müller with the need to hold the pada-pāṭha on the right page to a comparable length with the saṃhitā-pāṭha on the left (*The Hymns of the Rig-Veda*, London 1877 repr. Varanasi 1965, vol.I p.vii). He did not use such abbreviations in his earlier monumental edition of the Ṛgveda with Sāyaṇa's commentary.

48. Karl F. Geldner, *Avesta. The Sacred Books of the Parsis*. Stuttgart 1886-1896, p.lii. One is reminded of E.Hultzsch's omission in his monumental edition of the Aśoka inscriptions (Oxford 1925) to record the spacing between phrases in some Aśoka inscriptions. Georg Bühler had noted them in his earlier work (e.g., *EI* 2 [1894], pp.447ff.) and they were rediscovered by K.L.Janert: *ZDMG* 115 [1965], pp.88-119 and *Abstände und Schlussvokalbezeichnungen in Aśoka-Inschriften*, Wiesbaden 1972. pp.36-38.

49. L.Renou, *Introduction générale*, p.3. K.Paramesvara Aithal, *Veda-lakṣaṇa.*

"about which nothing can be said as to when and how it originated,"[50] that plays such an important role in the analysis of compounds and case forms. According to Raj Bali Pandey "It first appears in the Baroda Copper-plate of the Rāṣṭrakūṭa king Dhruva, dated A.D. 834-35."[51] It is probable therefore, that the written form of the pada-pāṭha as we have it is younger by several centuries at least than the first attestation of the Brāhmī script.[52] But our written pada-pāṭha is only a late reflection of a long oral tradition, all essential features of which can be presumed to be known already to Pāṇini, Yāska and the authors of the Prātiśākhyas – though with subtle differences. The Caturādhyāyikā III 3,35 considered the pauses between words in the pada-pāṭha and those between word elements separated in the pada-pāṭha by "separation" (*avagraha*) as having one *mātrā*, i.e. the length of a short vowel.[53] The difference of the pause between separate words and that between elements within a word in the pada-pāṭha (marked by a sign called *avagraha* in our written texts) is conceptual, not phonetic.[54] All prātiśākhyas, in fact, considered the pause by separation (*avagraha*) between the members of a dissolved compound to last one *mātrā*[55] and all, with the exception of

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Vedic Ancillary Literature, Stuttgart 1991, p.5 referred also to Aitareya Āraṇyaka III 1,3. Cf. also Wayne Howard, *Veda Recitation in Vārāṇasī*, Delhi 1986.

50. K.V.Abhyankar, *A Dictionary*, 2nd ed., p.44.

51. Raj Bali Pandey, *Indian Palæography*, part I, Varanasi 1957, p.111 with reference to E.Hultzsch, *IA* XIV (1885), p.193; J.F.Fleet, *EI* III (1894/95), p.329 and F. Kielhorn *EI* IV (1896/97), p.244 note 7 (*Kl.Schr.* p.369 fn.7).

52. There may also have been previous attempts to write it down.

53. The breaks at the end of a half-stanza and in regular hiatus in the Saṃhita-pāṭha have the same length according to this text. The *avagraha* has the same length according to ṚVPr I 6: one *mātrā*; VPr V 1: *hrasva-sama-kālaḥ* (cf. I 153 *avagrahaḥ padântavat*).

54. M.M.Deshpande, *Caturādhyāyikā*, pp.442f. and 450. The conceptional difference shows up in certain instances in the accentuation and retroflection following an *avagraha* that are not found after a *daṇḍa*. V.N.Jha, *Linguistic Analysis*, p.66 wrongly attributed the use of *daṇḍa* and *avagraha* signs to the creator of the pada-pāṭha. The word *daṇḍa* for such a break is not found in any prātiśākhya. In fact, the term *daṇḍa* for this mark surprisingly is not attested in early or classical texts at all: PW, pw, Monier-Williams, Apte, Platt's Urdu and Bhargava's Hindi dictionaries and the Tamil Lexicon do not mention it, even though the word *daṇḍa* in other meanings is well attested.

55. A *mātrā* is the length of time required to pronounce a short vowel: ṚVPr I 16; TaittPr I 37; CA I 2,19; VājPr I 59; also a consonant according to Caturādhyāyikā I 2,20.

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the Taittirīya-prātiśākhya, gave the same value for the gap between
separate words – the latter alone made it last two *mātrā*-s. TaittPr XXII
13 recognized four pauses of different length: *ardha-mātrā* (i.e., ½
mātrā[56]) in internal hiatus in words like *praüga* (cf. ṚVPr II 5), one
mātrā for *avagraha*, two *mātrā*-s for the gap between words in the
pada-pāṭha, and three *mātrā*-s at the end of a stanza.[57]

   The interval between words in the pada-pāṭha (eventually marked
by a *daṇḍa*)[58] was one *mātrā* long without consideration whether a
sandhi had to be dissolved or not. Various segments of individual
words were separated by *avagraha*: 1) members of a nominal com-
pound, but only one separation was marked in the case of more com-
plicated compounds, keeping the more immediate constituents
together;[59] 2) case suffixes beginning with a consonant (i.e., *-bhis*,
-bhyām, *-bhyaḥ*, and *-su*[60]), but only after stems ending in a short
vowel or consonant; 3) secondary suffixes beginning with a conso-
nant; 4) the perfect active participle *-vāṃs*; 5) verbal prefixes are sepa-
rated if they are unaccented (*ati-rócate* ṚV X 187,2).

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   56. An *ardha-mātrā* is the length of time required to pronounce a consonant:
ṚVPr I 16; TaittPr I 37; VājPr I 59.
   57. The Vyāsa-śikṣā, belonging to the Taittirīya school, further elaborated the
scheme of different pauses: H.Lüders, *Vyâsa-Çikshâ*, p.97. V.N.Jha, *Studies in the
Padapāṭhas*, Delhi 1987, p.13 and *Linguistic Analysis of the Ṛgveda-padapāṭha*, Delhi
1992, pp.11 and 15 was mistaken when he assigned a ½ *mātrā* to the *avagraha*, and
K.V.Abhyankar, *A Dictionary of Sanskrit Grammar*, 2nd ed., pp.44f. when he took
TaittPr to assign two *mātrā*-s to an *avagraha*. Only a later text, the Māṇḍukī-śikṣā XIII 1,
mentioned ½ *mātrā* for an *avagraha* (L.Renou, *Terminologie grammaticale*, pt.III, p.24).
   58. Such a vertical line appears first in Aśoka's rock edicts XII and XIII at Kālsī
and the minor rock edict at Sahasrām: Raj Bali Pandey, *Indian Palæography*, part I,
p.107; Ahmad Hasan Dani, *Indian Palæography*, Oxford 1963, p.47. The concept may
have been copied from the Old Persian inscriptions that used a single slanted wedge
(see below p.83) rather than from the practice of Pada-pāṭha recitals. This vertical line
eventually became part of the Indian writing system – as word divider in the manu-
scripts of the various Padapāṭhas and as a phrase or sentence divider in other texts.
   59. In some instances the first element of a compound appears in its pausa form
as in *gnáspáti*: *gnáḥpátiḥ* (II 38,10) but without separation (*avagraha*), in others there
is neither analysis nor separation as in *Bŕhaspátiḥ* (I 62,3) and *vánaspátiḥ* (I 166,5).
   60. If a word had retroflex /ṣ/ in the Saṃhitā-pāṭha due to sandhi (the so-called
ruki rule), the suffix was usually not separated: *gīrṣu* (ṚV VIII 92,7) but note *dhūrṣu*:
dūḥ'ṣu (ṚV X 77,5). On other inconsistencies see Whitney, *JAOS* 7 (1862), pp. 209-
212; K.L.Sharma in: *Charudeva Shastri Felicitation Volume*, Delhi, 1974). 137-147;
V.N.Jha, *Studies in the Padapāṭhas*, pp.37-41.

As were the Vedic poets, Zarathustra was illiterate, and his poetry and connected texts have been handed down orally for many centuries. The present written text of the Avesta goes back to the Sassanid period,[61] and it is uncertain if there were any precursors in the Arsacid period[62] or even in the time of the Achaemenids.[63] A then still existing oral tradition provided precise information on the exact pronunciation that was carefully recorded by means of the newly created Avestan alphabet. The Avestan texts have not come down to us in their original form as flowing speech but look much like the pada-pāṭha-s of the Vedic texts. Dots marked the pause between words, frequently also the juncture between members of a compound, and in some instances between the stem and certain suffixes. Occasional lapses retain the original sandhi forms.[64] We might say that the original "saṃhitā-pāṭha" of the Avesta has been lost,[65] and of the written text produced under the Sassanid rulers only a fraction has survived directly in Avesta manuscripts.[66] The major part was lost after the collapse of the Sassanid dynasty with the Islamic conquest in 651 A.D. – only partially recoverable from the old Pehlevi commentary. The similarities between the Vedic pada-pāṭha-s and the Avesta text before us are striking and have called for an explanation.

V.N.Jha postulated five or six stages in the development of the Vedic pada-pāṭha:

1. The isolation of words, dissolving the sandhi between them, if applicable.
2. Separation of the stem and certain inflectional suffixes (e.g. *ṛṣi-bhiḥ*).

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61. The Sassanid dynasty ruled from about 224 A.D. to 640 A.D.

62. For suggestions that there may have existed a codex in Pehlevi script see Morgenstierne, *Norsk Tidsskrift for Sprogvidenskap* 12 (1942), p.30; W.B.Henning, *TPS* 1942, pp.47f.; Franz Altheim, *Literatur und Gesellschaft* vol.II pp.189f.; Karl Hoffmann, *Handbuch der Orientalistik* I,4 (Iranistik), p.9. Scepticism was voiced by William Malandra, in *The Persistence of Religions* (Fs.K.W.Bolle), Malibu 1996, pp.385-392.

63. H.Humbach, *The Gāthās of Zarathushtra*, Heidelberg 1991, vol.1 p.49.

64. H.Humbach, *Die Gathas*, p.17; *The Gāthās*, p.60.

65. M.Witzel, in: *Inside the Texts*, p.323.

66. A.V.Williams Jackson, *An Avesta Grammar*, Stuttgart 1892, pp.xxi-xxii; K.Hoffmann/B.Forssman, *Avestische Laut- und Flexionslehre*, p.36.

3. Marking vowels that do not undergo sandhi procedures (*pragṛhya*).
4. Separating the members of compounds, dissolving sandhi where applicable.
5. Indicating the base form of *visarga* (i.e., /r/ or /s/, e.g. *akar: akaḥ* vs. *manas: manaḥ/manobhiḥ*).
6. Distinguishing between verbal and nominal forms ending in *visarga*.[67]

J.Bronkhorst and M.Witzel pointed to the similarities found in the Indian and the Iranian texts in a general way: Bronkhorst to bolster his argument that the pada-pāṭha was the original written form of the Ṛgveda, Witzel to claim "an old Indo-Iranian tradition of dealing with texts."[68] F.Staal claimed that Jha's "first two steps are older than Śākalya because they are Indo-Iranian"[69] – suggesting apparently that they are inherited from pre-historic times.[70]

There are, indeed, two possibilities to explain the similarities. They could be inherited or they could represent borrowing in one direction or the other. An argument for very high antiquity of such isolation of words could be an expression in the Vedic hymn to the frogs (ṚV VII 103) where the son repeats syllable by syllable (*akhkhalīkṛtyā*) his father's recitation. Paul Thieme explained the hapax *akhkhalīkṛtyā* as a colloquialism corresponding to a Sanskrit **akṣarīkṛtya*, assuming that the son memorized on the spot the poem his father had just created by repeating it syllable by syllable.[71] One could also think that this chopped recital was a forerunner of the way Veda students now memorize the Vedic text by repeating short phrases one by one – or one could think of the staccato recital of a pada-pāṭha; none of these recitals, however, proceed syllable by syllable.

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67. V.N.Jha, *Studies in the Padapāṭhas,* Delhi 1987, pp.101-104.

68. J.Bronkhorst, *IIJ* 24 (1982), p.185; M.Witzel, *Inside the Texts*, p.323.

69. Frits Staal in: *Harānandalaharī*, p.353 fn.2. K.L.Sharma in: *Charudeva Shastri Felicitation volume*, p.136 questioned the validity of separating these first two steps, a separation that had earlier been suggested by Sūrya Kānta, *Atharva Prātiśākhya*, p.25.

70. Staal overlooked the practice of the Avesta scribes to break up most nominal compounds and referred only to the separation of words and the separation of stems and suffixes.

71. Paul Thieme, *ZvS* 71 (1954), p.109 (*Kl.Schr.* vol. I, p.138).

Instead of a hoary tradition of text manipulation, it is more likely that some time after the assemblage of the large Vedic anthologies the desire arose to offer some analysis. The followers of Zarathustra could have borrowed the technique from the neighboring Indians, or the Indians could have borrowed it from the Iranians. The direction of borrowing in the earlier days clearly went from West to East: the later Saṃhitā-s and Brāhmaṇa texts show terms like *mahārāja*[72] and the Śakas and Kushans introduced the titles *rāja-rāja* and *rājâtirāja* that are the last link in a chain of borrowing from Assyrian to Iranian to Indian.[73] The Mauryas constructed halls with large rows of pillars in imitation of Persian constructions.[74] Aśoka's inscriptions copied the style of the Achaemenid inscriptions that were in turn influenced by those of the Urartian kings: "thus spoke king…" which reflected the oral proclamations delivered to the public by royal messengers.[75] Is it an accident that the Aśokan brāhmī script runs from left to right just as the cuneiform inscriptions of the Urartean and Achaemenid kings, rather than from right to left as in the common Aramaic script and its derivative Kharoṣṭi (and the undeciphered Indus Valley Civilization script)?[76] In the early centuries A.D. we see borrowings in the opposite direction: the animal fables of the Pañcatantra, the game of chess

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72. Maitrāyaṇī-saṃhitā II 9,1; ŚatBr I 6,4,21; AitBr VII 34,9.

73. H. Scharfe, *The State in Indian Tradition*, Leiden 1989, p.77.

74. Percy Brown, *Indian Architecture*, 5th ed., Bombay 1965, p.10; Ananda K. Coomaraswamy, *History of Indian and Indonesian Art*, New York 1965 (repr.), p.19. But note also the thousand pillars supporting the throne of god Varuṇa in Ṛgveda II 41,5.

75. I.M.Diakonoff, in *W.B.Henning Memorial Volume*, ed. Mary Boyce and Ilya Gershevitch, London 1970, pp.121f.; Karl Hoffmann, *Aufsätze zur Indoiranistik*, Wiesbaden 1975/76, p.622). Aśoka's Rock Edict XVI (only found at Dhauli and Jaugaḍa) and Pillar Edict VII speak of such public proclamations, similar to paragraph 70 (= 4.88-92) of Darius' great inscription at Behistan (R.Kent, *Old Persian*, 2nd ed., New Haven 1953, pp.130-132). F.Scalpi, *East and West* (New Series) 34 (1984), pp.55-74 and M.Witzel, in *Between the Empires* ed. P.Olivelle, Oxford, 2006, pp.460f. show the wide range of Iranian influence on India.

76 Iravatham Mahadevan, *The Indus Script*, New Delhi 1977, p.10; Gregory L. Possehl, *Indus Age: the Writing System*, Philadelphia 1996, p.164; Asko Parpola in *The World's Writing Systems*, ed. Peter T.Daniels and William Bright, New York 1996, p.166. Regarding a coin found in Eran, of uncertain date and with four letters in brāhmī script seemingly running from right to left, see Harry Falk, *Schrift im alten Indien*, Tübingen 1993, pp.219-221, Richard Salomon, *Indian Epigraphy*, New York 1998, pp.27f., and S.R.Goyal, *Brāhmī Script*, Jodhpur 2006, pp.96-98.

and the concept of zero traveled from India through Iran into the Mediterranean world. How do Vedic pada-pāṭhas and the Avestan manuscripts compare in detail?

In both traditions the words are separated. That was a bigger issue in India, where the ubiquitous sandhi caused interactions and mergers between adjacent words in the flow of speech. The pada-pāṭha consistently restored these words to their separate pre-sandhi forms. Sandhi was less prominent in Iranian.[77] The clearest instances yet are the particles *ca* "and" and *cit* "even" (and a few others) that in several cases affected the form of the preceding word to which they were joined. These words joined in sandhi are, against our expectations, frequently not separated in the Avesta manuscripts with the separation dot.[78] Compared with the Vedic pada-pāṭha-s the Avesta text is less consistent.

Nominal compounds are dissolved in the Vedic pada-pāṭhas, whenever the analysis was clear. When the redactors were not certain about the make-up of a compound, they refrained from breaking it up, e.g. *adbhutaḥ* (ṚV I 94,12) and *puroḷāśam* (ṚV I 162,3). If a compound had multiple components, only one separation was carried out, in a way that clarified the structure of the compound, i.e. immediate constituents were left together and only a secondary element (word, suffix) was separated, e.g. *adabdhavrata'pramatiḥ* "taking care of the inviolate observances" (ṚV II 9,1). Turning to the Avesta, we find multiple separations in long compounds in the later Avestan texts where long compounds are common: *ažičiθra.ažičiθrō.təma* "the most from dragon seed among those from dragon seed" (Yašt 3,15), *isə. xšatryō.təma* "most desirous of rule" (Yašt 1,13), *mat.saoci.buye* "to become flaming for ever" (Yasna 62,3). More than two breaks appear to have been avoided: *ažičiθra* in *ažičiθra.ažičiθrō.təma* could have been further separated as in *aži.čiθra* "of dragon seed" (Yašt 3,9), but

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77. There are possible hints that sandhi may have been more common in the original recitation before the fixation of our text: H.Humbach, *The Gāthās*, p.60; K.Hoffmann/B.Forssman, *Avestische Laut- und Flexionslehre*, pp.110f.

78. *yasca* "and who" *naeciš* "no one": A.V.W.Jackson, *An Avesta Grammar*, pp.115-117; H.Humbach, *Die Gathas*, p.17f.; *The Gāthās*, p.60; K.Hoffmann/B. Forssman, *Avestische...*, pp.111 and 113. They were also not separated in Old Persian: R.Kent, *Old Persian*, pp.19 and 46f. and W.Malandra, *Indian Linguistic Studies*, p.231.

it was not.

Names were mostly broken up in the pada-pāṭha of the Ṛgveda; exceptions are personal names (PN) like *Trasadasyu*, *Viśvāmitra*, *Evayāmarut* and *Gautama*, where the analysis posed some problems. In the case of *Trasadasyu*,[79] the old compound type φερέοικος had faded away in India[80] in favor of forms like *Bharad-vāja*; *Viśvāmitra* has an unexpected long /ā/ at the juncture of the compound; *Evayāmarut* is a unique form. Why the suffix *-tama* is not separated in the name *Gotama* (I 79,1), when it is separated in the adjective *nṛ'tama* (I 77,4), I do not know.[81] V.N.Jha[82] seemed to suggest, that he considered the separation of parts of a name the exception, when on the contrary it appears to be the default. Of the six hundred (certain or possible) names culled by M.Mayrhofer[83] from the Ṛgveda, about 233 may be considered compounds (or have separable secondary suffixes); of these, 170 are separated with an *avagraha* and only 63 are not – many of them having features that made an analysis difficult.[84] Some of these may even be names of non-Indo-European origin, e.g. *Balbūtha* (VIII 46,32) and *Śirimbiṭha* (X 151,1).

In the Avesta we find an adjective *yuxta.aspa* "having yoked horses" (Yašt 9.2) besides the name *Yuxtāspa* (Yašt 13.114), *spǝntō.dāta* "given by the Spǝntas" (Yašt 13.93) besides the name *Spǝntōδāta*

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79. *Trasa-dasyu* "who makes his enemies tremble" according to Wackernagel, but a Bahuvrihi "whose enemies tremble" according to Benedicte Nielson in a paper read at "The 19th Annual UCLA Indo-European Conference" (November 2, 2007).

80. J.Wackernagel, *Altindische Grammatik*, 2nd ed. Göttingen 1957, II,1, pp.316-320.

81. The difference in meaning may have played a role: from *nṛ* "man" we get the superlative *nṛtama* "manliest," from *go* "cow" *gotama* – not "the most cow-like" but probably "richest in cows."

82. V.N.Jha, *Linguistic Analysis*, pp.107 and 171 (similar already K.V.Abhyankar, *Veda-padapāṭha-carcā*, Poona 1974, pp.10 and 16). Caturādhyāyikā IV 2,21 does bar separation in a name, though that rule may not always have been followed, as the Caturādhyāyībhāṣya states: M.M.Deshpande, *Caturādhyāyikā*, pp.567f.

83. Manfred Mayrhofer, *Die Personennamen in der Ṛgveda-Saṃhitā. Sicheres und Zweifelhaftes*, München 2003.

84. One cannot argue the contrast of the adjective *citra'ratha* versus the PN *Citraratha*, because the name occurs in a dvandva: *ArṇāCitrarathā* (ṚV IV 30,18). Only one separation is allowed in a compound which would leave the closer unit Citraratha together; actually the compound is not broken up at all into *Arṇa* and *Citraratha*, possibly because of the lengthened /ā/ at the juncture.

(Yašt 13.103), where the parts of an appellative compound are separated, while those of a name are not. Generally the separation or non-separation of the parts of a name in the Avesta is erratic. In the Gāthās of Zarathustra we find the name of *Zaraθustra*[85] himself, that of his patron *Vīštāspa*,[86] his daughter *Pouručistā*,[87] and his son-in-law *Dǝjāmāspa*[88] without separation, that of his follower *Maidyōi. māŋha*,[89] and the patronymic *Haecat.aspa*[90] with separation. In the Old Persian inscriptions of the Achaemenid kings nominal compounds are not divided with two (or three)[91] exceptions: *ariya ciça* "of Aryan seed" is separated by a word divider in two inscriptions of Darius but written without divider by his successor Xerxes;[92] *paruv zanānām* "having many kinds of men" is separated by a word divider in five inscriptions by Xerxes, but written without divider (*paruvzanānām*) in two other inscriptions by Xerxes, and (*paruzanānām*) in inscriptions by Darius, Xerxes, and Artaxerxes.[93] These rare separations are best considered mistakes made by the engraver.[94] Preverbs are often separated from the verb in the pada-pāṭha, occasionally in the Avesta, never in Old Persian.

In the pada-pāṭha several case suffixes are separated: the dual suffix *-bhyām*, and the plural suffixes *-bhis*, *-bhyas* and *-su*, but never after a noun ending in a long vowel. In the Avesta the separation is erratic: *-bis* and *-byo* are sometimes separated, often not.[95] In a few instances the di-

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85. Yasna 29,8.

86. Yasna 46,14. Note also Vištāspa, the father of Darius I (Behistan I 2): Roland G.Kent, *Old Persian*, p.116.

87. Yasna 53,3.

88. Yasna 46,17.

89. Yasna 51,19.

90. Yasna 46,15.

91. R.Kent, Old Persian, pp.95 fn.1 and 190 considered *asā dāru* (DSf 41f.) "stone wood", i.e., "ebony" an apposition, W.Malandra, *Indian Linguistic Studies*, p.229, a compound.

92. Roland G.Kent, *Old Persian*, pp.19 and 170.

93. Roland G.Kent, *Old Persian*, pp.19 and 196.

94. *ariya ciça* is in all occurrences preceded by *ariya,* i.e., *ariya:ariya:ciça* "Aryan of Aryan seed" which could explain the engraver's error instead of correct *ariya:ariyaciça.*

95. *gǝoš.aiš* "with the ears" (Yasna 30.2) shows separation of the instr. pl. suffix *-aiš* (in most of the manuscripts) while the suffix *-ais* is never separated in Indian texts.

vision is clearly made in the wrong place: from *drəgvant* the instrumental plural **drəgvadbis* is written *drəgvō.dəbīš*[96] (Yasna 48,11) as if the /d/ were part of the case suffix; in *varəcā.hīcā* (Yasna 32.14) the instr. pl. *-hī* ending is wrongly combined with the particle *cā* "and." In Old Persian the case suffixes are not separated. In the pada-pāṭha verbal endings are never separated, whereas in the Avesta they are separated in a few instances: *gūšō.dūm*[97] "hear!" (Yasna 45,1) corresponding to a Sanskrit *ghoṣadhvam* "say!"[98] They are never separated in Old Persian.

There are few dubious separations in the pada-pāṭha (*prayógam* in X 7,5 was wrongly analyzed as *pra-yogam* instead of *prayaḥ+gam* "going to the meal"),[99] a greater number in the Avesta text:[100] *ā̊ŋhāt. təm* "would be" (Yašt 13.12) instead of *ā̊ŋhātəm*,[101] *mə.nā* "of me" (Yasna 50.1) against common *mana* (Yašt 19.82) The pada-pāṭha of the ṚV occasionally replaced an open syntagma with a compound reflecting later usage where the open syntagma had become obsolete: *śunáś cic chépam* (ṚV V 2 7 Padapāṭha *śunaḥ'śépam cit*) and *nárā ca śáṃsam* (ṚV IX 86,42 Padapāṭha *nárāśáṃsaṃ ca*). Similarly, in the Avesta text the redactor, baffled the unfamiliar open syntagma ("tmesis" of the preverb) in *aṇtarə…mruii'* "I banish," added a second *aṇtar^c* directly before the verb (*aṇtarə …aṇtarə mruii'* (Yasna 49,3), even though it spoiled the meter – but in accordance with later usage.[102]

The comparison shows a more consistent use of the separator in the pada-pāṭha than in the Avesta. In Old Persian the divider is used almost exclusively to separate independent words, comparable to the use of the word divider in other cuneiform scripts.[103] It is therefore

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96. Not all manuscripts have the separation dot in this word.

97. Not all manuscripts have the separation dot in this word.

98. The same suffix is also separated in *vaēdō.dūm* "understand" (Yasna 53.5; not in all manuscripts), but not in *siiōdūm* "defend!" (Yasna 48.7), *dāraiiaδβəm* "hold on!" (Vispered 15,1) and *zənbaiiaδβəm* "crush!" (Yašt 1.27).

99. V.N.Jha, *A Linguistic Analysis*, p.176. The accent should have been *prayogám*!

100. H.Humbach, *The Gāthās*, pp.60f.; K.Hoffmann/B.Forssman, *Avestische Laut- und Flexionslehre*, p.40.

101. This is the reading in Geldner's edition, actually an emendation by N.L.Westergaard.

102. H.Humbach, *The Gāthās*, pp.59f.; K.Hoffmann/B.Forssman, *Avestische...*, p.35; W.Malandra, in *Indian Linguistic Studies*, pp.228f.

103. A word divider was used regularly in Ugaritic (M.O'Connor in: *The*

improbable that there was an Old Iranian tradition parallel to that in India. How could the Indian tradition have influenced the scribes that wrote down the Avesta? The Sanskrit term *'βy'krn*, i.e. *vyākaraṇa* "grammar," occurs in the Dēnkart (IV 99-100), a Zoroastrian text based on material from the Sassanid period, together with *kōšāk* (i.e., Sanskrit *kośa* "lexicography") and references to Indian astrology, etc.[104] This reference (and the apparent Indian influence on the Arab grammarian Ḥalīl at Basra in the 8th century)[105] shows that Indian grammatical science was available in Sassanid Iran. The precise representation of phonetic nuances in the written Avesta text could easily be explained as a combination of a still robust oral tradition of Avestan recitation and an influence of the Indian tradition of phonetics (*śikṣā*). The occasional wrong analyses – rare in the pada-pāṭha of the Ṛgveda, more frequent in the text of the Avesta – speak against an on-going tradition of word-for-word analysis from the time of the original poets in either India or Iran. I believe therefore, that the idea of a hoary Iranian or even Indo-Iranian tradition of text manipulation should be abandoned. The Indian tradition of text analysis (pada-pāṭha), if not nearly as old as the Saṃhitās, is known to be at least older than Pāṇini; but as regards the Avestan tradition, it cannot be traced back further than the Sassanid codex, approximately the 4th century A.D.[106] or as late as the 6th century.[107]

World's Writing Systems, ed. Peter T.Daniels and William Bright, New York 1996, p.92), and occasionally in Old Assyrian (Jerrold S.Cooper, *ibid.*, p.53) and in Anatolian Hieroglyphs (H. Craig Melchert, *ibid.*, p.121). Most importantly, it was used in Urartian inscriptions that were both temporarily and geographically close to the Median and Persian empires. The Urartian script was the probable source for the word divider in the Old Persian inscriptions: I.M.Diakonoff, in *W.B.Henning Memorial Volume*, p.102; Pierre Lecoque, in *Commémoration Cyrus*, Leiden 1974, vol.III, p.40; Karl Hoffmann, *Aufsätze zur Indoiranistik*, vol.II, p.621 fn.4.

104. P. de Menasce, *JA* 237 (1949), pp.1-3 with reference to Dēnkart ed. Madan, p.428. The Dēnkart was probably a work of the time of Shāhpuhr I according to P. de Menasce, though extensively redacted in the following centuries; Walther Hinz, *Zarathustra*, Stuttgart 1961, p.14 called it a work of the 10th century with massive use of old material. More detailed Philippe Gignoux in *Encyclopædia Iranica* vol.VII, Costa Mesa 1996, p.285: a 9th/10th century compilation from old materials.

105. Stefan Wild, *ZDMG* 112 (1962), pp.294-297.

106. K.Hoffmann/B.Forssman, *Avestische…*, p.36.

107. Mary Boyce, *Zoroastrians*, pp.134-136.

The goal of Pāṇini's grammar

We have to reject, I believe, the idea that Pāṇini's grammar is, as it were, a machine that produces correct Sanskrit words and sentences, if only we apply its rules in conformity with established meta-rules of application.[1] The question arises what other purpose could have been served. Kātyāyana suggested that grammar imposes a meritorious (culture-conscious) restriction on the ordinary usage as it is deployed by common people to express a meaning. Of all the words used to convey a meaning, only those confer merit, which conform to the rules of grammar.[2] J.Speyer suggested that Pāṇini's aim was "für die Sprachgemeinschaft, welcher er selbst angehörte, die Gesetze der Sprachrichtigkeit in einem System niederzulegen."[3] It has been suggested that such a norm, once established, would serve to retain the purity of Sanskrit usage and protect it from corruptions that are bound to arise under the influence of colloquial forms of the language, as e.g. the Prakrits. It cannot be denied that Pāṇini's rules over the centuries have occasionally be used to defend or condemn certain usages,[4] but the almost unapproachable and often ambiguous character of many of his rules makes it improbable that this was the author's intention. This was acknowledged by Jan E.M.Houben who called the grammar "re-

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1. See above, p.1 fn.1.

2. Vārttika 1 of the Paspaśā (Mahābhāṣya I 8,3) *lokato 'rtha-prayukte śabda-prayoge śāstreṇa dharma-niyamaḥ*. This formulation is apparently an advancement in two respects over Kātyāyana's formulation in the Śuklayajurveda-prātiśākhya I 1f. *svara-saṃskārayoś chandasi niyamaḥ. laukikānām artha-pūrvakatvān na.* In the Prātiśākhya the restriction is only applied to Vedic usage, and the ordinary words are preceded and effected by the meaning which the speaker wants to convey; in the *vārttika* the restriction applies also to non-Vedic usage, and the doctrine of *śabda-nityatva* is acknowledged by stating that words are used for the sake of meanings – not that they are preceded, let alone created by meanings: P.Thieme, *Zeitschrift für Indologie und Iranistik* 8 (1931) p.30 (*Kl.Schr.* p.521). I follow the division of the sūtras I 1-3 proposed by Thieme, *ibid.*, p.25 (*Kl.Schr.* p.516).

3. J.S.Speyer, *ZDMG* 64 (1910), p.322 ("To lay down in a system the laws of linguistic correctness for the linguistic community to which he himself belonged").

4. In Mahābhāṣya I 1,14-5,11 and II 139,21 such a purpose is considered. But J.Wackernagel, *Altindische Grammatik*, vol.I, Göttingen 1896, p.lxiii went too far when he claimed that this was always the purpose of traditional grammar in India; cf. P.Thieme, *Studien zur Indologie und Iranistik* 8/9 (1982), pp.9f. (*Kl.Schr.* pp.1176f.).

constitutive," visualizing "a user who wants to check and possibly improve a preliminary statement"[5] and claims "that Pāṇini's grammar starts with a *provisional statement*, namely, the provisional statement which the user has in mind or which has already been uttered" and that "Pāṇini's grammar can only contribute to a further polishing or perfection of a provisional statement and that it is not able to create a correct statement on the basis of purely semantic input."[6] He assumed "that the grammar is not only descriptive but also (socio-linguistically) prescriptive in its very description and definition of the high standard language. Description of a norm implies prescription for those committed to attain that norm."[7] But the formidable problems of interpretation make even this limited application of the grammar questionable, and the great number of topics Pāṇini did not cover (e.g. nominal clauses, gender, irregularly formed nouns, etc.) casts further doubt on this concept of his grammar as a sort of controlling device.[8]

If Pāṇini's grammar serves no perceivable practical purpose, the question arises, if it is believable that it was conceived as a work of purely scientific interest. All philosophical speculation of the time was subordinated to the spiritual quest for the bliss of a life in heaven or the liberation of the self (*mokṣa*). Technical manuals like the Śrautasūtras and Śulbasūtras served traditional ritual. E.Frauwallner's attempt to portray the nucleus of the Vaiśeṣika-sūtras as a philosophical edifice with no religious overtones[9] was rejected by Wilhelm Halbfass[10] and Jan E.M. Houben.[11] Frauwallner's argument that the appeals to righteousness and the attainment of bliss in the introductory sūtras were later additions has been refuted on the textual evidence. In a careful review of the discussion, Annette Meuthrath conceded that

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5. Jan E.M.Houben, *Asiatische Studien* LVII/1 (2003), p.161.

6. Jan E.M.Houben, *Studien zur Indologie und Iranistik* 22 (1999), p.40.

7. Jan E.M.Houben, *Asiatische Studien* LVII/1 (2003), p.167.

8. P.Thieme, *Studien zur Indologie und Iranistik* 8/9 (1982), pp.6-9 (*Kl.Schr.* pp.1173-1176).

9. Erich Frauwallner, *Geschichte der indischen Philosophie*, Salzburg 1953-1956, vol.2, p.28 and *Nachgelassene Werke,* ed. Ernst Steinkellner, Wien 1984, vol.1, pp.35-41.

10. Wilhelm Halbfass, *JAOS* 106 (1986), p.857.

11. J.E.M. Houben, *Asiatische Studien* XLVIII (1994), pp.711-748.

the evidence for Frauwallner's thesis is weak and may not stand up.[12]
P.Thieme, aware of the intellectual and spiritual disposition of the
time, suggested that the aim of Pāṇini's grammar was to give proof
that Sanskrit, the language of the Veda and the Vedic rituals, was truly
saṃskṛta "put together in a transparent and pure way" – using a scien-
tific method, but working in a traditional religious context. Thieme
saw Pāṇini's work linked to the ancient concept of the "truth act"
(*satyakriyā*), as the formulation of a deep truth, i.e. the amazingly or-
derly build-up of Sanskrit (*saṃskṛtasya saṃskṛtatvam*), endowed with
magical efficiency.[13] This nature of Sanskrit grammar would though,
as Jan Houben has pointed out,[14] differ in character from the "truth
acts" known from literature that are limited to short formulations ad-
dressing individual needs – and no such applications of the
Aṣṭādhyāyī are recorded. Nevertheless, this is a direction that, I be-
lieve, deserves to be explored further.

Speculation regarding language has ancient roots in India. The
hymn to divine Speech (*Vāc*; ṚV X 71), and the first stanza in the
Atharvaveda[15] which seems to refer to the "thrice seven" (i.e., twen-
ty-one) sounds to which the Sanskrit phonemes can be reduced,[16]
were followed in the Brāhmaṇas and Upaniṣads by homologies of
speech and the world, and by etymologies that tried to bring out the
"deeper" or "real" meaning of words and thus deepen our understand-
ing of the Vedic texts and of the world. The Aitareya-brāhmaṇa found
a homology between a Vedic stanza and sexual union: "*pra vo*

12. A.Meuthrath, *WZKSO* XLIII (1999), pp.130: "Frauwallners Rekonstruction
eines ursprünglichen Beginns der VS kann aus guten Gründen nicht zugestimmt wer-
den."

13. P.Thieme, *Studien zur Indologie und Iranistik* 8/9 (1982), pp.12-22 (*Kl.
Schr.* pp.1179-1189).

14. J.E.M.Houben, *Studien zur Indologie und Iranistik* 22 (1999), pp.32f.

15. In the Śaunaka recension; I 6 in the Paippalāda recension. It is also the last
verse of the Maitrāyaṇī-saṃhitā (IV 12,1). The verse was recited by the student at his
initiation to Vedic study.

16. P.Thieme, *JAOS* 105 (1985), pp.559-565 (*Kl.Schr.*II pp.932-938).
M.M.Deshpande, *Śaunakīyā Caturādhyāyikā*, Cambridge/Mass. 1997, pp.33-35 raised
the question, whether the distinction of vowels and semivowels was known at the time
the Atharvaveda hymn was composed. In his contribution "Indian theories on phonet-
ics" in *History of the Language Sciences*, vol.1 (Berlin 2000), pp.138f. he cautiously
endorsed Thieme's interpretation..

devāyâgnaye…etc. are anuṣṭubh stanzas. He separates the first two verse quarters; therefore a woman separates her thighs. He creates the last two verse quarters; therefore a man unites his thighs. That is a copulation."[17] In the Aitareya-āraṇyaka we find a homology of consonants, vowels, and spirants with body, soul, and vital breath.[18] The Chāndogya-upaniṣad theorized on the power of the syllable *oṃ*, the *udgītha*: "The essence of these beings here is the earth; the essence of the earth is the waters; the essence of the waters is plants; the essence of plants is man; the essence of man is speech; the essence of speech is the Ṛg verse; the essence of the Ṛg verse is the Sāman chant; the essence of the Sāman chant is the High Chant (*udgītha*). This High Chant is the quintessence of all essence; it is the highest, the ultimate, the eighth."[19] There are many homologies between the body of man, the universe, and rituals in the Upaniṣads that aim to define the essence of life and the functioning of the world. Some of the most elaborate patterns of homologies are found in Chāndogya-upaniṣad chapter III and Taittirīya-upaniṣad I 3,4. Language plays an important role in these homologies, even standing for the outer world in contrast to man's inner world.[20] The great philosophical debate in the Bṛhadāraṇyaka-upaniṣad III 1-9 related attempts by various thinkers to establish homologies and relations between elements of the world that surrounded them. Ārtabhāga asked Yājñavalkya: "How many graspers are there, and how many overgraspers?" and Yājñavalkya replied:

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17. Aitareya-brāhmaṇa II 35,1-4 *pra vo devāyâgnaya ity anuṣṭubhaḥ. prathame pade viharati, tasmād stry ūrū viharati. samasyaty uttare pade, tasmāt pumān ūrū samasyati. tan mithunam.* Cf. Kauṣītaki-brāhmaṇa XIV 2,21-25.

18. AitareyaĀraṇyaka II 2,4 *tasya yāni vyañjanāni tac charīraṃ, yo ghoṣaḥ sa ātmā, ya ūṣmāṇaḥ sa prāṇaḥ.* Cf. also *uyir* "soul/life, vowel" and *mey* "body, consonant" in Tamil grammar: Robert Caldwell, *A Comparative Grammar of the Dravidian or South-Indian Family of Languages*, 3rd ed., Madras 1961, p.132 and S.V.Shanmugam, *Naccinarkkiniyar's Conception of Phonology*, Annamalainagar, 1967, p.18.

19. Chāndogya-upaniṣad I 1,2-3 *eṣāṃ bhutānāṃ pṛthivī rasaḥ, pṛthivyā āpo rasaḥ, apām oṣadhayo rasaḥ, oṣadhīnāṃ puruṣo rasaḥ, puruṣasya vāg rasaḥ, vāca ṛg rasaḥ, ṛcaḥ sāma rasaḥ, sāmna udgītho rasaḥ. sa eṣa rasānāṃ rasatamaḥ paramaḥ parârghyo 'ṣṭamo yad udgīthaḥ.* Text and translation of upaniṣad passages are taken from P.Olivelle, *The Early Upaniṣads*, New York 1998.

20. Pierre-Sylvain Filliozat, in *Ressembler au monde*, ed. Philippe Gignoux, Turnhout 1999, pp. 27-31.

"There are eight graspers and eight overgraspers…The out-breath is a grasper which is itself grasped by the in-breath, the overgrasper; for one smells odors by means of the in-breath. Speech is a grasper, which is itself grasped by the word, the overgrasper; for one utters words by means of speech…"[21] Later he was questioned by Gārgī: "The things above the sky, the things below the earth, and the things between the earth and the sky, as well as all those things people here refer to as past, present, and future–on what, Yājñavalkya, are all these woven back and forth?" He replied: "The things above the sky, the things below the earth, and the things between the earth and the sky, as well as all those things people here refer to as past, present, future–on space, Gārgī, are all these woven back and forth." "And on what, then, is space woven back and forth?" He replied: "That, Gārgī, is the imperishable, and the Brahmins refer to it like this–it is neither coarse nor fine; it is neither short nor long; … This is the imperishable, Gārgī, at whose command the sun and the moon stand apart…"[22] The teachings of Raikva on the *saṃvarga-vidyā* in the Chāndogya-upaniṣad IV 3 tried to find the dominating principle in the wind/breath. "The gatherer, clearly, is the wind. So, when a fire goes out, it is into the wind that it passes; when the sun sets, it is into the wind it passes;…For it is the wind that gathers all these…; The gatherer, clearly is the breath. So, when a man sleeps, it is into the breath that his speech passes; it is also into the breath that sight, hearing, and mind pass. For it is the breath that gathers all these. These, then, are the two gatherers–the wind among the deities and the breath among the vital functions."[23]

Their efforts have variously been characterized as "magic thinking" and as "vorwissenschaftliche Wissenschaft." A late echo is the use of *yantra*-s and *maṇḍala*-s in the tantric tradition, whose roots may go back to very early (perhaps Vedic) times, even if the earliest existing materials may not precede the middle of the first millennium

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21. Bṛhadāraṇyaka-upaniṣad III 2.
22. Bṛhadāraṇyaka-upaniṣad III 8.
23. Chāndogya-upaniṣad IV 1-4 *vāyur vāva saṃvargo yadā vā agnir udvāyati vāyum evâpyeti, yadā sūryo 'stam eti vāyum evâpyeti…athâdhyātmam prāṇo vāva saṃvargaḥ. sa yadā svapiti prāṇam eva vāg apyeti; prāṇam cakṣuḥ prāṇaṃ śrotraṃ prāṇaṃ manaḥ; prāṇo hy evaîtān sarvān saṃvṛkta iti. tau vā etau dvau saṃvargau vāyur eva deveṣu prāṇaḥ prāṇeṣu.*

A.D. *maṇḍala*-s as drawings represent aspects of the cosmos and divine powers,[24] and some temples express the same symbolism in stone.[25] Bhartṛhari proclaimed in his Vākyapadīya the identity of word and of *brahman* from which the world evolves: "The Brahman is without beginning or end, whose imperishable essence is the Word, from whom the creation of the world evolves as the reality of objects."[26]

　　The meaning of the term *vyākaraṇa*,[27] usually translated as "grammar" has been discussed at least as early as Kātyāyana who derived it with the suffix *ˡYUᵗ* (→-*ana*)[28] denoting an instrument: *vyākriyate anenêti vyākaraṇam* "one gives shape with it – thus it is a shaping (*vyākaraṇa*)"[29] as Patañjali explains. A common translation of this phrase is "Le *vyākaraṇa* est ce par quoi on analyse."[30] But while

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24. G.Tucci, *The Theory and Practice of the Mandala*, trans. A.H.Brodrick, London 1969; M.Eliade, *Yoga. Immortality and Freedom,* New York 1958, pp.219-227, who called the *maṇḍala* "an image of the world" or "an *imago mundi*" (p.225).

25. Śilpa-prakāśa, trans. Alice Boner and Sadasiva Rath Sarma, Leiden 1966, Preface p.viii "…the practice is followed of depositing and consecrating yantras in the foundation and below various parts of the temple as well as under the images of deities" and p.xxvii "The temple is a hierarchical structure in the likeness of the Universe…" Paul Mus, *Barabuḍur*, Hanoi 1935, repr. New York 1978 (English trans. by Alexander W.Macdonald, New Delhi 1998), interpreted this giant stūpa in Eastern Java as a symbolic representation of the cosmos, symbolism that may already have been present in the earlier stūpas in India. Note also the *dvādaśāracakra* "twelve-spoked wheel" symbolizing the *pratītya-samutpāda* at the base of several stūpas: H.Sarkar, *Ancient India* 16 (1960), pp.78-81. Pāṇini's rule VIII 4 68 *a a*, referring back to the beginning of the Aṣṭādhyāyī, shows a recurrence to the beginning similar to that found in some Vedic texts and rituals – compared to a sleeping dog that tucks its nose in its tail: J.Brereton, in *Inside the Texts. Beyond the Texts*, ed. M.Witzel, Cambridge/Mass. 1997, pp.1-14. Compare also the similar recurrence in Kātyāyana's Vārttikas and the Vājasaneyi Prātiśākhya.

26. Vākyapadīya I 1 *anādi-nidhanaṃ brahma śabda-tattvaṃ yad akṣaram /*
　　　vivartate 'rtha-bhāvena prakriyā jagato yataḥ /1/

27. The word must have been known to Pāṇini, since he used the derived adjective *vaiyākaraṇa* "belonging to grammar, grammarian" in VI 3 7.

28. The heterephone *YU* is replaced by the taddhita suffix -*ana* (by rule VII 1 1 *yuvor anâkau*), while *ˡ* and *ᵗ* are tags.

29. Mahābhāṣya I 11,26. Some manuscripts (Kielhorn's edition vol.I, p.504) and the Nirnaya Sagara Press and Rohtak editions read *vyākriyante śabdā anenêti vyākaraṇam* "Words are built up with it – thus it is a build-up (*vyākaraṇa*)." To me this looks like a copyist's attempt to clarify the meaning of the sentence.

30. *Le Mahābhāṣya de Patañjali*, traduit par Pierre Filliozat, (Adhyāya 1 Pāda

Pāṇini's grammar presupposes a thorough analysis of the structure of Sanskrit,[31] nowhere did Pāṇini offer analyses in his grammar. B. Faddegon[32] and E.Buiskool[33] wrongly differentiated between an analytical first part of his grammar (comprising books I –V, in which abstract word-elements are enumerated) and a synthetical second part (comprising books VI-VIII, which dealt with "building up the word again out of these elements"), because Pāṇini did not break down the words (phrases) into their elements – these elements are given to begin with. Yāska used *pra-vi√bhaj* for the division of elements in compounds or secondary nouns,[34] Kātyāyana and Patañjali *vi√gṛh*.[35] *vyā√kṛ* and *vyākaraṇa*, on the other hand, imply a formative aspect: *vyākaraṇāc chabdān pratipadyāmaha iti* "[We say:] 'From the *vyākaraṇa* do we obtain the [correct] word forms.'"[36] But there is a difference between Kātyāyana's and Patañjali's concept of *vyākaraṇa* as the following discussion in the Mahābhāṣya shows:[37]

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1 Āhnika 1-4) Pondichéry 1975, p.123.

31. P.Thieme, *Studien zur Indologie und Iranistik* 8/9 (1982), pp. 3-6 and 34 (*Kl.Schr.* pp.1170-1173 and 1201)

32. B.Faddegon, *Studies on Pāṇini's Grammar*, Amsterdam 1936, pp.51-54.

33. H.E.Buiskool, *Pūrvatrāsiddham*, Amsterdam 1934, p.22 and *The Tripādī*, Leiden 1939, pp.15f.

34. Nirukta II 2.

35. Mahābhāṣya I 432,3, etc. P.Thieme, *StII* 8/9, pp.23-33 (*Kl.Schr.* pp. 1190-1200) gave Vedic and classical references for the use of *vyā√kṛ* and its derivatives, for *vi√bhaj* and *vi√gṛh*; also G.Cardona, *Pāṇini: His Works and his Traditions*, pp.656-666 (2nd ed., pp.565-572).

36. *Mahābhāṣya* I 11,20. Modern translations differ. P.S.Subrahmanya Sastri, *Lectures on Patañjali's Mahābhāṣya*, vol.I p.60: "…we get the knowledge of words from *Vyākaraṇa*"; Joshi/Roodbergen, *Mahābhāṣya*, *Paspaśāhnika* p.161: "we know the words from *vyākaraṇa*" with the note 660 "That is, the words to be derived and to be used as correct Sanskrit words"; P.S.Filliozat, Le *Mahābhāṣya* vol.1 p.123: "nous obtenons les mots du *vyākaraṇa*." We should think of "build-up, formation, unfolding" rather than "analysis, explanation." In *Mahābhāṣya* I 7,29-8,1 Patañjali contrasted pots that are products (*kārya*) of a potter and words that were believed to be permanent (*nitya*): "Someone who intends to use words does not similarly go to the house of a grammarian and say: "Make (me) some words; I want to use them" (*na tadvac chabdān prayokṣyamāṇo vaiyākaraṇa-kulaṃ gatvâha: kuru śabdān; prayokṣya iti*). The context implies that the grammarian was not expected to explain words but perhaps to form them.

37. *Mahābhāṣya* I 11,15-12,27. We have also Bhartṛhari's comments on this discussion in the fragment of his *Mahābhāṣya-dīpikā* ed. Johannes Bronkhorst, fascicle IV: Āhnika I, Poona 1987, pp.31-34 (trans. pp.95-101).

"Now, what is the meaning of the word *vyākaraṇa* "grammar?""

(vārttika 10) "When the rule (or: text of rules) is the grammar, the meaning of the genitive is inappropriate."

"When the rule is the grammar, the meaning of the genitive does not properly result [in an expression like] 'the rule of grammar.' [38] What else than the rule is the grammar, of which this sūtra would be a part?"[39]

(vārttika 11) "Words could not be obtained."

"We would have the wrong consequence that words could not be obtained [as per the common understanding]: 'From grammar we obtain the [correct] words'; for they do not obtain the words from just rules, but also from explanation."

"Is it not just so that a rule split [into words] becomes the explanation?"

"The words repeated separately alone as in '*vṛddhiḥ ād aic*' are not the explanation, but example, counter example and sentence completion together are the explanation."

"Then let *vyākaraṇa* "grammar" be the word."[40]

(vārttika 12) "If the word [is the grammar], the meaning of [the suffix] *ᶥyuᵗ* [→-*ana*- in *vyākaraṇa*] does not fit."

"If the word is the grammar, the meaning of the suffix *ᶥyuᵗ* does not fit [in a process]: 'Words are given shape (*vyā√kṛ*) by it – [thus] *vyākaraṇa*.' For nothing is given shape by words, but by the [grammatical] rule."[41]

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38. An expression like *vyākaraṇasya sūtram* "a rule of grammar" cannot be justified under this definition, because it would say, as it were, "the rule of the rule."

39. *Mahābhāṣya* I 11,15-18 *atha vyākaraṇam ity asya śabdasya kaḥ padârthaḥ? sūtram.* **sūtre vyākaraṇe ṣaṣṭhy-artho 'nupapannaḥ** (vārttika 10). *sūtre vyākaraṇe ṣaṣṭhy-artho nôpapadyate 'vyākaraṇasya sūtram' iti. kiṃ hi tad anyat sūtrād vyākaraṇaṃ yasyâdaḥ sūtraṃ syāt?*

40. *Mahābhāṣya* I 11,19-24 **śabdâpratipattiḥ** (vārttika 11). *śabdānāṃ câpratipattiḥ prāpnoti 'vyākaraṇāc chabdān pratipadyāmaha' iti. na hi sūtrata eva śabdān pratipadyante. kiṃ tarhi? vyākhyānataś ca. nanu ca tad eva sūtraṃ vigṛhītaṃ vyākhyānaṃ bhavati? na kevalāni carcā-padāni vyākhyānaṃ 'vṛddhiḥ āt aij' iti. kiṃ tarhi? udāharaṇaṃ pratyudāharaṇaṃ vākyâdhyahāra ity etat samuditaṃ vyākhyānaṃ bhavati. evaṃ tarhi śabdaḥ.*

41. *Mahābhāṣya* I 11,25-27 **śabde lyuḍ-arthaḥ** (vārttika 12). *yadi śabdo vyākaraṇaṃ lyuḍ-artho nôpapadyate. vyākriyate 'nenêti vyākaraṇam. na hi śabdena kiṃcid vyākriyate. kena tarhi? sūtreṇa.*

In vārttika 13 Kātyāyana pointed out further difficulties with the rules IV 3 53 and IV 3 102. The former (*tatra bhavaḥ* "being in it") allows the formation of *yogo vaiyākaraṇaḥ* "a rule in grammar" and the latter (*tena proktam* "proclaimed by him") of *Pāṇinīyam [vyākaraṇam]* "the grammar taught by Pāṇini." A rule (*yoga*), however, is not found in a word but in the grammar text, and Pāṇini taught rules, not just words. After Kātyāyana had thus refuted both assumptions, that either rules or words alone constitute grammar, he offered his final opinion:

"(vārttika 14) Characterized object and characterization [together] constitute grammar."

"Characterized object and characterization together constitute grammar."

"What are characterized object and characterization?"

"The word is the characterized object, the rule is the characterization."[42]

Patañjali then disposed of a possible problem that the term might not be applicable to the individual constituents of grammar, as e.g. a student of the rules is properly called *vaiyākaraṇa* (including even a person who has not yet mastered all of *vyākaraṇa*). Finally Patañjali returned to the option discussed first:

"Or let the rule be [the meaning of 'grammar'] after all."[43] The genitive in 'the rule of grammar' (vārttika 10) can be justified as an extended meaning, and regarding the doubt that words may not be obtained by the rule, he now argues afresh, restating first the objection:

"For one does not obtain the words from the rule alone, but also from the explanation."

"That has been avoided by [the statement]: That same rule split up into words becomes the explanation."

"Was it not objected: "The words repeated separately alone as in '*vṛddhiḥ ād aic*' are not the explanation, but example, counter example and sentence completion together are the explanation?"

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42. Mahābhāṣya I 12,15-17 **lakṣya-lakṣaṇe vyākaraṇam** (vārttika 14). *lakṣyam ca lakṣaṇam caîtat samuditaṃ vyākaraṇaṃ bhavati. kiṃ punar lakṣyaṃ lakṣaṇam ca? śabdo lakṣyaḥ sūtraṃ lakṣaṇam.*

43. Mahābhāṣya I 12,21 *athavā punar astu sūtram.*

"That is so for the ignorant; for one obtains words from the rules alone. And for that reason from the rule alone: for if one would say something outside the rules that would not be accepted."[44]

Kātyāyana weighed the options in the interpretation of the word *vyākaraṇa* itself: does it denote the characterizations or the characterized (roughly speaking, the sūtras or the language forms indicated)? Finally Kātyāyana declared that characterizations (rules) and language forms indicated (words) together form *vyākaraṇa*. Patañjali rejected this view and declared that the sūtra alone constitutes *vyākaraṇa*.[45] I think this difference is far from trifling.[46] In Kātyāyana's final view *lakṣya-lakṣaṇam* together, the language forms indicated and the rules indicating them, constitute this construct of correct speech, one echoing the other.[47]

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44. Mahābhāṣya I 12,23-*27 na hi sūtrata eva śabdān pratipadyante kiṃ tarhi vyākhyānataś côti parihṛtam etat tad eva sūtraṃ vigṛhitaṃ vyākhyānaṃ bhavatîti. na-nu côktam na kevalāni carca-padāni vyākhyānaṃ vṛddhiḥ āt aij iti kiṃ tarhi udāharaṇaṃ pratyudāharaṇaṃ vākyâdhyāhāra ity etat samuditaṃ vyākhyānaṃ bha-vatîti. avijānata etad eva bhavati. sūtrata eva hi śabdān pratipadyante, ātaś ca sūtrata eva yo hy utsūtraṃ kathayen nâdo gṛhyeta.*
Mahābhāṣya I 400,8f. is only superficially similar: *te khalv api suparigṛhītā bhavanti, yeṣu lakṣaṇam prapañcas ca. kevalam lakṣaṇam kevalaḥ prapañco vā na tathā kārakam bhavati* "Those [rules] also are well formulated in which there is character-ization and enumeration. Characterization alone or enumeration alone is not thus effi-cient." Here enumeration (such as the list of adjectives in II 1 58) is really part of the rule giving, and it is not called *lakṣya*.
45. Mahābhāṣya I 12,26f. *sūtrata eva hi śabdān pratipadyante* "For from the *sūtra* alone [people] get the [correct] words." Nāgojībhaṭṭa in his Uddyota (vol.I, pp.46f.) on this passage quoted a part of a stanza *sūtreṣv eva hi tat sarvaṃ yad vṛttau yac ca vārtike* "Everything in the commentary and *vārttika* is contained in the sūtra" which was quoted in full by Kumārila in his Tantravārttika on Mīmāṃsā-sūtra II 3,16 (vol.III, p.180):
    sūtreṣv eva hi tat sarvaṃ yad vṛttau yac ca vārtike /
    sūtraṃ yonir ihârthānām sarvaṃ sūtre pratiṣṭhitam //
Joshi/Roodbergen (*Mahābhāṣya, Paspaśāhnika*, p.185) followed Nāgojībhaṭṭa, writing: "The *Bhāṣya* says that only an ignorant can think that *vyākhyāna* is some-thing different from *sūtra*. But *vyākhyāna* is not something that goes beyond the rules, for in that case it would not be accepted."
46. P.S.Subrahmanya Sastri, *Lectures on Patañjali's Mahābhāṣya*, vol.I (2nd ed., Thiruvaiyaru 1960), p.63 correctly stressed that Patañjali here rejected Kātyāyana's final opinion.
47. Joshi/Roodbergen, *Mahābhāṣya, Paspaśāhnika*, p.185 saw here vestiges of the past: "The view according to which *vyākaraṇa* stands for *śabda* 'the words' may seem strange to modern eyes. Presumably, it is a remnant of an older tradition which

In this context a suggestion made by Joshi/Roodbergen is worth considering. While they held on to the view of Pāṇini's Aṣṭādhyāyī as a generative grammar, they suggested that Kātyāyana's approach was different: the words are *nitya*, and hence they are already given. Joshi/Roodbergen declared: "According to the *nityapakṣa*, grammar merely analyses linguistic data. It is not viewed as a device to generate words."[48] In fact, we must say, *vyākaraṇa* does not denote the analysis of a language but giving it shape, as P.Thieme has demonstrated; Pāṇini's grammar never analyses.[49] But if the Aṣṭādhyāyī is not the generating device either that it is often believed to be (erroneously, I think), Kātyāyana's approach may be remarkably similar to Pāṇini's: existing words are paired with the rules indicating their unfolding, i.e., it lays out the processes by which words and sentences are built up, following the intricate system of general rules and exceptions. Kātyāyana once indicated that he considered grammar as a restriction on popular usage, i.e., only expressions in conformity with grammar should be used.[50] The great change came with Patañjali. For him, Pāṇini's grammar had begun to become the instructional manual that later, with the addition of meanings to the root list, the Uṇ-ādi-sūtras, the Liṅgânuśāsana, the Phiṭ-sūtras, the elaboration of the Gaṇa-pāṭha, and the compendia of *paribhāṣā*-s evolved into a complete mechanism to create correct forms.[51] It is a magnificent edifice, and many generations of schol-

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goes back to the *pratipadapāṭha* 'word by word recitation' of Bṛhaspati mentioned in *Bh*. No.51 [= Mahābhāṣya I 5,25f. H.S.], and to the *padapāṭhas* of the Vedas, in which the *ṛks* are analysed or divided up *(vyākṛ)* into their constituent words." This is a tortured connection. Note also that Kātyāyana did not use the word *śabda* in this connection, but the abstract *lakṣya* which has a much wider range and views the language forms as the object of rules.

48. Joshi/Roodbergen, *Mahābhāṣya*, *Bahuvrīhidvandvâhnika*, Poona 1974, p.xix.
49. P.Thieme, *Studien zur Indologie und Iranistik* 8/9 (1982), pp.11 and 23-34 (*Kl.Schr.* pp.1178 and 1190-1201); see also above p.91 fn.35.
50. In his very first vārttika: Mahābhāṣya I p.8,3-7 …*lokato 'rtha-prayukte śabda-prayoge śāstreṇa dharma-niyamaḥ*…
51. One reason for this development may have been the fact that Sanskrit in its classical form had ceased to be the first language for the average person and had to be specially taught, as M.M.Deshpande (in *History of the Language Sciences*, vol.1, p.175) has pointed out. J.Bronkhorst, *From Pāṇini to Patañjali: the Search for Linearity*, Pune 2004, pp.39-47 attributed Patañjali's "search for linearity" in the ordered application of Pāṇini's rules to the influence of the Buddhist schools of the Sarvāstivādins. We may not be able to rule out such influence, but for a grammarian a grammatical motivation seems more plausible.

ars worked with great sagacity to resolve any apparent contradictions and uncertainties. Nevertheless it is a structure built on a flawed foundation, because Pāṇini's work was not designed as a generative device. Franz Kielhorn concluded his pioneering booklet "Kâtyâyana and Patanjali: their relation to each other and to Pânini" with these remarkable words:

"Here I conclude. To show in detail the differences between Kâtyâyana and Patanjali would be a task full of interest, and highly instructive, as showing the progress which the science of grammar had undoubtedly made from the time of Kâtyâyana to that of Patanjali, and as tracing in the work of the latter the germs of those failings which have continued growing and increasing in the works of the later grammarians ever since. But that task does not lie within the scope of this enquiry, nor would the materials at my command justify my undertaking it at present…"[52]

A final, though thoroughly misguided stage was reached in modern treatises that consider the Dhātu-pāṭha the source of the verbs[53] and the Gaṇa-pāṭha the source of nouns, as Rama Nath Sharma suggested: "Roots and nominal stems are also of two types, basic as well as derived. Basic roots are those which have been enumerated in the *DP*. The *GP* has a listing of basic stems."[54] This position was stated even more clearly (and wrongly!) by S.D.Joshi who wrote:

Pāṇini's grammar consists of these works:
(i)   *A*. (i.e., Aṣṭādhyāyī. H.S.) "body of rules", and two supplementary texts
(ii) *Dhātupāṭha* "a list of verbal bases" and
(iii) *Gaṇapāṭha* "a list of nominal stems."[55]

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52. F.Kielhorn, *Kâtyâyana and Patanjali: their relation to each other and to Pânini*, Bombay 1876 repr. Varanasi 1963, p.56; *Kl.Schr.*, p.56). These remarks suggest, that Kielhorn who so diligently dealt with the elaborate explanations of the later Pāṇinīyas – that so often stretch the realm of the probable and credible – had his reservations as to how much the works of these authors truly reflect the intentions of Pāṇini himself.

53. The about two thousand roots had to be arranged, and it was practical and useful to arrange them according to ten classes of present stem formation of their verbal forms (and their active or middle voice). I know of no classification of nominal derivations that could have served as a comparable base of organization.

54. Rama Nath Sharma, *The Aṣṭādhyāyī of Pāṇini*, New Delhi 1987, vol.I p.165; also p.38: "The *GP* is an ordered listing of sets of nominal stems."

55. S.D.Joshi, *JIPh* 29 (2001), p.155.

Just as the Dhātu-pāṭha is not simply a listing of verbs (there are roots listed that have no verbal form derived from them), the Gaṇa-pāṭha is not a list of the nominal stems: some gaṇa-s list verb forms, others pronouns, particles or adverbs, and all of them are really more or less complete lists of specimens that were too lengthy to fit in a sūtra of the grammar itself. They are elements in a grammatical operation. In fact, the Gaṇa-pāṭha was not conceived as a text in the usual sense; the individual two-hundred and sixty-five lists[56] are given at their proper place in the *vṛtti* (e.g., the Kāśikā-vṛtti) under the sūtra in which they are invoked. When Pāṇini taught I 1 27 *sarvâdīni sarvanāmāni* "*sarva* etc. are pronouns" he may have recited for his students all the twenty-nine words listed in the Gaṇa-pāṭha nr. 241 *sarvâdīni*, or he may have given only a few examples – or he may even have left it to them to figure out the details. Rule I 1 74 *tyad-ādīni ca* "*tyad* etc. are also [*vṛddha*]" teaches the formation of derivatives (e.g. *tyadīya*) from the pronouns *tyad* etc. listed in the Gaṇa-pāṭha as a sub-group of nr. 241 *sarvâdīni*. The Gaṇa-pāṭha is in no way a list of the nominal stems of Sanskrit. Similarly, the Dhātu-pāṭha is not simply a list of "verbal roots," even though the *dhā-tu*-s are arranged in ten classes according to the manner in which verbal forms (of the present tense stem) are derived from them. It contains *dhātu*-s with no verbal forms found in Sanskrit.[57]

It may be helpful to look at a related group of texts from the same general period, viz. the so-called Prātiśākhya-s. Besides the original recitation of the Vedic hymns and mantras in "current" or "connected" recitation (*saṃhitā-pāṭha*), the word-for-word recitation (*pada-pāṭha*), where compounds and euphonic combinations are dissolved, constituted the earliest philological treatment[58] of the sacred texts. "The study of the Padapāṭha is for the purpose of gaining understanding of the ends and initials of words, their accents and their meaning"[59] or "The division of the padas is for the sake of gaining knowledge of the be-

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56. These two-hundred and sixty-five *gaṇa*-s in Böhtlingk's *Pâṇini's Grammatik* include *gaṇa*-s like *bhūv-ādayaḥ*, all roots of the first class.

57. cf. below pp. 121f.

58. The makers of the Pada-pāṭha should follow grammar, not the other way around: Mahābhāṣya II 85,4.

59. Caturādhyāyikā 4.4,7 (Whitney IV 107) *padâdhyayanam antâdi-śabda-svarârtha-jñānârtham.*

ginnings, words, accent and (thereby) the meaning of the stanzas ut-
tered by the sages." [60] Linked with the *saṃhitā-pāṭha*-s and *pada-
pāṭha*-s of the Vedic collections are several aphoristic texts called
prātiśākhya-s. One of them, the Śaunakīyā Caturādhyāyikā [61] de-
scribes the aim of this text: "Here are defined the [phonetic/phonologi-
cal] characteristics of nouns, verbs, prepositions, and particles, the
four types of words, as they occur in combination [with the following
words, as in the Saṃhitāpāṭha] and before pause [or in isolation, as in
the Padapāṭha]." [62] The majority of rules describe the process of con-
verting the Pada-pāṭha into a *saṃhitā*-text, so much so that Whitney
declared: "this is more in accordance with the general method of the
Prâtiçâkhyas, which take for granted, upon the whole, the existence of
their *çâkhâs* in the analyzed condition of the *pada*-text, and proceed to
construct the *saṃhitâ* from it." [63] But the fourth chapter of the
Caturādhyāyikā, [64] the third chapter of the Taittirīya-prātiśākhya, [65]
the fifth chapter of the Vājasaneyi-prātiśākhya, [66] and much of the
Atharva-prātiśākhya [67] teaches procedures how to construct the
Padapāṭha from the Saṃhitā-pāṭha or, perhaps more accurately, view

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60. Atharva-prātiśākhya under I 3 (trans. p.3): *ṛṣi-prokta-mantrâdi-śabda-
svara-jñānârthaḥ pada-vibhāgaḥ.*

61. This text is also known as the Kautsa-vyākaraṇa (see below p.102). The
Ṛktantra (ed. Sūrya Kānta, Delhi 1970, text p.61) is called in the colophon the
Ṛktantra-vyākaraṇa.

62. CA I 1 2 (Whitney I 1) *caturṇāṃ pada-jātānāṃ nāmâkhyātôpasarga-
nipātānāṃ sandhya-padyau guṇau prātijñam.*

63. W.D.Whitney, *JAOS* 9 (1868), p.82; M.Winternitz, *Geschichte der indischen
Litteratur*, vol.I, 2nd ed., Leipzig 1909, p.241 (English trans. by V.Srinivasa Sarma,
vol.I, p.264), and M.M.Deshpande, *Śaunakīyā Caturādhyāyikā*, p.263.

64. Most rules are devoted to the use or non-use of the divider *avagraha*, some
to the reversal of sandhi applications in forming the Pada-pāṭha, and to the construc-
tion of the Krama-pāṭha.

65. Shortening of a final vowel (that was lengthened in poetry) in creating the
Pada-text – and one case of shortening an initial vowel (*vyānāya > vi anāya* and
udānāya > ud anāya, based on faulty analysis).

66. The use or non-use of the divider (*avagraha*) between members of a com-
pound or between stem and suffix.

67. Atharva-prātiśākhya II 2,7 [=79] calls for the restoration of final *visar-
janīya* in the enclitic acc.pl.fem *enā[ḥ]*, II 3,27 [=122] teaches the separation of *su-* in
words like *sukṣetriyā*, III 1 3 [=143] teaches that the final *-o* of a vocative remains un-
changed before an *iti* in the Padapāṭha. The editor of the text, Sūrya Kānta, claimed
that essentially "the APr. turns Saṃhitā into Pada" (notes, pp.2 and 29).

the Padapāṭha from the point of view of the Saṃhitā-pāṭha.

Kātyāyana's view of matching rules and words is similar to the contemplative view of the author of the Caturādhyāyikā (and the practice of the other Prātiśākhyas), viz. that the concerns of these texts are the qualities of the combined and separated words, i.e. as words appear in the Saṃhitāpāṭha and Padapāṭha – not the directed conversion of the Padapāṭha into the Saṃhitāpāṭha. It may be significant that the Kātyāyana who composed the vārttikas is probably identical with the author of the Vājasaneyi-prātiśākhya. *vyākaraṇa* is thus larger than what is commonly understood as "grammar": it comprises the full range of the language as it takes shape in accordance with the rules that give it its character.

Grammar, typically represented by Pāṇini's Aṣṭādhyāyī, and the Prātiśākhyas are actually very close. The Atharva-prātiśākhya I 1,3c, after stating the purpose of the Pada-pāṭha, declares: *tad idaṃ śāstram vyākaraṇam purastād adhyeyam alaṃvijñānāya āmnāya-dārḍhyârtham* "Hence this science of grammar must be studied first for the sake of competent knowledge, and for the fixture of the sacred text." Caturā-dhyāyikā I 1,3-4 [2 *prātijñam*] *evam ihêti ca vibhāṣā-prāptaṃ sāmā-nye* "[This treatise] also [defines that the phonetic/phonological features of the words] in this [tradition] are such and such; [these] obtain optionally in a generic [grammar of Sanskrit]." The commentator explained the first part of this sentence as referring to his branch of the Atharvaveda (*asyāṃ śākhāyām*) and asked what is meant by *sāmānya: kim sāmānyam? vyākaraṇam* "What is 'generic [x]'?" His answer was: "*vyākaraṇam* 'grammar'." The generic grammar of Sanskrit may contain options between competing, perhaps regional, forms; but a Prātiśākhya gives special rules that are bound by the forms that are found in the Vedic text to which it is attached. A generic grammar such as Pāṇini's Aṣṭādhyāyī is, as Patañjali said, *sarva-veda-pāriṣad-am* "concerned with all Vedic traditions,"[68] whereas the Prātiśākhyas

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68. Mahābhāṣya I 400,9-11 and III 146,14-16 *avaśyaṃ khalv asmābhir idaṃ vak-tavyam: bahulam, anyatarasyām, ubhayathā, vā, ekeṣām iti. sarva-veda-pāriṣadaṃ hîdaṃ śāstram. tatra naîkaḥ panthāḥ śakya āsthātum* "Indeed, we must of necessity say: 'often, either way, both ways, or, according to some.' For this science [of grammar] is concerned with all schools (of the Veda). That being so, one cannot stay with one path only." *vā* is left out in the latter passage (III 146,14-16) in the three editions

are confined to the data of their own tradition.[69] It is widely accepted in the Prātiśākhya tradition, i.e. in its commentaries, that the tradition of grammar is the foundation to which the rules of the Prātiśākhya give specific exceptions. The references in these commentaries are to Pāṇini and his grammar, though the Prātiśākhyas themselves could have referred to other old grammars.[70] Uvaṭa, in his commentary on the Ṛgveda-prātiśākhya put it succinctly, paraphrasing an older śloka: "Whatever [procedure] obtains optionally through generic descriptions is settled in a restrictive way in this Vedic branch. This way the purpose of the Prātiśākhya is explained."[71]

The word *prātiśākhya* is formed with a suffix *-ya* that demands vṛddhi of the first syllable. This could be an abstract[72] like *prātilomyam* "inconvenience, antithesis" (Pāṇini V 4 64 and Yāska I 3) or *ābhimukhyam* "direction towards" (Pāṇini II 1 14 and Yāska I 3) – or it could be an adjective[73] denoting something fit for or dedicated to an individual branch (*śākhā*) comparable to *ṣāṇmāsya* "six-monthly" (Pāṇini V 1 83, ĀśŚS III 8,5, etc.) or *pāriṣadya* "proper for council, councilor" (Pāṇini IV 4 44 and 101). The related indeclinable *pratiśākham* "branch by branch, for each individual branch [of the Veda]" is attested only late (Śaṅkara on Brahmasūtra III 3,55) and less

available to me (Kielhorn, Rohtak, Nirnaya Sagara Press), suggesting an old mistake in the manuscript tradition; the manuscripts on which these editions are based may all go back ultimately to this faulty source. See W.Rau, *Die vedischen Zitate im Vyākaraṇa-Mahābhāṣya*, Stuttgart 1985, p.101 and M.Witzel, *IIJ* 29 (1986), pp.249-259.

69. M.M.Deshpande, *Śaunakīyā Caturādhyāyikā*, pp.61-64 and 100f.

70. M.M.Deshpande, *Śaunakīyā Caturādhyāyikā*, p.70-72 discussed the metrical fragments contained in an old commentary (perhaps as old as the Kāśikā) on the Caturādhyāyikā. Caturādhyāyikā I 2 10 is the first half of a śloka that is quoted complete in the commentary. This fragmentary metrical text has archaic features and may be older than the Caturādhyāyikā. Such metrical fragments quoted in the commentary – and the grammatical stanzas quoted in the Mahābhāṣya – may be part of a metrical version of Pāṇini's grammar, the existence of which P.Thieme had suspected years ago (in class), apparently following F.Kielhorn, Preface to Mahābhāṣya, vol.III, 3rd ed., p.29 (= Preface to the 1st ed., vol.II).

71. Ṛgvedaprātiśākhya, ed. Rāmaprasāda Tripāthī, Varanasi 1986, p.2,15f. *sāmānyena lakṣaṇena yad vikalpa-prāptaṃ tad evam asyāṃ śākhāyāṃ vyavasthitaṃ bhavatîti pratiśākhya-prayojanam uktam* (see also M.M. Deshpande, *Śaunakīyā Caturādhyāyikā*, pp.62-64).

72. J.Wackernagel, *Altindische Grammatik*, vol.IIb, pp.834-839.

73. J.Wackernagel, *Altindische Grammatik*, vol.IIb, p.821.

likely to be the bases for *prātiśākhya*,[74] though it could have been formed anytime. An abstract noun "status of applying to each branch" is not fitting as a title for these grammatical texts; if the word is an adjective, it demands a noun that is understood. The most likely noun, one suggested by the texts themselves, is *vyākaraṇa*: *prātiśākhyaṃ vyākaraṇam* "grammar specializing on one *śākhā*." [75]

It is erroneous to assume that once there were such Prātiśākhyas for every Vedic *śākhā* of the four Vedas, as Sūrya Kanta,[76] D.D.Mahulkar,[77] and M.M. Deshpande[78] have assumed. It is more likely that they developed after Pāṇini, and we may even have all that there ever were, though there are possible references to three or four more.[79] As opposed to a general treatise of grammar (*sarva-veda-pāriṣadam*), the Taittirīya-prātiśākhya [vyākaraṇam] is the "grammar concerned with the Taittirīya branch [of the Yajurveda]," the Śuklayajuḥ-prātiśākhya[80] [vyākaraṇam] the "grammar concerned with the White Yajurveda." The Ṛgveda-prātiśākhya is only linked to the Śaunaka branch through the name of its presumptive author, and the Atharva-prātiśākhya mentions no branch affiliation at all, prompting Sūrya Kanta to say that "the Prātiśākhyas in their extant form are

74. The standard explanation offered in modern handbooks, though, derives *prātiśākhya* from this indeclinable *pratiśākham* (PW, Monier-Williams, etc.). S. Varma, *Critical Studies in the Phonetic Observations of Indian Grammarians*, 1929, repr. Delhi 1961, p.12 quoted Jñānendra Sarasvati's commentary on Siddhānta-kaumudī 1997: *pratiśākhaṃ bhavaṃ prātiśākhyam iti Mādhavaḥ*.

75. S.Varma, *ibid.*, pp.14-16, correctly noted the connection and was wrongly criticized by Ralf Stautzenbach, *Pāriśikṣā und Saṃmataśikṣā*, Stuttgart 1994, p.275, fn.9.

76. Sūrya Kānta, *Atharva Prātiśākhya*, Delhi 1968, Introduction, p.30: "With the supersedence of different śākhās by one, i.e. *the RV*., a consequent unity in the sphere of Prātiśākhyas was natural, moulding all into one, i.e. the extant RPr., and setting this the one norm for the Śākalas as well as the Vāṣkalas and the rest. The same process took place in case of other Saṃhitās and Prātiśākhyas." Similar Sūrya Kānta, *Ṛktantra*, Delhi 1970, p.6.

77. D.D.Mahulkar, *The Prātiśākhya Tradition and Modern Linguistics*, Baroda 1981, p.40.

78. M.M.Deshpande, *Śaunakīyā Caturādhyāyikā*, p.38: "As the word *prātiśākhya* [< *prati* 'each' + *śākhā* 'branch'] suggests, each branch of the Vedic literature was ideally expected to have a Prātiśākhya text attached to it."

79. Sūrya Kānta, *Ṛktantra*, Delhi 1970, introduction, p.6.

80. Also known as the Vājasaneyi-prātiśākhya.

no Prātiśākhyas, but more or less Prātisaṃhitas, treating, as they do, not a śākhā of a particular Saṃhitā, but a Saṃhitā in general."[81] Indeed, strictly speaking, only the Taittirīya- and Śuklayajuḥ-prātiśākhya should be called *prātiśākhya*-s, whereas the Ṛgveda-prātiśākhya and the Atharva-prātiśākhya may owe their designation as *prātiśākhya* to imitation of these other texts. The Caturādhyāyikā does not call itself a *prātiśākhya* at all, but is called (in some manuscripts) a *vyākaraṇa*; the Bhāṣya by Bhārgavabhāskara in its introductory sentences refers to it with *atharva-vedāṅga-Kautsa-vyākaraṇasya Caturādhyāyâtmakasya...*,[82] considering it at once a *vedāṅga* and a *vyākaraṇa*.[83]

It is not warranted, as I pointed out, to conclude from the term *prātiśākhya* that at some time there existed such manuals for each and every of the dozens of Vedic branches (*pratiśākham*).[84] It is equally erroneous to assume a period of Prātiśākhya literature as a forerunner of grammar. The Prātiśākhyas are grammars. It is for that reason that there is no separate category for them in the list of the six *vedāṅga*-s. Āpastamba-dharma-sūtra stated: *ṣaḍ-aṅgo vedaḥ: chandaḥ kalpo vyākaraṇaṃ jyotiṣaṃ niruktaṃ śikṣā chando-vicitir iti* "The Veda has six Aṅgas (auxiliary works). [The six auxiliary works are] the Kalpa (teaching the ritual of the Veda), the treatises on grammar, astronomy, etymology, phonetics, and metrics."[85] If Prātiśākhya is to be a

81. Sūrya Kānta, *Atharva Prātiśākhya*, Delhi 1968, Introduction p.30.

82. M.M.Deshpande, *Śaunakīya Caturādhyāyikā*, p.97.

83. Or an *aṅga* of the Atharva-veda. The Ṛktantra, a Prātiśākhya of the Sāmaveda, was called *chando-gānāṃ vyākaraṇam* "a grammar of the Veda singers": Sūrya Kānta, *Ṛktantra*, Delhi 1970, p.33.

84. While the adverb *pratiśākham* "*śākhā* by *śākhā*, from one *śākhā* to another" (Śaṅkara on Vedāntasūtra III 3,55) does refer to all branches in a way, at least the Taittirīya-prātiśākhya and the Śuklayajuḥ-prātiśākhya emphatically deal with one *śākhā* only.

85. Āpastamba-dharma-sūtra (ed.G.Bühler, 3rd ed.) II 4 8,10f. Muṇḍaka-upaniṣad I 1,5 *śikṣā kalpo vyākaraṇaṃ niruktaṃ chando jyotiṣam iti*, followed closely by Kauṭalīya Arthaśāstra I 3,3 *śikṣā kalpo vyākaraṇaṃ niruktaṃ chandovicitir jyotiṣam iti câṅgāni*. Cardona, *Pāṇini*, vol.I, p.629 (= p.543 in the 2nd ed.) explained, following one (recent) recension of the Pāṇinīya śikṣā, the six vedāṅgas as *chandas* being the two feet, *kalpa* the two hands, *jyotiṣa* the two eyes, *nirukta* hearing, *śikṣā* smell, grammar face/mouth of the Veda. That would bring, of course, the number of bodily aṅgas well above six, and that is not the old idea of the six limbs anyway (really "limbs" not "ancillaries"). Cardona followed the late and secondary explanation!

vedâṅga at all, it could have been only as part of *vyākaraṇa*. [86] Alternatively, it could be speculated that the genre of *prātiśākhya* was later than the concept of the six *vedâṅga*-s (including *vyākaraṇa*) and developed, again, in league with *vyākaraṇa* at a later time.

I referred above to the common perception that it was the purpose of a Prātiśākhya to guide the Vedic reciter in reconstructing the Saṃhitā-pāṭha from the Pada-pāṭha. [87] Max Müller went so far as to suggest that the Pada-pāṭha preceded the Saṃhitā-pāṭha. That assumption has long been laid to rest. The Indian tradition regarded the Saṃhitā-pāṭha as *ārṣa*, the Pada-pāṭha as *an-ārṣa* "not coming from the Vedic poets." [88] But the controversy continued: is our *pada*-text the basis for the reconstruction of the *saṃhitā*-text, perhaps as a second line

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TS V 6,9,1f. *ṣoḍhā-vihito vai puruṣa ātmā ca śiraś ca catvāry aṅgāni* "man is sixfold, the body, the head, four limbs," Aitareya-brāhmaṇa II 39 "*ṣaḍ-vidho vai puruṣaḥ ṣaḍ-aṅgaḥ* "sixfold is man, with six members," Caraka-saṃhitā IV 7,5 *tatrâyaṃ śarīrasyâṅga-vibhāgaḥ, tadyathā: dvau bāhū, dve sakthinī, śiro-grīvam, antarādhiḥ – iti ṣaḍ-aṅgam aṅgam* "There is this division of the members of the body: two arms, two legs, head-with-neck, trunk: thus the body has six members," Suśruta-saṃhitā III 5,1 ...*tadā śarīram iti saṃjñāṃ labhate; tac ca ṣaḍ-aṅgaṃ śākhāś catasro madhyaṃ pañcamaṃ ṣaṣṭhaṃ śira iti*, and Aṣṭāṅgahṛdaya, Śarīrasthānam 3,1
    śiro 'ntarādhir dvau bāhū sakthinîti samāsataḥ /
    ṣaḍ-aṅgam aṅgam, pratyaṅgaṃ tasyâkṣi-hṛdayâdikam //
Several of the body parts listed as *aṅgas* in the Śikṣā are called *pratyaṅga* also in Suśruta-saṃhitā III 5,2; the Śikṣā list is thus clearly not in conformity with the medical description of the human body. The same six limbs are also listed in the Kulârṇava-tantra II 84 and similarly in the Agni-purāṇa 340,6, while the Saṃgīta-ratnâkara IV 15.7 gives a different and larger enumeration (the last three references are quoted from the *Encyclopaedic Dictionary of Sanskrit*, vol.I p.532). The two ślokas relied on by Cardona are found only in the so-called Ṛk recension which "is the most inflated version of the PŚ." and "is scarcely much older than the 18th century": Manmohan Ghosh, *Pāṇinīya Śikṣā*, 2nd ed., Delhi 1986, pp.xvf., 43 and 75.
    86. M.Winternitz, *Geschichte der indischen Litteratur*, vol.I, Leipzig 1909, p.241 (*A History of Indian Literature* trans. V.Srinivasa Sarma, vol.I, p.264) and Klaus Mylius, *Geschichte der Literatur im alten Indien*, Leipzig 1983, p.92 would classify the Prātiśākhya under *śikṣā*; similarly L.Renou (*Journal Asiatique* 251 [1964], p.167 wrote: "ceux-ci sont les témoins authentiques de la śikṣā." The Prātiśākhyas themselves and their commentaries speak against this.
    87. Also M.M.Deshpande, *Śaunakīyā Caturādhyāyikā*, pp.98f.
    88. Pāṇini I 1 16 [11 *pragṛhyam* 15 *ot*] *sambuddhau Śākalyasyêtāv anārṣe* "The /o/ in a vocative [is *pragṛhya*] before an *iti* that does not come from a *ṛṣi* in Śākalya's [text]" called the *iti* in Śākalya's Pada-pāṭha *anārṣa* "not coming from the Vedic seer."

of tradition to guard the transmission of the important sacred texts?

    That argument is often based on misunderstood statements by Yāska: *paraḥ saṃnikarṣaḥ saṃhitā. pada-prakṛtiḥ saṃhitā. pada-prakṛtīni sarva-caraṇānām pārṣadāni*[89] "The closest contact is [called] *saṃhitā* 'connected speech.' The connected speech is based on the [individual] words. The manuals of all schools have the [individual] words as their base." The first of these three sentences corresponds to Pāṇini's rule I 4 109 *paraḥ saṃnikarṣaḥ saṃhitā* (where we have supply a noun like *vṛtti*[90] or *vāc*), stating the context in which the built-up words are joined in sentences. Indeed, in Pāṇini's system the words that have been build up from roots and suffixes precede systematically the joining of these words in the flow of speech.[91] And it is a fact, that the majority of rules in the Prātiśākhya-s start their process with the individual words (found in the Pada-pāṭha), and join them into connected speech; but not all rules do so. When the Prātiśākhyas speak of *saṃhitā*, they refer to such connected speech,[92] not to a text

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    89. Nirukta I 17. Lakshman Sarup translated: "*Saṃhitā* is the closest conjunction by means of euphonic combination. *Saṃhitā* is based on the original form of words. The phonetic treatises of all schools are based on the original form of words." Cf. Ṛgveda-prātiśākhya II 1 *saṃhitā pada-prakṛtiḥ*. Skandasvamin, too, took *pada-prakṛtiḥ* as a bahuvrīhi: *ataḥ sā padaprakṛtiḥ; padāni prakṛtir asyāḥ sêyam pada-prakṛtiḥ* (*Commentary of Skandasvāmi and Maheśvara on the Nirukta*, vol.I, p.107,8f.). Vākyapadīya II 58 alludes to the debate whether *pada-prakṛtiḥ* is a bahu-vrīhi or a tatpuruṣa, where *saṃhitā* and *pada* clearly stand for Saṃhitā-pāṭha and Pada-pāṭha: "The Saṃhitā[-pāṭha] is based on the Pada[-pāṭha] or the Saṃhitā[-pāṭha] is the base for the Pada[-pāṭha]."

    90. *vṛtti* is used in similar contexts in the Mahābhāṣya. Kātyāyana was concerned that a vowel uttered in grammar in fast speech (*drutāyām*) with the tag *ᵗ* (which restricts the vowel to one of that length only) would fail to comprise the same vowel in slower speech. "But it is correct. The sounds/phonemes are fixed; [only] the speeches/realizations vary due to the slow or fast pronunciation by the speaker" (*siddhaṃ tv avasthitā varṇā vaktuś cirâcira-vacanād vṛttayo viśiṣyante*). Patañjali, in his comment on this vārttika 5 on I 1 70, supplied the needed noun to *drutāyām*: *drutāyāṃ vṛttau* (Mahābhāṣya I 181,8-15). Caturādhyāyikā II 1,24 has *leśa-vṛttir* "weak articulation," Ṛgveda-prātiśākhya XVIII 33 has *guru-vṛtti* "having loud pronunciation" and *laghu-vṛtti* "having soft pronunciation."

    91. Bhartṛhari in his Vākyapadīya espoused a different approach: a comprehensive expression, usually a sentence, is artificially segmented into smaller units for the sake of description and instruction, but these segments are not real.

    92. This is obvious in VājPr I 148 *saṃhitāvad* "as in connected speech," III 1 *saṃhitāyām* "in connected speech" (= Pāṇini VI 1 72 and 3 114), similar IV 18 and

called *Saṃhitā*. Apparent exceptions vanish on closer inspection. Caturādhyāyikā IV 4,9 *kramâdhyayanaṃ saṃhitā-pada-dārḍhyâr-tham* was translated by M.M. Deshpande as "The study of the Kramapāṭha is for the purpose of firmly grasping the Saṃhitāpāṭha and the Padapāṭha"; but just as *pada* by itself does not denote the word-for-word text of the Atharvaveda, *saṃhitā* alone does not denote the original continuous text – we have to supply in each case the word *pāṭha*: "The study of [reciting in] steps is for the purpose of firmly grasping the [reciting in] connected speech and word-for word." Whitney was puzzled by the final rules in TaittPr XXIV 1-4 *atha catasraḥ saṃhitāḥ. pada-saṃhitâkṣara-saṃhitā varṇa-saṃhitâṅga-saṃhitā cêti. nānā-pada-saṃdhāna-saṃyogaḥ pada-saṃhitêty abhid-hīyate. yathā-svam akṣara-saṃhitâdīnām apy evam.* But it is clear that they do not refer to bodies of text, such as the Taittirīya recension of the Kṛṣṇa-yajurveda. Whitney's translation [93] of *pada-saṃhitā* as "word-text" and *akṣara-saṃhitā* as "letter-text" is misleading, and re-alizing the dilemma, he then remarked: "It appears from all this that *saṃhitâ* is here used nearly in the sense of *saṃdhi*, 'euphonic combi-nation,' and that these four rules have no significance whatever, being a mere bit of outside classification, in which some one has amused himself by indulging."[94] *saṃhitā* refers to a process, that is realized as the "conjunction by euphonic combination" (*saṃdhāna-saṃyoga*). This process may involve words, syllables, single sounds or the com-bination of vowel and consonant.

The first unambiguous occurrence of the word *Saṃhitā* to refer to a Vedic corpus is found in the Mahābhāṣya: *Śākalyena sukṛtāṃ saṃhitām anuniśamya devaḥ prāvarṣat* "After listening to the *saṃhitā*, that was well made by Śākalya, the god let it rain."[95] Is this a reference

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176; Caturādhyāyikā II 1,1 *saṃhitāyām*, IV 4,25 *saṃhitāvad*; TaittP V 1 *atha saṃhitāyām eka-prāṇa-bhāve* "Now in connected speech, in a single breath" and XXI 10 *svaritāt saṃhitāyām anudāttānāṃ pracaya udātta-śrutiḥ.* M.M.Deshpande's re-marks in *ALB* 58 [1994], pp.53f. should also be viewed in this context.

93. William Dwight Whitney, *JAOS* 9 (1868), pp.415-416: "Now for the four texts. Word-text, syllable-text, letter-text, and member-text, namely. Conjunction of independent words by euphonic combination is called word-text. And in like manner with the syllable-text and the rest, in accordance with their several names."

94. *Ibid.*, p.417.

95. Mahābhāṣya I 347,3f.; also I 346,21 *Śākalyasya saṃhitām anu prāvarṣat*

to the only surviving recension of the Rgveda, linked with Śākalya's
name (the *Śākala-śākhā*)? It is, on the other hand, just the Pada-pāṭha
of the Rgveda that is attributed to Śākalya, and only the Pada-pāṭha
could really be said to be "well made," since the Saṃhitā-pāṭha was be-
lieved to have been revealed. In any case, *saṃhitā* in the meaning of a
text has to be a secondary development, a short form of *saṃhitā-pāṭha*
"recitation in continuous speech."[96] The word is found in this meaning
in Manu XI 263 (*Rk-saṃhitā*) and the Mahābhārata (I 155,7 *saṃhitâ-
dhyayana* and XIII 131,55 *saṃhitâdhyāyin*). Secondarily the term
saṃhitā was applied to the Vedic collections generally, and finally also
to large non-Vedic texts like the Mahābhārata (Mahābhārata I 1,19),
the Caraka-saṃhitā, or the astronomical Bṛhat-saṃhitā, i.e., texts with-
out the concurrent existence of a continuous and a word-for-word reci-
tation. No Prātiśākhya states it as its purpose to reconstruct the
Saṃhitā-pāṭha, i.e., the original text corpus of the Rgveda, Atharva-
veda, or Yajurveda. In the Veda school at Trichur (Central Kerala) that
I visited a few years ago, the Rgveda-prātiśākhya was not taught along
with the Saṃhitā-pāṭha and Pada-pāṭha of the Rgveda, even though the
teacher had some knowledge of it. It just was not necessary. The task
of a Prātiśākhya was a consideration of the relation obtaining between
the two recitations. The *pada-pāṭha* was the first grammatical and in-
terpretive treatment of a *saṃhitā*-text; its additional memorization may
have fortified the memory of the *saṃhitā*-text, as any intensive occupa-
tion or manipulation of a text can assist the memory. But Prātisākhyas
did not represent a unidirectional approach to the text. Similarly,
Pāṇini's Aṣṭādhyāyī was not a device to create Sanskrit sentences, but
was an iconic representation of the sacred language[97] (and indirectly

and I 347,13f. *sakrc câsau Śākalyena sukrtāṃ saṃhitām anuniśamya devaḥ
prāvarṣat.* Cf. H.Scharfe, *Grammatical Literature*, Wiesbaden 1977, p.81 fn.25 and J.
Bronkhorst, *Pāṇinian Studies*, edd. M.M.Deshpande, S.Bhate, Ann Arbor 1991, p.96.

    96. Thus already P.Thieme in a lecture given in 1977 and published only in
1995: *Kleine Schriften*, vol.II, p.1215.

    97. If we wonder why Pāṇini seemingly concentrated on the late Vedic usage
rather than on that of the Rgveda, we must remind ourselves that the prevailing
thought of that time did not see them as different languages, but rather as aspects or
different registers of the same sacred and eternal language. M.M.Deshpande, *ZvS* 97
(1984), p.124 spoke of "a panchronistic flatland." Even the Prakrit languages were
considered part of that continuum: E.Kahrs, *IIJ* 35 (1992), pp.225-249.

the world, as these two correspond – note the passages of the Upaniṣads quoted above), comparable to a *maṇḍala* or *yantra* that represents cosmic and religious truths, or the homologies put forth in the early Upaniṣads and perhaps to modern formulas like E=mc^2[98].

There were substantial changes in the attitudes of later authors. For Kātyāyana grammar was a *niyama*, a restriction that barred the use of some colloquial forms and held out the promise of merit (*dharma*) for the use of correct words under the guidance of grammar.[99] Patañjali had a generative idea of grammar, that created the correct words and sentences, and later the additions of practical manuals on irregular formations (Uṇ-ādi-sūtra), accents (Phiṭ-sūtra), gender (Liṅgânuśāsana), the elaboration of the Gaṇa-pāṭha, and the compendia of *paribhāṣā*-s completed the generative machine. H.E.Buiskool put it well seventy years ago in his *Pūrvatrāsiddham*: "It must be repeated, that the Aṣṭādhyāyī is no textbook in the proper sense, even less a law book – it has become all that later – but merely a series of formulas in which established language phenomena are formulated in aphorisms as well as possible."[100]

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98. That may explain why Pāṇini was not concerned with the seeming circularity in I 3 3 [2 *it*] *hal antyam* which called a final consonant (*hal*) a tag; the contraction *hal* is dependent on I 1 71 *ādir antyena sahêtā* "The first sound with the last tag" which in turn depends on the definition of a tag (*it*) in I 3 3: J.Bronkhorst, *From Pāṇini to Patañjali: the Search for Linearity*, Pune 2004, pp.1f.; cf. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.I p.127: "At all times the knowledge of all rules is presupposed for the understanding and application of all other rules."

99. Mahābhāṣya I 8,3 *lokato 'rtha-prayukte śabda-prayoge śāstreṇa dharma-niyamaḥ.*

100. H.E.Buiskool, *Pūrvatrāsiddham*, p.77: Het moet worden herhaald, dat de Aṣṭādhyāyī geen leerboek is in den eigenlijken zin, nog minder natuurlijk een wetboek – al is het dat later geworden –, doch een reeks van formules, waarin geconstateerde taalverschijnselen slechts zoo goed mogelijk in aphorismen zijn geformuleerd.

Pāṇini and his Predecessors

One of the striking inconsistencies in Pāṇini's grammar is the use of certain terms that are at variance with his basic concepts. As P. Thieme[1] has suggested long ago, such discrepancies can open a window into the creative process that links Pāṇini and his predecessors. While in Pāṇini's grammar many suffixes are attached to roots (*dhātu*), there are two major classes of such suffixes called *ārdhadhātuka* and *sārvadhātuka*. Their literary meaning is "attached to a half *dhātu*" and "attached to a whole *dhātu*" – but the terms "half *dhātu*" and "whole *dhātu*" are neither defined nor used in his grammar. K.V.Abhyankar[2] has suggested that the former "probably…could be placed after certain roots only" against the latter "which were termed *sārvadhātuka* on account of their being found in use after every root."[3] This suggestion must be rejected as incompatible with the common use of *ardha* in compounds. *ardha-māsa* means "half month," *ardharca* "half stanza," not "every other month" or "every second stanza," and it is not true that *ārdhadhātuka* suffixes are used only with half of the Sanskrit roots. It is a more difficult question, what exactly was understood under *dhātu* in this context.

The evolvement of the concept of a root proceeded in four stages. The earliest instances for etymologies that derive nouns from verbs[4] may be four stanzas found in three recensions of the Black

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1. Paul Thieme, *Pāṇini and the Veda*, Allahabad 1935, p.x.

2. K.V.Abhyankar, *A Dictionary of Sanskrit Grammar*, 2nd ed., p. 65.

3. That appears also to be the opinion of Edwin Gerow, *JAOS* 122 (2002), p.688 who called *sārvadhātuka* "an unusually prolix term which seems, in principle, designed to separate the present stem of the verb – which 'every verb' makes – from the remaining stems, which are not so 'universal'." See also below pp.118f.

4. This is a very common misconception. The great Romanist Hugo Schuchard argued that a baby's cry "Mama!" when the mother enters the room, refers to a happening and has "verbalen Charakter," since it does not mean "This is mama," but "Here comes mama." He believed that verbs are learned earlier than nouns: *Sitzungsberichte der Akademie der Wissenschaften zu Berlin*, 1919, p.869 (= *Hugo Schuchard-Brevier*, p.271f.).

Yajurveda[5] and in the Atharvaveda[6] that were used in rituals dealing
with water. Their attestation in these various texts vouches for their
importance, and the etymologies offered for four words denoting "wa-
ter" were apparently designed to enhance the power of these stanzas
as charms. Whitney's characterization as "finding punning etymolo-
gies for sundry of the names of water"[7] failed to recognize their im-
portance and the seriousness with which they were proposed.

> *yád…áhāv ánadatā haté /*
> *tásmād ā́ nadyò nā́ma stha... //*
> "Since you resounded (*ánadata*) at the slaying of the serpent; therefore
> are you criers (*nadyáḥ*) by name."
> *…tád āpnot índro vo yatī́s tásmād ā́po ánu ṣṭana //*
> "…then Indra obtained (*āpnot*) you as you went; therefore you are wa-
> ters (*ā́paḥ*)."
> *…ávīvarata vo híkam* [var.lec. *hí kam*]/
> *índro vaḥ śáktibhir, devīs, tásmād vā́r nā́ma vo hí tam*
> "He stayed (*ávīvarata*) your courses, Indra with his might, O goddesses;
> therefore your name is water (*vā́r*)."
> *…údāniṣur mahī́r íti tásmād udakám ucyate //*
> "The great ones have breathed forth (*ud-√an*): therefore they are called
> water (*udakám*)."[8]

These etymologies are remarkable for their formulaic style and
their attempt to trace nouns back to an underlying action expressed by
a verb.[9]

In the Aitareya Brāhmaṇa there are a great number of etymolo-
gies.[10] The sacrificial post (*yūpa*)[11] is so called, because the gods ob-

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5. Taittirīya Saṃhitā V 6,1; Maitrāyaṇīya Saṃhitā II 13,1; Kāṭhaka Saṃhitā
XXXIX 2 (p.387,6-10).

6. Atharvaveda (Śaunaka) III 13,1-4 (Paippalāda Saṃhitā III 4,1-4).

7. *Atharva-veda Saṃhitā* trans. W.D.Whitney, *HOS* vols. 7 and 8, vol.I p.108.

8. W.D.Whitney, *ibid.*, p.108; *The Veda of the Black Yajus School entitled
Taittiriya Sanhita*, trans. A.B. Keith, part 2, pp.454f.

9. G.B.Palsule, *The Sanskrit Dhātupāṭhas. A Critical Study*, Poona 1961, p.2.

10. The development has been sketched by Bruno Liebich, *Zur Einführung in
die indische einheimische Sprachwissenschaft. II. Historische Einführung und
Dhātupāṭha.* Heidelberg, SHAW, phil-hist. Klasse 1919 nr.15, pp.7-24.

11. Aitareya Brāhmaṇa II 1,1.

structed (*ayopayan*) demons and men with it; the *ājya*-s (a certain ritual)[12] are so called "because they kept conquering (*ājayanta āyan*)"; the altar (*vedi*)[13] is so called because "they found (*anvavindan*)" the sacrifice there.[14] We could call this Stage One.

A step towards greater abstraction was the use of the 3rd person singular present[15] in the Nighaṇṭu lists to denote a verb in the abstract. Later these forms (whether they denote verbs in the active voice like *juhoti* or verbs found in the middle voice only like *dayate* or *rocate*) were treated as noun stems ending in -*i* and could be inflected as such. This practice is found in an etymology by a certain Aurṇavābha quoted in Nirukta VII 15: *juhoter hotêty Aurṇavābhaḥ* "Aurṇavābha derives *hotṛ* from the verb *juhoti*." The practice is common in the Nirukta that comments on the Nighaṇṭu.[16] We do not know for certain what Aurṇavābha and the author of the Nighaṇṭu would have called these forms, except that their name must have been a masculine noun for the latter: *bhrājate bhrāśate …iti ekādaśa jvalati-karmāṇaḥ* "*bhrājate bhrāśate …* – these eleven have the action 'to shine'" (Nighaṇṭu I 16), where the bahuvrīhi *jvalati-karmāṇaḥ* demands a masculine noun of reference. We could call this Stage Two.

Pāṇini has often still used this traditional expression to denote a root, as in *asti*[17], *dadāti*, and *dadhāti*[18] – rarely (if at all) in books I and II, IV and V, more frequently in book III, and often in books VI through VIII. In a few instances this was a convenient device to differentiate between homonymous roots (*asti* "is" versus *asyati* "throws" from two different roots √*as*), in others the reason is not obvious.[19]

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12. Aitareya Brāhmaṇa II 36,3.

13. Aitareya Brāhmaṇa III 9,3.

14. Not all the etymologies in this text are based on verbs; explanations like *viśvasya mitram* > Viśvāmitraḥ (Aitareya Brāhmaṇa VI 20) are of lesser interest in the present context.

15. Usually in the active voice, in the middle voice when this alone is attested; e.g., Nighaṇṭu I 16 *bhrājate bhrāśate bhrāśyati dīdayati...*

16. Nirukta I 4 *śākhāḥ…śaknoter vā*; I 6 *cittam cetateḥ*; I 11 *surā sunoteḥ*. From middle verbs (like *dayate* and *rocate*) we find a nominative *dayatir* (Nirukta IV 17) and an ablative *rocateḥ* (Nirukta III 13).

17. II 4 52 *aster bhūḥ*.

18. III 1 139 *dadāti-dadhāty.or vibhāṣā*.

19. Later Pāṇinīyas have suggested various purposes for the use of the root names with -*ti*: restrictive application, avoidance of homonymy, etc. Nāgojībhaṭṭa

Most commonly Pāṇini referred to the roots (and indirectly verbs) in peculiar ways that differ from those found in the early texts. There appears to be a gap in the surviving literature preceding Pāṇini; we hear of ancient grammarians, we have hints at some of their doctrines, and we have a few names. According to Nirukta I 12 Śākaṭāyana (who preceded Pāṇini and is mentioned in the Aṣṭādhyāyī)[20] derived all nouns from verbs (*nāmāny ākhyāta-jāni*),[21] just as in the Vedic texts nouns are etymologized from their full verb forms. Another early author, Śākapūṇi, derived the word *agni* "fire" from a combination of three verbs: *ita* (i.e., √*i* "go"), *akta* (i.e., √*aj* "shine") or *dagdha* (i.e., √*dah* "burn"), and *nīta* (i.e., √*nī* "lead")[22] – using the terminology that deployed the participle perfect passive to denote a verb in the Brāhmaṇa texts.[23] K.C.Chatterji argued incorrectly that *ākhyāta* in these two quot-

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(Paribhāṣenduśekhara on paribhāṣā 120.3) rejected restrictive application; cf. L. Renou, *Terminologie,* pt.II, p.114 under *śtipā nirdeśa* and K.V.Abhyankar, *A Dictionary*, 2ⁿᵈ ed., p.395 under *śtip*.

20. Pāṇini III 4 111 attributed to Śākaṭāyana alone the opinion that in the 3ʳᵈ plural active -*us* is substituted for *JHi* (= *anti*) in the imperfect of roots ending in /ā/. Since *ayus* (from √*yā*) is well attested in Vedic texts, Pāṇini could not have questioned its correctness – his intention probably was to classify such forms as aorists rather than imperfects. In VIII 3 18 and VIII 4 50 he quoted Śākaṭāyana for phonetic observations. In Mahābhāṣya II 120,20f. Patañjali narrated an anecdote about Śākaṭāyana's amazing mental concentration. There is no justification for K.V.Abhyankar's assertion, that "He is despisingly referred to by Patañjali as a traitor grammarian sympathizing with the Nairuktas or etymologists in holding the view that all substantives are derivable and can be derived from roots" (*A Dictionary of Sanskrit* Grammar, 2ⁿᵈ ed., p.388).

21. Nirukta I 12 *tatra nāmāny ākhyāta-jānîti Śākaṭāyano nairukta-samayaś ca*. In Mahābhāṣya II 138,14-16 a quoted stanza refers to the Nirukta imprecisely, rephrasing Yāska's statement in Pāṇinian terminology: *nāma ca dhātu-jam āha Nirukte vyākaraṇe Śakaṭasya ca tokam* "[Yāska] called the noun derived from a root in the [science of] etymology, and the off-spring of Śakaṭa in grammar."

22. Nirukta VII 14 *agniḥ… tribhya ākhyātebhyo jāyata iti Śākapūṇiḥ. itāt, aktād dagdhād vā, nītāt.* He gets the vowel /a/ from forms of √*i* like the imperative *ayāni*, the /g/ from forms like *anakti* or *dagdhvā*, and the final /ni/ from forms like *nināya* or *nīta*: *sa khalv eter akāram ādatte gakāram anakter vā dahater vā nīḥ paraḥ.* In Chāndogya-upaniṣad I 3 6 the word *udgītha*, denoting the syllable *oṃ*, is similarly "derived" from three basic elements: the preverb *ud* "up," the word *gir* "voice," and the root √*sthā* "stand."

23. This participle was commonly used to denote a verb in the Brāhmaṇas, but the practice fell into disuse afterwards: Bruno Liebich, *Zur Einführung in die indische einheimische Sprachwissenschaft. II. Historische Einführung und Dhātupāṭha.* Heidelberg, SHAW, phil.-hist. Klasse 1919, nr.15, pp.15-17 and G.B.Palsule, *The Sanskrit Dhātupāṭhas*, p.6.

ed sentences referring to Śākaṭāyana and Śākapūṇi denotes the "root,"
a meaning not found elsewhere.[24] The works of these and other prede-
cessors have not survived, and one can only surmise that Pāṇini's
grammar made the works of his predecessors obsolete – oral tradition
has no mercy for outdated material. But some trends of this lost devel-
opment can still be recovered by an analysis of Pāṇini's work.[25]

Pāṇini referred to the roots of Sanskrit in several different ways.
In the Dhātupaṭha most roots are furnished with an extra vowel (or a
vowel and a consonant) at the end, which would probably have been
pronounced with nasal intonation to mark it as a tag (*it* or *anubandha*),
and might also have carried an indicative pitch accent.[26] Some roots
are also preceded by a tag, a syllable such as *ñi*, *ṭu* or *ḍu*.[27] In the text
of the Aṣṭādhyāyī itself there is no uniform way of referring to these
roots. Sometimes a root is quoted with the tag (or tags): i^n.aḥ (in II 4
45; Dhp. II 36 i^n) or one of them: $kṛ^ñ$.aḥ (III 2 20; Dhp.VIII 10 $^{du}kṛ^ñ$)
or none: *kṛ-* (III 1 120), *dā* (in III 2 159; Dhp. III 9 $^{du}dā^ñ$). In I 4 41
$gṛ^n$.aḥ (against *gr.aḥ* in III 3 29) Pāṇini referred to the root with a tag ^{n}
that is not found in DhP (VI 117 and IX 28 *gṝ*); the form is likely in-
fluenced by verb forms like *gṛṇāti*, i.e., Pāṇini used the stem form in
his rule instead of the root. Mostly the roots are quoted without these
tags as e.g. *kṛ* (in III 4 61 *kṛ-bhv.oḥ*), *gam.aḥ* (in VI 4 40 *gam.aḥ kvau*;
the DhP I 1031 has gam^l) or *gup-tij-kid.bhyaḥ* (III 1 5; the DhP has I
422 $gup^ū$, I 1020 and X 110 *tija*, I 1042 and III 20 *kita*).

Two other forms of quotation[28] have been identified by Kātyā-

24. K.C.Chatterji, *Technical Terms and Technique of Sanskrit Grammar*,
(Calcutta 1948) reprint Kolkata 2003, p.81; also S.D.Joshi, *Nagoya Studies in Indian
Culture and Buddhism. Saṃbhāṣā* 14 (1993), p.22. Cf. also G.B.Palsule, *The Sanskrit
Dhātupāṭhas*, p.10.

25. I have not seen Saroja Bhate's unpublished dissertation *Prepāṇinian
Grammatical Elements in Pāṇini's Aṣṭādhyāyī*, University of Poona 1970.

26. Bruno Liebich, *Zur Einführung, III. Der Dhātupaṭha*, Heidelberg, SHAW,
phil-hist. Klasse 1920, nr.10 has attempted a reconstruction of the Dhātupaṭha.

27. Pāṇini I 3 5 [2 *upadeśe…it*] *ādir ñi-ṭu-ḍav.aḥ*.

28. In the Saṃhitās of the Yajurveda, the Aitareya Brāhmaṇa, and some other
texts we find yet another expression referring to verb forms: with a suffix *-ad* plus the
same *-vat*: *bhuvadvadbhyas* (KS XI [p.102,12]; TS II 3,1,1 [p.77,4]), *vṛdhadvatyā*
(KS VII 8 [p.50,2]), etc. referring to forms like *bhávatā*, *avívṛdhan*, etc. (C.Werba,
Verba Indoarica, pp.129-131). Such expressions were not taken up by the grammari-
ans we know.

yana in his vārttika 2 on Pāṇini's rule III 3 108: *ik-śtipau dhātu-nirdeśe* "the [suffixes] *ik* and *śtip* [must be taught] to denote a root." Patañjali[29] explained these as referring to forms like *paci* or *pacati* denoting the root √*pac* (not attested in the Aṣṭādhyāyī as such).[30] Such quotation forms ending in *i* or *ti* occur both when roots stand alone or in compounds (where they can be found at the beginning, the middle or the end).

ajer (II 4 56; DhP I 248 *aj^a*)

gamy-ṛcchi.bhyām (I 3 29; DhP I 1031 *gam^l* and VI 15 *ṛch^a*)

lipi-sici-hv.aḥ (III 1 53; DhP VI 139 *lip^a*, VI 140 *ṣic^a*, III 1 *hu*)

sarti-śāsty-arti.bhyaḥ (III 1 56; DhP I 982 *sṛ*; II 66 *śās^u*; I 983 *ṛ*)[31]

They occur also in combinations of such different modes of quotation:

śaki-sah.oḥ (III 1 99; DhP V 15 *śak^l*; I 905 *sah^a*)

yama-han.aḥ (I 3 28; DhP I 1033 *yam^a*; II 2 *han^a*)

-muṣa-grahi-svapi-pracch.aḥ (I 2 8; DhP I 707 *mūṣ^a*; I 681 *grh^ū*; II 59 ^{ñi}*ṣvap^a*; VI 120 *prach^a*)

indhi-bhavati.bhyām (I 2 6; DhP VII 11 ^{ñi}*indh^i*; I 1 *bhū*)

-vṛj-kṛ-gami-jani.bhyaḥ (II 4 80; DhP II 19 *vṛj^i*; VIII 10 ^{du}*kṛ^ñ*; I 1031 *gam^l*; I 862 *jan^i*)

vana-sana-rakṣi-math.ām (III 2 27; DhP I 490 *van^a*; I 492 *ṣan^a*; I 688 *rakṣ^a*; I 901 *math^e*)

pā-ghrā-dhmā-sthā-mnā-dāṇ-dṛśy-arti-sarti-śada-sad.ām (VII 3 78) employs six ways to refer to roots: bare roots ending in vowels, a root with a tag, a root with *-i*, roots with *-ti*, a root with *-a*, and a bare root ending in a consonant before the case suffix at the end of the compound.

It is not clear why Pāṇini used the form *yuj^i* in III 2 59 *-añcu-yuji-kruñc.ām*, but *yuj^a* in III 2 61 *-duha-yuja-vida-*. The DhP VII 7 has *yuj^{ir}*.

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29. Mahābhāṣya II 154,18f.

30. The ablative *pac.aḥ* is found in III 2 33, the stem *-paca-* in III 2 136. The Dhatupatha I 1945 lists the root as ^{du}*pac^{aṣ}* "cook" and has in I 187 a different root *pac^i* "clarify." Most of these forms ending in *-ti* correspond to the 3rd singular present active; *arti* and *sarti* (III 1 56) appear to be abstracted from *iyarti* or *abhyarti* and *sisarti*.

31. *aster bhūḥ* (II 4 52) and *dadāti-dadhāty.or* (III 1 139) are better considered as 3rd singular verb forms inflected like nouns.

Frequently, the last root in a list has no vowel attached, as in III 2 13
rami-jap.oḥ or VII 3 73 *duha-diha-liha-guh.ām*; but note also VII 3 35 *ja-
ni-vadhy.oḥ*, III 2 162 *vidi-bhidi-cchideḥ*, and VII 2 19 *dhṛṣi-śasī*.
Avoidance of an awkward sandhi could have played a role in III 1 59 *kṛ-
mṛ-dṛ-ruhi.bhyas*, but consonantal sandhi is not always avoided: *iṇ-naśa-
ji-* (III 2 163), *sthêṇ-kṛñ-vadi-* (III 4 16), *hana-kṛñ-grah.aḥ* (III 4 36).

Case forms like *ajer* (II 4 56) prove that the /i/ is a real attached
vowel, whereas the /a/ in *kṛta-cṛta-cchṛda-tṛda-nṛt.aḥ* (VII 2 57)
seems mainly a non-phonemic sound[32] facilitating the pronunciation
and keeping the root names apart: the roots are taught in the DhP as
kṛtⁱ (VI 141), *cṛtⁱ* (VI 35), *ᵘchṛdⁱʳ* (VII 8), *ᵘtṛdⁱʳ* (VII 9), and *nṛtⁱ* (IV
9). This /a/ never appears in word final position (the last quoted sūtra
VII 2 57 does not end in *-tṛda-nṛtasya*!); the only apparent exception
is *daridrasya* (VI 4 114 from *daridrā*, itself an oddity in the root list:
DhP II 64), which may have been influenced by the adjective *daridra*
– we would expect *daridraḥ*. This /a/ was also not recognized as a
root tag by Kātyāyana in his vārttika 2 on III 3 108 quoted above. We
might thus consider this /a/ as an unintended feature of pronunciation
in the oral text of the Aṣṭādhyāyī.[33]

There are about ten seemingly bothersome vowel sandhi forms
where the /a/ at the end of a root does have a linguistic reality:
…-janêṅ-pru- (in I 3 86) is a sandhi of *jana+iⁿ*, *…-druhêrṣyâsū-
yârthānām* (in I 4 37) is a sandhi of *druha+īrṣya-asūyârthānām*,
…-dyutôrji- (in III 2 177) is a sandhi of *dyuta+ūrji*, where the /a/ can-
not be dismissed as being there merely for the ease of pronunciation
(*uccāraṇârtham*). But in all these instances the root forms ending in *-a*
are quotations from the Dhātupāṭha, where the roots are taught in just
this form: *janᵃ* in I 3 86 matches the root as it is taught in the DhP III
24 *janᵃ*, *druhᵃ* and *īrṣyᵃ* in I 4 37 could refer to DhP IV 88 *druhᵃ* and I
544 *īrṣyᵃ*, *dyutᵃ* in III 2 177 to DhP I 777 *dyutᵃ*. Ambiguous is the situ-
ation in rules like I 2 7 *mṛda-mṛda-gudha-kuṣa-kliśa-vada-vas.aḥ
ktvā*, where the /a/ could be considered *uccāraṇârtham*, but could also
refer to the forms in which these roots are taught in the Dhātupāṭha:

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32. The /cch/ in *-cchṛda-* would suggest the existence of a preceding vowel; but
this could be a secondary development.
33. Cf. above pp.69-72.

mṛḍ^a (VI 38; IX 44), *mṛd^a* (IX 43), *gudh^a* (IV 13; IX 45), *kuṣ^a* (IX 46), *kliś^a* (IV 52a), *vad^a* (I 1058; X 297), and *vas^a* (I 1054). Of the many roots quoted in the sūtras as ending in -*a*, most have a tag *^a* in the DhP, but others do not: *kam^a* (rule III 2 154) versus *kam^u* (DhP I 470) or *kamⁱ* (DhP I 869), *gam^a* (rule III 2 171) versus *gam^ḷ* (DhP I 1031), *ghuṣ^a* (rule VII 2 28) versus *ghuṣ^{ir}* (DhP I 683), *cṛt^a* (rule VII 2 57) versus *cṛtⁱ* (DhP VI 35).

Not all forms of root names are attested for every root. Of the root *gam* we have *gam.aḥ* (rule VI 4 40), -*gama*- (III 2 154) and -*gami*- (VII 3 77, with the ablative *gameḥ* in VII 2 58). The Dhātupāṭha I 1031 has only *gam^ḷ*.

Of the root *tap* we have *tap.aḥ* (rule I 3 27), *tapi*- (III 2 46), and *tapati* (locative *tapatāv* VIII 3 102). The Dhātupāṭha (I 1034 and IV 51) has *tap^a*.

Of the root *vac* we have *vac.aḥ* (VII 4 20), -*pravaca*- (VII 3 66), *vaciḥ* (II 4 53), *vaci*- (VI 1 15) and -*vakti*- (III 1 52). The Dhātupāṭha (II 54 and X 298) has *vac^a*.

One hundred and twenty roots are quoted in the text of the Aṣṭādhyāyī with an added -*i*, but virtually none of them is taught thus in the Dhātupāṭha: *adⁱ* in the sūtra text contrasts with *ad^a* in the Dhātupāṭha, *gṛdhⁱ* with *gṛdh^u*, and *dṛśⁱ* with *dṛś^{ir}*. The few exceptions confirm rather than challenge this statement. The Vedic root called *vadⁱ* in III 4 16 is not the same as *vadⁱ* in DhP I 11 (meaning "greet" or "praise") but rather *vad^a* in DhP I 1058 (meaning "speak clearly"), as the attested Vedic forms show.[34] *śasⁱ* in VII 2 19 does not correspond to *śasⁱ* in DhP I 660 (with prefix -*ā*, meaning "wish") but to *śas^u* in DhP I 763 (meaning "hurt"), since the form taught in VII 2 19 is *viśasta* "rude." Several roots taught in the DhP with a tag *^u* are quoted thus in the sūtra text, e.g. *bhram^u* (DhP I 903 and rule VI 4 124) and *vanc^u* (DhP I 204 and rule VII 4 84 *vañc^u*).[35] There are many roots in the Dhātupāṭha with a tag *ⁱ*, which demands the insertion of a /n/ after

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34. III 4 16 teaches the formation of *vaditos*; *pra vaditos* is attested in TS II 2,9,5, AitB II 15, and KŚS IX 1,10 in the meaning "speak."

35. G.B.Palsule, *The Sanskrit Dhātupāṭhas*, p.13 has suggested that the root names in -*i* were "evidently made in imitation of corresponding nouns in -*i* (like *ruci*, *dyuti* etc.) and are employed because they too are likewise easily declinable forms."

the root vowel (VII 1 58);[36] but none of them are mentioned with this tag in the sūtras. Exceptions are only apparent. *trasi* (in III 1 70) refers to *tras^i* (DhP IV 10), not to *tras^a* (X 201) or *tras^i* (X 221), as the attested form *trasyanti* (fourth verbal class) shows. *trapi* (III 1 126) refers to *trap^{ūṣ}* (I 399) rather than the weakly attested *trap^i* (I 859).[37] *jasa* (III 2 167 for the formation of *ajasra* "not to be obstructed, perpetual") may refer to *jas^u* (DhP IV 102; X 130 and 178) or *jas^i* (X 128); if the meanings attached to the roots by a later author are any guide, the reference would be to *jas^u himṣāyām* in X 130. *math* in III 2 27 *-math.ām* and *-matha-* in III 2 145 could refer to *math^e* (I 901), *math^i* (I 47) or *manth^a* (I 43 and IX 40).

Thus there is a complete disconnect between Pāṇini's use of the tag *^i* in his Dhātupāṭha and the root names with attached *-i* in the body of his grammar. The *-i* in the root names cannot be a tag, since it would demand the insertion of a /n/ into the root; but if it is not a tag, how can it be made to disappear? It is best to assume that these names for roots have been borrowed from another source.

Pāṇini used two prominent terms in his grammar that are at odds with his general use of terminology, where *dhātu* is defined as comprising roots like √*bhū* (I 3 1 *bhūv-ādayo dhātavaḥ* "bhū etc. are roots") and "expanded" roots, i.e., desideratives, intensives and denominatives (III 1 32 *san-ādy-antā dhātavaḥ* "[Verbal stems] ending in *-sa* etc. are [also] roots"). The term is deployed in rules like III 1 91 *dhātoḥ* "after a root," etc. But Pāṇini used also terms for two classes of suffixes that are based on a different concept of *dhātu*: *sārvadhātuka* "related to a full *dhātu*" refers to the personal ending of the verb (with exception of those of the perfect and precative) and to all but one of the suffixes forming the stem of the present.[38] The second term, *ārdhadhātu-*

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36. They are listed by B.Liebich, *Zur Einführung, part III. Der Dhātupāṭha*, pp.39-42.

37. G.B.Palsule, *A Concordance of Sanskrit Dhātupāṭhas*, Poona 1955, p.63.

38. The exception is the suffix *-u-* of the eighth class. As Böhtlingk explained (*Pânini's Grammatik*, p.*155), if this *-u-* were marked with *^ś* as a *sārvadhātuka*, it would be *ṅ.it* by I 2 4, not allowing *guṇa* in *karoti*; if one would further add the tag *^p* to meet this problem, the /u/ in *kurute*, etc. would be unaccented. It should come as no surprise that the eighth verbal class necessitated an exemption: the forms of the root √*kr̥* underwent extensive remodeling, and the few other roots of this class like √*tan* were reshaped as a result of the prehistoric development of vocalic /n/ to /a/.

ka "related to the half *dhātu*," refers to the personal endings of perfect and precative, to the suffixes marking the aorist, and to suffixes that create primary noun stems, verbal adjectives and infinitives. These terms are based on a terminology where *dhātu* denoted not the root (in the sense common in the Aṣṭādhyāyī), but the present tense form that was used by Aurṇavābha and the author of the Nighaṇṭu as an abstract name of the verb; the "half *dhātu*" refers to what precedes the endings of the perfect, the suffixes that create the aorist and future stems, and the suffixes of the infinitives – essentially what Pāṇini called the "root." *dhātu* thus marks a progress in grammatical analysis: from *ākhyāta* "verb" which was assumed to give birth to nouns (in the etymologies of the Aitareya-brāhmaṇa and of Śākaṭāyana – Stage One), grammarians progressed to *dhātu* "bases," that looked like the 3rd person singular indicative present active middle and from which verbs and nouns could be derived (Stage Two). These "bases" could be inflected like noun stems ending in *-i*: *cittaṃ cetateḥ* (Nirukta I 6).[39] Yāska actually called these expressions *dhātu*. Where the Nighaṇṭu I 16 had merely said ...*iti ekādaśa jvalati-karmāṇaḥ* (leaving the implied masculine noun unexpressed), Yāska II 28 said *jvalati-karmāṇa uttare dhātava ekādaśa* (supplying the referred noun). While we cannot prove that the Nighaṇṭu author had the word *dhātavaḥ* in mind, there is no reason to doubt that Yāska supplied the correct term.

B.Liebich[40] had believed that Yāska had used *ākhyāta* and *dhātu* without clear distinction, but as P.Thieme[41] has pointed out, *dhātu* always denotes the etymological base form, expressed in the 3rd singular present. In the occurrences of *ākhyāta* in the Nirukta, the reference is clearly to distinct verb forms,[42] as the following two passages show.

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39. These forms ending in *-ti* were – unlike the common action nouns like *gati* – masculine, as shown by expressions like *śavatir gati-karmā* (Nirukta II 2).
40. Bruno Liebich, *Zur Einführung* II. *Historische Einführung und Dhātupāṭha*, p.22.
41. P.Thieme, *ZDMG* 89 (1935), p.*23*, fn.3 (= *Kl.Schr.*, p.530 fn.3). Cf. Also K.C.Chatterji, *Technical Terms and Technique of Sanskrit Grammar*, pp.79-81 and G.B.Palsule, *The Sanskrit Dhātupāṭhas*, p.10.
42. That was still recognized by the commentator Maheśvara (*Commentary of Skandasvāmin & Maheśvara on the Nirukta*, ed. Lakshman Sarup, 2nd ed. New Delhi 1982, vol.1 p.83,2f.) who remarked on Śākaṭāyana's term *ākhyātajāni* (above p.111): *ākhyātaṃ tiṅ-anta-padam; tenâtraîkadeśo dhātur lakṣyate, dhātujānîty arthaḥ* "A verb, i.e., a word ending in a verbal ending. By that [formulation] the root which is a part of it

In VI 28 Yāska rejected the analysis of the Padapāṭha of Ṛgveda X 29,1a, because if it were accepted, *udāttaṃ tv evam ākhyātam abhaviṣyat* "then the finite verb would have had the acute accent." In VII 1 we are told that in hymns where the deity is addressed indirectly, the name of the deity can be joined with any of the case endings *prathama-puruṣaiś câkhyātasya* "and with the third persons of the verb [only]."[43] *dhātu*, on the other hand, in more than ten instances refers to the abstract notion of a verb, e.g. in II 28 *jvalati-karmāṇa uttare dhātava ekādaśa* "The following eleven verbs [express] the action 'to shine'" and in other such elaborations of the Nighaṇṭu. In II 2 *tad yatra svarād anantarântasthântardhātur bhavati tad dvi-prakṛtī-nāṃ sthānam iti pradiśanti* refers to a process called *samprasāraṇa* in grammar: "With reference to this, it is pointed out that when a *dhātu* contains a semi-vowel contiguous to a vowel it becomes the origin of two primary bases." The meaning "root" is possible here, but so is "abstract verb." In one occurrence we might see an influence of Pāṇini or some other grammarian like him,[44] when Yāska II 2 claimed that Vedic primary nouns can be derived from colloquial *dhātu*-s, and colloquial primary nouns from Vedic *dhātu*-s. Here *dhātu* could refer to roots in the Pāṇinian sense, or it could refer to abstract verbs.

In a further development (which we may label Stage Three), grammatical thinkers must have stripped this "base" of the ubiquitous present tense stem suffixes and obtained the "half base," as in *bhav-a-ti*, *gṛh-ṇā-ti*; suffixation to this "half base" was referred to as *ārdha-dhātukā* and contrasted with the other called *sārvadhātukā*. The Kāśikā on VII 3 95[45] claims that "The [followers of] Āpiśali recite [the corre-

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is indicated; the meaning is 'derived from roots'." The commentator recognized that the text spoke of verbs, but tried to reconcile Śākaṭāyana's thesis with the more modern concept of the root as the base of derivation. Skandasvāmin (*ibid.* part II p.487) remarked on Nirukta VI 28 *cākann iti câkhyātaṃ na nāma-śabdaḥ* "*cākan* is a verb, not a noun."

43. E.g., ṚV X 89,10 *Indro diva Indra īśe pṛthivyāḥ* "Indra rules heaven, Indra [rules] the earth."

44. P.Thieme, *Akten der VI. Fachtagung der Indogermanischen Gesellschaft*, pp.488f. (*Kl.Schr.* II pp.1015f.) pointed out the qualitative difference between Yāska's etymologies (that attempt to ascertain the meaning of an obscure word by grammatical analysis) and those of the Brāhmaṇas in search of an esoteric truth.

45. Pāṇini's sūtra VII 3 95 reads *tu-ru-stu-śam-yamaḥ sārvadhātuke*; the Kāśikā supplies *bahulaṃ chandasi*.

sponding sūtra] as "*tu-ru-stu-śam-yamaḥ sārvadhātukāsu cchandasi*" – with a feminine term *sārvadhātukā*. Since *sārvadhātukā* is a feminine adjective, we must look for a feminine noun of reference; K.C.Chatterji[46] has plausibly suggested *vibhakti* which in Pāṇini's grammar[47] denotes both the case endings of nouns and the personal endings of verbs.[48] *vibhakti* meets the requirement that the noun encompasses the different role of both terms: the elements that *sārvadhātukā* refers to are part of the "whole base," while the others are attached to the "half base" in the view of Āpiśali. If the statement of the Kāśikā reflects an authentic tradition, one might attribute the *ardhadhātu/sarva-dhātu* concept to Āpiśali, one of Pāṇini's predecessors (whom he quotes in VI 1 92[49]). Jinendrabuddhi elaborated in his commentary Nyāsa on VII 3 95: *strī-liṅga-nirdeśaḥ, strī-liṅgasya sārvadhātukā-śabdasyÂpiśalinā saṃjñātvena praṇītatvāt* "Taught in the feminine gender, because the word *sārvadhātukā* in the feminine gender was introduced by Āpiśali as a term." As the *ardhadhātu* "half *dhātu*" refers to the nucleus, whether in its shortest or its guṇa form (e.g., *bhū* or *bho/bhav*), the **sarvadhātu* "whole *dhātu*" would refer to a larger unit. It has been suggested "that at one time the term *dhātu* was used to denote what we would call the Present-stem, *bhava-*, *dīvya-*, *sunu-* etc."[50] There are two problems with this interpretation. There is no indication that a term *sarvadhātu*, denoting the root plus stem suffix,[51] ever existed. And secondly, the stem forming suffixes

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46. K.C.Chatterji, *Technical Terms*, p.51.

47. Rules I 4 99-104.

48. Patañjali (Mahābhāṣya I 484,8f.) proposed to change rule II 4 35 *ārdhadhātuke* to *ārdhadhātukāsu* and supplied a string of possible nouns of reference: *uktiṣu yuktiṣu rūḍhiṣu pratītiṣu śrutiṣu saṃjñāsu*.

49. Āpiśali held that the sandhi of an initial /ṛ/ of a denominative verb with a prefix results only optionally in *vṛddhi*. Patañjali quoted in Mahābhāṣya II 281,1-4 a śloka referring to Āpiśali and one of Āpiśali's sūtras.

50. G.B.Palsule, *The Sanskrit Dhātupāṭhas*, pp.10f., following K.C.Chatterji, *IHQ* 9 (1933), pp.279-281 (also in his *Technical Terms and Technique of Sanskrit Grammar*, p.51). Cf. also B.Shefts, *Grammatical Method in Pāṇini*, New Haven 1961, pp.13-16 and G.Cardona, *Pāṇini. A Survey of Research*, The Hague 1976, p.198.

51. Such a combination might fall under the larger term *aṅga* in Pāṇini's terminology: Mahābhāṣya I 316,1-3 with Kaiyaṭa's comment (vol.II, pp.352f.) and Nyāsa and Padamañjarī (vol.I, pp.514f.) on Pāṇini's rule I 4 13. In the meaning "all roots" *sarvadhātu* is attested in Kātyāyana's vārttika 1 on III 1 134 (Mahābhāṣya II 91,13).

(*vikaraṇa,* viz. *-a*, *-ya*, *-nu* etc., with the exception of *-u* of the eighth verbal class) are called *sārvadhātuka* themselves. A better scenario, one demanding fewer missing steps, is that the nucleus that we call the root, was called the "half *dhātu*" and the suffixes attached to it the *ārdhadhātuka* [suffixes]; in contrast the other suffixes were called the "whole *dhātu* [suffixes]" – both based on the old concept of a "base" (*dhātu*), i.e. an abstract verb form.

Pāṇini or one his predecessors redefined this newly identified nucleus, the smallest unit that still carried the essential meaning of the verb (and related nouns), as *dhātu* "root"; but Pāṇini retained the two traditional terms *sārvadhātuka* and *ārdhadhātuka*, even though they no longer fit the theory. That would be Stage Four. This latest development owes a debt to an earlier non-linguistic, philological practice first found in the Brāhmaṇa-portion of the Saṃhitās of the Black Yajurveda and the Aitareya Brāhmaṇa and Kauṣītaki Brāhmaṇa of the Ṛgveda, etc.[52] In these texts we find references to Vedic stanzas that take a word from the stanza and attach the suffix *-mant* or *-vant* to refer to this stanza.[53] Thus *pravat* "containing [the prefix] *pra*"[54] refers to ṚV X 63,16 (*prapathe*) and *atithimatī*[55] "containing the word *atithi*" to ṚV VIII 44,1 (*atithim*), *rathavat*[56] to ṚV VIII 68,3 (*ratham*). Similarly *sadvatī* [*atichandas*, a certain meter][57] refers to a stanza[58] that contains the root noun *sad* eight times as the last member of a compound. From this it was only a small step in the Aitareya Brāhmaṇa to use *madvat*[59] or *madvatī* [*jagatī* resp. *triṣṭubh*][60] to refer to stanzas with various verbal forms such as *mādayantām*[61] and *mādhayadhvam*,[62] in fact recognizing an abstract "root" *mad*, the ulti-

52. B.Liebich, *Einführung*, II pp.14f. and Chlodwig H.Werba, *Verba*, Wien 1997, pp.128-136.

53. J.Wackernagel/A.Debrunner, *Altindische Grammatik*, vol.II part 2, pp.878-887.

54. Aitareya Brāhmaṇa I 10,1.

55. Aitareya Brāhmaṇa I 17,3.

56. Aitareya Brāhmaṇa IV 29,3.

57. Taittirīya Saṃhitā V 2,1,5 and V 2,2,2.

58. ṚV IV 40,5 (= Taittirīya Saṃhitā IV 2,1,5)

59. Aitareya Brāhmaṇa III 29,2.

60. Kauṣītaki Brāhmaṇa XVI 1,15 and IV 4,18.

61. ṚV VII 51,2.

62. ṚV VI 52,13.

mate reduction still expressing the meaning of "getting excited, drunk" underlying the various forms of the word family.[63]

In his Dhātupāṭha, Pāṇini attached various tags to these roots that tied them to a number of grammatical classes and processes. In the text of his grammar he, in some cases, referred to roots in the form he used in the Dhātupāṭha, more often he quoted them stripped of their tags. When the grammar was written down, the desire for clear pronunciation may have resulted in the appearance of an /a/ at the end of a root name that is nowhere defined or explained. In other instances an /i/ is added to the root that probably represents a technique used by predecessors of Pāṇini; if that is true, it would support the view that the discovery of the root (whatever it was called) was made before Pāṇini.[64] Pāṇini's contribution would then be the addition of tags to the roots that account for the different paths of word formation for the various roots. The discovery of roots was the ultimate abstraction. It reduced the many meaning aspects and forms that are found in verbs and nouns to one last source: a root that was neither noun nor verb. True, root has often been defined as "denoting action," but action is not synonymous with verb. *gamana* denotes an action but is a noun. The Dhātupāṭha[65] contains roots for which no verb is found. Relying on a common pattern of word formation a root can still be postulated: to explain *gaṇḍa* "cheek" a root *gaḍ*[i] (DhP I 65a and I 384) is postulated; when at a later time meanings were added to the roots in the text of the Dhātupāṭha, the compiler could do no better than saying *vadanaîkadeśe* "for a part of the face."[66] A root √*ghṛ* (DhP III 14) is pos-

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63. Uncertain is *bhidvatīḥ* (KS XXV,1 [p.264,17] = KapKS XXXVIII,4), since the reference is uncertain. *bhidvatīḥ* could refer to the syllable *bhid*, to a compound like *vala-bhid* or to verbal form from the root √*bhid*. Since this would apparently be the only instance referring to a root in this group of texts, C. Werba's claim (*Verba*, pp.128f.) that such references to verbal forms or "roots" are as old as the Saṃhitās of the Yajurveda is open to doubt.

64. The old way of quoting the root by a full verb form is perpetuated by tradition; it was useful in differentiating between homonymous roots as in II 4 52 *aster* and VII 4 17 *asyates*; see above p.110.

65. The term *Dhātupāṭha* appears to be late, e.g. Kaiyaṭa on I 3 1 vārttika 1. Patañjali (Mahābhāṣya I 39,15f.) used *prakṛti-pāṭha* "recital of base forms."

66. I disagree with B.Matilal, *Word*, p.44 who referred to DhP I 384 *gaḍi vadanaîkadeśe* saying that "some *dhātu* 'bases' …do not mean activity, but a substance, e.g. the base *gaḍi* means 'part of the face'." Mahābhārata XIII 95,432* *vaktraîkādeśe gaṇḍêti dhātum etaṃ pracakṣate* must be a later insertion after the meanings were added to the DhP.

tulated to explain *gharma* "heat," *ghṛta* "melted butter," *ghṛṇa/ghṛṇi* "heat."[67] No corresponding verb form is attested in Sanskrit, though other Indo-European languages have related verb forms. While Śākaṭāyana would have derived *yoga* from *yunakti*, Pāṇini derived both words directly and independently from the root √*yuj* – which is neither verbal nor nominal. √*yuj* represents the ultimate reduction that still conveyed the meaning of "joining, yoking." The root denotes either an action (*kriyā*) or a form of being (*bhāva*) in its most abstract form: whether the derived word denotes the agent or the object of the action, its location or instrument, or whether it denotes its progress in time and its relation to the speaker depends on the suffixes attached to it.[68]

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67. Cf. Mahābhāṣya III 275, 15-17 and G.B.Palsule, *The Sanskrit Dhātupāṭhas*, p.197f.

68. Cf. already H.Scharfe, *JAOS* 90 (1970), pp.585f. In late texts such as Kumārila's Ślokavārttika (vākyâdhikaraṇa on Mīmāṃsā-sūtra I 1 24, śloka 71), Śabdakaustubha vol. II, pp.51,26 and 139,13 (in a spurious quotation from Bhartṛhari), and Uddyota on III 1 87 (vol.III, p.169,19f.) the context makes it clear that *dhātu* here refers to the root of the verb and not of the agent expressed by a noun: N.Kudo, *Nagoya Studies* 21 (2001), p.62f.

The kāraka Rules

In Pāṇini's grammar, the build-up of sentences is achieved by way of verb and noun morphology: correct forms form a perfect sentence. The core concept is that of an action, usually expressed by a verb, surrounded by several contributing factors (*kāraka* "doers, instrumental in bringing about an action"). The most important section concerning this topic is headed by sūtra I 4 23 *kārake* "when it is a factor/instrumental [in bringing about an action]." For Kātyāyana I 4 23 *kārake* was not only a "heading" (*adhikāra*) but also a technical term (*saṃjñā*) to be defined – but why, he wondered, is there no "object designated" (*saṃjñin*) mentioned?[1] We expect a statement like "xyz are [called] 'factor'." Patañjali removed the obstacle by taking *kāraka* in its etymological meaning as "that which brings about"[2] (while still calling it a *saṃjñā*) and Kaiyaṭa suggested that expressions offered in the following rules like *dhruvam* (in I 4 24)[3] etc. are the "thing designated" that Kātyāyana was looking for. It is a more serious problem that this defined term (i.e., *kārake*) would be given in the locative rather than in the nominative, as all other definitions are: e.g., *nipātāḥ* I 4 56, *samāsaḥ* II 1 3, *pratyayaḥ* III 1 1. Kātyāyana, though, expressed no concern about this oddity[4] and Patañjali concurred, saying that *kārake* should be a *saṃjñā*, as it is found in the section dealing with technical designations.[5] Only at the very end of his discussion on I 4 23 Patañjali suggested an alternate interpretation: *kārake* could mean *kriyāyām* "in connection with an action"[6] – the only indication that the odd locative form bothered him. Kaiyaṭa, puz-

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1. Vārttika I on I 4 23 (Mahābhāṣya I 323,7) *kāraka iti saṃjñā-nirdeśaś cet saṃjñino'pi nirdeśaḥ* "If [the word] *kārake* is the mention of a technical designation, [then there should be] also mention of the object designated."

2. Mahābhāṣya I 324,9 *karotîti kārakam iti.*

3. Rule I 4 24 *dhruvam apāye 'pādanam* "The fixed point in relation to moving away is called *apādanam.*"

4. I see no support for the claim by Joshi/Roodbergen (*Vyākaraṇa-Mahābhāṣya, Kārakāhnika*, p.6) that Kātyāyana, too, was puzzled.

5. Mahābhāṣya I 323,5 *saṃjñâdhikāraś câyaṃ tatra kim anyac chakyaṃ vijñātum anyad ataḥ saṃjñāyāḥ?*

6. Mahābhāṣya I 326,16 *athavā yāvad brūyat 'kriyāyām' iti tāvat 'kāraka' iti* "Or rather, to say *kārake* amounts to saying *kriyāyām* 'in connection with an action'."

zled by the locative, wondered whether this sūtra should be taken as a qualifier (*viśeṣaṇa*) of the following definitions ("when it is…") or a definition (*saṃjñā*). It is a definition, Kaiyaṭa suggested, in which the locative is used irregularly instead of the nominative, since the sūtras are "like Veda" where such substitutions are allegedly allowed.[7] The definition would consist then in the following enumeration and definition of six syntactic concepts: *apādāna*, etc. This explanation is, however, not convincing, since the use of the locative in such a role is without parallel. Furthermore, the restriction of the expression *kāraka* to only the six types is open to challenge. In spite of the difficulties which they could not resolve, Kātyāyana and his followers decided to consider *kārake* as a definition.

The Pāṇinīyas created another problem for themselves by mixing object and meta-language in their interpretation of the term *kāraka* which is formed from the root √*kṛ* with the suffix $^n VU^l$ (→-*aka*)[8] denoting an agent by III 1 133 [68 *kartari*] *ṇvul-tṛc.au* "the suffixes -*aka* and -*tṛ* denote the agent.' For the meaning of the word "agent" they relied on the definition of the technical term *kartṛ* "agent" in I 4 54 *svatantraḥ kartā* as "independent" (*svatantra*), though the reference in III 1 68 is to the non-technical word *kartṛ* "doer, agent." We have now a circular argument: the technical term *kartṛ*, defined as "independent" in I 4 54 (as part of the metalanguage), is used in III 1 133 to define agent nouns such as *kāraka* (*bhedaka*, *pācaka,* etc.) which in turn defines *kartṛ* in I 4 54.[9] Problems arise from this definition, as to whether the object of an action or the point of departure can be called "independent" and how

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7. Kaiyaṭa on I 4 23 (II 376,15) quoted Mahābhāṣya III 256,13 *supāṃ ca supo bhavanti* which is an expansion of Pāṇini's Vedic rule VII 1 39 that lists a number of irregular substitutions of case endings found in Vedic texts. Note also Patañjali's remark Mahābhāṣya I 37,4 *chandovat sūtrāṇi bhavanti* "sūtra-texts are like Veda." The Bālamanoramā on Siddhāntakaumudī nr. 534 (part 1, p.400,11f.: *prathamayā vipariṇamyate*) assumes a case of *vibhakti-vipariṇāma* "change of a case ending into another case ending" (ie., the given locative *kārake* is changed to a nominative *kārakam* by force of the context): this is not a convincing idea, as S.D.Joshi and J.A.F.Roodbergen, *The Aṣṭādhyāyī*, vol.IV, p.84 have pointed out.

8. The heterophone *VU* is replaced with -*aka* by VII 1 1 *yuvor anâkau*; ^{n} and ^{l} are tags.

9. This was noted in Nyāsa (vol.I pp.531f.) on I 4 23. Pāṇini would essentially say: "An agent (*kāraka*) that is independent is an agent (*kartṛ*).''

they would be distinguished from the factor technically termed "agent"[10] and called "independent" in I 4 54.[11] In reality, *kāraka* is not a defined term and, whatever the derivation of the word, it has acquired an independent meaning in common discourse (hinted at in the Nyāsa on I 4 23 with the suggestion of an underived word *kāraka* synonymous with *nimitta* "cause").[12] That indeed *kāraka* is different from *kartṛ* is evident from Pāṇini's own formulation III 3 19 [16 *gha*ⁿ] *akartari ca kārake saṃjñāyām* "The suffix *-a* is also attached to denote a factor who is not an agent if it is an expression denoting a thing." *kāraka* is not a defined technical term and is on the same level as *dhruvam* in I 4 24 or *ādhāraḥ* in I 4 45, or as the non-linguistic expressions *ākhyāto-payoge* (I 4 29) and *parikrayaṇe* (I 4 44) in the locative. This interpretation removes a concern[13] that there might be a basic contradiction in this chapter, the *ekā saṃjñā* section, where no co-application of technical terms is allowed: I 4 1 *ā kaḍārād ekā saṃjñā* "Up to *kaḍāra* only one technical term [may apply to an item]." But in the interpretation proposed here, *kārake* (continued from I 4 23) is compatible with, e.g., *apādānam* in I 4 24 because *kāraka* is not a technical term and there is for that reason no illicit co-application of technical terms.

   If *kārake* in I 4 23 is a qualifier ("when it is instrumental in bringing about an action") – rather than a definition with subsequent enumeration – then there is no reason why the factors should be limited to the six categories given in I 4 24-55. These six have obviously been selected because they can be matched somehow (with some fine tun-

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10. Rule I 4 23 reads, after all, *kārake*, not **kartari*.

11. Madhav M.Deshpande, in *Sanskrit and Related Studies*, ed. B.K.Matilal and P.Bilimoria, Delhi 1990, p.45f. recognized that this concept of both "dependent" and "independent" agents was not Pāṇinian but was introduced by Kātyāyana and Patañjali.

12. Nyāsa vol.I p.531,25f. *kāraka-śabdo 'yam asty eva vyutpannaḥ 'ṇvul-antaḥ kartṛ-paryyāya' iti, asti ca saṃjñā-śabdaḥ 'avyutpanno nimitta-paryyāya' iti.*

13. Kaiyaṭa (vol.II pp.376f.) on Mahābhāṣya on I 4 23; Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Avyayībhāvatatpuruṣāhnika* on II 1 3 (pp.63-65) and *The Aṣṭādhyāyī of Pāṇini*, vol.IV on I 4 23 p.81. Kaiyaṭa proposed an ingenious device to meet the difficulty: rules like I 4 24 are split in two: *dhruvam apāye* "What remains fixed when something goes away [is a *kāraka*]"and *apādānam* "It is called *apādā-nam.*" *kārake* is dittoed in the first part only, avoiding thus co-occurring with *apādā-nam* in one and the same sūtra. This solution is not satisfactory, since both terms would still apply to the same item.

ing) with Sanskrit cases. Pāṇini did not intend to give a naturalist's description of the outside world which he rather saw through the lens of language (note *prātipadikârtha* "meaning of a noun stem," hence "thing meant" in II 3 46); Patañjali indicated this too,[14] and later grammarians like Bhartṛhari[15], Helārāja[16] and Phullarāja[17] were often quite adamant about this.[18] Pāṇini has kept the characterizations of these six syntactical categories separate from the assignment of case suffixes used to express them.[19] It is only in a later section of his grammar (in II 3 1-73) that Pāṇini assigned case endings to noun stems when their role as factors has not been expressed already (usually by the verb): *anabhihite* [*kārake*]. Again there is fine tuning.

Six terms are given in I 4 24-55: *apādāna, saṃpradāna, karaṇa,*

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14. Mahābhāṣya I 366,12-15, I 464,18-20, and II 197,25f.

15. Vākyapadīya III 7,91 *vastutas tad anirdeśyaṃ na hi vastu vyavasthitam /*
   sthālyā pacyata ity eṣā vivakṣā dṛśyate yataḥ /91/
"This [instrument] is not to be expressed factually; for the matter is not fixed, because one observes the wish to say: 'the cooking is done by the pot'." Cf. also Vākyapadīya III 7 103 and 138.

16. Helārāja on Vākyapadīya III 7,103 (p.313, line16) *vyākaraṇe hi śabdârtho 'rthaḥ na vastv-arthaḥ* "For in grammar, meaning/object is the meaning/object conveyed by words, not real objects."

17. Phullarāja on Vākyapadīya III 7,66 (p.281, lines 17f.) *śabda-pramāṇakānāṃ hi śabda eva <yathā> yathârtham abhidhatte tathaîva tasyâbhidhānam upapannam, na tu vastu-mukha-prekṣitayā* "For as the word expresses its meaning, thus its expression comes about for those whose authority is the word (i.e., the grammarians), but not by looking at the face of reality." Phullarāja's commentary was used to fill two gaps in Helārāja's commentary: K.A.Subramania Iyer, *Bhartṛhari*, Poona 1969, p.38 and in his edition of the Vākyapadīya, Kāṇḍ III Part 1, p.280 fn.62. Cf. also Helārāja on III 7,103 (p.313,16) *vyākaraṇe hi śabdârtho 'rthaḥ na vastv-arthaḥ.*

18. As K.A.Subramania Iyer has pointed out, grammarians have frequently been inconsistent and did "indulge in a direct analysis of reality": *Journal of Oriental Research* XVIII (1951), pp.84-96. We might wonder how definite Pāṇini was on this point compared to his followers who were exposed to new distinctions created by the emerging philosophical schools.

19. He was not followed in this by the Buddhist grammarian Candragomin who did attempt to match the observed facts of life with grammatical forms directly, and he was criticized by W.D.Whitney (*American Journal of Philology* 14 [1893], p.171) who considered this procedure of Pāṇini's "difficult and dangerous." Apurba Chandra Barthakuria, *The Philosophy of Sanskrit Grammar (A Critical Study of Kāraka)*, Calcutta 1997, has in his compilation throughout confounded case and *kāraka*; he began with the astounding statement (p.xi): "It is for this very reason, there is no genitive case in the Sanskrit language."

adhikaraṇa, karman, and *kartṛ* with the sub-class of *hetu*. Their sequence[20] was, according to tradition, chosen with regard to rule I 4 2 *vipratiṣedhe paraṃ kāryam* "In the case of a conflict, the later one is to be applied." Only very recent texts speak distinctly of "the six *kāraka*-s," and there is no indication that Pāṇini had only six *kāraka*-s in mind. He begins his list with I 4 24 *dhruvam apāye 'pādānam* "What remains fixed when something goes away, is called *apādāna* 'removal'," followed by seven rules that supplement this definition: the cause of fear ("he is afraid of wolves") and from whom one wants to protect ("he protects from wolves"); from whom one suffers defeat; something from which one wants to keep harm away; someone from whom one wants to hide; someone from whom one wants to learn; the basis from which something originates. All these things, persons or other items are called *apādāna*, and all are properly *kāraka*-s "factors," instrumental in bringing about an action. The same is true under the next category: I 4 32 *karmaṇā yam abhipraiti sa sampradānam* "He whom he approaches with the object is called *sampradāna* "bestowal/ recipient."[21] It is followed by eight sūtras that extend the term *sam-*

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20. If we consider the case suffixes that are most commonly used to express them, the sequence of the syntactical functions is just the opposite, with the exception of *adhikaraṇam* which would have come first. Kātyāyana listed in his vārttikas 30 to 34 on I 4 1 several sūtras where I 4 2 helps to decide between *kāraka* categories; but many of them can also be explained by deferring to the speaker's intention (*vivakṣā*): G.Cardona, *JIPh* 2 (1974), pp.236-238; Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Kārakāhnika* pp.x-xii and *The Aṣṭādhyāyī of Pāṇini*, vol.IV, p.6; P.Scharf, in *Indian Linguistic studies* (Fs.G.Cardona), pp.121-149. Madhav M. Deshpande, in *Sanskrit and Related Studies*, ed. B.K.Matilal and P.Bilimoria, Delhi 1990, pp.52-55 rejected Kātyāyana's suggestion altogether.

21. *sampradāna* is, like *apādāna*, an abstract, meaning "bestowing to somebody," but (like *apādānam*) refers to a concrete thing or person: "recipient." It is likely, that the term was coined by a forerunner of Pāṇini to denote the dative case (think of Latin *casus dandi*): G.Cardona, *JOIB* 16 (1967), p.212. The translation of such terms can be problematic, but it is not fair to criticize J.Houben's (in *The Emergence of Semantics in Four Linguistic Traditions*, ed. van Bekkum, Amsterdam 1997, p.89) rendering of *apādāna* with "taking away" and *sampradāna* with "giving" as inadequate (it fits quite well with the attested verbal forms of *apâ-√dā* in the Śatapatha-brāhmaṇa), as G.Cardona did in his *Recent Research in Pāṇinian Studies*, p.298f. Cardona praised instead Rama Nath Sharma's treatment in his *The Aṣṭādhyāyī of Pāṇini*, vol.I pp.147-149 where he translated none of these terms. But on pages 51 and 141 R.N.Sharma did translate *apādāna* and *sampradāna* with "ablative" and "dative," which is unfortunate because these terms are already used for case forms. Thus in rule

pradāna: to whom something is pleasing; to whom one wants to give a sign; to whom a debt is owed; towards whom one is angry; about whom questions are asked; to whom something has been promised, when the roots √*śru* or √*gr̄* are used with various prepositions. Included is an exemption: while the person with whom one is angry is termed *saṃpradāna* (I 4 37) in construction with √*krudh* and √*druh* (and other roots), this person is considered an "object" (*karman*) instead, if the roots √*krudh* or √*druh* are used with a preposition (I 4 38).

The next definition I 4 42 *sādhakatamaṃ karaṇam* "the most effective means is called *karaṇa* 'instrument'" is followed only by two exemptions: the dice ("the most effective means" in dicing) that are by this definition primarily an instrument of gambling can also be considered an object (*karman*), and "the most effective means" used in renting, e.g. money, can also – instead of object – be considered a bestowal/recipient (*saṃpradāna*). Exemptions like these have practical consequences: besides *akṣair dīvyati* "he plays with dice" one can say *akṣān dīvyati* "he plays dice"; "rented for a hundred" can be expressed either by *śatena* ("by means of a hundred") or by *śatāya parikrītaḥ* ("for a hundred"). *ca* "and" in I 4 43 and *anyatarasyām* "optionally" in I 4 44 mark these rules as exceptions to I 4 1 which disallowed the application of more than one term per item.

I 4 45 *ādhāro 'dhikaraṇam* "place is *adhikaraṇa* 'location'" is followed by three rules with exceptions: in construction with certain verbs and prepositions places are to be considered "objects" (*karman*) instead, e.g., in construction with the roots √*śī*, √*sthā* or √*ās* (with the preverb *prati*) a place is called *karman* instead (and only *karman*; I 4 46). Cardona[22] wrongly suggested that the item called "place" would cease to be "place" and become "object" instead; it ceases to be *adhikaraṇam* and become *karman*, but it is still *ādhāra* "place," a non-technical notion which continues through I 4 48.

I 4 49 *kartur īpsitataṃ karma* "what is most desired by the agent is called *karman* 'object'"[23] is followed by four supplementary rules. I

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II 3 31 [28 *apādāne*] *enapā dvitīyā* we would be told that a "second" i.e. accusative suffix is used to denote an "ablative" in conjunction with an adverb ending in -*ena*.

22. G.Cardona, *IIJ* 21 (1979), p.138 fn.12.

23. The original meaning of the word is "action, deed."

4 50 *tathā yuktaṃ cânīpsitam* "also that which is not desired [if it is] likewise connected" accounts for the fact that also extremely undesirable items are treated in the same way in language: "He eats poison," "He sees the robbers" are expressed just like "He eats honey."[24] I 4 51 *akathitaṃ ca* "also what is not spelled out" provides the label "object" for those factors whose specific role the speaker does not care to spell out. I 4 52+53 finally tells us that the agent of the basic verb often is the object when a causative construction is adopted instead.[25]

The section concludes with the definition of the "agent": I 4 54 *svatantraḥ kartā* "the independent one is called *kartṛ* "agent" and I 4 55 *tat-prayojako hetuś ca* "the prompter of that [besides *kartṛ* "agent"] is also called 'cause' (*hetu*)."[26] The latter is again an exception to the *eka-saṃjñā*-rule (which forbids the co-application of two terms to one item), especially authorized by the word *ca* "and."[27] Traditional interpretation regards this table nowadays as the finite enumeration of the six *kāraka*-s; there are no more.[28]

There has been an ancient controversy on the interpretation of I 4 50 *tathā yuktaṃ cânīpsitam* and especially I 4 51 *akathitaṃ ca.* Does the extension in the former – that also the *anīpsitam* is called *karman* "object" – mean only the actively "undesired" items (like poison or robbers in the examples) or also those that are simply "not desired", i.e. re-

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24. The rule also accounts for inanimate agents that cannot "desire," as in *ratho gramam gacchati* "the chariot goes to the village". M.M.Deshpande (*JAOS* 111 [1991], pp.473f.) showed how a prototypical object etc. is supplemented with less prototypical objects etc. in subsequent rules.

25. The resultant construction would be, e.g., *gacchati māṇavako grāmam* "The boy goes to the village" versus *gamayati māṇavakaṃ grāmam* "He causes the boy to go to the village."

26. The masculine gender of these two terms and the masculine pronouns used in the definitions of *kartṛ* and *saṃpradāna* indicate that Pāṇini primarily thought of human or at least animate actors in the mini-drama of a sentence: M.M.Deshpande, *JAOS* 111 (1991), pp.475f.

27. *samāsa* "compound" of II 1 3 *prāk kaḍārāt samāsaḥ* "Up to *kaḍāra* (in II 2 38) the designation 'compound' [holds good]" co-applies with terms like *avyayībhāva* in II 1 5; this is allowed, according to Kātyāyana's vārttika on II 1 3 (Mahābhāṣya I 377,3), because *prāk* in this rule marks it as an exception that allows co-application. Joshi/Roodbergen, *The Aṣṭādhyāyī* V p.10 rejected this interpretation. In a different approach, they considered the *samāsa* section not covered by the *ekā-saṃjñā*-rule at all: Joshi/Roodbergen, in *Indian Linguistic studies* (Fs.G.Cardona), p.119.

28. Below p.148.

garded with indifference? Patañjali gave the example: "while going to
another village, he happens to come near the roots of a tree."[29] The roots
are not really desired by the traveler. S.D.Joshi and J.A.F.Roodbergen[30]
thus proposed to apply this rule I 4 50 also to the construction with dou-
ble accusatives like *gāṃ dogdhi payaḥ* "he milks milk [from] the cow"
– which tradition has considered covered by the next rule: I 4 51
akathitaṃ ca. Several interpretations have been offered for this last rule,
and while Kātyāyana has not commented on it,[31] the debate is older than
Patañjali who quotes a great number of old stanzas in different meters,
presumably from different sources. The usual interpretation of I 4 51
takes this rule as a kind of residual rule for items "[that are not covered]
by special names like *apādāna* etc."[32] Another interpretation suggests
that *akathita* refers to a "non-prominent factor";[33] but this is open to
wide over-applications, since there are many non-prominent factors as-
sociated with action that should not be called *karman* and that are not
expressed in an accusative. The best interpretation was offered by
Kaiyaṭa and Bhaṭṭoji Dīkṣita: *akathita* here means *avivakṣita* "not in-
tended to be expressed." The cow is a factor somehow in *gāṃ dogdhi
payaḥ*, as is the boy in *māṇavakaṃ panthānaṃ pṛcchati* "he asks the
boy the way," but the speaker does not care to spell out this role. His fo-
cus is on the action and its object: the milk and the way. This interpreta-
tion is not only meaningful, but it also allows us to maintain Pāṇini's
text and avoid the assumption that I 4 51 is an old interpolation as pro-
posed by S.D.Joshi and J.A.F.Roodbergen.[34] The first two interpreta-
tions proposed not only create problems in the application of rules I 4
49-51, but create difficulties later with rule II 3 50 *ṣaṣṭhī śeṣe.* In their

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29. Mahābhāṣya I 333,20 *gramântaram ayaṃ gacchan vṛkṣa-mūlāny upasarpati.*
30. Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Kārakāhnika*, p.169.
31. He knew it, though, as his vārttika 3 on I 4 23 (Mahābhāṣya. I 323,15) and
vārttika 1 on I 4 29 (Mahābhāṣya I 329,13) indicate.
32. Mahābhāṣya I 333,25 *kenâkathitam? apādānâdibhir viśeṣa-kathābhiḥ.*
Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Kārakāhnika*, p.174 "that item to which
no special designation has been assigned in the *kāraka*-section."
33. Mahābhāṣya I 323,18-21; cf. Joshi/Roodbergen, *ibid.*, pp.20f. and 174f. and
below pp.151f.
34. Joshi/Roodbergen, *ibid.*, p.176; P.Thieme, *ZDMG* Supplement V, Wiesbaden
1983, pp.280-288 (*Kl.Schr.* pp.1202-1210); cf. also M.M.Deshpande, *IIJ* 34 (1991),
pp.19-35.

translation of the Aṣṭādhyāyī S.D.Joshi and J.A.F.Roodbergen[35] pro-
posed yet another interpretation for *akathitaṃ ca*: that *akathitam* refers
to elliptic sentences, where the object is not expressed as in *bhṛtyo va-
hati* "the servant carries." The verb is therefore transitive, even though
no object is mentioned. But an object, even if unexpressed, would still
be an object, making the verb transitive, and its potential presence could
better be expressed in grammar by a word like *sthānin* (as in I 4 105: a
word that could be there but isn't).[36]

The next step, from syntactical concept to actual forms, is taken
in later chapters. The basic assignments are those of active and passive
verb forms to denote agent and object, of primary noun suffixes –
mostly for the agent (*kartṛ*) but also for *saṃpradāna*, *apādāna*,
adhikaraṇam (in III 4 67-76).[37] When these concepts have not yet
been expressed, case suffixes for nouns come into play. These rules
for case suffixes are given in II 3 1-73. The section is headed by II 3 1
anabhihite "when it is not [already] expressed." It is assumed that the
reference is to the six terms listed in I 4 24-51 (*karman*, etc.);[38] one
could also think of *kārake* in I 4 23. The rules deal with the syntactic
concepts anticipating, with some exceptions, the sequence of the case
endings in IV 1 2: second, fourth, fifth and seventh case endings. The
exceptions are that the meanings most commonly expressed by the
third case endings follow those most commonly expressed by the forth
case endings. The first and sixth case are peculiar and their applica-
tions are placed at the end. Since the heading *anabhihite* is syntactical-
ly linked with the terms *karman*, etc., (or: *kārake*) one could with
equal right assume a basic sequence *karman*, *saṃpradāna*, *kartṛ*,
karaṇa, *apādāna*, *adhikaraṇa* (which is nothing like the sequence in

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35. *The Aṣṭādhyāyī of Pāṇini*, vol. IV pp.149f.

36. Bhartṛhari (Vākyapadīya III 7,88) and Helārāja in his commentary on this
stanza (p.303) argued that the lack of a desire to express an object makes the action
(not the root?) intransitive, as in *na pacati* "he does not cook" or *nêha pacyate* "there
is no cooking here."

37. Kātyāyana in his vārttika 5 on II 3 1 (Mahābhāṣya I 441,20) included also
the denotation of *kāraka* functions by secondary noun suffixes or compounds; but
these formations arise later on the basis of the simpler constructions and are not prior
given facts; cf. H.Scharfe, in *Proceedings of the International Seminar on Studies in
the Aṣṭādhyāyī of Pāṇini*, pp.53-57 and below p.157.

38. The Kāśikā (vol.II p.151,5) supplies *karmâdau*.

which the terms were taught in I 4 24-55); the case ending with no *kāraka* function and the residuals are placed at the end. In either way, the listings are shot through with numerous exceptions and special rules, so that no clear dominant pattern emerges for either dominance of *kāraka* functions or case suffixes. [39]

Instead of the accusative ending that is regularly used with the word denoting the object, [40] in Vedic literature also the instrumental ending occurs with the root √*hu* "offer an oblation," [41] and the accusative suffix is used in connection with *antarā* "between." [42] Another kind of supplementation is offered in II 3 5 and 6: *kālâdhvanor atyanta-saṃyoge* "The accusative ending is also added to time and road [measurements], when there is an uninterrupted duration" and *apavarge tṛtīyā* "The instrumental ending, when there is a conclusion." We say *māsam adhīte* "He studies for a whole month [without success]" [43] and *krośaṃ kuṭilā nadī* "The river meandering over [the distance of] a *krośa*," [44] but *māsenânuvāko 'dhītaḥ* "The chapter was learnt in a month." [45] Kātyāyana suggested that the special and temporal extension shall be "like an object" (*karmavat*), so that passive constructions such as *āsyate māsam* "a month is spent sitting" can be formed. [46] Pāṇini may not have known such passive sentences, but Kātyāyana and Patañjali did. Candragomin has no corresponding sūtra, but the vṛtti on Candragomin II 1 51 explains that the accusative is covered by the general rule for accusative endings (Candragomin II 1 43 *kriyâpye dvitīyā* "to denote what is to be obtained by the action"), whereas the instrumental is covered by the general rule for the instrumental (Candragomin II 1 63 *karaṇe* "to denote the instrument"): if the student failed to learn the chapter in a month, it (i.e., the month)

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39. Cf. B.Faddegon, *Studies on Pāṇini's Grammar*, Amsterdam 1936, p.19.

40. II 3 2 *karmaṇi dvitīyā* "The second [case ending] if it is an object": *kaṭaṃ karoti* "He makes a mat."

41. II 3 3 *tṛtīyā ca hoś chandasi* "Also the third [case ending] in connection with √*hu* in Vedic [texts]": *yavāgvā agnihotraṃ juhoti* besides *yavāgūm agnihotraṃ juhoti*.

42. *antarā tvāṃ ca māṃ ca kamaṇḍaluḥ* "Between you and me there is a pitcher."

43. Kāśikā on II 3 5 (vol.II p.159,6).

44. Mahābhāṣya I 446,4.

45. Kāśikā on II 3 6 (vol.II p.160,6).

46. The accusative *māsam* is *karmavat* "like an object," not *karman* "object" which would have called for a nominative *māsaḥ* in the passive construction.

was not an instrument and the word cannot receive the instrumental
suffix – hence the accusative form is used: *māsam adhīto 'nuvāko na
cânena gṛhīta iti.*[47] We see here, how close the temporal and spatial
extensions come to the notion of "object" (*karman*), and their success-
ful conclusion to that of the "most efficient" (*sādhakatamam*) "instru-
ment" (*karaṇa*). I suggest that they might be *kāraka*-s too.

In the section headed by *kārake*, I 4 54 *svatantraḥ kartā* had de-
fined the agent as one who acts on his own volition; the next sūtra
called his instigator (the agent in the causative) an "agent" (*kartṛ*) as
well as a "cause" (*hetu*). In the section on case endings, II 3 23 *hetau*
"when a cause is denoted" added "cause" to the uses of the instrumen-
tal endings – not in the technical sense of the definition of "cause" of I
4 55, but in the common sense of the word as exemplified in *kanyayā
śokaḥ* "worry because of a daughter." The following sūtra II 3 24 [23
hetau] *akartary ṛṇe pañcamī* "the ablative if debts [are the cause] –
but not when they are the agent" distinguished between *kartṛ* and *hetu*.
The Kāśikā illustrated the rule with *śatād baddhaḥ* "held because of a
[debt of] a hundred" and *śatena bandhitaḥ* "a [debt of a] hundred got
him arrested."[48]

II 3 46 *prātipadikârtha-liṅga-parimāṇa-vacana-mātre prathamā*
teaches the deployment of the first (nominative) suffix, when no factor
needs to be denoted, only the gender and numerus of the stem meaning.
Interpreters from Patañjali onward have sought a much larger group of
denotata: they took *vacana* to mean here "numerus" (which it does not
anywhere else in Pāṇini's grammar),[49] and took *parimāṇa* to denote
measurements like *droṇa* (though this is a lexical meaning, not a suffix
meaning). Finally, they took *prātipadika* as part of the dvandva; that vi-
olates first the rule that the shorter noun should precede in a dvandva,[50]

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47. Mahābhāṣya I 446,6.
48. The commentaries Padamañjarī and Nyāsa on II 3 24 (vol.II p.181) discuss
whether in II 3 24 the continued *hetau* (from II 3 23) should be the technical term as
defined in I 4 55 or the common (*laukika*) word.
49. The only other alleged occurrence in I 2 51 *lupi yuktavad vyakti-vacane* has to
be interpreted differently: H.Scharfe, *ZvS* 79 (1965), pp.239-246 = below pp.197-205.
50. Sūtra II 2 34 [30 *pūrvam* 32 *dvandve*] *alpâctaram* "what has fewer syllables
[precedes in a dvanda]." Pāṇini himself violated this rule in IV 2 76 …*Sauvīra-Sālva-
prākṣu* "…in the Sauvīra, Sālva and Eastern [regions]."

and secondly the stem meaning is already expressed by the stem in every case, but we are not told so in regard to the other case suffixes.[51] The nominative is used, when the agent or the object is already denoted by the verb, and its use is only indirectly linked to the *kāraka* system.

The last case suffix taken up is the sixth, the genitive suffix. The Sanskrit genitive is not typically matched with a single concept like object, agent or instrument – it has, in fact, "hundred-and-one meanings," as Patañjali said[52] - and so the genitive endings are assigned in a group of residual rules after the other case endings are dealt with. II 3 50 *ṣaṣṭhī śeṣe* "The sixth (i.e., genitive case ending)[53] [is used] to

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51. One could perhaps argue in defense of the traditional interpretation that a reference to the stem meaning was necessary because of the use of the word *mātra* "only," meaning that a <u>word</u> in the nominative case should also express the meaning of its stem, not only the gender and number of the stem meaning. But that is obvious and equally true for all cases, and no commentator has made that point, since in the context all references are to the case suffixes not to the stems to which they are attached. Patañjali's motive is quite different: he wants to assure that adverbs like *uccais* can be considered as words (*pada*), i.e. noun stems with a case suffix; cf. P. Thieme, *JAOS* 76 (1956), pp.1-10 (*Kl.Schr.* pp.573-582).

52. Mahābhāṣya I 118,10 *ekaśataṃ ṣaṣṭhy-arthā[ḥ]*. Nāgojībhaṭṭa (I 361,23) glossed it with *śatam* "hundred", and P.Filliozat (*Le Mahābhāṣya de Patañjali. Traduction, Adhyāya 1 Pāda 1 Āhnika 5-7*, Pondichéry 1976, p.367) translated *ekaśataṃ* with "une centaine"; but this is wrong: Patañjali used simple *śatam* "one hundred" in I 31,1; 41,13. *ekaśata* "one hundred and one" in Śatapatha-brāhmaṇa X 2,4,3 and XIII 2,1,6 stands in contrast with *śata* "one hundred," and *vṛṣabhaîkaśatā* [*ca*] *gāḥ* in Mahābhārata XII 159,52 clearly means "hundred and one cattle including one bull" (cf. Manu XI 130 *ekaśataṃ gavām* and 117 *vṛṣabhaîkādaśa gās* with the unambiguous parallel Āpastamba-dharmasūtra I 9,24,1-4 …*gavāṃ sahasram…dadyāt, ṛṣabhaś câtrâdhikaḥ…*). Aitareya-āraṇyaka I 2,2 lists the parts of the body: *tac chatam; ātmaîkaśatatamaḥ* "…making a hundred, and the trunk is the one hundred and first part" (The Aitareya Āraṇyaka ed. and trans. A.B.Keith, Oxford 1909 repr.1969, pp.84 and 175). The Ṛgveda has *d[u]ve śate* and *trīṇi śatāni* (besides *triśatam*), etc., but no **ekaṃ śatam*! See also Hisashi Miyakawa, *Münchener Studien zur Sprachwissenschaft*, (2003) pp.167f. "Hundred and one" is often one of those "round numbers" that indicate a multitude. The Kāśikā (vol.I, p.169,6) on I 1 49 says: *bahavo hi ṣaṣṭhy-arthāḥ: sva-svāmy-anantara-samīpa-samūha-vikārâvayavâdyāh.* Nāgojībhaṭṭa in his Uddyota (vol.I, p.361,23) preferred to take *ṣaṣṭhy-arthā[ḥ]* as a bahuvrīhi: "[words that have] the meaning of the sixth case ending"; but even this interpretation attests to the many facets of the genitive case. This difficulty to define the genitive in a simple formula is also found in the wider field of Indo-European languages, as Albert Debrunner has demonstrated in his pamphlet "Zur Krankheitsgeschichte des Genitivs," Bern 1940.

53. Actually, the sixth case ending comes, like all the others, in groups of three

denote the rest" leaves open the question what rest is intended. What constitutes this "rest" has been debated at least since Patañjali who at first suggested "meanings other than object, etc." [54] On the objection that there are no other meanings than object, etc., Patañjali then suggested that "rest" means the absence of intent to express object, etc. [55]

Rather than "meaning" in general, the most natural supplement for *śeṣe* would be *kārake*, and II 3 50 *ṣaṣṭhī śeṣe* would then mean "to express any remaining factor, the sixth [case ending is used]." [56] The most common applications would be of the type *rājñaḥ puruṣaḥ* "the king's officer." The rule is followed by twenty rules of which seventeen prescribe the sixth case suffix to denote the instrument, object, recipient, location, and agent in connection with certain verbs and nouns. It denotes the object, e.g., in *sarpiṣo nāthate* "he begs for butter," *śatasya dīvyati* "he stakes one hundred," the instrument in *ghṛtasya yajate* "he performs a sacrifice by means of ghee" (optionally instead of *ghṛtena yajate),* or the agent in *bhavataḥ śāyikā* "your turn of

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(*trika*): singular, dual, and plural. That does not, however, justify the translation "*prathamā* 'first [triplet]'" (G.Cardona, *JIPh* 2 [1974], p.244) or *dvitīyā [vibhaktiḥ]* "second triplet" (G.Cardona, *Pāṇini: His Work and its Traditions*, vol.I, p.182; p.156 in the 2nd ed.]). Cardona indeed did "not call the individual case suffixes themselves triplets" (Cardona, *Pāṇini*, 2nd ed., p.xxxii); but his frequent references to "triplets of endings" and "sixth-triplet endings" are cumbersome and deviate unnecessarily from the Sanskrit expression. Other scholars, following his lead, were not as careful. The formulations by Rama Nath Sharma, *The Aṣṭādhyāyī of Pāṇini*, vol.I p.146: "*Krūra* 'cruel' in (3) [= *krūrāya krudhyati* H.S.] is used with *caturthī* 'fourth triplet of nominal ending'…in (4) [= *krūram abhikrudhyati* H.S.] it is used with *dvitīyā* 'second triplet of nominal ending'," S.M.Katre, *The Aṣṭādhyāyī of Pāṇini*, Austin 1987, p.105 "An item ending in…sUP triplets…combines with...another item ending in…sUP triplets," Karunasindhu Das (in: *Indian Semantics*, ed. Keshab Chandra Dash, Delhi 1994, p.146) "the third triplet of case-ending in śrameṇa," and Hideyo Ogawa (*JIPh* 29 [2001], p.537 fn.2) are careless at best. Cf. also M.M.Deshpande in *Sanskrit and Related Studies*, ed. B.K.Matilal and P.Bilimoria, Delhi 1990, p.38: "The second triplet of case endings is added to a nominal denoting the object."

54. The Kāśikā (vol.II, p.209,6) added the further limitation *prātipadikârtha-vyatiriktaḥ* "outside of stem meanings," fearing that Patañjali's formulation was too wide.

55. That poses a problem at least for those who considered the absence of intent to express the specific *kāraka* as the topic of I 4 51 *akathitaṃ ca.*

56. Note how *śeṣaḥ* in II 2 23 refers similarly back to a heading: II 2 23 [II 1 3 *samāsaḥ*] *śeṣo bahuvrīhiḥ*, also in III 4 114 [113 *tiṅ*] *ārdhadhātukam śeṣaḥ*, and VII 2 90 [84 *vibhaktau*] *śeṣe lopaḥ*. A.C.Sarangi, *Gleanings in the Sanskrit Grammatical Tradition*, pp.68-78, surveyed the sixteen rules where Pāṇini used "the Śeṣa-Device."

lying down." The remaining three rules in this section give excep-
tions: II 3 60 teaches that in a Brāhmaṇa text the second case (accusa-
tive) ending is used with the root √*div* instead of the sixth case ending,
and rules II 3 69/70 demand the instrumental or accusative in certain
constructions instead of the genitive.

Let us look at these rules in more detail. In the first two of these
sūtras (II 3 51) the genitive suffix is ruled in to denote the instrument
(*karaṇa*) with the root √*jñā* if it does not meaning "knowing,"[57] and
in the second (II 3 52) the object of roots meaning "remember" and
the roots √*day* and √*īś*. In II 3 55 *āśiṣi nāthaḥ* the genitive is ruled in
to denote the object (*karman*) of the root √*nāth*, if it signifies a solemn
wish.[58] The genitive is used to denote "location" (*adhikaraṇa*) in
time, when a word having the meaning of *kṛtvas* ("so many times") is
used (II 3 64).[59] II 3 65 [50 *ṣaṣṭhī*] *kartṛ-karmaṇoḥ kṛti* assigns the
genitive suffix to denote the agent or the object in connection with a
noun stem ending in a *kṛt* suffix (unless it has already been expressed
otherwise);[60] but if both agent and object could appear in the same
phrase, the genitive expresses the object only (II 3 66).[61] Besides
these assignments of the genitive to express an object (*karman*), an
agent (*kartṛ*) and location (*adhikaraṇa*), there are assignments on the
basis of morphology and lexicon; they are all called *pratipada-vidhā-
nā ṣaṣṭhī* ("sixth case ending prescribed with reference to specific
words")[62]: the genitive suffix can be used in Vedic texts instead of the
dative suffix (II 3 62),[63] in connection with words denoting similarity

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57. Kāśikā (vol.II, p.212,3) gives the illustration *sarpiṣo jānīte* "misidentifies
as butter" or "proceeds with butter." Joshi/Roodbergen, *The Aṣṭādhyāyī,* vol.VII, p.90
(on II 3 51), proposed a different interpretation: "he has the realization (of something,
like *brahmaikatva*) by means of ghee/honey."

58. Mahābhāṣya I 280,18 *sarpiṣo nāthate* "he utters a request in the form of a
solemn wish for ghee."

59. II 3 64 *kṛtvo-'rtha-prayoge kāle 'dhikaraṇe*. The Kāśikā (vol.II, p.222,10)
gives the example *pañcakṛtvo 'hno bhuṅkte* "he eats five times a day."

60. Examples are *bhavataḥ śāyikā* "your turn of lying down" for agent and
purāṃ bhettā "destroyer of city-forts" for object (Kāśikā II 223,5f.).

61. An example is *āścaryo gavāṃ doho 'gopālakena* "The milking of cows by
one who is not a cowherd is a wonder." (Kāśikā II 226,4.).

62. Kātyāyana vārttika 1 on II 2 10 (Mahābhāṣya I 413,15). That contrasts with
the genitive based on the general rule II 3 50 *ṣaṣṭhī śeṣe*.

63. II 3 62 *caturthy-arthe bahulaṃ chandasi* "In the Veda the sixth case ending

(II 3 72)[64] and either genitive or dative in connection with words like *āyuṣya* "longevity," when it is a case of well-wishing (II 3 73).[65] We have thus assignments of the genitive suffix on the second and third tier: the genitive suffix may denote *karman*, *kartṛ*, *karaṇa* and *adhikaraṇa*, and it can have adjustments based on individual words. There is no reference to the first tier, i.e., no reference to the outside world such as *dhruvam apāye*, *ādhāra*, *svatantra*. Or is there?

In I 4 24-55 supplements to the definitions of the terms *apādāna*, *sampradāna*, etc. – statements reaching back into the first tier of out-side realities – follow each of these definitions, and in II 3 2-73 adjustments based on morphological and lexical data follow each of the sūtras that rule in a specific case suffix for one of the six syntactic terms listed in I 4 24-55. II 3 50 is a sūtra that gathers the residuals. It is followed by rules that tell of very specific instances where the genitive suffix is attached to denote a *karman*, *kartṛ*, *karaṇa* or *adhikaraṇa* and a few rules where the genitive is ruled in merely on the basis of the construction with certain words. We expect these special rules to be preceded by a general rule. That can only be II 3 50 *ṣaṣṭhī śeṣe*.

Patañjali[66] continued the word *śeṣe* into the following sūtra II 3 51 and offers it up also for II 3 67,[67] and at least some later Pāṇinīyas continued it up to II 3 64. That goes against the rules of *anuvṛtti*,[68] because *śeṣe* is discontinued by the incompatible *karaṇe* in II 3 51.[69]

is often added in the sense of the fourth case ending."

64. II 3 72 *tulôrthair a-tulôpamābhyāṃ tṛtīyânyatarasyām* "A third case ending is alternatively added [instead of a sixth case ending] with words meaning 'equal' – except after *tulā* 'balance' and *upamā* 'comparison'."

65. II 3 73 *caturthī câśiṣy āyuṣya-madra-bhadra-kuśala-sukhârtha-hitaiḥ* "A fourth case ending [instead of a sixth case ending] is [alternatively] added in construction with words having the meaning of *āyuṣya*, *madra*, *bhadra*, *kuśala*, and *sukha*, and with the word *hita*." The Kāśikā (vol.II, p.235,7f.) gives examples like *āyuṣyaṃ Devadattāya Devadattasya vā bhūyāt* "May there be longevity for/of Devadatta."

66. Mahābhāṣya I 465,15 *śeṣa iti vartate*.

67. Mahābhāṣya I 468,17-19 (following Kātyāyana's vārttika 2 on II 3 67? See fn.69 below).

68. Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Prātipadikārthaśeṣāhnika*, pp.80f., *Anabhihitāhnika*, pp.63f., and S.D.Joshi and Saroja Bhate, *The Fundamentals of Anuvṛtti*, Pune 1984, p.271 convention 3.

69. Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Prātipadikārthaśeṣāhnika*, p.99 inferred from Kātyāyana's vārttika 1 on II 3 52 (Mahābhāṣya I 465,2) that he did not envisage continuance of *śeṣe* in this sūtra. Vārttika 2 on II 3 67 (Mahābhāṣya I 468,17)

Patañjali, however, had reasons to desire the continuance of *śeṣe* in the following rule. Pāṇini II 3 52 *adhīg-artha-dayêśām karmaṇi* ("With verbs in the meaning of *adhi*+√*i*, √*day* and √*iś* the genitive suffix denotes the object") allowed the formation of *mātuḥ smarati* "he remembers his mother"[70] and the passive equivalent *mātā smaryate* "the mother is remembered" by naming the mother the object (*karman*). But Patañjali knew also *mātaram smarati* "he remembers the mother" which he justified in the following way. *śeṣe* in II 3 50 denotes "absence of the desire to express the *karman* etc."[71] When the speaker wants to express the object as such, the accusative suffix is used according to II 3 2 *karmaṇi dvitīyā*; if he chooses not to do so, it will be marked with the genitive suffix according to II 3 52. This interpretation of Patañjali's arbitrarily assigns a new meaning to the word *śeṣa* in II 3 50 and renders the following sūtras II 3 51-64 redundant.[72] For all these genitives could be obtained by II 3 50 dependent on the speaker's desire not to express object, etc., whereas the alternative other cases (accusative, instrumental, etc. expressing object, instrument, etc.) can be obtained by the basic case assignments (like II 3 2 *karmaṇi dvitīyā*).[73] But Pāṇini's rules cannot be without meaning,

would contradict this assumption, since it supplies *śeṣe* in this sūtra; but this vārttika may actually be a statement of Patañjali's, as Joshi/Roodbergen, *ibid.*, p.140 fn.452 argue.

70. The attestations of *adhi*+√*i* itself in the Ṛgveda (IV 17,12 *adhyeti mātuḥ*; VII 56,15 *stutasya… adhītha*; X 100,4 *suvitasyâdhyetu*) conform to this rule, and those of the synonym √*smṛ* conform in the Atharvaveda (VI 130,2-3 *me smaratād* and *mama smarāt*) and Kauṣītaki Upaniṣad II 4 (*smaranti haîvâsya*), but not in the Śuklayajurveda, Nirukta and Manusmṛti – texts not known to Pāṇini (and in the Ṛgveda Khilas whose relative date and place of origin are uncertain); cf. Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Prātipadikārthaśeṣāhnika*, pp.82f. Therefore Cardona's assertion (*JIPh* 2 [1974], p.289 fn.49) that Patañjali here represents Pāṇini's view is not correct.

71. Mahābhāṣya I 465,15f. *śeṣa iti vartate…karmâdīnām avivakṣā śeṣaḥ*; cf. S.D.Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Prātipadikārthaśeṣāhnika* p.81.

72. Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Tatpuruṣāhnika*, p.128, *Prātipadikārthaśeṣāhnika* pp.81f. and *The Aṣṭādhyāyī of Pāṇini*, vol.VIII, p.95.

73. Actually, undesired forms may result. The instrument used with the root √*jñā* – when this does not mean "know" – is denoted by the genitive suffix, as in *sarpiṣo jānīte* "he realizes through ghee" (by II 3 51). But if *śeṣe* in the meaning "lack of intention to express object, etc." is continued in II 3 51, this is only an option; one could alternately (if one wants to express the notion of 'instrument') say **sarpiṣā jānīte* (by II 3 18) and even form a compound **sarpir-jñānam* (by II 1 4). Pāṇini intended a clear statement that just the genitive suffix is used to mark the instrument of

and thus the Pāṇinīyas (Kaiyaṭa, etc.) found a new function for these rules by distinguishing between genitives ruled in by *śeṣa* in II 3 50 and genitives prescribed with reference to specific words (*pratipada-vidhānā [ṣaṣṭhī]*) in II 3 51-64.[74] The purpose of this distinction is to comply with vārttika 1 on II 2 10 that forbids compounds with genitives that are ruled in with reference to specific words: thus *sarpiṣo jñānam* "test (of saffron) by means of ghee" cannot be compounded as **sarpir-jñānam*.[75] It should be obvious that Pāṇini could not have well formulated these rules II 3 51-64 with reference to Kātyāyana's vārttika that was composed centuries after his time.

If we assume that the first answer offered by Patañjali reflected the common opinion, i.e., that *śeṣa* meant things or relations other than object, etc., we could supply *kārake*: *ṣaṣṭhī śeṣe [kārake]* "The sixth (genitive] suffix is attached if there is a remaining factor." There is nothing to preclude the existence of factors beyond the six categories often singled out. In the *kārake*-section we found "the cause of fear" (*bhaya-hetu* I 4 25), the original (*prakṛti* I 4 30) in relation to a derivative, the undesired (*anīpsitam* I 4 50) and the instigator (*hetu* I 4 55) and perhaps more.[76] In the section where case suffixes are assigned, we found spatial and temporal extension in II 3 5, cause in II 3 23, and debt in II 3 24. Actually, the Candravṛtti does call the person being pleased a *kāraka*, as well as a debt in a construction with causative of the root √*dhṛ*.[77] In the light of that, I would add the "person who is pleased" from Pāṇini's rule I 4 33 *rucy-arthānāṃ prīyamāṇaḥ*

√*jñā* in the special meaning.

74. Mahābhāṣya I 412,21f. *sarvā ṣaṣṭhī pratipada-vidhānā śeṣa-lakṣaṇāṃ varjayitvā* "Every genitive is [called] *pratipada-vidhānā* 'prescribed with reference to specific words,' except [the genitive] indicated as *śeṣa* 'the rest'." The Padamañjarī on Kāśikā II 3 52 (vol.II, p.214,14f.) finds also a distinction in the accentuation between compounds with genitives based on *śeṣa* and those based on *kāraka*.

75. Kaiyaṭa on II 2 8 (vol.II, p.678,12f.) *tatra śeṣa-vivakṣāyāṃ 'ṣaṣṭhī śeṣa' ity anenaîva siddhāyāṃ ṣaṣṭhyāṃ 'jño 'vid-arthasya karaṇa' ity-ādi-prakaraṇam samāsa-nivṛtty-artham evârabdham* "Since in these cases we can justify the genitive by II 3 50 itself, when we intend to convey a *śeṣa* [-relation], the section beginning with II 3 51 has been formulated for prohibiting compounding only."

76. I would exclude *apavarge* in II 3 6 *apavarge tṛtīyā*, since it is a restriction of the preceding sūtra.

77. Candravṛtti on II 1 74 *ruci-yukte kārake caturthī bhavati* and on II 1 75 *dhārayater uttamarṇe kārake caturthī bhavati*.

"one who is pleased with verbs meaning 'pleasing'"[78] and "debt" from I 4 35 *dhārer uttamarṇaḥ* "the creditor with the causative of √*dhṛ*"[79] – both *kāraka*-s are subsumed under *saṃpradāna* (I 4 32). *apādāna*, *saṃpradāna*, *karaṇa*, *adhikaraṇa*, *karman* and *kartṛ* are just six bundles in which a great number of *kāraka*-s are gathered for grammatical convenience. Those outside their number are called up by the term *śeṣe* in II 3 50.

That is expressed by Bhartṛhari in his commentary on the Mahābhāṣya. Patañjali[80] had interpreted the *sapta hastāso* "seven hands" of the allegorical stanza Ṛgveda IV 58,3 as *sapta vibhaktayaḥ* ("seven cases/case-suffixes") which Bhartṛhari in his Mahābhāṣya-dīpikā[81] paraphrased with *sv-ādayaḥ* "*su* (the suffix *-s* of the nominative singular), etc." But there was a problem, as later commentators have pointed out: in Pāṇini's terminology *vibhakti* included also the verbal personal suffixes which would raise the number above seven. Therefore Bhartṛhari offered as an alternative interpretation: *athavā saha śeṣeṇa kārakāṇi sapta vibhaktayo na tu kārakaḥ śeṣo 'py aṣṭamaḥ saṃbhavati* "Or the [seven] *kāraka*-s, including *śeṣa* are [meant as] the seven *vibhakti*-s;[82] but it is not possible to have also a remaining eighth *kāraka*."[83] Kaiyaṭa in his Pradīpa on this passage referred to Bhartṛhari's suggestion: "But some explain that the seven *kāraka*-s, including *śeṣa*, are meant by the word *vibhakti*, because [otherwise] the verbal suffixes would not be included." In this interpretation, Nāgojībhaṭṭa explained, "both nominal and verbal suffixes are included."[84] After all, both nominal and verbal suffixes often ex-

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78. The Kāśikā (vol.I p.550,3) gives the example *Devadattāya rocate modakaḥ* "Devadatta likes a *modaka*-sweet."

79. The Kāśikā (vol.I p. 553,1f.) gives the example *Devadattāya śataṃ dhārayati* "He owes Devadatta one hundred."

80. Mahābhāṣya I 3,19.

81. Mahābhāṣyadīpikā of Bhartṛhari critically edited by J.Bronkhorst, Fascicle IV: Āhnika I, Poona 1987, p.12 line 3f.

82. The Nyāsa and Padamañjarī (vol.II, pp.19f.) on II 1 6 take *vibhakti* in this sūtra as equal to *kāraka*.

83. Mahābhāṣyadīpikā ed. J.Bronkhorst, Fascicle IV: Āhnika I, p.12,4f. and p.58. I have deviated slightly from Bronkhorst's translation which did not account for *vibhaktayo*. Occasionally (e.g., Nidānasūtra III 9 [p.53,19] *āmantritâṣṭamī*) the vocative is called the eighth case; but there is no thought of an eighth *kāraka*.

84. Mahābhāṣya (Rohtak ed.), vol.I, p.17, Pradīpa: *supa ity arthaḥ. kecit tu*

press *kāraka* roles, as P.Filliozat has pointed out. [85]

The same notion is expressed in Bhartṛhari's other work, the Vākyapadīya.

Vākyapadīya III 7,44 (= III 300)

sāmānyaṃ kārakaṃ tasya saptâdyā bheda-yonayaḥ /
ṣaṭ karmâkhyâdi-bhedena śeṣa-bhedas tu saptamī //
"Factor is a class; it has seven main sources of differences: six by the division in 'object' etc., but the remaining (*śeṣa*) difference is the seventh [source]."

On this remaining seventh he says in III 7,156 (= III 412)

sambandhaḥ kārakebhyo 'nyaḥ kriyā-kāraka-pūrvakaḥ /
śrutāyām aśrutāyāṃ vā kriyāyāṃ so 'bhidhīyate //
"A connection that is different from the factors (*kāraka*) but preceded by action and factors – whether the action is expressed or not – will now be addressed."

The commentator Helārāja commented on *kriyā-kāraka-pūrva-kaḥ*: "with that he explains how *śeṣa* 'remainder' is a factor. For thus, even in 'the king's man,' 'the tree branch,' 'the cattle's foot,' 'the father's son' etc., where no [word of any] action is heard, in the connection of owner and owned, part and whole, begotten and begetter, etc., brought forth by the actions of giving, being and begetting, etc., the earlier status of being a factor [of the implied action] is carried on even in the later stage; thus the remainder is indeed a factor." [86]

In Vākyapadīya III 7,130 (= III 386), too, *śeṣa* is included among the *kāraka*-s:

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tiṅām aparigraha-prasaṅgāt saha śeṣeṇa sapta-kārakāṇi vibhakti-śabdâbhidheyânîti vyācakṣate. Uddyota: *śeṣa-ṣaṣṭhy-arthaḥ. tat-sahita-kārakâbhidhāyakatveṇa sup-tiṅor api saṅgraha iti bhāvaḥ.*

85. *Le Mahābhāṣya de Patañjali.* Traduction par Pierre Filliozat, Adhyāya 1 Pāda 1 Āhnika 1-4, Pondichéry 1975, p.54 fn.1.

86. Helārāja on III 7,156 (p.355,2-5): *kriyā-kāraka-pūrvakaḥ: ity anena kārakatvaṃ vyācaṣṭe śeṣasya. tathā hi rājñaḥ puruṣo, vṛkṣasya śākhā, paśoḥ pādaḥ, pituḥ putra ity-ādau aśrūyamāṇa-kriyā-viṣaye svasvāmi-bhāvâvayavâvayavibhāva-janyajanakabhāvâdau sambandhe dadāti-sthiti-janyâdi-kriyā-prabhāvite pūrva-bhā-vi-kārakatvam uttarâvasthāyām apy anugatam iti bhavaty eva śeṣaḥ kārakam..*

hetutve karma-saṃjñāyāṃ śeṣatve vâpi kārakam /
rucy-arthâdiṣu śāstreṇa sampradānâkhyam ucyate /130/
"A *kāraka* that would be [otherwise called] *hetu*, *karman* or *śeṣa* – for
that by the [grammatical] science the term *sampradāna* is taught in the
rules I 4 33ff."

Helārāja explained that *sampradāna* must be ruled in by I 4 35
[32 *sampradānam*] *dhārer uttamarṇaḥ* "The creditor [is called
sampradāna] with the causative of √*dhṛ*" to effect the dative in
Devadattāya śataṃ dhārayati "he owes Devadatta a hundred." For
Devadatta's prior lending of this sum is the cause of the debt – but left
unmentioned it qualifies him as a *kāraka-śeṣa*, threatening an unwant-
ed genitive. That means that, in the opinion of Bhartṛhari and
Helārāja, *śeṣa* could refer to a *kāraka*; occasional unwanted conse-
quences were prevented by special rules.

The factors are thus seen as grouped in seven categories in a way, but
the seventh (*śeṣa*) is also different from the others. A factor under *śeṣa* is
not directly a factor of the action, but caused by a prior action in which it
played the role of a factor. In a sentence *Caitrasya putro gacchati*
"Caitra's son goes" the son is the agent (expressed by the verbal ending
and noun stem); Caitra had to beget him first and is thus indirectly a fac-
tor. In *rājñaḥ puruṣaḥ* "the king's officer" the underlying action is the
king's payment of wages to the officer. The ensuing relation[87] can be of
many kinds: the Kāśikā on I 1 49 lists ownership, contiguity, nearness,
conglomerate, modification, part, etc. as meanings of the genitive.[88]
Kaiyaṭa on I 1 49 *ṣaṣṭhī sthāne-yogā* credited the Ṣaṣṭhī-daṇḍaka[-
pāṭha][89] (an otherwise so far unknown text) as the source for this list.

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87. Helārāja in his commentary on Vākyapadīya III 7,156 gave some further
elaboration how such previous actions result in the special relation comprised by *śeṣa*
"remainder" – which can be of many kinds.

88. Kāśikā on I 1 49 (vol.I, p.169,6) *svasvāmy-anantara-samīpa-samūha-*
vikārâvayavâdyāḥ, briefly referred to in the Kāśikā on II 3 50 (vol.II, p.209,6-211,1);
cf. above p.134 fn. 52 and Helārāja on VP III 7, 156 (above fn.86).

89. Vol.I p.360,17. Nāgojibhaṭṭa remarked in his Uddyota (vol.I, p.361): *Ṣaṣṭhī-*
daṇḍaka-pāṭho grantha-viśeṣaḥ, whereas Annambhaṭṭa in his Mahābhāṣya-
pradīpôddyotana ed. T.Chandrasekharan, Madras 1952 (on the same sūtra, here count-
ed as I 1 48) offered *Ṣaṣṭhī-daṇḍakaḥ grantha-viśeṣaḥ* (vol.II p.198,10).

Some later logicians were worried about this proliferation of genitive meanings. Gadādhara argued in his Vyutpattivāda: "Also, in the cases such as 'This is the cause of the pot' (*ghaṭasya kāraṇam*), and 'This is the hand of Caitra' (*caitrasya hastaḥ*) etc., the ownership, the state of being described and the being the parts (limbs) etc. have the state of being the meanings of the genitive only as being the relations in general, and not as being the ownership etc. in particular. For, otherwise, the contingency of endlessness of expressive powers of the genitive cannot be avoided."[90] He referred[91] also to the teaching of Miśra, that the genitives connected with a primary action noun (as in *Kṛṣṇasya kṛtiḥ* "Kṛṣṇa's creation," *purāṃ bhettā* "breaker of forts") which indicate an agent and object according to II 3 65 *kartṛ-karmaṇoḥ kṛti*, do so only by expressing "relation" in general.

Patañjali argued that the rules I 4 25-29 (adding "the cause of fear", etc. to notions or situations subsumed under *apādāna*)[92] can be dispensed with as unnecessary elaborations of I 4 24 *dhruvam apāye 'pādānam* "What remains fixed when something goes away, is called *apādāna* 'removal'"; for a perceptive person observes: "if the wolves see me, my death is certain," and he turns away from them. If we assume a mental rather than mere physical separation,[93] this and the following rules are unnecessary. In consequence a fifth case suffix (i.e., an ablative suffix) that is used in *vṛkṣāt parṇaṃ patati* "The leaf falls from the tree" can with equal justification be used in *vṛkebhyo bibheti* "He is afraid of wolves." Bhartṛhari not only accepted this suggestion, but extended this mentalist interpretation also to the object (*karman*), since

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90. V.P.Bhatta, *Navya-Nyāya Theory of Verbal Cognition*, Delhi 2001, vol.II, p.241,10-12: *svatva-nirūpitatvâvayatvâdīnām sambandhatvenaîva ṣaṣṭhy-arthatā na tu viśiṣya, śakty-ānantya-prasaṅgāt;* trans. p.743.

91. Vyutpatti-vāda VI 1 *ata eva ca 'kṛd-yogâpi hi ṣaṣṭhī sambandhatvenaîva bodhayati' iti Miśrāḥ* "Therefore Miśra states that the genitive used in association with *kṛt* derivations (as in *Kṛṣṇasya kṛtiḥ*) expresses [the relation of agency] only as a relation in general." I did not find this passage in Maṇḍanamiśra's Bhāvanā-viveka (ed. and trans. V.P.Bhatta, Delhi 1994), though the translator's bibliography would suggest that this text was the source (V.P.Bhatta, *Navya-nyāya Theory of Verbal Cognition*, Delhi 2001).

92. See above p.127.

93. Helārāja on Vākyapadīya III 7,78 (p.294,5) and 147 (p.346,4+8) called it *bauddhâpāya* or *bauddha apāya* "mental going away."

the principle rule I 4 49 *kartur īpsitataṃ karma* could cover the content
of I 4 50 *tathā yuktaṃ cânîpsitam* and I 4 51 *akathitaṃ ca* which are
similar supplemental rules. But he did not apply the same reasoning to
the rules supplementing *saṃpradāna* (I 4 33-39) and *karaṇa* (I 4 44).[94]
Some held that, while the powers (*śakti*) appear to be infinite (*apari-
mitā iva*) due to the shape etc. of objects, there are really only six cate-
gories.[95] Bhartṛhari expressly defended the unity of two of them:
    Vākyapadīya III 7,78

> *yathaîvaîkam apādānaṃ śāstre bhedena darśitam /*
> *tathaîvaîkam eva karmâpi bhedena pratipāditam /78/*
> "Just as the one *apādāna* is shown with differences in scholarship, so al-
> so the one object is propounded differently."

Therefore the *kāraka*-categories are just six (or seven with *śeṣa*
added). The listing of additional applications in subsequent sūtras (e.g.
I 4 25 [24 *apādānam*] *bhī-trârthānāṃ bhaya-hetuḥ*) is only to help the
ignorant and not really necessary:
    Vākyapadīya III 7,147

> *nirdhāraṇe vibhakte yo bhī-trâdīnāṃ ca yo vidhiḥ |*
> *upāttâpekṣitâpāyaḥ so 'budha-pratipattaye /147/*
> "The rule regarding the selection, separation and roots expressing fear,
> protection etc. which mentions or requires a movement of separation
> helps only the ignorant (and is hence redundant)."

Bhartṛhari recognized different aspects of *karman*, *apādāna* and
adhikaraṇa, following suggestions in the Mahābhāṣya. Patañjali[96] had
pondered the contrasting sentences *taṇḍulān odanaṃ pacati* "he cooks
the rice grains into cooked rice," (i.e., "by cooking the rice grains he
produces cooked rice") and *taṇḍulānāṃ odanaṃ pacati* "out of the
rice grains he cooks cooked rice" (i.e., "he produces cooked rice
which is a transformation of rice grains").

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94. Rules I 4 38 and 43 as well as the rules following the definition of
adhikaraṇa are exceptions and are hence not considered here.
    95. Vākyapadīya III 7,35f.
    96. Mahābhāṣya I 332,16-19.

Bhartṛhari in Vākyapadīya III 7,45 summed it up systematically:

nirvartyaṃ ca vikāryaṃ ca prāpyaṃ cêti tridhā matam /
tatrêpsitatamaṃ karma caturdhânyat tu kalpitam /45/
"Of these [*kāraka*-s], the object called 'that which is most desired to be attained' is of three kinds: product, modification, destination;[97] the rest has been thought of as of four kinds."[98]

Still, object is only one according to Vākyapadīya III 7 79:

nirvartyo vā vikāryo vā prāpyo vā sādhanâśrayaḥ /
kriyāṇām eva sādhyatvāt siddha-rūpo 'bhidhīyate /79/
"Whether the object be something to be made or something to be modified or something to be reached, it is the substratum of power and is presented as an accomplished thing, because it is only actions which are to be accomplished."

Similarly, *apādāna*, though one, appears in three varieties according to Vākyapadīya III 7,136:

nirdiṣṭa-viṣayaṃ kiṃ cid upātta-viṣayaṃ tathā /
apekṣita-kriyaṃ cêti tridhâpādānam ucyate /136/
"Removal is of three kinds: that in relation to which a movement is mentioned, that in relation to which the verb expresses the movement only partly, and that in relation to which some movement is required."[99]

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97. Helārāja on III 7,79 (p.296,3) gave examples for each of them: *kaṭaṃ karoti* "he makes a mat," *taṇḍulān odanaṃ pacati* "he cooks the rice grains into cooked rice," and *sūryaṃ paśyati* "he sees the sun" (which is not affected by that act at all).

98. These four are, following Patañjali, an item which is indifferent, disliked, not defined by any other *kāraka*, and *ad hoc* rules for individual words; cf. Vākyapadīya III 7,46.

99. Similar, with some further elaboration, is the short presentation in the Sārasvata-vyākaraṇa (ed. Vāsudevaśarman, 6th ed., Mumbai 1937): *karman* is fourfold (p.83 stanza 73 with commentary on nr.413): *utpādya, āpya, saṃskārya, vikārya*; *sampradāna* is threefold (p.85 stanzas 77f. with commentary on nr.422): *preraka, anirākartṛ, anumantṛ*; *adhikaraṇa* is sixfold (p.86; stanzas 82f. and commentary on nr.426: *aupaśleṣika* [which in turn is threefold], *sāmīpyaka, abhivyāpaka, vaiṣayika, naimittika, aupacārika*).

Helārāja's examples are taken from the Mahābhāṣya: *grāmād āgacchati*[100] "he comes from the village," *valāhakād vidyotate*[101] "[lightning] flashes from the cloud," and *māthurāḥ pāṭaliputrakebhya āḍhyatarāḥ* "the inhabitants of Mathurā are richer than those of Pāṭaliputra."[102]

If *kāraka* denotes "a factor that brings about the action," the agent and the instrument are obvious examples of such a role; the pot in "He makes a pot" is by comparison a very passive participant and the sun in "He sees the sun" is hardly affected by the action at all. That goes also for location as, e.g., the pot in "He cooks rice in a pot." But Indian grammarians have found examples where these items can be expressed as agents of their own (subsidiary) action: "The rice cooks itself," "The firewood cooks the rice," or "The pot cooks the rice easily." It is, however, extremely difficult to express *apādāna* or *saṃpradāna* as agents, as already Kātyāyana noticed.[103] But the difficulty can be met if we grant that all action factors are both independent and dependent; what makes the difference is the emphasis.[104] Patañjali[105] appears to have had a slightly different approach. He suggested that one might say *balāhako vidyotate* "The cloud sends out lightning" instead of *balāhakād vidyotate* "[Lightning] flashes from the cloud." But he apparently found no way how the Brahmin in *brāhmaṇāya gāṃ dadāti* "He gives a cow to the Brahmin" could be expressed as an agent, even if the Brahmin participates in the transaction by accepting (and perhaps requesting) the donation. Helārāja in his commentary on Vākyapadīya III 7,21 pointed out that one cannot say *brāhmaṇo dadāti* if one wanted to express that

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100. Mahābhāṣya I 326,19.
101. Mahābhāṣya I 325,19f.
102. Mahābhāṣya I 327,1 somewhat differently *sāṃkāśyakebhyaḥ pāṭaliputrakā abhirūpatarāḥ* "the inhabitants of Pāṭaliputra are more handsome than those of Sāṃkāśya."
103. Vārttika 14 on I 4 23 (Mahābhāṣya I p.325,13) *apādānâdīnāṃ tv aprasid-dhiḥ* "But [the agenthood] of *apādāna*, etc. is not known [to exist]."
104. Vārttika 15 on I 4 23 (Mahābhāṣya I 325,16) *na vā svatantra-paratantratvāt tayoḥ paryāyeṇa vacanaṃ vacanâśrayā ca saṃjñā* "Or rather [this difficulty does] not [arise], because of independence and dependence. These two can be expressed by turns and the designation will depend on [how they are] expressed." Cf. the discussion by Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Kārakāhnika* on I 4 23 (pp.35-37).
105. Mahābhāṣya I 325,19f.

the Brahmin receives the gift. "Therefore that root cannot function in the activity of *apādāna* or *sampradāna*."[106] And yet all these usages are accepted as *kāraka*-s; after all, Pāṇini's formulations implied that they are. Indeed, the Brahmin is the agent of receiving the cow, the tree (in *vṛkṣāt parṇam patati* "A leaf falls from the tree") is the agent of sepa- rating – activities that contribute to the giving of the cow and the falling of the leaf.[107] In the case of most genitives, the link to the main action is more tenuous; it involves a previous action and agent. In *Caitrasyôdanaṃ pacati* "He cooks Caitra's rice" Caitra had first to give the rice to the cook, and an expression like *rājñaḥ puruṣaḥ* "the king's man" implies that the king had previously engaged the servant by giv- ing him a salary. By reference to such previous activity (*sambandhaḥ …kriyā-kāraka-pūrvakaḥ*) Bhartṛhari was justified calling *śeṣa*, the class that accounts for most genitive forms, a *kāraka* of sorts.[108]

Candragomin was an important link between Patañjali and Bhartṛhari who referred to Candragomin respectfully in Vākyapadīya II 486. Candragomin who strenuously avoided technical terms in his grammar (which was called therefore *asaṃjñakaṃ vyākaraṇam* "grammar without terms") used the word *kāraka* in Chāndra II 2 16 *kārakaṃ bahulam*), which suggests that he did not regard it as a tech- nical term but a word of common discourse. The Candravṛtti (proba- bly by his disciple Dharmadāsa) used the word regularly in the assign- ment of case suffixes, e.g. on Chāndra II 1 62 *kartari kārake tṛtīyā vibhaktir bhavati* "when the agent is a factor, the third case ending comes into being"), and similarly in his commentary on Chāndra II 1

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106. Vākyapadīya ed. K.A.S.Iyer, vol.III part 1 p.249,2-4. *brāhmaṇo dadâtîti tu prayogâbhāvaḥ, sampradānatve brāhmaṇasyâsmād vivakṣitârthânavasāyāt. ata evâpādāna-sampradāna-vyāpāre dhātor na vṛttiḥ, api tu karma-karaṇâdi-vyāpāra eva.*

107. But Kātyāyana suggested in his vārttika 2 on I 4 23 that the village in *grā- masya samīpād āgacchati* "he comes from the vicinity of the village" is not a *kāraka*: Mahābhāṣya I 323,10.

108. Vākyapadīya III 7,156 *sambandhaḥ kārakebhyo 'nyaḥ kriyā-kāraka-pūrvakaḥ / śrutāyām aśrutāyāṃ vā kriyāyāṃ so 'bhidhīyate //*

"A relation that is different from the action factors but preceded by action and action factors – whether this action is expressed or not – shall now be discussed."

Under any angle, Rama Nath Sharma's statement (*The Aṣṭādhyāyī*, vol.I p.163) "The genitive, for example, is not a *kāraka* in Sanskrit" is rather unfortunate.

63, II 1 64, II 1 74f. and II 1 87. The formulations clearly indicate that the author had a multitude of such *kāraka*-s in mind.

Kaiyaṭa on I 4 23[109] spoke of the desire to limit the range of the term *kāraka* to the "sixfold *kāraka*" in a clear reference to Vākyapadīya III 7,44. Unambiguous references to "the six *kāraka*-s" are rather late. The oldest reference I found is a stanza in the Sārasvata-vyākaraṇa:[110]

> *kartā karma ca karaṇaṃ sampradānaṃ tathaîva ca /*
> *apādānâdhikaraṇam ity āhuḥ kārakāṇi ṣaṭ //*

that is quoted in Nāgojībhaṭṭa's Paramalaghumañjūṣā.[111]

Among modern scholars, S.D.Joshi and J.A.F.Roodbergen[112] have said: "Pāṇini has not defined the term *kāraka*. Still, he has delimited the domain of the designation by restricting its application to six varieties which are enumerated," and G.Cardona declared: "There are six such kārakas,"[113] Rama Nath Sharma: "the six *kāraka*"[114] and Charudeva Sastri: "There are six *Kārakas*."[115]

If Pāṇini's scheme appears so clear and evident, we need to explain why Patañjali's interpretation diverges so much from what we assume to be Pāṇini's intent. Patañjali is obviously a superb grammarian and interpreter of Pāṇini's rules who must have had his reasons if he followed an idiosyncratic interpretation.

We shall now go through the rules, step by step, beginning with I

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109. On I 4 23 (Rohtak ed., vol.II p.376,13f.): *ṣaḍ-vidhasyaîva cêṣyate.*

110. Sārasvatavyākaraṇam ed. Vāsudevaśarman, p.81 stanza 65 (= stanza 88 p.90).

111. Paramalaghumañjūṣā of Śri Nāgeśa Bhaṭṭa ed. Kālikāprasād Shukla, Baroda 1961, p.164. Jagadiśabhaṭṭācārya's Śabdaśakti-prakāśikā ed. Dhundhīraj S'astri, Benares 1934 has on p.295 a quoted stanza:
  kriyā-prakārībhūto 'rthaḥ kārakaṃ tac ca ṣaḍ-vidham /
  kartṛ-karmâdi-bhedena śeṣaḥ sambandha iṣyate //
and on p.297 stanza nr.68:
  apādāna-sampradāna-karaṇâdhāra-karmaṇām /
  kartuś ca bhedataḥ ṣoḍhā kārakaṃ parikīrtitam /68/

112. Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Kārakāhnika* p.iii.

113. G.Cardona, *Pāṇini. A Survey of Research*, The Hague 1976, p.215.

114. Rama Nath Sharma, *The Aṣṭādhyāyī of Pāṇini*, Delhi 1987/1990, vol.I, p.141 and vol.II, p.234.

115. Charu Deva Shastri*, Pāṇini: Re-interpreted*, Delhi 1990, p.2.

4 23 *kārake*. The obvious interpretation is *kārake sati* "when it is a factor" – comparable to II 3 1 *anabhihite* "when it is not [already] expressed [otherwise]." Patañjali, at the end of his discussion, shortly considered such an interpretation, assuming that the expression is equivalent to *kriyāyām* "in connection with an action"; he rejected the suggestion of a partitive locative, because we would then expect a plural *kārakeṣu* "among the factors."[116] But through most of his discussion he followed Kātyāyana who from the outset accepted *kārake* as a definition rule with *kāraka* as a technical term (*saṃjñā*), and he argued: "But this is the section dealing with technical designations. This being so, what else can we understand than such a designation?"[117] Kātyāyana's main concern had been the lack of any indication to what the term *kāraka* should apply (vārttika 1),[118] but he felt that at least some of these difficulties could be overcome (vārttika 5).[119] The consequence of his interpretation is, that only the items listed in I 4 24-55 would be called *kāraka*-s. No compelling motive for his position is noticeable, but Kaiyaṭa supplied a motive, albeit a weak one.[120] Its fa-

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116. Mahābhāṣya I 326,16f. *athavā yāvad brūyāt kriyāyām iti tāvat kāraka iti. evaṃ ca kṛtvā nirdeśa upapanno bhavati kāraka iti. itarathā hi kārakeṣv iti brūyāt.* Kaiyaṭa, in his comment on this passage (vol.II, p.386,12f.), called such a partitive locative a *nirdhāraṇa-saptamī*. The Nyāsa (vol.I, p.531) explained the singular (instead of the expected plural) either as a reference to a class (*sāmānyâpekṣayā*) or by relying on the familiar maxim that "the sūtras are like the Veda," i.e., they do not always follow the rules (cf. above p.124 fn.7).

117. Mahābhāṣya I 323,6 *saṃjñâdhikāraś câyaṃ tatra kim anyac chakyaṃ vijñātum anyad ataḥ saṃjñāyāḥ.* Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Kārakāhnika* p.13, though, assumed that Patañjali here considered *kārake* as a qualification (*viśeṣaṇa*).

118. The term *kāraka* might therefore be wrongly extended to items that are not factors.

119. The wrong extension does not materialize, because the speaker has no intention to express these items as factors.

120. Kaiyaṭa (vol.II, p.376,12-14) wanted to limit the range of *kāraka* to the six abstract terms taught in the rules I 4 23-55 rather than have a general expression "factor" with wide application: *ṣaḍ-vidhasyaîva iṣyate. tad-vyatiriktaṃ ca kārakam asti yathā naṭasya śṛṇotîti praśnaḥ* "But [the term *kāraka*] is only desired in connection with the six varieties. And [even] apart from these [something] might be *kāraka*, e.g., *naṭasya śṛṇoti* 'He listens to the actor.' That is why the question [is raised]." Kaiyaṭa wanted to deny the term *kāraka* to the genitive in phrases like *naṭasya śṛṇoti* (a *śeṣa-ṣaṣṭhī* by II 3 50) so as to prevent a possible compound *naṭa-śrutam* "listening to an actor" by VI 2 139 and 148 (which are conditioned by a reference to *kāraka* in both

tal flaw is that it would require a nominative *kārakam* or *kārakāni*. Kaiyaṭa attempted to justify the locative by saying that the Aṣṭādhyāyī as a Vedāṅga text could follow the usage of Vedic texts, where sometimes case-endings are substituted for other case-endings;[121] but there is no specific rule or fact adduced that would offer a parallel.

The rule I 4 49 which defined "object" as "the item the agent desires most" is followed by several rules that extend the term "object." In I 4 50 the term is extended to items that are not desired but are linked with the action in the same way, as in *viṣaṃ bhakṣayati* "he eats poison" (though a suicidal person may actually desire to eat poison). Patañjali then offered a second example: *grāmaṃ gacchan vṛkṣa-mūlāny upasarpati* "while going to the village, he comes upon the roots of a tree," where the village is the desired item and the tree roots an indifferent ("undesired") circumstance. But the sentence is ambiguous, since the speaker might indeed be more concerned with the tree roots than with the village; the whole matter is not really a linguistic problem, but rather involves a subjective evaluation. I 4 51 *akathitaṃ ca* deals, by common consensus, with double accusatives as in *gāṃ dogdhi payaḥ* "he milks milk from the cow" or *Pauravaṃ gāṃ yācate* "he asks Paurava for a cow." While the milk is the item most desired in the first sentence and the cow in the second, the speaker does not desire to assign a special role to the cow in the first sentence and to Paurava in the second – hence they are termed "object" (*karman*). But Patañjali in his interpretation had included "indifference" already under *anīpsitam* in I 4 50 and had to find another role for *akathitam*, and he offered, following an older stanza, two possibilities:

1) *akathitam* prescribes the designation "object" for items to which no special designation has been assigned in the *kāraka*-section.[122] Paurava in the quoted sentence "cannot function as the fixed

point from which something moves away, because the mere act of begging does not involve any separation. Consequently, the word *paurava* does not receive the designation *apādāna*. Since Paurava cannot function as any other *kāraka* either, P. 1.4.51 becomes applicable, and it assigns the designation *karman* to *paurava*."[123] This interpretation fails, however, to account for the accusative *gām* in *gāṃ dogdhi payaḥ*, for the milk does flow from the cow; we can even say correctly: *gor dogdhi payaḥ*. Therefore Patañjali offered another possibility:

2) *akathita* "untold" means *apradhāna* "non-prominent."[124] The interest is centered on the milk, and the cow is merely a means to an end. Both interpretations run into difficulties, as the commentators have pointed out. All examples for possibility 1) are covered by concepts like *apādāna*, if they are taken in a wider sense, and under 2) "a non-prominent object," when object is defined as "most desired by the agent" (*kartur īpsitataṃ karma*), is a *contradictio in adjecto*. It is preferable to assume with Kaiyaṭa and Bhaṭṭoji Dīkṣita that *akathita* here is synonymous with *avivakṣita* "not desired to be expressed," meaning that the speaker did not care to indicate the special role the item played in the action described in the sentence.

When it comes to II 3 50 *ṣaṣṭhī śeṣe*, Patañjali was in a quandary to explain *śeṣe* "for the rest," because factors not defined in the *kāraka*-section should be covered by I 4 51 *akathitaṃ ca* at least under the first interpretation offered by him; and what are the other factors anyway? Nor can *śeṣa* here denote *apradhāna* "non-prominent, subservient", because all factors are subservient to the action and because Patañjali had claimed this meaning for *akathita* in I 4 51 in his alternate interpretation. Patañjali finally decided that *śeṣa* denotes "the absence of the desire, on the speaker's part, to express the *karman*, etc."[125] – which in the view of Kaiyaṭa and Bhaṭṭoji Dīkṣita (and P.Thieme) is really the mean-

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told/covered by what? By special names like *apādāna*, etc."

123. Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Kārakāhnika*, p.174.

124. Mahābhāṣya I 323,18-20 *asty aprādhānye vartate. tadyathā: akathito 'sau grāme akathito 'sau nagara ity ucyate yo yatrâpradhāno bhavati* "Sometimes [*akathita*] is used in the sense of non-prominence. For instance, in a place where someone is not important it is said of him: 'This [person] is not spoken of in the village, in the city.' " Cf. above pp.130f.

125. Mahābhāṣya I 463,13 *evaṃ tarhi karmâdīnām avivakṣā śeṣaḥ.*

ing of I 4 51 *akathitaṃ ca*. Such a meaning as proposed by Patañjali certainly can not easily be accepted for *śeṣe*, which means literally "for the remainder/remaining." Patañjali then compounded the problems by dittoing *śeṣe* in the following sūtras,[126] where the genitive suffix is assigned to denote several *kāraka* functions, as was pointed out above (pages 134f.). The Kāśikā comments on II 3 52:[127] "If [the speaker] wants to express the factor "object" in connection with these [verbs] as a general relation, the sixth case ending [is used]."[128] Similar statements are given in the comments on the following sūtras, i.e., these genitives (and those based on II 3 50) do refer to "factors" (*kāraka*-s), but as *śeṣa*-s (i.e., not really referring to them as *karman*, *karaṇa*, etc., but as general relations), seen as an option against the common use of the accusative to refer to an object, the instrumental to refer to an instrument. If Patañjali's interpretation is accepted, the rules II 3 51-64 become redundant, because the accusative endings for the object, as well as the instrumental endings for the instrument can be obtained by the basic rules II 3 2 *karmaṇi dvitīyā* and II 3 18 *kartṛ-karaṇayos tṛtīyā*, while the alternative genitive suffix is obtained by II 3 50 *ṣaṣṭhī śeṣe*. Patañjali defended the value of II 3 51-64 by making a distinction between a genitive characterized by a *śeṣa* relation (*śeṣa-lakṣaṇā ṣaṣṭhī*, i.e., according to II 3 50) and a genitive prescribed with reference to particular words (*pratipada-vidhānā ṣaṣṭhī*);[129] the former may form a compound according to II 2 8 *ṣaṣṭhī* (e.g., *rājñaḥ puruṣaḥ* or *rāja-puruṣaḥ*), the latter not (e.g., only *sarpiṣo jñānam* "test [of saffron] by means of ghee"), according to vārttika 1 on II 2 10: *pratipada-vidhānā ca*.[130] The rules II 3 51-64 can-

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126. While Patañjali was not specific on the extent of the dittoing (he dittoed *śeṣe* in II 3 52: Mahābhāṣya I 465,15 and in II 3 67: Mahābhāṣya I 468,18), the Kāśikā (vol.II, p.213,5; 223,3) extended it to II 3 57 and then leapfrogged it to II 3 64. The Siddhāntakaumudī nrs. 895-902 and then nr. 906 supplied *śeṣe* in its paraphrase of these corresponding rules.

127. Pāṇini II 3 52 *adhīg-artha-dayêśām karmaṇi* "With verbs in the meaning of *adhi*+√*i*, √*day* and √*iś* the genitive suffix denotes the object."

128. Kāśikā on II 3 52 (II p.214,1f.) *eteṣām karmaṇi kārake śeṣatvena vivakṣite ṣaṣṭhī vibhaktir bhavati*.

129. Mahābhāṣya I 412,21-23 (on II 2 8); elaborated by Kaiyaṭa (vol.II p.678,13) …*ity-ādi-prakaraṇaṃ samāsa-nivṛtty-artham evârabdham* "[the section II 3 51ff.] has been formulated for prohibiting compounding only." Cf. also Vākyapadīya III 7,159f. and Nyāsa and Padamañjarī (vol.II, p.110) on II 2 10.

130. II 2 10 *na nirdhāraṇe* "A word in the sixth case is not compounded, if the

not therefore be considered redundant – they are needed to prevent certain compounds.[131] Later Pāṇinīyas such as Haradatta contrasted a *śeṣa-ṣaṣṭhī* and a *kāraka-ṣaṣṭhī*,[132] i.e., a genitive denoting either a general connection or a factor of the action; it cannot be both.[133]

It is not always easy to disentangle the positions of Kātyāyana from those of Patañjali. But in this instance there are clear distinctions. In his vārttikas on II 3 50 Kātyāyana voiced none of the concerns about *vivakṣā*, nor did he suggest that *śeṣe* should be continued in the following sūtras.[134] Following sūtra II 3 8 *ṣaṣṭhī* "A genitive [can be compounded with its related noun]" Kātyāyana his vārttika 1 on II 2 10 barred individually ruled in genitives from composition yet allowed them (in his vārttika 1 on II 2 8) for genitives expressing object or agent when they are dependent on a primary noun suffix (*kṛt*).

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genitive case conveys the sense of 'singling out'" to which vārttika 1 adds *pratipada-vidhānā ca* "Also if [the genitive] has been prescribed with reference to specific words." Patañjali elaborated: *pratipada-vidhānā ṣaṣṭhī na samasyata iti vaktavyam: sarpiṣo jñānam, madhuno jñānam* "A statement should be made to the effect that also a [word ending in the] genitive, [if the genitive has been prescribed] with reference to specific words, is not to be compounded: 'test [of saffron] by means of ghee/honey'" (Mahābhāṣya I 413,15f.).

131. We may be offended by the notion that Pāṇini could defer in his formulations to a vārttika of Kātyāyana's that was composed centuries later, but a modern anecdote actually suggests that Pāṇini intentionally left out statements knowing that his follower Patañjali would supply them later (quoted from P.Thieme, *Pāṇini and the Veda*, Allahabad 1935, p.99 fn.1).

132. Padamañjarī on II 3 52 (vol.II, p.214,19); note already Vākyapadīya III 7,160 *śeṣa-lakṣaṇayā ṣaṣṭhyā* and III 8,44 *kāraka-yogāyā[ḥ]…ṣaṣṭhyāḥ*. Cf. also Nyāyakośa ed. Bhīmācārya Jhalakīkar, Poona 1978, pp.898f.

133. Joshi/Roodbergen, *The Aṣṭādhyāyī*, vol.VII, p.88 (on II 3 50): "The point, however, is that wherever there is a *kāraka*, there cannot be *śeṣa*, and reversely." Cf. Nāgojībhaṭṭa's Paramalaghumañjūṣā p.190,1f. *kāraka-prātipadikārtha-vyatiriktaḥ sva-svāmi-bhāvâdiḥ sambandhaḥ ṣaṣṭhyā vācyaḥ.*

134. Vārttika 2 on II 3 67 (Mahābhāṣya I 468,17) *śeṣa-vijñānāt siddham* "We can manage on account of the assumption of *śeṣa* 'the rest'" (at least in the interpretation given by Patañjali) might suggest otherwise. However, this statement may not in fact be a *vārttika*, but is likely a statement of Patañjali's, as Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Prātipadikārthaśeṣāhnika*, p.140 fn.452 have pointed out. On the contrary, Kātyāyana's *vārttika* 1 on II 3 52 (Mahābhāṣya I 465,2) suggests that according to him "the word *śeṣa* was not continued beyond P. 2.3.50" and his *vārttika* on II 3 67 Mahābhāṣya I 468,14) suggests that "the doctrine of *śeṣatvavivakṣā* which would make this rule redundant must have been unknown to him" (Joshi/Roodbergen, *Vyākaraṇa-Mahābhāṣya, Prātipadikārthaśeṣāhnika*, pp. 99 and 145).

Thus *sarpiṣo jānīte* or rather *sarpiṣo jñānam* could not be joined in a
tatpuruṣa compound by II 2 8, because constructions like this are indi-
vidually ruled in to express "instrument" (*karaṇa*) and are thus not eli-
gible for the genitive by II 3 65 (for words denoting object or agent)
which could be compounded. Kātyāyana's position is
unimpeachable,[135] but Patañjali's caused problems, when he interpret-
ed *śeṣe* as "lack of the desire to express object, etc." and continued
this term into the following sūtra so as to justify the alternate expres-
sions: *mataraṃ smarati* (with the mother marked as object) and *matur
smarati* (leaving this notion unexpressed).

Patañjali had suggested to cut the additional rules that added to
the definition of *apādāna* in I 4 24 *dhruvam apāye 'pādānam* by as-
suming a mental separation besides a mere physical separation (above
p.127). The recent author Bhavānanda Siddhāntavāgīśa (of the Bengal
school of Navya Nyāya at Navadvīpa)[136] in his Kārakacakra denied
that the ablative in *vyāghrād bibheti* "He is afraid of the tiger" and
śatroḥ paritrāyate "He protects from the enemy" are examples of
apādāna at all. Rather they are expressions of the *bhaya-hetuḥ* men-
tioned in I 4 25 *bhī-trârthānāṃ bhaya-hetuḥ*.[137] Similarly, he denied
that the datives in *Nāradāya rocate kalahaḥ* "Strife is pleasing to
Nārada" and *vaiśyāya śataṃ dhārayati* "He owes Devadatta a hun-
dred" are examples of *sampradāna*; he considered them instead ruled
in by I 4 33 *rucy-arthānāṃ prīyamāṇaḥ* and I 4 35 *dhārer uttamarṇaḥ*
as datives denoting a general "connection" (*sambandha*).[138] This inter-
pretation does not work in the context of Pāṇini's Aṣṭādhyāyī, because
Pāṇini has given these rules in the *kārake* section I 4 23-55 (where
there is no mention of ablatives or datives) and not in the *anabhihite*
section where the case endings are ruled in. But Bhavānanda
Siddhāntavāgīśa's interpretation makes sense, if he based his asser-
tions on a work like the Siddhāntakaumudī. Here the definition of

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135. Joshi/Roodbergen, *The Aṣṭādhyāyī* vol.VII, p.95 (on II 3 52), seem to imply
that already Kātyāyana thought along the same lines as Patañjali. That is not warranted.
136. He was the teacher of Jagadīśa Tarkālaṃkara, the author of the Śabda-śakti-
prakāśikā (*nivedanam* of the editor of the Kāraka-cakra); both may have lived in the
16th century.
137. Kāraka-cakra ed. Bhaṭṭācāryya, Kalakatta 1937, section 89 (p.150,12-15).
138. Kāraka-cakra, section 81 (pp.135,18-136,1).

apādāna in nr. 856 is followed immediately by the assignment of the ablative ending for *apādāna* in nr. 857 and the rule *bhī-trârthānāṃ bhaya-hetuḥ* as nr. 859, interrupted only by a vārttika supplementing the definition of *apādāna*. Similarly the definition of *sampradāna* in nr. 827 is followed by the assignment of the dative ending in nr. 828 and the rules I 4 33 *rucy-arthānāṃ prīyamāṇaḥ* as nr. 831 and I 4 35 *dhārer uttamarṇaḥ* as nr. 833. The rules of the Siddhāntakaumudī (i.e., rules 859, 831 and 833) appear thus as ad hoc adjustments of cases for the modern reader who does not put them into the context of Pāṇini's grammar.

The so-called "Great Option"

Nouns derived from other, more basic nouns by means of suffixes are a prominent feature of Sanskrit. It was inherited from the Indo-European mother tongue and is shared by the other Indo-European languages. These suffixes, called *taddhita* in Sanskrit and *secondary noun suffixes* in English have been studied by several scholars over the last few decades. I list here only A.Debrunner's monumental volume II,2 in J.Wackernagel's *Altindische Grammatik*, A.Wezler's *Bestimmung und Angabe der Funktion von Sekundär-Suffixen durch Pāṇini*, my own article *Secondary Noun Formation in Pāṇini's Grammar – What was the Great Option?*, Saroja Bhate's *Pāṇini's Taddhita Rules*, Rangarajan's *Word Formation in Sanskrit*, and S.D.Joshi's and J.A.F.Roodbergen's incidental remarks in their (incomplete) translations of the Mahābhāṣya and Pāṇini's Aṣṭādhyāyī (though their work has not yet reached the sections of these works dealing primarily with the *taddhita* suffixes). There has been remarkably little reference to the work of the earlier scholars by those that followed. Joshi and Roodbergen changed their views on some crucial topics in the course of their work, and my own views have evolved since my earlier paper. I believe that a new effort is called for. A.Wezler's book gives a good description and analysis of traditional doctrine from Patañjali to the later commentaries. Part of his account, though, has been mooted by P.Kiparsky's discovery that the three words for option (*vā*, *vibhāṣā*, *anyatarasyām*) are not equivalent.[1] Traditional interpretations, too, have been confused by a mistaken view that saw no difference between these three words. It will be best to present first what I consider Pāṇini's procedure, before I discuss the various interpretations offered.

Sanskrit had three ways to express a composite notion such as "king's officer": 1) an analytical noun phrase, 2) a nominal compound, or 3) a secondary noun. Besides *rājñaḥ puruṣaḥ*, there could be *rāja-puruṣaḥ*, and *rājakīyaḥ* "king's officer"; besides *Gargasyâpatyam*, there would be *Gargâpatyam* and *Gārgyaḥ* "offspring of Garga." In the build-up of the language forms, beginning with roots and suffixes, the analyti-

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1. Paul Kiparsky, *Pāṇini as a Variationist*, Cambridge/Mass. and Poona 1979.

cal noun phrase is reached first. Case endings express the nature of the
relation between the nouns, such as the genitive suffix *-as/aḥ* of *rājñaḥ*
in *rājñaḥ puruṣaḥ* "king's officer." But when a unified (*ekārthībhāva*)
or integral meaning (*samartha*) shall be expressed, a nominal compound
is formed: *rāja-puruṣaḥ*. Pāṇini achieved that with the rule II 1 1 *sa-
marthaḥ pada-vidhiḥ*. More commonly yet, a so-called taddhita-suffix is
attached to the first of these integrated nouns, replacing the second noun
while expressing its meaning in a more general or abstract way: *rāja-
kīyaḥ*. That is achieved by rule IV 1 82 *samarthānāṃ prathamād vā*.
Compounds and taddhita-suffixes are secondary in grammatical theory
to the analytical expression according to Patañjali.[2] That hierarchy is in-
deed what we observe in the Vedic literature: noun phrases were com-
mon, compounds uncomplicated and of moderate frequency; composite
notions were most commonly expressed by the attachment of taddhita-
suffixes to the first element. Only in later literature the compounds grew
larger, more complicated and became more frequent.[3]

   Now I shall describe the three stages in greater detail. The forma-
tion of noun phrases (and sentences) is dealt with at great length in the
sections concerned with *kāraka*-s (I 4 23-55) and case endings (II 3).
Sections II 1+2 in Pāṇini's grammar deal with nominal composition;
though these two sections precede the section on case endings, com-
pounds are formed from complete words (II 1 4 [2 *sub*] *saha supā*
"[An inflected noun] with an inflected noun"). The first sūtra leading
up to the treatment of compounds has given rise to lengthy controver-
sies: II 1 1 *samarthaḥ pada-vidhiḥ*. The word *samartha* can have sev-
eral meanings: "having the same meaning, synonymous; capable; hav-
ing an integrated meaning."[4] In Pāṇini's rules I 3 42; II 3 57; III 3
152; VIII 1 65 it clearly means "synonymous."[5] That is the meaning

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   2. Mahābhāṣya II 431,7f. *vigraha-pūrvikā taddhitôtpattiḥ* and II 431,18 *vi-
graha-pūrvikā samāsa-vṛttiḥ*.
   3. H.Scharfe, in *Themes and Tasks in Old and Middle Indo-Aryan Linguistics*,
ed. B.Tikkanen, H.Hettrich, pp.224-232. There is no integrated meaning in these long
compounds.
   4. Cf. P.Thieme, *Göttingische Gelehrte Anzeigen* 212 (1958), p.27 (*Kl.Schr.* p.735).
   5. E.g., I 3 42 *prôpābhyāṃ samarthābhyām* "After [the preverbs] *pra* and *upa*,
when they are synonymous," i.e., the meanings of these two preverbs overlap, when
they indicate the onset of an action.

that Joshi/Roodbergen have accepted in their latest publications regarding II 1 1: the compounds have the same meaning as the uncompounded noun phrases. In their earlier translations of sections of the Mahābhāṣya they had rendered it with "semantically/syntactically connected."[6] Kātyāyana opened his discussion of rule II 1 1 with his vārttika 1 *pṛthag-arthānām ekārthībhāvaḥ samartha-vacanam* "The expression *samartha* means the integration of the meaning of [words having] separate meanings." In the second vārttika he rejected the unspoken concern that the optionality of compound vs. noun phrase should be indicated by adding *vā* "or": *vā-vacanânarthakyaṃ ca svabhāva-siddhatvāt* "And it serves no purpose to teach '*vā*' [in the sūtra], because [the choice of one or the other formation] results by its own nature." [7] He meant to say: when there is an integrated or unified meaning, a compound is formed, and when there is not, the open syntagma is retained. Then Kātyāyana quoted the opinion of "some" who held that *sāmarthya* meant mutual reference: *paraspara-vyapekṣāṃ sāmarthyam eke*.[8] The position of these grammarians is an early hint of the subsequent development of long, sentence-like compounds that lack the notion of an integrated meaning. The pros and cons of their concept (i.e., integration versus mutual reference) are discussed in the vārttikas 5 to 8.

These thoughts are reflected in the statements by Bhartṛhari,[9] Helārāja and Kaiyaṭa.

In the Vākyapadīya III 14,45cd we read

ekârthī-bhāva evâtaḥ samāsâkhyâ vidhīyate /
"A nominal compound is defined as [words] having an integrated meaning"

6. See pp.171f. below.

7. P.S.Subrahmaniam, *Lectures on Patañjali's Mahābhāṣya*, vol.V, p.192 and A.Wezler, *Bestimmung und Angabe der Funktion von Sekundär-Suffixen durch Pāṇini*, Wiesbaden 1975, pp.7 and 37 have assumed that Kātyāyana's *vā* "or" in vārttika 2 on II 1 1 referred to *vibhāṣā* "or" in II 1 11/12. I see no justification or ancient source for such an assumption. There is also no need to assume with S.Bhate, *Pāṇini's Taddhita Rules*, p.8 fn.17 that Pāṇini's rule II 1 1 originally contained a *vā*. Kātyāyana only argued against a hypothetical use of *vā*.

8. Vārttika 4 on II 1 1 (Mahābhāṣya I 365,9).

9. On Bhartṛhari's views see Mithilesh Chaturvedi, *Vṛttisamuddeśa of Bhartṛhari's Vākyapadīya. A study*, Delhi 2001, pp.21-37.

and in III 14,46

vyavasthita-vibhāṣā ca samānye kaiś cid iṣyate /
tathā vākyaṃ vyapekṣāyāṃ samāso 'nyatra śiṣyate //
"Some postulate in a common context an option depending on circumstance.[10] Thus a sentence expresses mutual relation; elsewhere a compound is desired"

and finally in III 14,50cd

śabdântaratvād atyanta-bhedo vākya-samāsayoḥ //
"Because the words are different, there is huge difference between sentence and compound."

Helārāja in his commentary on III 14, 43 and 45[11] found a difference between Pāṇini and Kātyāyana. The former considered, in his opinion, that *samartham* was a common expression of the connecting function of both mutual relation and integrated meaning that included a division (*sāmarthya-bheda*): when there is mutual relation, a phrase (*vākya*) is used, if there is integrated meaning, a compounded formation (*vṛtti*). Helārāja attributed a different stand to Kātyāyana, the *vākyakāra*: he allegedly declared himself satisfied with the earlier named procedure, viz., that the rule dealt only with integrated meanings (i.e., with *vṛtti*), while Pāṇini, the *sūtrakāra*, worked with a situational option in a general meaning that included *vākya* and *vṛtti*.[12] Actually, I believe, Kātyāyana reflected Pāṇini's position correctly. Kaiyaṭa explained: "When here is reference [between the two word-meanings], there is no compound; when there is integrated meaning, there is no sentence phrase; since they belong to different spheres,

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10. On this notion of a *vyavasthita-vibhāṣā* see K.Kielhorn, *IA* 16 (1887), p.251 (*Kl.Schr*. p.240); L.Renou, *Terminologie*, part.2 p.107; K.V.Abhyankar, *A Dictionary*, 2nd ed. p.376.

11. Corresponding to III 14,44 and 46 in W.Rau's edition of the Vākyapadīya.

12. Vākyapadīya (3rd Kānda) ed. L.A.Ravi Varma, Part II, p.25,2f. *sūtrakārâśayam anusṛtya vṛttāv ekārthībhāvo, vākye vyapekṣêti vibhāgaḥ kṛtaḥ* and p.26,4-6 *vākyakāro vā-vacanam pratyācakhyāv iti pūrvôkta-nayena vyavasthām āha. sūtrakārasya tu sāmānye vyavasthita-vibhāṣā sthitā.*

there is no status of obstructed or obstruent between the two, and there
is no need for option."[13] What Kātyāyana had presented as alternative
interpretations – his own and that of "some" – became a complex the-
ory of dual procedures only under the influence of Patañjali's interpre-
tation[14] and the developments in the literary language where phrases
and compounds lost some of their distinction.[15]

Taking *samartha* to mean either "semantically connected" or
"synonymous" has consequences, as Roodbergen has pointed out:
"Once it has been accepted that cps [compounds; H.S.] and their for-
mally nearest wordgroups are syntactically and semantically equiva-
lent, a statement regarding the optional use (*vibhāṣā*, P. 2,1,11) of the
cp. is absolutely necessary."[16] For the rules following *samartha* regu-
late the formation of compounds which would completely replace
their corresponding analytical phrases. But it is obvious that there are
analytic phrases like *rājñaḥ puruṣaḥ* in Sanskrit beside *rāja-puruṣaḥ*;
a special ruling would be required to permit their use.

Patañjali saw that ruling in the term *vibhāṣā* "optionally" that was
part of the sūtra II 1 11/12 *vibhāṣâpa-pari-bahir-añcavaḥ pañcamyā*
"The words *apa*, *pari*, *bahis* and [those ending] in -*añc* are occasional-
ly [compounded with a word ending in] an ablative case ending."[17]
He proposed to split[18] the sūtra: *vibhāṣā* would be a separate sūtra II
1 11 (followed by II 1 12 *apa-pari-bahir-añcavaḥ pañcamyā*) and
serve as a heading (*adhikāra*) extending through much of the com-
pound section (up to II 2 9).[19] For Patañjali this widely dittoed *vi-*

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13. Pradīpa (II p.516,14f.) *iha vyapekṣāyāṃ samāso na bhavati, ekarthībhāve*
vākyaṃ nêti vivikta-viṣayatvād anayor bādhya-bādhaka-bhāvo na bhaviṣyatîti nârtho
vikalpena.

14. Mahābhāṣya I 365,15-26. In I 259,15f. Patañjali appears to have favored
the interpretation of integration; note also the frequent *sāpekṣam asamarthaṃ bha-*
vatîti (I 360,19 and often).

15. The long compounds that characterize classical Sanskrit never became a fea-
ture of the spoken language (see above p.157 fn.3 and p.166 fn.48 below).

16. J.A.F.Roodbergen, *Mahābhāṣya, Bahuvrīhidvandvāhnika*, p.xvii.

17. Thus *apatrigartaṃ vṛṣṭo devaḥ* "It rained away from the Trigartas" is allowed
besides more common *apa Trigartebhyo vṛṣṭo devaḥ*. (Kāśikā on II 1 1; vol. II p.28,3f.)

18. Mahābhāṣya I 380,7 *yoga-vibhāgaḥ kartavyaḥ.* On *yoga-vibhāga* see above
pp.34-39.

19. Already Kātyāyana considered this *vibhāṣā* as a heading, as his vārttika 1
on II 2 3 (Mahābhāṣya I 407,16f.) indicates when he referred to the section as

bhāṣā as the "great option" (*mahāvibhāṣā*)[20] assured that analytic noun phrases remained an alternative to compounds.[21]

A problem arose for Patañjali (and perhaps already Kātyāyana) with the two adverbs of optionality, *vibhāṣā* in II 1 11/12 and *vā* in II 1 18. If composition is optional from II 1 11/12 onward, the compositions taught in the preceding rules II 1 5-10 must be obligatory (so-called *nitya-samāsa*), such as *adhi-stri* "concerning a woman," or *sa-cakram* "including the wheel." On the other hand, compounds taught after II 1 11/12 were to be presumed optional: *ā-Pāṭaliputram* besides *ā Pāṭaliputrāt* "up to the city of Pāṭaliputra" (II 1 13 *āṅ maryādâ-bhividhyoḥ*). The difficulty with this interpretation is the inability to explain why optionality had to be expressed again by *vā* in II 1 18 *pāre madhye ṣaṣṭhyā vā* "*pāre* and *madhye* are optionally joined in an indeclinable compound with a noun in the genitive case" such as *pāre-gaṅgam* "across the Gaṅgā" or *madhye-gaṅgam* "in (the middle of) the Gaṅgā."[22] Patañjali called the *vibhāṣā* of II 1 11 the "great option" (*mahāvibhāṣā*) to which the other stated options in this section are subordinated. Unconvincing explanations are offered for the repeated option (below pp.167-169).

We now know that *vibhāṣā* in Pāṇini's grammar denotes the "marginal" or less common option. As I see it, Pāṇini started the section with the general rule that called for composition in the case of an integrated meaning, followed by a few instances where composition was less common (*vibhāṣā* in II 1 11/12-17),[23] where it was more common

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vibhāṣā-prakaraṇa "the section of *vibhāṣā*": A.Wezler, *Bestimmung und Angabe der Funktion von Sekundär-Suffixen durch Pāṇini*, Wiesbaden 1975, p.7 fn.21.

20. Patañjali used that term in his discussion of II 1 18: why should the option of compound versus analytical phrase depend on *vā* in II 1 18? He said: *prakṛtā mahāvibhāṣā; tayā vākyam api bhaviṣyati* "There is the 'great option' (i.e. *vibhāṣā* in II 1 11); the analytical phrase will be allowed by it" (Mahābhāṣya I 381,10f.; similarly I 407,12f.).

21. P.Kiparsky, *Pāṇini as a Variationist*, p.39 assigned this role to the *vā* of II 1 18; also Joshi/Bhate, *The Fundamentals of Anuvṛtti*, Pune 1984, p.95.

22. *pāre-sindhu* "beyond the Indus" is attested in Mahābhārata II 47,9 as a variant reading besides *parisindhu*, *pāreśoṇam* "beyond the Soṇa" in Harṣacarita (ed. P.V.Kane, 2nd ed. Delhi 1965, p.12,11).

23. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.V, p.36f. on II 1 18 *pāre madhye ṣaṣṭhyā vā*, which with its *vā* "more commonly" cancels *vibhāṣā* "marginally" carried over from II 1 11/12.

(*vā* in II 1 18-21),[24] where it was frequent (II 1 32 and 57),[25] where it was an equal alternative (*anyatarasyām* in II 2 3 and 21f.),[26] where it was barred (*na* in II 2 10-16),[27] and where it was obligatory (*nityam* in II 2 17-22).[28] The other fifty-five rules II 1 22 to II 2 9, however, were wholly under the authority of the *samartha* rule II 1 1: when the meaning of the two words was integrated, there would be a compound.

Pāṇini's rule IV 1 82 [1 *ṅy-āp-prātipadikāt*] *samarthānāṃ prathamād vā* "[After feminine [nouns] ending in *ī* or *ā* or a nominal stem, the suffix] is commonly added after the first of the [words with] integrated [meaning]" is linked with rule II 1 1 not only through the word *samartha*, but also by Patañjali's assumption that this *vā* is another "great option" (*mahāvibhāṣā*)[29] that extends to V 2 140, covering all secondary noun formation.[30] The alleged purpose is again to assure that an analytical phrase is allowed besides the secondary noun formation: *prakṛtā mahāvibhāṣā; tayā vākyam api bhaviṣyati* "There is the 'great option'; the analytical phrase will be allowed by it."[31]

Kātyāyana's position is different. In his three vārttikas on IV 1 82 *samarthānāṃ prathamād vā* he step by step declared the whole sūtra redundant.[32] He considered *samartha* redundant, because a suffix that

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24. *vā* is cancelled by the announcement of a new topic in II 1 22.

25. *bahulam* is frequently not continued into following rules: S.Bhate, *The Fundamentals of Anuvṛtti*, Poona 1984, p.207.

26. On II 1 21 cf. S.Bhate, *The Fundamentals*, pp.77f.

27. *na* is cancelled by *nityam* in II 2 17.

28. *nityam* is cancelled by the announcement of a new topic in II 2 23.

29. Patañjali used the expression *mahāvibhāṣā* even though Pāṇini in IV 1 82 said *vā* rather than *vibhāṣā*; for Patañjali as for the other Pāṇinīyas the terms for option (*vā*, *vibhāṣā*, etc.) were equivalent.

30. It is invoked four times: Mahābhāṣya II 370,15 (on V 1 122); 388,6 (on V 2 77); 420,20 (on V 3 68); 428,8 (on V 3 94). In the first two of these occurrences Pāṇini's rule contains a seemingly redundant *vā*, the third *vibhāṣā*, and the last a specification *prācām* "in the usage of the Eastern people" which may appear to be an unnecessary duplication of the optionality continuing from IV 1 82. But the additional option refers to an alternate suffix besides the one offered in a general rule, e.g. the less common *bahu-paṭu* besides *paṭu-kalpa* "somewhat skilled" (V 3 67f.) – not to the larger option of secondary noun suffixes versus compounds/syntagma governing all taddhita rules. Cf. above p.160f.

31. Mahābhāṣya II 370,14f.; 420,20. In the two other occurrences the same result is implied.

32. Mahābhāṣya II 234,4-13.

is not *samartha* does not convey the intended meaning. Patañjali re-formulated the statement as "a suffix after a word that is not *samartha* does not convey the intended meaning." He took this as a reference to sentences like *kambala Upagor, apatyam Devadattasya* "the blanket of Upagu, the offspring of Devadatta," where Upagu has no syntactic relation with *apatyam* "offspring."[33] The suffix *-a* is attached to a name to denote a person's offspring by rule IV 1 92 [83 a^n] *tasyâpatyam*: *Upagor apatyam > Aupagava* "Upagu's offspring." In a sequence *kambala Upagor, apatyam Devadattasya* "the blanket of Upagu, offspring of Devadatta" the two words *Upagor* and *apatyam* are not connected – which would be obvious without any explicit statement, since grammar does not deal with meaningless or unconnected words.[34] Nāgojībhaṭṭa pointed out, that Kātyāyana's argument against *samarthānām* in IV 1 82 ("does not convey the intended meaning") would also make II 1 1 *samarthaḥ pada-vidhiḥ* redundant.[35] He suggested instead that the rule IV 1 82 could be redundant, because the result is already achieved by II 1 1 *samarthaḥ pada-vidhiḥ*. Is it conceivable that Kātyāyana was unaware of this apparent conflict?

Patañjali had discussed at length whether the rule II 1 1 should be considered a section heading (*adhikāra*), or a meta-rule (*paribhāṣā*) which could be applied in any relevant rule – making indeed *samarthānām* in IV 1 82 redundant. If *samartha* of II 1 1 is applicable in this section on secondary noun formation, it would follow that a word (→suffix) that is not *samartha* cannot express the meaning, and Kātyāyana's critique would be on the mark. That was also Patañjali's opinion who, assuming that *samartha* meant "integrated" and that II 1 1 is a meta-rule (*paribhāṣā*), declared: "Among these alternatives, [if we accept] that *sāmarthya* is 'integrated meaning' and [the rule is] a *paribhāṣā*, then the rule can be better kept as it is. Even so, in some places *samartha* is mentioned, when it need not be. And in other plac-

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33. Mahābhāṣya II 234,3-6.

34. The example is similar to the example given regarding compounds, where in a sequence *bhāryā rājñaḥ, puruṣo Devadattasya* "The wife of the king, Devadatta's man" *rājñaḥ* has no relation with *puruṣo* (Mahābhāṣya I 360,5f.).

35. Uddyota vol.III p.541,27 *tulya-nyāyāt 'samarthaḥ pada-vidhir' ity api pratyākhyātam iti bodhyam*; cf. A.Wezler, *Bestimmung und Angabe*, pp.18 and 26f.

es it is not mentioned, although it should have been. To begin with, it is mentioned when it need not be, as in IV 1 82."[36]

prathamād in IV 1 82, Kātyāyana argued, is likewise redundant, because there would be no proper meaning if the suffixes were attached to another element.[37] Finally, *vā* is rejected by a reference (vārttika 3 *vā-vacane côktam*) to a previous vārttika. Patañjali identified this vārttika as vārttika 9 on III 1 7 (*dhātoḥ karmaṇaḥ samāna-kartṛkād icchāyām vā*): *vā-vacanânarthakyaṃ ca tatra nityatvāt sa-naḥ*.[38] The sūtra teaches the desiderative suffix *-san* as an option; one can say: *prakartum aicchat* or *prācikīrṣat* "He wanted to carry out."[39] But, Kātyāyana would say, this is an alternative, not an option: in case of integrated meaning, there will the desiderative suffix *-san*, otherwise there will two words (*kartum* and *aicchat*).[40] In his discussion of II 1 1 Kātyāyana first defined in vārttika 1[41] *samartha* as *ekarthībhāva* "having an unified meaning," then added in the second vārttika "And it serves no purpose to use the word 'optional' [in this sūtra], because [the correct forms] result by their own nature."[42] A sentence phrase is used, if the words retain their own meaning, but a compound, when their meaning is integrated (in the section dealing with compounds);

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36. Mahābhāṣya I 359,15-18 *tatraîkârthībhāvaḥ sāmarthyam paribhāṣā cêty evam sūtram abhinnatarakam bhavati. evam api kvacid akartavyaṃ samartha-grahaṇam kriyate kvacic ca kartavyaṃ na kriyate. akartavyaṃ tāvat kriyate 'samarthānāṃ prathamād vā' iti.* Cf. S.D.Joshi's note 10 in *Mahābhāṣya, Samarthâhnika*, p.14.

37. In the given example, the suffix *aⁿ* should not be attached to the word *apatya* or the individuals it stands for. This reliance of one's knowledge of Sanskrit would be circular reasoning, if Pāṇini's grammar is taken as a word generating device (above pp.3 and 85). A similar appeal to actual use (*prapacati*) versus an absurd form (**pacatipra*) is found in Mahābhāṣya I 345,22.

38. Mahābhāṣya II 14,3. Vārttika 2 on II 1 1 and vārttika 9 on VII 1 96 *vā-vacanânarthakyaṃ ca svabhāva-siddhatvāt* are almost identical.

39. Mahābhāṣya II 12,2.

40. We would now say with P.Kiparsky (*Pāṇini as a Variationist*, pp.43f.) that the desiderative *prācikīrṣat* is the more common expression compared with *prakartum aicchat*.

41. Vārttika 1 on II 1 1 (Mahābhāṣya I 362,26) *pṛthag-arthānām ekârthībhāvaḥ samartha-vacanam* "The expression *samartha* denotes the unification of meaning of [words having] separate meanings."

42. Mahābhāṣya I 364,1 *vā-vacanânarthakyaṃ ca svabhāva-siddhatvāt.*

similarly, at least according to Patañjali,[43] sentence phrase and suffix are contrasted (in the section dealing with secondary noun suffixes) – but taking *samartha* to mean "syntactically connected." That leaves, unfortunately, the relation between compounds and secondary nouns undetermined. What should be a triple "great option" is dissolved into two dichotomies (phrase/compound and phrase/secondary noun) whose relation is unclear. All seven references[44] to the "great option" in the Mahābhāṣya speak only of the option to have a sentence phrase beside a compound, or a sentence phrase beside a secondary noun; but the alternative of having a compound versus a secondary noun is almost never addressed.[45]

Our final goal has to be a proper understanding of the work of Pāṇini himself. Paul Kiparsky's discovery that the three terms *vā*, *vibhāṣā*, *anyatarasyām* have distinct values exposed serious faults in the traditional interpretation, from the Mahābhāṣya[46] to modern Indian and Western scholarship. With the proper appreciation of these terms the triple "great option" receives its hierarchical structure. Syntactically related words with their individual meanings form phrases as dictated by the *kāraka*-rules (I 4 23-55), the *vibhakti*-rules (II 3,1-73), and the rules giving the actual suffixes (e.g., IV 1,2): *rājñaḥ puruṣaḥ*, *Gargasyâpatyam*. If the meaning of the individual words is integrated into one meaning, a nominal compound is indicated (II 1 1-II 2 38): *rāja-puruṣaḥ*, *Gargâpatyam*. Or, more commonly still (*vā*), a secondary noun suffix is attached to the first word, taking itself the place of the second word: *rājakīyaḥ*, *Gārgyaḥ*. The options are thus channeled twice: expressions are divided into those with integrated meaning and those without; for those with integrated meaning secondary noun formation is dominant. That reflects correctly the older state

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43. Mahābhāṣya II 234,2f. *samartha-vacanaṃ kimartham? samarthād utpattir yathā syāt: Upagor apatyam. asamarthān mā bhūd iti: kambalam Upagor, apatyaṃ Devadattasya*. Cf. A.Wezler, *Bestimmung und Angabe*, pp.6-12.

44. Mahābhāṣya I 381,10; 407,13; 408,24; II 370,15; 388,6; 420,20; 428,8.

45. The Siddhāntakaumudī 1562 and the Tattvabodhinī on Siddhāntakaumudī 1534 consider the relation of compounds and *taddhita*-suffixes (*utsarga* and *apavāda*).

46. The loss of this distinction is at least as old as Kātyāyana who occasionally referred to *anyatarasyām* with *vibhāṣā* (vārttika 1 on II 2 3; I 407,16) or *vā* (vārttika 1 on I 4 53; I 338,11) and to *vibhāṣā* with *vā* (vārttika 1 on IV 2 130; II 299,21).

of Indo-European and Sanskrit language: the use of compounds is lim-
ited, secondary nouns are common. In later Sanskrit and as early as
the Mahābhāṣya we see an expanded use of compounds. [47] While
compounds in the Vedic language often have a meaning that is more
specific than the components taken individually, later Sanskrit used
large compounds that often had the character of a whole sentence or
even a cluster of sentences. There was usually no longer an integrated
meaning to be found in these long compounds. [48] This state of the lan-
guage is reflected in the opinion of "some" who take *samartha* in II 1
1 to denote "semantic relationship" (*vyapekṣā*), quoted in Kātyāyana's
vārttika 4 on II 1 1.

We have thus established a hierarchy. Two words related in a
general way are expressed in a phrase; if their meaning is integrated
into one, a compound is used or, more commonly still, a secondary
suffix is attached to the first of the two words. That leaves the ques-
tion, why several sūtras in the section dealing with compounds contain
words indicating various degrees of optionality (*vā*, *vibhāṣā*, *anyat-
arasyām*, *nityam*) that seem to upset the hierarchy. The occurrence of
these words has created problems for the traditional interpretation that
considered *vā*, *vibhāṣā* and *anyatarasyām* equivalent, and it poses
problems also for the newer interpretation advocated by Joshi,
Roodbergen, Kiparsky, and Bhate.

I shall first consider the problems faced by the traditional inter-
pretation. *vibhāṣā* in II 1 11/12 *vibhāṣâpa-pari-bahir-añcavaḥ pañ-
camyā* has been split off from this rule by Patañjali, so as to serve as a

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47. In late Vedic and early classic Sanskrit language compounds and phrases
were not yet fully exchangeable: B.Delbrück, *Altindische Syntax (Syntaktische
Forschungen V)*, Halle 1888, pp.55-59; 62-66; J.S.Speijer, *Sanskrit Syntax*, Leiden
1886, p.146; J.S.Speyer, *Vedische und Sanskrit-Syntax*, Strassburg 1896, p.32; J.
Wackernagel, *Altindische Grammatik*, Göttingen 1905, II,1 p.26f. (§ 8b); L.Renou,
Grammaire de la langue védique, Paris 1952, pp.113f.: of limited occurrence, often
proper nouns, rare or obsolete words.

48. H.Scharfe, in *Themes and Tasks in Old and Middle Indo-Aryan Linguistics*,
ed. B.Tikkanen, H.Hettrich, Delhi 2006, pp.205-245. Patañjali (Mahābhāṣya I 362,27-
363,1) still rejected composition for phrases like *ṛddhasya rājñaḥ puruṣaḥ* "the rich
kings officer" (no *ṛddhasya rāja-puruṣaḥ*; compare in German the controversial *rei-
tende Artilleriekaserne* "mounted artillery barracks" or *Richard Wagnerstrasse*). In
later times, compounds like *cāru-vīrut-taru-vanaḥ* "having groves of lovely shrubs
and trees" (Saundarânanda I 6) are common in literary Sanskrit.

heading (*adhikāra*) for the whole section dealing with compounds (i.e., up to II 2 38), making compounds optional (an alternative to analytical expressions). Its position here, rather than near II 1 3 at the beginning of the section on compounds, is taken to imply that the compounds taught in the preceding rules II 1 6-10 are compulsory (*nitya-samāsa*). In II 1 18 [II 1 4 *saha supā* 5 *avyayībhāvaḥ*] *pāre madhye ṣaṣṭhyā vā* "*pare* and *madhye* are alternatively compounded as an avyayībhāva [with a noun in] the genitive" optionality is introduced once more (i.e. after *vibhāṣā*) with *vā*. Since there can be no redundancy in Pāṇini's rules, another purpose had to be found. Kātyāyana's and Patañjali's attempts to find a purpose for this *vā* are testimony to their resourcefulness as well as to their desperation.

"What is the purpose of teaching *vā*? – So that optionally there will be a compound, [and] besides the compound, there will also be a phrase: *pāraṃ Gaṅgāyāḥ*. – That is not the purpose. The great option is still valid; by that there will also be a phrase. – That is then the purpose, that besides the avyayībhāva there shall also be a [tatpuruṣa] compound with an [underlying] genitive: *gaṅgā-pāram* "the other side of the Gaṅgā." [49] – That is also not the purpose. This compound with a genitive is also optional; both will be there, because they have been taught. As an answer to this [Kātyāyana] recites[50]: ***pāre madhye ṣaṣṭhyā vā-vacanam*** (vārttika 1). The [sūtra] must be taught as *pāre madhye ṣaṣṭhyā vā*. ***avacane hi ṣaṣṭhī-samāsâbhāvo yathaîkadeśi-pradhāne*** (vārttika 2). For if *vā* is not taught, there will be no compound with a genitive, as in instances were [a whole] having parts is dominant, i.e., in [a whole] having parts there is no genitive compound. – Why is there no genitive compound besides the compound with [the whole] having parts? – The integration of compounds and secondary noun formation is optional; within the range of integration an exception is permanent. If here *vā* is taught twice, with one [option, i.e., *vibhāṣā* in II 1 11] the integration is optional, with the other [*vā* in II 1 18] the exception in the range of integration is optional."[51]

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49. Joshi/Roodbergen, *Mahābhāṣya, Avyayībhāvatatpuruṣāhnika*, pp.129-135. I was not able find independent attestations of *Gaṅgā-pāram*.

50. On this expression see P.Thieme, *Göttingische Gelehrte Anzeigen* 212 (1958), pp.31f. (*Kl.Schr.* pp. 739f.).

51. Mahābhāṣya I 381.9-20 *vā-vacanaṃ kim-artham? – vibhāṣā samāso yathā*

Kātyāyana and Patañjali argue as follows. II 2 1 [II 1 4 *saha supā*
22 *tatpuruṣaḥ*] *pūrvâparâdharôttaram ekadeśinaîkâdhikaraṇe* "*pūrva*,
apara, *adhara* and *uttara* are compounded with [a noun denoting a
whole] having parts, provided that it is a single item" is allegedly an
exception (*apavāda*) to the general rule II 2 8 [II 1 4 *saha supā* 22 *tat-
puruṣaḥ*] *ṣaṣṭhī* "A word ending in the sixth case [compounded with
an inflected noun is a tatpuruṣa]." That general rule accounts for tatpu-
ruṣa compounds such as *rāja-puruṣaḥ* for *rājñaḥ puruṣaḥ*. II 2 1 that
allows for compounds like *pūrva-kāyam* (for *pūrvaṃ kāyasya* "front
of the body") allegedly prevents the formation of words like *gaṅgā-
pāram* "the other side of the Gaṅgā" and *gaṅgā-madhyam* "the middle
of the Gaṅgā" that also refer to a whole having parts. It is now sug-
gested that the optional rule II 1 18 that allows the formation of inde-
clinable *pāre-gaṅgam* "across the Gaṅgā" and *madhye-gaṅgam* "in the
middle of the Gaṅgā," through the repeated expression of optionality,
allows also the tatpuruṣa-compounds *gaṅgā-pāram* and *gaṅgā-
madhyam* by II 2 8 *ṣaṣṭhyā* in defiance of II 2 1.[52] The first alterna-
tive is between phrase on the one hand and a compound or secondary
noun on the other; the second alternative is between the general rule II
2 8 and its exception II 2 1. This argument has serious flaws. II 2 1
does not mention *pāra* or *madhya*, and it is does not therefore state a
clear exception to II 2 8 with regard to these two words. And it is
strange to think that a double expression of optionality in II 1 11 and
18 could have such an effect on II 2 8. Patañjali used the same argu-
ment in the course of his tortured defense of *anyatarasyām* in II 2 3
dvitīya-tṛtīya-caturtha-turyāṇy anyatarasyām "*dvitīya*, *tṛtīya*, *catur-*

*syāt; samāsena mukte vākyam api yathā syāt: pāraṃ Gaṅgāyā iti. – naîtad asti prayo-
janam. prakṛtā mahāvibhāṣā, tayā vākyam api bhaviṣyati. – idaṃ tarhi prayojanam.
avyayībhāvena mukte ṣaṣṭhī-samāso yathā syāt: Gaṅgā-pāram iti. – etad api nâsti
prayojanam; ayam api vibhāṣā ṣaṣṭhī-samāso 'pi, tāv ubhau vacanād bhaviṣyataḥ. –
ata uttaraṃ paṭhati:* **pāre madhye ṣaṣṭhyā vā-vacanam** *(1). pāre madhye ṣaṣṭhyā vêti
vaktavyam.* **avacane hi ṣaṣṭhī-samāsâbhāvo yathaîkadeśi-pradhāne** *(2). akriyamāṇe
hi vā-vacane ṣaṣṭhī-samāsasyâbhāvaḥ syād yathaîkadeśi-pradhāne. tadyathā:
ekadeśi-samāsena mukte ṣaṣṭhī-samāso na bhavati. – kim punaḥ kāraṇam ekadeśi-
samāsena mukte ṣaṣṭhī-samāso na bhavati? – samāsa-taddhitānāṃ vṛttir vibhāṣā,
vṛtti-viṣaye nityo 'pavādaḥ. – iha punar vā-vacane kriyamāṇa ekayā vṛttir vibhāṣâ-
parayā vṛtti-viṣaye vibhāṣâpavādaḥ.*

   52. Joshi/Roodbergen, *Mahābhāṣya, Avyayībhāvatatpuruṣāhnika*, p.135 note 79.

tha, and *turya* are optionally compounded [as neuters with reference to a whole having parts]." He considered and rejected a number of explanations that would give purpose to the seemingly redundant *anyatarasyām*.[53] In the course of this discussion he raised and rejected the objection, that the secondary noun *Aupagava* would block the formation of a compound *Upagv-apatyam* "off-spring of Upagu." "Here is a difference: here are two options, *anyatarasyām* in IV 1 81 and *vā* in IV 1 82. With the one [option] there will be optional integration, with the other the exception in the range of integration will be optional."[54] There is, I believe, no other parallel to such usage of repeated expressions of optionality.

Joshi/Roodbergen recognized the different values of *vibhāṣā*, *vā*, and *anyatarasyām*; the *vā* in II 1 18 therefore does not duplicate the *vibhāṣā* in II 1 11/12, but states a different degree of optionality: more common use versus marginal use. Joshi/Roodbergen assumed that *vibhāṣā* continues from II 1 11/12 into II 1 17, after which it is set aside by the *vā* in II 1 18. Then they assumed that *vā* continues to II 1 20, after which it is set aside by the term *saṃjñāyām* in II 1 21. "However, in the rules following after P. 2.1.21 *vā* is continued up to 2.2.17 (*nityam*). Thereby the cp. becomes the preferred form in relation to the formally corresponding wordgroup."[55] Joshi/Roodbergen run into difficulty, when it comes to secondary noun formation. If compounds are the preferred option over the phrase of individual words by virtue of this *vā* in II 1 18, and secondary noun suffixes are likewise preferred by virtue of the *vā* in IV 1 82 *samarthānāṃ prathamād vā*, what is the relation of compounds and secondary nouns? They had plausibly suggested that the *vā* of II 1 18 is discontinued by the *saṃjñāyām* in II 1 21, but give no reason how this *vā* can resume validity in the following rules: certainly not in II 1 22 *tatpuruṣaḥ* and II 1 21 *dviguś ca* that as headlines for the following section can hardly be optional, and not

53. For a detailed analysis of this discussion see Joshi/Roodbergen, *Mahābhāṣya, Tatpuruṣāhnika*, pp. vi-vii and pp. 13-39.

54. Mahābhāṣya I 408,13-15 *asty atra viśeṣaḥ. dve hy atra vibhāṣe. daivayajñi-śaucivṛkṣi-sātyamugri-kāṇṭheviddhibhyo 'nyatarasyām* (IV 1 81) *iti samarthānāṃ prathamād vā* (IV 1 82) *iti ca. tatraîkayā vṛttir vibhāṣâparayā vṛtti-viṣaye vibhāṣâpavādaḥ.*

55. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.V, pp.43f.

in the following rules. Actually Joshi/Roodbergen discontinued *vā* for internal reasons in sūtras II 1 26, 29, 32-33, 42-44, 47-55, 57, 59, 63, 64, 72, cancelled it again in II 2 3 (by *anyatarasyām*), and resumed its role in each of the next sūtras, and finally cancelled it for good in II 2 10.[56] This is entirely unsatisfactory.

Under the interpretation I propose, *vā* is not needed in the compound section to explain why a non-compounded phrase is possible besides a compound. Most relations involving two nouns can be expressed in a phrase. If the speaker wants to express an integrated meaning, he uses a compound; and conversely, if the listener hears a compound, he understands an integrated meaning. But in the older Sanskrit idiom, especially in the Vedas, it is more common to use a secondary noun for such an integrated meaning.[57] People said *Gārgyaḥ* rather than *Gargâpatyam*; that is indicated in Pāṇini's Grammatik by the *vā* in IV 1 82.

To this general rule there are some exceptions. Compounds like *apatrigartam* "away from the Trigartas" were rare compared to uncompounded *apa Trigartebhyaḥ*; that was indicated by *vibhāṣā* in II 1 11/12 (probably continued in the following sūtras).[58] But compounds like *pāre-gaṅgam* and *tri-muni* were used more commonly though not exclusively; that was indicated by *vā* in II 1 18 (and this *vā* was probably continued in the following three sūtras until discontinued by the new heading II 1 22 *tatpuruṣaḥ*). The following sūtras, constituting the bulk of the tatpuruṣa section, give the rules that form compounds whenever there was an integrated meaning. There is an alternative for the speaker, when he decides to express or not to express an integrated meaning of the two words, and the listener understands that difference. These rules are followed by a few rules dealing with instances where the option of a phrase was not available: compounds like *kupuruṣaḥ* "miserable man" or *kumbhakāraḥ* "potter" have no parallel

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56. On these rules cf. Joshi/Roodbergen, *The Aṣṭādhyāyī*, vol.V, pp.50-152), and vol.VI, pp.8-22.

57. S.Bhate, *Pāṇini's Taddhita Rules*, Pune 1989, p.9 observed: "The *tad. vṛtti* is thus much more closer to the *samāsa* than to the *kṛt vṛtti*."

58. II 1 13 *āṅ maryādâbhividhyoḥ* "*ā* is [marginally compounded with a noun in the ablative case] to denote exclusive and inclusive extension" offers a less common compound *āpāṭaliputram* besides *ā Pāṭaliputrāt*.

phrase (II 2 17-20; they are called *nitya-samāsa*), though even here there are exceptions: *uccaiḥkṛtya* occurs besides *uccaiḥ kṛtvā* (both meaning "after having raised [his voice]") etc. (II 2 21-22). The concluding rules, dealing with bahuvrīhi and dvandva compounds, again involve integrated meanings (II 2 23-38).

S.D.Joshi in his translation of the Samarthāhnika of the Mahābhāṣya (1968) and J.A.F.Roodbergen in the Introduction to his translation of the Bahuvrīhidvandvāhnika of the same text (1974) translated *samartha* in II 1 1 *samarthaḥ pada-vidhiḥ* with "semantically connected" and "syntactically connected."[59] Roodbergen then followed with the conclusion that "Pāṇini generally considers that a cp. and its corresponding wordgroup are synonymous."[60] He expressed ambivalence regarding the special meanings of compounds in Sanskrit. While he accepted the feature for English (*nightcap* vs. *cap for the night*), he voiced doubt regarding Sanskrit.[61] At the same time, he admitted that some compounds have no corresponding analytical phrase: the so-called *nitya* compounds. "But, strictly speaking, every cp. is a *nitya* cp. because of its specialized meaning."[62] In their joint translation of the Aṣṭādhyāyī (vol.V, 1996) Joshi and Roodbergen assumed in II 1 1 the meaning "conveys the same meaning" that is found in rules I 3 42; II 3 57; III 3 152; VIII 1 65,[63] or "semantically (and syntactically) connected."[64] This I consider a mistake for the following reasons.

When words are "semantically (and syntactically) connected" in analytical phrases such as *rājñaḥ puruṣaḥ*, their relation is indicated

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59. S.D.Joshi, *Mahābhāṣya, Samarthāhnika*, p.1; J.A.F.Roodbergen, *Mahābhāṣya, Bahuvrīhidvandvāhnika*, p.xv.

60. *Ibid.*, p.xvii.

61. *Ibid.*, p.xliii fn.180. He acknowledged the difference between the sarcastic *khaṭvârūḍhaḥ* (demanded by II 1 26 *khaṭvā kṣepe*) for a young man who left the rigors of student life with his teacher for a life of comfort, whereas *khaṭvām ārūḍhaḥ* denotes simply a man who "climbed into bed" – the literal meaning of both components.

62. *Ibid.*, pp.xliii-xliv.

63. Oddly enough, S.D.Joshi in a paper published in 2001 again said that "The *samāsa* section deals with the process of integration of two fully finished words (*padas*) into one, while *taddhita* formations derive one integrated word from nonintegrated elements, namely, stems (*prātipadikas*) and suffixes (*taddhitas*)": *JIPh* 29 (2001), p.165.

64. Joshi/Roodbergen, *The Aṣṭādhyāyī* vol.V, p.2.

by case suffixes based on the rules for *kāraka*-s and case suffixes (*vibhakti*). There was no need for any additional ruling by II 1 1 to justify the phrase.

Analytical phrases, compounds and secondary nouns are not "meaning-equivalent" in the language that Pāṇini described, even if they often are in later literary Sanskrit. A study of the language, at least in its Vedic form, would cast serious doubt on the claim that *rājñaḥ puruṣaḥ*, *rāja-putraḥ*, and *rājakīyaḥ* were synonyms. Many plants may have seven (*sapta*) branches (leaves) – but *sapta-parṇa* "seven-leaved" is the Alstonia Scholaris, *abalā* "having no strength" means just "a woman," *Himālaya*, literally "abode of snow," refers to a certain maintain range, *dāśa-rājña* to a certain battle involving ten kings, and *dīrgha-sattra* to a certain long *soma* ritual.

IV 1 82 [76 *taddhitāḥ*] *samarthānāṃ prathamād vā* teaches "Commonly [secondary noun suffixes are added] after the first of integrated [words]." When Upagu and *apatya* or *rājan* and *puruṣa* (or rather the notions they express) are integrated, a secondary noun suffix is attached to the first word and the suffix expresses the meaning of the second word in a general way: *Aupagava*, *rājakīya*. Joshi/ Roodbergen tried to explain: "The point is that both rules deal with what in Pāṇini's derivational system is word-integration, that is, the integration of fully finished separate words into one word, whether a *taddhita*-formation or a cp. Here both the non-integrated wordgroup and the newly derived, integrated word are regarded as meaning-equivalents."[65] Joshi/Roodbergen, though, have a problem with the wording of IV 1 82. They may argue that analytical phrase, compound, and secondary noun are meaning-equivalents; but by no means can the two words (i.e., Upagu and *apatya*, or *rājan* and *puruṣa*) be called meaning-equivalents or synonyms of each other – which the wording of IV 1 82 would imply, if *samartha* were taken as "synonymous" or "meaning-equivalent."

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65. Joshi/Roodbergen, *The Aṣṭādhyāyī* vol.V, p.1.

Definitions

Pāṇini's sūtras I 1 1+2 are definitions (*saṃjñāsūtra*-s): *vṛddhir ād-aic, ad-eṅ guṇaḥ* "/ā,ai,au/ are *vṛddhi*, /a,e,o/ *guṇa*." Here the regular word order is reversed in the first sūtra, so that the work can begin with an auspicious word (*vṛddhi* "prosperity")[1] just as it ends with one (*udaya* "success"): VIII 4 67 *nôdāttaṃ svaritôdayam <a-Gārgya-Kāśyapa-Gālavānām>*, followed only by the names of three Vedic authorities. Both beginning and end of the grammar have a metrical flavor, as they have the rhythm of a quarter of a śloka.[2] Actually, part of the latter sūtra appears twice just like that in the metrical Ṛgveda-prātiśākhya III 9d and 12d.[3] The regular word order in a definition rule has the name (*saṃjñā*) last, as is obvious in the same section:

I 1 7 *halo 'nantarāḥ saṃyogaḥ* "Contiguous consonants are [called] *saṃyoga*"

I 1 8 *mukha-nāsikā-vacano 'nunāsikaḥ* "A [phoneme] pronounced by means of mouth and nose is [called] *anunāsika*"

I 1 9 *tulyâsya-prayatnaṃ savarṇam* "A [phoneme pronounced] by equal effort in the mouth is [called] *savarṇa* 'of the same class'"

I 1 11 *īd-ūd-ed-dvivacanaṃ pragṛhyam* "An /ī,ū,e/ expressing duality is [called] *pragṛhya* 'to be held apart' "[4]

I 1 20 *dā-dhā ghv adāp* "The [roots] √*dā* and √*dhā*, with the exception of √*dāᵖ* are [called] *GHu*," etc.

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1. Patañjali in Mahābhāṣya I 40,6f.

2. Pāṇini's grammar shares with the Mīmāṃsā-sūtras an inclination to give the rules a metrical flavor without being strictly metrical: H.Smith, *Retractationes rhythmicae*, Helsinki 1951, pp.16f.; 31f. For similar data from Old Latin see Calvert Watkins, *How to Slay a Dragon*, New York 1995, pp.229-231.

3. Ṛgveda-prātiśākhya III 9 cd *svaryate 'ntarhitaṃ na ced udātta-svaritôdayam* // and III 12 cd *ā vā śeṣān niyuktaṃ tu udātta-svaritôdayam* //

with the sandhi not carried out between the verse quarters.

4. Or perhaps: "A [word] expressing duality that ends in /ī,ū,e/ is [called] *pragṛhya*," to account for verbal duals ending in *-āthe* that are *pragṛhya* in Vedic texts in about half of the occurrences (rarely in the Ṛgveda, always in classical Sanskrit): J. Wackernagel, *Altindische Grammatik*, vol.I, p.325 with A.Debrunner's *Nachträge*, p.184; P.Thieme, *Indian Culture* IV/2 (1937/38), pp.194f. (*Kl.Schr.*, pp.557f.) and *Kleine Schriften*, Addenda, p.793.

R.N.Sharma[5] has questioned the traditional explanation of the word order in Pāṇini's rule I 1 1, because "A careful examination of all definitional rules in the *Aṣṭādhyāyī* reveals that this explanation is not satisfactory, as there are many other rules which violate the order $x_1 y_1$. Consider, for example, rules 1.2.41 *apr̥kta ekâl pratyayaḥ*, 3.1.92 *tatrôpapadaṃ saptamīstham* 3.1.93 *kr̥t atiṅ*, 3.1.94 *kr̥tyāḥ* and 3.4.114 *ārddhadhātukam śeṣaḥ*." Sharma is directly contradicted by Patañjali who, after explaining the reversal in rule I 1 1 as made for the sake of auspiciousness, stated: "The teacher may be indulged for this one [statement] aimed at auspiciousness. The teacher aiming at auspiciousness employs the word *vr̥ddhi* at the beginning, for the auspiciousness of the great flood of his instruction. For instructions/texts with an auspicious beginning spread; they produce men who are heroic and long-lived. And [the teacher begins with the word *vr̥ddhi*] so that those who study [his work] meet with success. For everywhere [else] in grammar the defined is uttered first, the name afterwards."[6]

But let us not take even Patañjali's statement as evidence and examine Sharma's arguments. III 1 94 *kr̥tyāḥ* is clearly not a good argument for his thesis, since this rule consisting of a single word cannot show inversion of the word order. III 1 93 *kr̥t atiṅ* is not a complete definition, since not everything that is not *tiṅ* (verbal ending) is a *kr̥t*; we have to supply *pratyayaḥ* from III 1 1: III 1 93 [1 *pratyayaḥ* 92 *tatra*] *kr̥t atiṅ* "In this section a suffix is *kr̥t* if it is not *tiṅ* (a verbal ending)" – *atiṅ* is merely a restriction on *pratyayaḥ*. III 4 114 *ārdhadhātukaṃ śeṣaḥ* is also not an equation by itself, but must be seen together with the preceding rule: III 4 113 *tiṅ-śit sārvadhātukam* 114 *ārdhadhātukaṃ śeṣaḥ* "Personal verbal endings and [suffixes] with the tag *ś* are *sārvadhātukam*, the rest *ārdhadhātukam*." Pāṇini used a chiastic word order to contrast the two terms. III 1 92 *tatrôpapadaṃ*

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5. Rama Nath Sharma, *The Aṣṭādhyāyī of Pāṇini*, vol.II, New Delhi 1990, p.6; cf. also S.D.Joshi and J.A.F. Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.I, New Delhi 1991, p.1.

6. Mahābhāṣya I 40,6-9 *etad ekam ācāryasya maṅgalârthaṃ mr̥ṣyatām. māṅgalika ācāryo mahataḥ śāstraûghasya maṅgalârthaṃ vr̥ddhi-śabdam āditaḥ prayuṅkte. maṅgalâdīni hi śāstrāṇi prathante vīra-puruṣakāṇi ca bhavanty āyuṣmat-puruṣakāṇi câdhyetāraś ca vr̥ddhi-yuktā yathā syur it. sarvatraîva hi vyākaraṇe pūrvôccāritaḥ saṃjñī parôccāritā saṃjñā.*

saptamīstham is not a definition rule. The term *upapada* was used in several previous sūtras[7] without definition, and III 1 92 merely rules that words enounced in this section in the locative case are *upapada*-s.

That leaves I 2 41 *apṛkta ekâl pratyayaḥ* "A suffix consisting of a single sound is called *apṛkta*" as a possible exception.[8] Rule I 2 41 is followed by several sūtras that again follow the standard pattern. A search of Pāṇini's whole grammar yielded a great number of definitions that follow the regular pattern, and none of a doubtful nature beyond those just discussed. It bears remembering that Patañjali considered the inverted word order in I 1 1 *vṛddhir ād-aic* unique and that he was apparently not bothered by I 2 41 *apṛkta ekâl pratyayaḥ*.

Another question, and one that has been discussed at length by Patañjali, regards the character of these definitions. Does *vṛddhir ād-aic* mean that /ā,ai,au/ are called *vṛddhi*, or does it mean that the word *vṛddhi*, whenever it is uttered in a rule, calls up the vowels /ā,ai,au/? In Patañjali's words: "Furthermore, is this [*ād-aic*] the grasping of something that is produced by it, i.e., grasping of /ā,ai,au/ that are produced by this [term] *vṛddhi*, or [the grasping] of any /ā,ai,au/? – What [follows] from this? – If it is the grasping of [/ā,ai,au/] produced [by the term *vṛddhi*], the suffix *CHa* (→-*īya*) which is conditioned by the term *vṛddha* fails to result [in the words] *śālīya* and *mālīya*.[9] In the words *āmramaya* and *śālamaya* the suffix -*maya^ṭ* which is conditioned by the term *vṛddha*[10] fails to result. In the names Āmraguptāyani and Śālaguptāyani the suffix *PHiñ* (→-*āyani*) marked by *vṛddha*[11] fails to result."[12]

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7. Pāṇini's sūtras I 3 16 *itaretarânyo'nyôpapadāc ca* "And [not] when *itaretara* or *anyo'nya* are there as supplement"; 71 *mithyôpapadāt kṛño 'bhyāse* "After [the causative of] √*kṛ* when *mithyā* is there as supplement indicating repetition," etc.

8. Kaiyaṭa tried to remove the anomaly by declaring the sūtra a meta-rule (*paribhāṣā*) rather than a definition rule: I p.132,13 and II p.62,14f. Cf. P.Filliozat, *Le Mahābhāṣya*, Adhyāya 1 Pāda 1 Āhnika 1-4, pp.386-389. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.II pp.70f. pointed out several oddities of this sūtra.

9. IV 2 114 *vṛddhāc chaḥ* "After a stem with vṛddhi in the first syllable, the suffix *CHa* (→*īya*)."

10. IV 3 144 [143 *mayaṭ*] *nityaṃ vṛddha-śarâdibhyaḥ* "[-maya] always after a stem with vṛddhi in the first syllable, and after *śara* etc."

11. IV 1 157 [154 *phiñ*] *udīcāṃ vṛddhād agotrāt* "[The patronymic suffix -*āyani*] after a stem with vṛddhi in the first syllable, according to the usage of the northern people."

12. Mahābhāṣya I 37,8-11 *kiṃ punar idaṃ tad-bhāvita-grahaṇaṃ 'vṛddhir' ity*

In these three rules the word *vṛddhi* is only indirectly involved,
through the term *vṛddha* which has been defined in I 1 73 *vṛddhir
yasyâcām ādis tad vṛddham* "That of which the first vowel/syllable is
vṛddhi, is called *vṛddha*." But in none of the underlying words, i.e., *śālā*,
mālā, and *āmra*, is the /ā/ of the first syllable produced by the term *vṛddhi*
but it is accepted as a given. If these vowels /ā/ are not produced by the
term *vṛddhi*, the stems can not be termed *vṛddha* and the suffixes cannot be
attached. The suffix *CHa* (→-*īya*) is added by IV 2 114 *vṛddhāt chaḥ* "After
a stem with vṛddhi in the first syllable, the suffix *CHa* (→ *īya*)." The suffix
-*maya* is added by IV 3 144 [143 *mayaḍ*] *nityaṃ vṛddha-śarâdibhyaḥ*
"[The suffix] -*maya* always after a stem with vṛddhi in the first syllable,
and after *śara* etc." The patronymic suffix *PHiñ* (→ -*āyani*) is added by IV 1
157 [154 *PHiñ*] *udīcāṃ vṛddhād agotrād* "[The patronymic suffix -*āyani*]
after a stem with vṛddhi in the first syllable, according to the usage of the
northern people, unless it is a clan name."

Then Patañjali tested the opposite assumption: "But if it is the
grasping of any /ā,ai,au/, the accent rule VI 2 105[13] will wrongly ap-
ply to [the compound] *sarvabhāsaḥ* from *sarvo bhāsaḥ*."[14] *bhāsa* is de-
rived from the root √*bhās* and its long /ā/ is not caused by the term
vṛddhi. But if every /ā/ is termed *vṛddhi*, the rule VI 2 105 would ap-
ply that demands an *udātta* accent for the last syllable of *sarva* if fol-
lowed in a compound by a word that has *vṛddhi* in the first syllable. If
every /ā/ is *vṛddhi*, then *bhāsa* must be called *vṛddha* and the com-
pound should be accented *sarvá-bhāsa*. But *sarva-bhāsá* is desired in
accordance with VI 1 223;[15] the word is not independently attested.

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*evaṃ: ya ākāraîkāraûkārā bhāvyante, teṣāṃ grahaṇam āhosvid ād-aij-mātrasya. –
kiṃ câtaḥ? – yadi tad-bhāvita-grahaṇaṃ 'śālīyaḥ mālīya' iti vṛddha-lakṣanaś cho na
prāpnoti. 'āmramayaṃ śalamayaṃ' vṛddha-lakṣaṇo mayaṇ na prāpnoti.
'Āmraguptāyaniḥ Śālaguptāyaniḥ' vṛddha-lakṣaṇaḥ phiñ na prāpnoti.* The Kāśikā on
I 1 1 (I 67,1) called the pair *tad-bhāvita* and *a-tad-bhāvita* "produced by it" and "not
produced by it (i.e. by the term *vṛddhi*)."

13. VI 2 105 [64 *udāttaḥ* 92 *antaḥ*] *uttarapada-vṛddhau sarvaṃ ca* "Also *sarva*
[is accented on the last syllable] before a following word [in a compound] that has
vṛddhi in the first syllable."

14. Mahābhāṣya I 37,11f. *athâd-aij-mātrasya grahaṇam 'sarvo bhāsaḥ > sarva-
bhāsa' ity 'uttarapada-vṛddhau sarvaṃ ca' ity eṣa vidhiḥ prāpnoti.*

15. VI 1 223 [159 *udāttaḥ* 220 *anto*] *samāsasya* "[The last syllable] of a com-
pound [is accented]."

   "And here when *tāvatī bhāryâsya* "whose wife is so much" is
[worded as a compound] *tāvad-bhāryaḥ, yāvad-bhāryaḥ*, the mascu-
line form [of *tāvad* and *yāvad*] is wrongly prevented by VI 3 39
vṛddhi-nimittasya."[16] For the final sound of the pronoun *tad* "that" /ā/
is substituted (by VI 3 91) before the suffix *vat^{up}: tad + vat^{up} > ta ā
vat > tāvat* "that much." This /ā/ is not produced by the term *vṛddhi*,
but by direct command. If every /ā/ is *vṛddhi*, the basic rule that the
feminine suffix is deleted in a compound[17] would be set aside by the
exception VI 3 39 [37 *na*] *vṛddhi-nimittasya ca taddhitasya...*[18] "Also
not of a taddhita that causes *vṛddhi*..." The word *tāvatī* will be in the
grasp of VI 3 39 if every /ā/, no matter how created is *vṛddhi*, and a
wrong compound **tāvatī-bhāryaḥ* etc. would result. None of these
words are independently attested, and we may ask if Patañjali con-
trived these examples only for the sake of the argument.

   "Let it be then the grasping of any /ā,ai,au/. – Was it not said: 'the
accent rule VI 2 105 will wrongly apply to [the compound] *sarvabhā-
sa* from *sarvo bhāsaḥ*'? – It is no harm."[19] Patañjali then explained
that *uttarapada-vṛddhau* in VI 3 39 can be taken as a reference to the
heading VII 3 10 *uttara-padasya*, meaning *"a vṛddhi produced in the
section headed by VII 3 10 uttara-padasya."* And *vṛddhi-nimittasya* in
VI 3 39 should be taken as a bahuvrīhi compound meaning "that
which contains a cause of *vṛddhi*," viz. one of the tags ^{k}, ^{ñ̄}, or ^{ṇ}.
Alternatively, one could take *vṛddhi-nimittasya* as "causing *vṛddhi* in
general (*kṛtsnāyā vṛddher*), i.e., /ā,ai,au/ – but the suffix *vat^{up}* causes
only /ā/. Thus Patañjali decided in favor of the interpretation that all
/ā,ai,au/ are called *vṛddhi*.

   A similar case can be made for *guṇa*. The /a/ of the accusative
ending *-am* and of the verbal 3rd plural ending *-anti* are not produced

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   16. Mahābhāṣya I 37,13f. *iha ca 'tāvatī bhāryâsya > tāvad-bhāryaḥ, yāvad-
bhāryaḥ' 'vṛddhi-nimittasya' iti puṃvat-bhāva-pratiṣedhaḥ prāpnoti.*
   17. VI 3 34.
   18. VI 3 39 [34 *striyāḥ puṃvad* 37 *na*] *vṛddhi-nimittasya ca taddhitasyârakta-
vikāre* "There is also [no masculine form for a feminine] with a taddhita suffix de-
manding vṛddhi..."
   19. Mahābhāṣya I 37,14f. *astu tarhy ād-aij-mātrasya grahaṇam. nanu côktam
sarvo bhāsaḥ sarva-bhāsa ity uttara-pada-vṛddhau sarvaṃ cêty eṣa vidhiḥ prāpnoti?
naiṣa doṣaḥ.*

by the term *guṇa* but are given;[20] yet they must be *guṇa* for VI 1 97 [94 *para-rūpam* 96 *apadântāt*] *ato guṇe* to apply: "after an /a/ that does not stand at the end of a word, before a *guṇa* [vowel], the latter [vowel alone] is substituted." Thus from **paca+anti* we get *pacanti* "they cook" and from**paca+e pace* "I cook for myself." *guṇe* in VI 1 97 serves two purposes: On the one hand it serves to exclude other vowels such as /i/ in forms like **apaca+i* which results in *apace* "I cooked for myself" by the basic sandhi rule VI 1 87 *ād guṇaḥ*, as the Kāśikā on VI 1 97 explains.[21] On the other hand, it serves to override the basic san-dhi rules VI 1 88 *vṛddhir eci* "/a,ā/ before /e,o,ai,au/ > /ai,au/" that would have produced a wrong form **pacai* and VI 1 101 *akaḥ savarṇe dīrghaḥ* that would have produced a wrong form **pacānti*.[22]

More than seventy years ago Paul Thieme wrote:

Pāṇini did by no means consider every *a* as *guṇa*, nor every *ā* as *vṛddhi*, as it is done by modern theorists on *Ablaut*. He does not give a theory here, but a practical definition of technical terms to be used in the grammar. The rules mean: "*ā*, *ai*, *au* are called *vṛddhi-*; *a*, *e*, *o* are called *guṇa-*". In other words: "The term *guṇa-*, when used in the grammar, denotes *a*, *e* and *o*; the term *vṛddhi-*, *ā*, *ai* and *au*."[23]

We may ask ourselves if Pāṇini would have considered the last vowel in *rājā* or *manasā* as *vṛddhi*; there is no indication that he did. We have to keep in mind what definition (*lakṣaṇa*) meant in the Indian scholarly tradition. The Naiyāyika author Vātsyāyana defined it as *uddiṣṭasya tattva-vyavachedako dharmaḥ*[24] "the quality that delimits the entity of what is taught" and Uddyotakara (talking about synonyms) as

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20. The accusative ending *-am* is given in IV 1 2 [*sv-au-jas-*]*am*[-…]*,* the third plural active verbal ending *-anti* results from the list of personal endings in III 4 78 [*tip-tas-*]*JHi*[-…] and the subsequent substitution of *JH → ant* by VII 1 3 *JHo 'ntaḥ*.

21. Without the restriction *guṇe* in VI 1 97 **apaca+i* would wrongly result in **apaci*.

22. Edwin Gerow, *JAOS* 122 (2002), p.676 thought that VI 1 97 *ato guṇe* could result in a wrong nom.pl. *Rām-aḥ* from **Rāma-ᴶas*; but the rule VI 1 102 that exempts the nominative plural ending, together with the contraction rule VI 1 101 *akaḥ savarṇe dīrghaḥ*, sets aside rule VI 1 97. *Rām-āḥ* results correctly. Thus no wrong form results, if /a/ in *ato guṇe* is called *guṇa*.

23. Paul Thieme, *Pāṇini and the Veda*, Allahabad 1935, p.111.

24. Nyāyabhāṣya by Vātsyāyana on Nyāyasūtra I 1 3 (Nyāyadarśanam ed. Svāmi Dvārikadāsaśāstri, Vārānasi 1966, p.15).

sarvaṃ hi lakṣaṇam itarêtara-padârtha-vyavacchedakam[25] "for every definition eliminates mutually the other object." In the words of Jitendra Nath Mohanty: "Consider, first, the concept of definition (*lakṣaṇa*). It is highly extensional. A definition does not seek to articulate the essence of the definiendum, but rather aims at uniquely identifying it."[26]

The discussion of Pāṇinīyas on I 4 24 *dhruvam apāye 'pādānam* "What remains fixed when there is separation, is called *apādāna*" illustrates this principle. It is argued that *dhruvam* is redundant, because in all situations of conflict *apādāna* "removal" is overruled anyway by the following divisions by force of I 4 2 *vipratiṣedhe paraṃ kāryam* "In case of conflict the later action." Being the first of the group of six *kāraka*-classes it is limited by the definition of the following five *kāraka*-classes and thus indirectly defined by exclusion. Therefore, if *dhruvam* would be deleted, even a reduced sūtra *I 4 24 *apāye 'pādānam* could not impose the definition of *apādāna* (and hence the ablative suffix) in *grāmād āgacchati śakaṭena* "He comes from the village by chariot" on the word for chariot (*śakaṭa*). As "the most efficient means" (*sādhakatamam*) *śakaṭa* will be "instrument" (*karaṇa*) and receive a third case ending instead. If the rule then is indeed reduced to *apāye 'pādānam*, nothing essential is said about the concept of *apādāna* "removal" (usually expressed by fifth case endings), even though the rule could serve its function. In the end, Patañjali found a need for the retention of *dhruvam*: it serves to allow a sentence *vṛkṣasya parṇaṃ patati* "a leaf of the tree falls" besides *vṛkṣāt parṇaṃ patati* "a leaf falls from the tree."[27]

25. Nyāyavārttika by Uddyotakara (ed.Vindhyeśvarī Prasād Dvivedin, Delhi 1986, p.82) on Nyāyasūtra I 1 14. *Nyāyakośa*, Poona 1978, p.695 reads *sarvaṃ hi lakṣaṇam itara-padârtha-vyavacchedakam*, turning it into a general definition.

26. Jitendra Nath Mohanty, *Reason and Tradition in Indian Thought*, Oxford 1992, p.19. Cf. also S.Kuppuswami Sastri, *A Primer of Indian Logic*, Madras 1932 (3rd ed. 1961), part III, pp.10f.; A.Foucher, *Le compendium des topiques (Tarka-Saṃgraha)*, Paris 1949, pp.7-14; and M.Biardeau, *JA* 245 (1957), pp.371-384. That statement may not, however, apply to the logic of the Navya-Nyāya, since "The Navya-Nyāya logic is thoroughly intensional, in a way often sought after in the west, but never achieved" according to J.M.Bocheński, *A History of Formal Logic*, trans. and ed. Ivo Thomas, 2nd ed., New York 1970, p.444.

27. Mahābhāṣya I 324,1-5 and 326,19-22. N.Kudo, *Nagoya Studies* 18, pp.173-177 has summarized the discussions of Patañjali, Kaiyaṭa, Haradatta, and Bhaṭṭojidīkṣita on this topic.

vṛddhir ād-aic excludes vowels like /i/ or /e/ and all semivowels and consonants. The question whether the last vowel of *rājā* or *man-asā* would be called *vṛddhi* never comes up; there is no harm in vacu-ous applications. Naming proceeds in grammar as in daily life. As the parents give a name to their new-born son who is henceforth referred to by this name,[28] thus in grammar technical names are given to exist-ing sounds, suffixes, etc.[29] These terms call up, when they occur in the text of the grammar, the elements they denote. The procedure is to go from the known to the unknown. Thus in rule I 1 1 the sounds /ā,ai,au/ that occur in the spoken language are called *vṛddhi*. Rule I 1 73 builds on this definition: *vṛddhir yasyâcām ādis tad vṛddham* "Of which the first vowel is *vṛddhi*, that is called *vṛddha*." Wherever in the Aṣṭādhyāyī the word *vṛddhi* turns up, one of the vowels /ā,ai,au/ is un-derstood, and wherever *vṛddha* turns up, a word whose first vowel is one of /ā,ai,au/ is understood. Though this would seem to be the obvi-ous way to approach the definitions of *vṛddhi* and *guṇa*, S.M.Katre chose to go in the opposite direction. He translated I 1 1 *vṛd-dhir ād-aic* "vṛd-dhi denotes the vowel phonemes long ā and the diphthongs ai, au" and I 1 73 "vṛd-dhá denotes (all such) expressions whose first vowel is a member comprised by vṛ́-dhi."[30] Katre's translation reflects the application of these rules rather than the definitions themselves.

The suffixes *-tara* (and *-īyas*) and *-tama* (and *-iṣṭha*) are intro-duced in V 3 55-57 to denote comparative and superlative.[31] Rule I 1 22 *tarap-tamap.au GHaḥ* assigns them jointly the name *GHa* "tara^p and tama^p are called *GHa*." In the operational rules V 4 11, VIII 2 17 etc., these two suffixes are called up by their name *GHa*. The defini-tion I 1 22 is not the primary rule for these suffixes by which they would be introduced; it is the rule in which a name is assigned to ex-

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28. Mahābhāṣya I 38,15-17 *loke tāvan mātā-pitarau putrasya jātasya saṃvṛte 'vakāśe nāma kurvāte Devadatto Yajñadatta iti. tayor upacārād anye 'pi jānantîyam asya saṃjñêti.*

29. Mahābhāṣya I 40,27f. *nityeṣu śabdeṣu satām ād-aicām saṃjñā kriyate na saṃjñayâd-aico bhāvyante.*

30. Sumitra M.Katre, *Aṣṭādhyāyī of Pāṇini*, Austin 1987, pp.7 and 28. vṛ́-dhi is obviously a misprint for vṛd-dhi (as in I 1 1).

31. V 3 55 *atiśayane tamab-iṣṭhanau* "The suffixes] tama^p and iṣṭha^n express excessiveness."

isting suffixes. S.M.Katre's "GHA denotes the affixes taraP and tamaP"[32] again approaches the rule from the operational angle not as a definition.[33]

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32. S.M. Katre, *Aṣṭādhyāyī*, p.13.

33. Note also S.M.Katre's (*Aṣṭādhyāyī*, p.970) translation of VIII 1 2 *tasya param āmreḍitam* "The technical term (t.t.) Āmreḍita denotes the second (pára-m = following) expression of the doublet (doubled sequence)" instead of "The [word that comes] after it is called *āmreḍita* 'reduplicated'."

svaṃ rūpaṃ śabdasyâśabda-saṃjñā

Pāṇini's rule I 1 68 *svaṃ rūpaṃ śabdasyâśabda-saṃjñā*, its meaning disputed already by Kātyāyana, has again been the subject of a lively debate over the last half century. The published translations followed essentially the somewhat ambivalent interpretation given in the Kāśikā: "In [this grammar] text only the own meaning of the word is to be grasped/understood/conveyed, not an extraneous object-meant, excepting a name for a word. Since from a word a thing-meant is understood, and since the [grammatical] operation is impossible for the thing-meant, this sūtra is given so that [other] words expressing this [thing-meant] should not be understood."[1]

Henry Thomas Colebrooke: "In grammar, the particular form only of a word (abstracted from its sense) is meant; excepting the technical denominations of words, for they, not the word which designates them, are thereby meant."[2]

Otto Böhtlingk: "Unter einem in den Sûtra vorkommenden Worte ist nur eben dieses Wort in dieser seiner lautlichen Erscheinung (nicht etwa die Synonyme oder Unterbegriffe) gemeint; ist aber das Wort ein grammatisch-technisches, so ist nicht dieses Wort selbst gemeint, sondern das, was es bezeichnet."[3]

Śrīśa Chandra Vasu: "In this Grammar, when an operation is di-

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1. Kāśikā on I 1 68 (vol.I p.239,1-240,2) *śāstre svam eva rūpaṃ śabdasya grāhyaṃ bodhyaṃ pratyāyyaṃ bhavati, na bāhyo 'rthaḥ, śabda-saṃjñāṃ varjayitvā. śabdenârthâvagater arthe kāryasyâsaṃbhavāt tad-vācināṃ śabdānāṃ saṃpratyayo mā bhūd iti sūtram idam ārabhyate.* Both Nyāsa (vol.I p.239,15f.) and Padamañjarī (vol.I p.238,6f.) take the genitive *śabdasya* as denoting the agent of the verbal adjectives in accordance with Pāṇini's rule II 3 71 *kṛtyānāṃ kartari vā*: "the own form is to be grasped…by the word," similar to the quoted stanza in the *vṛtti* on Vākyapadīya I 69 (vol.I, p.128,2). But note that the crucial verbal adjectives (*grāhya*, etc.) are only supplied by the commentators and are not contained in Pāṇini's sūtra, and even if this suppletion is accepted, II 3 71 only rules that "[the genitive] is commonly used to denote the agent of *kṛtya* verbal adjectives" – not that such a construction must prevail over an adnominal construction of *rūpaṃ śabdasya*.

2. Franz Kielhorn, Die Colebrooke'schen Pâṇini-Handschriften der Königlichen Bibliothek zu Göttingen, *Göttinger Nachrichten* 1891, p.111 (*Kl.Schr.* p.931). Similar J.Houben in *The Emergence of Semantics*, pp.90f.

3. O.Böhtlingk, *Pâṇini's Grammatik*, p.10. In a note Böhtlingk remarked: "Diese Regel beobachtet Pâṇini nicht immer" (This rule is not always observed by Pāṇini).

rected with regard to a word, the individual form of the word possess-
ing meaning is to be understood, except with regard to a word which
is a definition."[4]

Louis Renou: "(Quand une opération concerne un mot énoncé
dans un sū., il faut comprendre qu'il s'agit) du mot en tant que forme
propre, (non en tant que porteur d'un sens, autrement dit: qu'il n'en-
globe pas les mots de même sense que lui), excepté si ledit mot est un
Nom (i.e., en l'occurrence, un terme technique de grammaire)."[5]

Others expressed a narrower view, omitting any reference to syn-
onyms. Sumitra M. Katre: "An expression denotes itself (svám rūpám)
unless it is the name of a linguistic technical term (śabda-saṃjñā)."[6]

Rama Nath Sharma: "A word other than one which is a technical
term (*saṃjñā*) of the grammar denotes its form only."[7]

S.D.Joshi and J.A.F.Roodbergen: "(when a metalinguistic item is
mentioned in a rule for purposes of grammatical operation, then) the
own (phonetic) form of the meta-linguistic item (is to be understood),
with the exception of a technical name for the meta-linguistic item."[8]
P.S.Filliozat's two renditions[9] also fall into this group. These last-
quoted translators gave little weigh to the word *svam*; Rama Nath
Sharma did not translate it all. I shall return to this problem later.

The sūtra has invited, indeed, a number of controversies. Some
concern the exact parsing of *svaṃ rūpaṃ śabdasya*, others the mean-
ing and the syntactical role of *aśabda-saṃjñā*. The Vākyapadīya I 68-
69 and the vṛtti[10] on it refer to ancient disputes, and the weighing of
several options continues to this day. There is the 'word' in Pāṇini's
grammar (i.e., in the meta-language) and the 'word' in Sanskrit usage
(i.e., the object language). Each has its form (*rūpam*) and potentially

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4. *The Ashṭādhyāyī of Pāṇini*, volume I, ed. and trans. by Śrīśa Chandra Vasu,
Allahabad 1891, repr. Delhi 1988, p.61.
5. L.Renou, *La grammaire de Pāṇini*, Paris 1966, p.21.
6. S.M.Katre, Aṣṭādhyāyī of Pāṇini, Austin 1987, p.27.
7. Rama Nath Sharma, *The Aṣṭādhyāyī of Pāṇini*, vol. II (New Delhi 1990), p.68.
8. S.D.Joshi, and J.A.F.Roodbergen: *The Aṣṭādhyāyī of Pāṇini*, vol.I (Delhi
1991), p.121.
9. Below p.185 fn.17.
10. I follow here the counting in K.A.S.Iyer's edition that includes the vṛtti,
without entering in the dispute whether the Vṛtti is the work of Bhartṛhari himself or
of one of his followers.

refers to an object (*artha* "thing-meant"). Additionally the question can be raised, whether the individual (expressed as *svaṃ rūpam*) is used to indicate the universal or whether, on the contrary, the universal is used to indicate the individual.

In response to J.Brough's translation of I 1 68 "A word (in a grammatical rule) which is not a technical term denotes its own form"[11] I proposed in my 1956 dissertation (printed in 1961) "Die eigene Form [eines in der Grammatik genannten] Sprachlautes is gemeint, ausser wenn es sich um einen Namen [anderer] Sprachlaute handelt."[12] I could follow up on my suggestion only ten years later in my study *Pāṇini's Metalanguage*: "The own form the speech sound[13] (as used in a grammatical rule) [is meant], except if it is a name of speech sounds."[14] My aim was twofold: a better understanding of *aśabda-saṃjñā* following the discussions by Kātyāyana and Patañjali, and an understanding of the syntactic role of the nominative *aśabda-saṃjñā* in I 1 68 that seemed to correspond with the genitive *śabdasya* as a loosely constructed negative apposition – an assumption, I believe, underlying at least some of the earlier translations.

In an important article, Albrecht Wezler[15] found that most of the assumed parallels to the proposed "negative apposition" did not stand up to scrutiny and he suggested that a hint in Patañjali's Mahābhāṣya might provide better guidance than the paraphrase of the Kāśikā. In a discussion whether the word *rūpam* is necessary in I 1 68 or if the sūtra could be shortened to *svaṃ śabdasyâśabda-saṃjñā*, Patañjali paraphrased the first part of the abbreviated sūtra with *rūpaṃ śabdasya saṃjñā bhaviṣyati*[16] "[in that case] the form will be the name of the word." Taking his cue from Patañjali, Wezler translated the sūtra: "[ein

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11. J.Brough, *Transactions of the Philological Society* 1951, pp.28-31 (= *Collected Papers* pp.80-83).

12. H.Scharfe, *Die Logik im Mahābhāṣya*, Berlin 1961, p.99 fn.1.

13. "Speech sound" was a somewhat unhappy translation of "Sprachlaut" as P.Kiparsky observed; "sounds of language" or "speech unit" would have been better, or "expression, utterance" as Kiparsky has suggested (P.Kiparsky, *Pāṇini as a Variationist*, Poona 1979, p.225).

14. H.Scharfe, *Pāṇini's Metalanguage*, Philadelphia 1971, p.40.

15. A.Wezler, *StII* 3 (1977), pp.35-70.

16. Mahābhāṣya I 175,20f.; cf. also I 163,15f. *svaṃ rūpaṃ śabdasya saṃjñā bhavati*.

in der Grammatik genannter] Sprachlaut hat [nur] die ihm eignende [Laut-]Gestalt, einen Nicht-Namen [anderer] Sprachlaute, (d.h. die nicht / wenn sie nicht ein Name [anderer] Sprachlaute ist = es sei denn, sie ist ein Name [anderer] Sprachlaute)."[17] Wezler recognized *rūpam* in parallel correspondence to *aśabda-saṃjñā*. One problem with his translation is that his rendition "[ein in der Grammatik genannter] Sprachlaut hat [nur] die ihm eignende [Laut-]Gestalt" (An utterance [made in grammar] has [only] its own [phonetic] form") is a meaningless tautology – of course a word (or word element) given in Pāṇini's rule has only its own form. Another problem is the way he gets from "this word (or word elements) has [only] its own form, a non-name of [other] words (or word elements)" to "unless it is a name of [other] words or word elements". "A non-name" allows for no other applications, whereas "unless it is a name of words" allows such other applications.

G.Cardona in his *Pāṇini: His Work and its Traditions*[18] translated the sūtra: "A linguistic element's own form (*svaṃ rūpam*) is understood to refer to that element (*śabdasya [saṃjñā]* '[name] of a speech unit') itself, not to signify the meaning of the item, unless the element in question is a technical term of grammar (*aśabda-saṃjñā*)." He inverted Patañjali's (and more or less Wezler's) rendition of the first part of the sūtra, but reverted to the traditional translation of *aśabda-*

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17. "An utterance [made in grammar] has [only] its own [phonetic] form, a non-name of [other] utterances, (i.e., which is not / if it is not a name of [other] utterances = unless it is a name of other utterances": A.Wezler, *StII* 3 (1977), pp.64f. Similar is the translation in the author's earlier work *Paribhāṣā IV, V and XV*, Bad Homburg v.d.H.1969, p.234: "Wird nicht, wenn [das sūtra] lediglich *svaṃ śabdasyâśabda-saṃjñā bhavati* [lautet], das, was das Wort benennt, die [Laut-]Form sein?" J.C.Wright (in his Introduction to John Brough, *Collected Papers*, p.vii fn.3) proposed to modify Wezler's translation: "the eternal word is replaced by its phonetic realization, if such is not a name denoting a word [e.g. *vṛddhi*]." P.Filliozat in his translation *Le Mahābhāṣya de Patañjali*, Adhyāya 1, Pāda 1 Āhnika 8-9, Pondichery 1978, pp.310f. translated "le soi du mot est la chose nommée par lui, sauf si c'est un nom technique de la grammaire" and remarked in footnote 1 on the unusual use of *saṃjñā* for "la chose nommée" (*saṃjñin*). But note his different translation on p.228 of the parallel passage Mahābhāṣya I 163,15: "la forme propre est le nom technique du mot." Indeed, Nāgojībhaṭṭa explained in his Uddyota on Mahābhāṣya I 175,20 (vol.I, p.520,15f.) that here the word *saṃjñā* has the meaning of *bodhya* 'to be understood." *bodhya* is, of course, reminiscent of the paraphrase in the Kāśikā: see above p.182 fn.1

18. G.Cardona, *Pāṇini: His Work and its Traditions*, vol.I, Delhi 1988, p.15 (2ⁿᵈ ed. p.14).

saṃjñā. In my review[19] of his book I had criticized him for supplying the word *saṃjñā* in the sūtra (*svaṃ rūpaṃ śabdasya* [*saṃjñā*] *aśabda-saṃjñā*. In the second edition of his *Pāṇini*[20] Cardona defended not only his interpretation of *svaṃ rūpaṃ śabdasya* [*saṃjñā*], but also proposed a new analysis of *aśabda-saṃjñā*. Improbable as it is, he maintained that Pāṇini's [*a*]*śabda-saṃjñā* had to be analyzed differently from the postulated *śabdasya* [*saṃjñā*] in the first part of the same sūtra. Cardona proposed to dissolve the compound as *śabde saṃjñā*, where *śabda* "signifies grammar, grammatical rules instead of a speech unit," i.e. *śabda* is short for *śabdaśāstra* "grammar."[21] He argued that with the customary analysis *śabdasya saṃjñā* the restriction *aśabda-saṃjñā* would apply only to "terms that name linguistic elements, such as *vṛddhi*, *guṇa*. It would not exclude terms like *kartṛ*, *karman*, which do not refer to speech units. Therefore, by **A** 1.1.68, these too would be self-referring, which is undesirable."[22]

A review of these conflicting interpretations has to start with a few observations that have not so far received the attention they deserve. Already Kātyāyana had noted that grammatical operations are impossible with the thing-meant that comes up only secondarily after the word is realized, and thus the restriction to the form requires no special statement.[23] He also noted that there was no need to explicitly exempt the technical terms from the application of this rule: these terms refer

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19. H.Scharfe, *JAOS* 109 (1989), p.656.

20. G.Cardona, *Pāṇini: His Work and its Traditions*, vol.I, 2nd ed., Delhi 1997, pp.xxvi f.

21. I found no reference to a *śabda* meaning "grammar" in ancient texts.

22. Note that Nāgojībhaṭṭa on I 4 21 (vol.II, p.368,28) explained Kaiyaṭa's *niṣpanna-śabda-saṃjñābhiḥ* with *niṣpanna-śabdasya saṃjñā-bhūtair ity arthaḥ*. Śabdakaustubha, vol.II, p.114,25 (Kudo's section II 9,4) contrasts *śabda-saṃjñātva* "name of a speech unit" and *artha-saṃjñātva* "name of a meaning", the former referring to the technical terms *ti*, *GHU*, *BHA* etc., the latter to the concepts of agents, object, etc. (*kartṛ*, *karman*, etc.); both are "technical expressions" (*pāribhāṣika*): Noriyuki Kudo, *Nagoya Studies in Indian Studies and Buddhism. Saṃbhāṣā* 17 (1996), p.51.

23. Vārttika-s 1 and 2 on I 1 68 (Mahābhāṣya I 175,25 and 176,4) *śabdenârtha-gater arthasyâsaṃbhavāt tad-vācinaḥ saṃjñā-pratiṣedhârthaṃ svarūpa-vacanam* and *na vā śabda-pūrvako hy arthe saṃpratyayas tasmād artha-nivṛttiḥ* "Because the thing-meant is obtained by the word and the [grammatical operation] is impossible with the thing-meant, *svaṃ rūpam* is taught to block the naming of [a synonym] that expresses [this thing-meant]" and "Or that is not [the purpose], because the understanding of the thing-meant is secondary to the word and therefore the thing-meant is turned away."

to their *denotata* because they are expressly taught and defined, consti-
tuting thus an exception to the rule by the mere fact of being taught.[24]
That is true not only for artificial terms like *GHU* (= roots √*dā* and
√*dhā*) or *GHA* (the suffixes *-tara* and *-tama*), and words like *vṛddhi* or
guṇa but also to defined terms like *kartṛ*, *karman*, which do not direct-
ly refer to speech units but are not self-referring. Furthermore, expres-
sions like *mantre* "in a Vedic stanza or prose formula" or *yajuṣi* "a in a
sacrificial formula in prose" denote the thing-meant, since Pāṇini's in-
struction should make sense.[25] In the end, Kātyāyana considered the
denotation of synonyms, even though they are tertiary after the word
itself and its thing-meant. But he limited the opportunity for synonyms
to four types, each marked with a special tag.

    Cardona's interpretation of *aśabda-saṃjñā*, on the other hand,
cannot account for the instances where words in Pāṇini's sūtras refer
also to synonyms/subgroups or even to synonyms or subgroups alone.
In II 4 12[26] the words *vṛkṣa* and *mṛga*, etc. do not refer to these two
words themselves at all but only to various names of trees and ani-
mals, i.e. to subspecies. In III 4 40 [25 *khamuñ*] *sve puṣaḥ* "suffix *-am*
after the root √*puṣ* with *sva*" results in *sva-poṣam*, *go-poṣam*, *pitṛ-
poṣam*, etc., i.e., including the word *sva* and its synonyms. In II 4 23
[17 *napuṃsakam*] *sabhā rājâmanuṣya-pūrvā* "A compound ending in
sabhā is neuter, if preceded by [a word meaning] prince or ogre." The
rule does not apply to either *rājan* or *amanuṣya* themselves, but only
to their synonyms like *ina-[sabham]*, *piśāca-[sabham]*. In IV 4 35 [1
ṬHak] *pakṣi-matsya-mṛgān hanti* "[in the meaning:] 'he kills birds,
fish and game' [the suffix *-ika* is added]" the rule applies not only to
the words *pakṣi*, *matsya*, and *mṛga* themselves, but also to the names

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24. Vārttika 3 on I 1 68 (Mahābhāṣya I 176,11) *saṃjñā-pratiṣedhânarthakyaṃ vacana-prāmāṇyāt* "There is no sense in restricting technical terms, because the teaching is authority."

25. Vārttika 4 on I 1 68 (Mahābhāṣya I 176,21) *mantrâdy-artham iti cec chās-tra-sāmarthyād artha-gateḥ siddham* "If [it is argued that] it is for the sake of [expres-sions like] *mantra* etc., [I say] it is correct because the thing-meant is understood, since the grammar text must be meaningful."

26. II 4 12 [1 *eka-vacanam* 2 *dvaṃdvaś ca*] *vibhāṣā vṛkṣa-mṛga-tṛṇa-dhānya-vyañjana-paśu-śakuny-aśva-vaḍava-pūrvāparâdharottarāṇām* "Sometimes the singu-lar occurs in a dvandva compound of [names of] trees, animals, grasses, cereals, spic-es, domestic animals, birds, and in *aśva-vaḍava*, *pūrvâpara* and *adharôttara*."

of individual birds, fish and game (i.e., subspecies). Kātyāyana proposed to mark instances of type 1 (such as II 4 12) with a tag *s*, of type 2 (such as III 4 40) with a tag *p*, of type 3 (such as II 4 23) with a tag *j*, of type 4 (such as IV 4 35) with a tag *jh*. [27]

Different is the case of II 1 20 [5 *avyayībhāvaḥ* 18 *vā* 19 *saṃkhyā*] *nadībhiś ca* "A numeral is commonly compounded with rivers [i.e., river names] as an indeclinable." The reference is neither to the word *nadī* nor its synonyms but to particular river names. [28] Here the peculiarity is, according to the Nyāsa, indicated by the plural *nadībhiś*. [29]

Let me return now to the Mahābhāṣya. Patañjali questioned the need for the word *rūpam* in I 1 68, since *svam* already limits the reach of the rule to the form by excluding *artha*. He subsequently, though, abandoned the idea to delete *rūpam* (he did not question the necessity of *svam*).

Patañjali asked: "What is the purpose of having *rūpam*, not [simply] *svaṃ śabdasyâśabda-saṃjñā* 'the word has its own, except a *śabda-saṃjñā*'? [In that case] *rūpam* "form" will be the name (*saṃjñā*) of the word; for the word has nothing 'own' other than this form. When the teacher, in spite of this, mentions 'form' he indicates that the word has something else besides 'form.' – What is that? – The thing-meant." [30] This passage of Patañjali's has caused consternation among

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27. Vārttikas 5-8 on I 1 68 (Mahābhāṣya I 176,25-177,12):
    Vārttika 5 *sit tad-viśeṣāṇāṃ vṛkṣâdy-artham* "tagged with *s* for its subgroups for the sake of *vṛkṣa* etc."
    Vārttika 6 *pit paryāya-vacanasya ca svâdy-artham* "tagged with *p* also for its synonyms for the sake of *sva* etc."
    Vārttika 7 *jit paryāya-vacanasyaîva rājârtham* "tagged with *j* for the synonyms alone for the sake of *rājan* etc."
    Vārttika 8 *jhit tasya ca tad-viśeṣāṇāṃ ca matsyârtham* "tagged with *jh* for this as well as its subgroups for the sake of *matsya* etc."
    28. Joshi/Roodbergen, *The Aṣṭādhyāyī of Pāṇini*, vol.V p.40.
    29. Nyāsa on Kāśikā on II 1 20 (vol.II, p.37,27f.) *bahuvacana-nirdeśenârtha-syêdaṃ grahaṇam, na svarūpasya, nâpi saṃjñāyāḥ; tena sarvair nadī-vācibhiḥ samā-so vijñāyate* "Because it is taught in the plural, it denotes the object – not the own form or the term; therefore a compound with all [words naming] rivers is understood." Joshi/Roodbergen, *ibid.*, refer also to II 1 28 *kālāḥ*, IV 1 120 *strībhyaḥ*, and IV 1 135 *catuṣpādbhyaḥ*. Similarly, *kutsitāni* in II 1 53 is a generic term.
    30. Mahābhāṣya I 175,20-22 *rūpa-grahaṇaṃ kim-arthaṃ na svaṃ śabdasyâ-śabda-saṃjñā bhavatîty eva rūpaṃ śabdasya saṃjñā bhaviṣyati. na hy anyat svaṃ śabdasyâsty anyad ato rūpāt. evaṃ tarhi siddhe sati yad rūpa-grahaṇaṃ karoti taj jñāpayaty ācāryo 'sty anyad rūpāt svaṃ śabdasya. kiṃ punas tat? arthaḥ.

interpreters of the Māhābhāṣya. Nāgojībhaṭṭa commented on Patañjali's quoted sentence (*rūpaṃ śabdasya saṃjñā bhaviṣyati*) with *atra saṃjñā-śabdo bodhya-paraḥ, karma-vyutpatteḥ* "Here the word *saṃjñā* means 'named' due to derivation as an object."[31] Nāgojībhaṭṭa had no compunction to assert that *saṃjñā* in this context has exactly the opposite of its usual meaning! When Patañjali suggested that "The form names → the word," Nāgojībhaṭṭa assumed that "The form is named ← by the word."[32] P.Filliozat was justly puzzled. He translated the Mahābhāṣya passage, in accordance with his principle to translate on the basis of the tradition: "seulement la forme du mot sera la chose nomée par lui" and remarked: "L'employ du mot *saṃjñā* fait difficulté ici. Il désigne ordinairement le nom et *saṃjñin* désigne la chose nommée."[33]

The phrase considered and then rejected by Patañjali (*svaṃ rūpaṃ śabdasya saṃjñā*) turns up once more in another context. In the lengthy discussion of rule I 1 62 *pratyaya-lope pratyaya-lakṣaṇam* Kātyāyana made the suggestion that instead of I 1 56 *sthānivad ādeśo 'nalvidhau* ("A substitute is like the original except for rules concerning sound") it would suffice to teach that "The name of the original is transferred to the substitute."[34] But that would create a problem elsewhere. Rule I 3 28 [12 *ātmanepadam*] *āṅo yama-hanaḥ* teaches "After the roots √*yam* and √*han* with the prefix *ā* [the endings of middle voice are added]," and *vadh* is substituted for √*han* by rule II 4 42 *ha-no vadha liṅi* "In the precative *vadha* is substituted for *han*." The concern is that the middle voice "would only result for forms of *han*, but not for *vadha*. For there is no name for *han* that could be transferred to *vadha*. – There is a name also for *han*. – Which? – Just *han*. – How? –

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31. Nāgojībhaṭṭa's Uddyota (vol.I, p.520,16) appears to suggest: if *saṃjñā* refers to the named (rather the name), it would be derived with the suffix *aⁿ* (words with this suffix form their feminine with 'aᵖ: IV 1 4) according to III_3 106 *ātaś côpasarge*, denoting the object of an action: P.Filliozat, *Le Mahābhāṣya* (Āhnika 8-9), p.313 fn.1 (on I 1 68).

32. P.S.Subrahmanya Sastri, *Lectures on Patañjali's Mahābhāṣya,* vol.III p.232, translated Patañjali following Nāgojībhaṭṭa: "Does not *rūpa* become the *bodhya* of *śabda*?"

33. P.Filliozat, *Le Mahābhāṣya* (Āhnika 8-9), p.311; cf. also above p.185 fn.17.

34. Vārttika 11 on I 1 62 (Mahābhāṣya I 163,9) *siddhaṃ tu sthāni-saṃjñânudeśād ānya-bhāvyasya* "It is resolved by the transfer of [only] the name of the original to the substitute."

Because of the teaching of the rule I 1 68 by '*svaṃ rūpaṃ śabdasya
saṃjñā bhavati*' *han* will be a name for *han*."[35] Patañjali found him-
self in a dilemma and – to get out of it – he resorted to a formula he
himself rejected on its proper place, i.e. in his discussion of I 1 68.[36]
Later Kātyāyana found fault with the proposed change to sūtra I 1 56
and Patañjali, too, rejected the change: "And the sūtra is being cut; let
it remain as it is."[37]

    But Cardona seized on this passage to support his interpretation of
I 1 68. Cardona indeed considered *svaṃ rūpam* the *saṃjñā* and
śabdasya the *saṃjñin*: "A linguistic element's own form (*svaṃ rūpam*)
is understood to refer to that element (*śabdasya* [*saṃjñā*] '[name] of a
speech unit') itself, not to signify the meaning of the item, unless the
element in question is a technical term of grammar (*aśabdasaṃjñā*)."[38]
Cardona's interpretation would remove the awkward position of
a-śabda-saṃjñā encountered when this nominative was seen as paral-
lel to the genitive *śabdasya*. But his suppletion creates a greater oddity
when spelled out: **svaṃ rūpaṃ śabdasya saṃjñâśabda-saṃjñā*. Here
the own form (*svaṃ rūpam*) is the name of the word (*śabdasya
saṃjñā*), if it is not a *śabda-saṃjñā*. It forces Cardona to propose for
[*a*]*śabda-saṃjñā* a different structure than that of the foregoing

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    35. Mahābhāṣya I 163,13-16 *hanter eva syād vadher na syāt. na hi kācid
dhanteḥ saṃjñâsti yā vadher atidiśyeta. – hanter api saṃjñâsti. – kā? – hantir eva. –
katham? – svaṃ rūpaṃ śabdasyâśabda-saṃjñā iti vacanāt svaṃ rūpaṃ śabdasya
saṃjñā bhavatîti hanter api hantiḥ saṃjñā bhaviṣyatîti.*

    36. Annaṃbhaṭṭa explained in his subcommentary on the Pradīpa on I 1 62:
*hantiṃ sva-rūpeṇôpādāyâtmanepadam vidhīyate na tu kāṃcit saṃjñām āśrityêti bhā-
vaḥ. yady api dhātu-saṃjñâsti tathâpi na tad-upādānenâtmanepadam vidhīyate. āṅo
yama-hana iti sūtrôpātto hantiḥ saṃjñā, prayogasthas tu saṃjñîti vadher api hanti-
saṃjñâtidiśyate* "The middle voice is imposed on *han* with its own form, but not on
the basis of any name. Even though there is its name as 'root,' the middle voice is not
imposed by its application. *han* enounced in sūtra I 3 28 is the name, [*han*] in usage
[in the object language] the named; thus the name '*han*' is transferred to *vadha*." (*The
Vyākaraṇa Mahābhāṣya* Part II by Bhagavat-Patañjali with Pradīpa by Kaiyaṭa and
Mahābhāṣya-pradīpoddyotana by Annambhaṭṭa, ed. by T.Chandrasekharan, Madras
1952, p.341).

    37. Vārttika 13 on I 1 62 and Patañjali's comment: Mahābhāṣya I 164,1+7
sūtraṃ ca bhidyate. yathā-nyāsam evâstu. On *sūtra-bheda* "cutting of the thread" see
above pp.34f.

    38. *Pāṇini*, 2nd ed., p.xxiv.

śabdasya saṃjñā: *śabde saṃjñā* "name in grammar."[39] He followed
the paraphrase of the latter part of I 1 68 given in the Siddhānta-
kaumudī (nr. 46): *śabdasya svaṃ rūpaṃ saṃjñi śabda-śāstre yā
saṃjñā tām vinā* "The own form of the word is designated (or: desig-
nated by the word) except that designation which is [found] in word
science"[40] – but not of the first part: Bhaṭṭojidīkṣita's suppletion of
saṃjñi is much more defensible than that of *saṃjñā* proposed by
Cardona.

Cardona sought to support his position with a reference to
Vākyapadīya I 69/70[41] and the vṛtti on it. In the stanzas I 68/69
Bhartṛhari dealt with the different problem of individual (*vyakti*, repre-
sented here by *svaṃ rūpam*) versus universal (*jāti*). Is the *vyakti* (i.e.
svaṃ rūpam) the name (*saṃjñā*) conveying the universal or is, on the
contrary, the individual (*svaṃ rūpam*) the named (*saṃjñin*) conveyed
by the universal? In this context the commentary (*vṛtti*, by Bhartṛhari
himself or a disciple?) cites other commentators. Some say: "The own
form of the word is the expressor, the illuminator, the conveyor [of the
word]" (*svaṃ rūpaṃ śabdasya grāhakaṃ bhavati dyotakaṃ
pratyāyakam*),[42] others: "The own form of the word is the expressed,
the illuminated, the conveyed" (*svaṃ rūpaṃ śabdasya grāhyaṃ
dyotyaṃ pratyāyyam*).[43] It is clear that these commentators are not
dealing directly with the relation of "form" (*svaṃ rūpam*) and word
(*śabdasya*)[44] but with the direction of the rule. Which is primary: in-
dividual or universal?

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39. On p.167 of his *Pāṇini* (1st ed.; 2nd ed., p.143) though, Cardona translated
aśabda-saṃjñāyām of VII 3 67 with "unless …is a term naming a linguistic unit
(*aśabda-saṃjñāyām*)," and on p.341 (2nd ed., p.291) "other than one which is the
name of a speech unit (*aśabda-saṃjñāyām*)," assuming an underlying *śabdasya
saṃjñā*.

40. The commentary Tattvabodhinī, too, declares *śabda* to mean *śabda-śāstra*
and calls *aśabda-saṃjñā* a *saptamī-samāsa*. The Siddhānta-kaumudī nr. 3838 (VII 3
67) paraphrases *śabda-saṃjñā* with *śabdâkhyā*.

41. Bhartṛharis Vākyapadīya ed. W.Rau, Wiesbaden 1977, numbered I 68/69 in
the edition of K.A.Iyer, Poona 1966. Cf. Hideyo Ogawa, *JIPh* 29 (2001), pp.531-543.

42. Vākyapadīya ed. K.A.S.Iyer, Kāṇḍa I, p.127,8f.

43. Vākyapadīya ed. K.A.S.Iyer, Kāṇḍa I, p.128,1f.

44. In both stanzas the genitive *śabdasya* can be taken adnominally with *svaṃ
rūpam* "own form of the word" or as object/agent of the following *grāhakam/grāhy-
am* etc. "expressor of the word" and "expressed by the word," etc.

According to Cardona, Pāṇini would refer to his own pronounce-
ments as *svaṃ rūpam*; what is the point of the restriction *svam*? And
the common dichotomy of form and thing-meant (as the two referents
of a word) is strangely distorted when we are told that the form de-
notes the word and not its thing-meant. In an important detail Cardona
differed from Wezler who took the 'word' (*śabda*) to be part of
Pāṇini's instruction; Cardona considered it part of the object language.
What new information does it give us, when the "own form" (in the
grammar) teaches the word in the object language? In Cardona's inter-
pretation the sūtra does not address the problem of the synonyms,
though it blocks any reference to the thing-meant (*artha*) – but his for-
mulation "not to signify the meaning of the item" is something he
probably got from the paraphrase in the Kāśikā, not from Pāṇini's sū-
tra itself.

We have now several combinations: 1) *svaṃ rūpam* refers to the
meta-language, *śabdasya* to the object language; 2) *svaṃ rūpam* refers
to the object language, *śabdasya* to the meta-language; 3) both *svaṃ
rūpam* and *śabdasya* refer to the meta-language; 4) both *svaṃ rūpam*
and *śabdasya* refer to the object language. 1) is Cardona's position
and, it seems, that of one ancient scholar quoted in the vṛtti on
Vākyapadīya I 69/70,[45] 2) my position of 1971, 3) Wezler's position,
and 4) my present position. *asabda-saṃjñā* is conveniently construct-
ed parallel to *svaṃ rūpam*; it was wrong to consider it as parallel with
śabdasya.

An investigation into the use of *śabda* in Pāṇini's grammar re-
veals that in most instances *śabda* refers to the object language. The
word *śabda* occurs twenty times in the Aṣṭādhyāyī. In III 1 17 it is the
base for a denominative *śabdāyate*, in IV 1 168 and IV 3 100 it refers
to "names" of places or men, in I 3 34, I 4 52, III 2 23, and IV 4 34 it
refers to "making sounds," in III 3 33 and IV 3 64 to the co-occur-
rence of a word in a sentence, in II 1 6 to the appearance of a word in
the world, in II 3 29, V 3 27, VI 2 103 and 168 to "direction words"
(*dik-śabda*), in VI 3 56 the words *pac-chabda* and *pāda-śabda*, in III 2

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45. Vākyapadīya ed. K.A.S.Iyer, Kāṇḍa I pp.130f. *rūpa-mātram ekadeśo
'rthavato rūpârtha-samudāyasya sāmānya-viśeṣâdi-śakti-yuktasya śabdasya
śabdatvenâśritasya saṃjñā.*

148 and VI 2 80 to the "meaning of words" (*śabdârtha*). VII 3 67 *va-co 'śabda-saṃjñāyām* rules that the final /c/ of the root √*vac* is not replaced by a velar /k/ unless it is the name of a speech unit: we have thus *vācya* "deserving blame" and *avācya* "blameless," but *vākya* "speech, statement, sentence." VIII 3 86 *abhi-nis.aḥ stanaḥ śabda-saṃjñāyām* rules that the initial /s/ of the root √*stan* is optionally replaced by /ṣ/ if the derived word denotes a sound: *abhiniḥstānaḥ* or *abhiniḥṣṭānaḥ. vākya* is commonly "speech, statement" and may have this meaning also in rules VI 1 139 (*vākyâdhahāra* "completion of a statement"), VIII 1 8 and VIII 2 82 where the beginning and end of a *vākya* are singled out for special treatment: the vocative at the beginning of a *vākya* is repeated under certain circumstances, and the last vowel in a *vākya* is lengthened and carries a high pitch. Only in Kātyāyana's vārttikas 9 and 10 on II 1 1 is *vākya* clearly defined as a technical term: *ākhyātaṃ sâvyaya-kāraka-viśeṣaṇaṃ vākyam* "A verb with particles, factors [of the action] and their qualifications is called sentence" and *eka-tiṅ* "what has one verb [is called a sentence]."[46] *abhiniṣṭāna* (and the variant *abhiniṣṭhāna*) occurs frequently in the Gṛhyasūtras, and once in the Caturādhāyikā Prātiśākhya I 2 1 – never in the Aṣṭādhyāyī. *abhiniṣṭāna* "sounding off" and its variants refer to the word final *visarga* sound in given names (in the Gṛhya-sūtras) or the *visarjanīya* (in the Caturādhyāyikā).

Since Pāṇini nowhere else referred to his own pronouncements as *śabda*, *śabdasya* in I 1 68 is unlikely to refer to any word in the Aṣṭādhyāyī (Pāṇini would most likely have said *svaṃ rūpaṃ nirdiṣṭasya*), but to a word in the object language. *aśabda-saṃjñā*, finally, does not mean "not a technical term" or even refer in any way to the technical terms in Pāṇini's grammar, as is often assumed; it refers instead to names for words in the object language. Technical terms are already exempt from the *svaṃ rūpam* rule, as Kātyāyana noted, leaving only ordinary words that are not self-referring, such as *vṛkṣa* or *pakṣin* in Pāṇini's rules. G.B.Palsule[47] and A.Wezler[48] have

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46. Mahābhāṣya I 367,10 +17.
47. G.B.Palsule, *'Saṃjñāyām' in Pāṇini*. Poona 1966, pp.31-75.
48. A.Wezler, in *German Scholars on India*, ed. Embassy of the Federal Republic of Germany, vol.II, Bombay 1976, pp.369-372.

independently concluded that the meaning of *saṃjñā* has developed from "agreement, mutual understanding, or concord"[49] in the later Vedic texts to "conventional use of the word," "a word so used" in Pāṇini's time, and finally "name."[50] In the Aṣṭādhyāyī *saṃjñā* denotes "the social convention which modifies the primary meaning of words and *may* make names out of such words";[51] its use does "not so much indicate the use of a particular word as a name, as the restriction of the primary meaning of that word by convention"[52] – something later grammarians called *yogârūḍha* "a word whose etymological meaning is restricted by convention."[53] In most of the rules *saṃjñā* refers to the names of people, localities or to legal or commercial expressions, but often it refers to items in a general way, with its meaning wider or narrower than the etymology would suggest. The word for "technical term" in the Aṣṭādhyāyī, however, is *vaiyākaraṇâkhyā* "grammarian's term" found in VI 3 7 [1 *alug uttarapade* 6 *ātmanaḥ*] *vaiyākaraṇâkhyāyāṃ caturthyāḥ* "[There is no loss] of the dative ending [after *ātman* before the second member of a compound] if it is a term of the grammarians": Pāṇini explains thus the formation of the term *ātmanepadam*.[54]

In contrast to *nāman* and *ākhyā* which are used in the sense of "a name" in the Aṣṭādhyāyī interchangeably and "always occur as the second member of a compound, the first member being the object named," *saṃjñā* typically stands alone, and no *saṃjñin* is mentioned.[55] The exception is [*a*]*śabda-saṃjñā* in I 1 68, VII 3 67 and VIII 3 86. In VII 3 67 *vaco 'śabda-saṃjñāyām* the reference is to *vācya* 'to be said, to be blamed" versus *vākya* "speech, statement, sentence" which is not defined by Pāṇini and occurs in three of his rules. VIII 3 86 *abhinisaḥ stanaḥ śabda-saṃjñāyām* refers to the word *abhiniṣṭāna* which is not a technical term in Pāṇini's grammar.

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49. A.Wezler, *ibid*., p.366.
50. G.B.Palsule, *'Saṃjñāyām' in Pāṇini*, p.62.
51. Palsule, *ibid.,* p.67.
52. Palsule, *ibid.,* p.67.
53. Palsule, *ibid.,* p.68.
54. Palsule, *ibid.,* p.66 fn.20 too readily conceded that *vaiyākaraṇâkhyā* is synonymous with *śabda-saṃjñā*.
55. Palsule, *ibid.,* p.66.

The strongest argument for a *saṃjñā* technical term" is perhaps rule I 4 1 *ā kaḍārād ekā saṃjñā* "Up to *kaḍāra* [in II 2 38][56] inclusive, one single designation [only]," followed by I 4 2 *vipratiṣedhe paraṃ kāryam* "If there is mutual conflict, the later [grammatical] operation [applies]." One problem is this, that Patañjali records an alternative tradition: instead of these two rules, there was a tradition of just one: *prāk kaḍārād paraṃ kāryam* "Up to *kaḍāra* [in II 2 38] exclusive, the later [grammatical] operation [applies]."[57] In this version, the word *saṃjñā* is absent. If we accept the first version as authoritative (as the Indian tradition does), *saṃjñā* and *kāryam* presumably in some way express the same notion. *saṃjñā* cannot just be a "name" but more of a "designation" or "convention." In I 4 10-12 we come closest to a "name": these rules declare *hrasvaṃ laghu; saṃyoge guru; dīrghaṃ ca* "a short [vowel] is [called] 'light'; if followed by a consonant cluster [it is called] 'heavy'; also a long [vowel is called] 'heavy']." According to the *vipratiṣedha*-rule I 4 2 a short vowel followed by a consonant cluster can only be called 'heavy,' since it cannot have two designations and the later rule prevails. A similar situation is found in I 4 45-46: *ādhāro 'dhikaraṇam. adhi-śīṅ-sthâs.āṃ karma* "The locality [is called] *adhikaraṇa* 'location.' [In construction with] the roots √*śī*, √*sthā* and √*ās*, preceded by *adhi*, [the locality is called] *karman* 'object' [only]."[58] In II 2 32-34 there is no reference to a name but to conflicting procedures: II 2 32-34 [30 *pūrvam*] *dvaṃdve GHI; aj-ādy-ad-antam; alpâctaram* "In a dvandva compound, a noun stem ending in -*i* or -*u* precedes; [or rather] one beginning with a vowel and ending in -*a*; [or rather] one with fewer syllables." Here each sūtra overrules the one preceding in its sphere. We would not be able to account for the prevalence with the concept of

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56. S.D.Joshi and J.A.F.Roodbergen, in *Indian Linguistic Studies* (Fs. G. Cardona), Delhi 2002, pp.112-120 have suggested that the reference might rather be to *kaḍāra* in II 1 3 *prāk kaḍārāt samāsaḥ* "Up to *kaḍāra* (exlusive) [the designation] 'compound' [holds good]" which comes earlier in the grammar. But this *kaḍāra* is itself only a reference to *kaḍāra* in II 2 38. It is striking that I 4 2 has *ā kaḍārāt* versus *prāk kaḍārāt* in II 1 3: the former is inclusive, the latter exclusive, i.e. the *samāsa* section is boxed within the larger section that includes *kaḍāra* in II 2 38.

57. Mahābhāṣya I 296,13 *prāk kaḍārāt paraṃ kāryam*.

58. It cannot be both *adhikaraṇa* and *karman*; I 4 46 therefore allows only the construction with the accusative, ruled in by II 3 2 *karmaṇi dvitīyā* to denote the object.

general rule (*utsarga*) and exception (*apavāda*); only I 4 2 *vipratiṣed-he paraṃ kāryam* achieves the desired result.[59] The sūtra I 4 1 *ā kaḍārād ekā saṃjñā* is therefore not a strong argument for *saṃjñā* "technical term."

If then *saṃjñā* probably should never be taken as "technical term" and *śabda* refers to the words of the object language, *aśabda-saṃjñā* in I 1 68 should not mean "unless it is a technical term of grammar" but "unless it is a designation of [other] utterances." Only in this inter-pretation can we do justice to the initial *svam*. If it was the purpose of the rule to indicate self-referral and to eliminate (in grammar) refer-ences to the thing-meant, *rūpam* would have been sufficient: **rūpaṃ śabdasyâśabda-saṃjñā*. Consequently, the suffix *ḌHa^k* (i.e., *-eya*) is attached to the word '*agni*' in accordance with IV 2 33 *agner ḌHak* (resulting in *āgneya* "consecrated to Agni"), not to the fire. But this is, as already Kātyāyana[60] pointed out, too obvious to require an injunc-tion. What matters is that only the o w n form of the word or utterance in the object language is invoked – unless the form is a designation of other utterances.

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    59. These three rules account for a) *Agnī-ṣomau*, *Hari-harau*, b) *uṣṭra-kharam*, and c) *grīṣma-vasantau*. They do not stand in an *utsarga/apavāda* relation.
    60. Above p.186 fn.23.

vacana "number" in Pāṇini's Grammar?

Otto Böhtlingk's word index to Pāṇini's Grammar[1] lists twenty-nine occurrences for a word *vacana* "expressing", e.g. I 4 89 *āṅ maryādā-vacane* "*ā*, when a limit is to be denoted" (i.e., the preposition *ā* "up to"). Besides this, there are two references to a word *vacana* "grammatical number": I 2 51 and II 3 46. Böhtlingk translated II 3 46 *prātipadikârtha-liṅga-parimāṇa-vacana-mātre prathamā* "Wenn nichts Anderes ausgedrückt werden soll als die Bedeutung des Nominalstammes, das Geschlecht, das Mass oder der Numerus, so steht der Nominativ."[2] This translation is based on the discussion of this rule by the traditional Indian grammarians, though misunderstood in some part.

Already J.S.Speijer[3] had noticed that this traditional translation cannot be correct; the nominative suffix certainly does not denote the meaning of the noun stem, i.e., the thing-meant – only the noun stem can do this. Paul Thieme[4] discussed the sūtra II 3 46 and the discussion of it by the Pāṇinīyas in detail and showed that *parimāṇa* cannot denote here "measurement of size" in the sense of "gallon" etc. There is hence no reason to seek the meaning "number" in the plain *vacana*; rather *parimāṇa-vacana* "expression of measure" as a whole denotes "number." Thieme translated the sūtra: "The nominative ending is added when there is to be designated nothing but the gender and the number of the nominal stem notion." *vacana* then denotes here too, in connection with *liṅga* and *parimāṇa* (i.e., *liṅga*[-*vacana*] and *parimāṇa-vacana*), "expressing."[5]

Let us now turn to the last remaining occurrence of *vacana* "number" in Pāṇini's Grammar, conceded even by Thieme.[6] We must first

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1. Otto Böhtlingk, *Pâṇini's Grammatik*, Leipzig 1887 repr. Hildesheim 1964, p.271*.

2. "The nominative is used when nothing more is to be expressed but the meaning of the noun stem, the gender, the measure and the number."

3. J.S.Speijer, *Sanskrit Syntax*, Leyden 1886 repr. Delhi 1993, p.26 fn.1.

4. P.Thieme, *JAOS* LXXVI (1956), pp.1-23 (*Kl.Schr.*, pp.573-595).

5. See also S.D.Joshi and J.A.F.Roodbergen, *Mahābhāṣya, Prātipadikârtha-śeṣāhnika*, pp.1-8.

6. P.Thieme, *JAOS* LXXVI (1956), p.9 (*Kl.Schr.*, p.581).

place the sūtra I 2 51 in context.[7] I have here rendered Böhtlingk's
German translation into English.

I 2 49   [48 *go-striyor*] *luk taddhita-luki* "At the elision of a tad-
           dhita suffix there is also elision of the feminine suffix."

I 2 50   *id goṇyāḥ* "/i/ is substituted for /ī/ in *goṇī* in this case."[8]

I 2 51   *lupi yuktavad vyakti-vacane* "When the elision of a suffix
           is indicated by *lup*, gender and number (of the seemingly
           derived word) follow the word to which they are related."

I 2 52   *viśeṣaṇānāṃ câjāteḥ* "Thus it is also with the gender and
           number of the qualifying word, if this is not class term."

I 2 53 to 57 are five sūtras that cannot be attributed to Pāṇini but are
           later insertions.[9]

I 2 58   *jāty-ākhyāyām ekasmin bahu-vacanam anyatarasyām* "In
           a class name also the plural is alternatively used with ref-
           erence to one item."

The fatal flaw in Böhtlingk's translation of I 2 51 is that there is
no *vyakti* "grammatical gender" in Sanskrit literature except in the
commentaries on I 2 51f. and references related to them.[10] Patañjali
expressed the contrast *sāmānya* "generality" versus *vyakti*
"specificity,"[11] and more often the contrast *ākṛti* "form, ἰδέα" versus
dravya "stuff, individual item."[12] In Nyāya philosophy the contrast to
vyakti "individual manifestation" is *jāti* "species, class" or *ākṛti*

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     7. Cf. Peter M.Scharf, *The Denotation of Generic Terms in Ancient Indian
Philosophy: Grammar, Nyāya, and Mīmāṃsā*, Philadelphia 1996, pp.74f. and 141.

     8. This is an exception to the previous rule: the feminine suffix *-ī* in *goṇī* is
not elided but shortened, e.g. in *pañca-goṇiḥ* "a piece of cloth bought for five *goṇī*-s"
(Mahābhāṣya I 226,3).

     9. Thus already Böhtlingk, *Pânini's Grammatik*, p.18. Also Joshi/
Roodbergen, in *Proceedings*, pp.68f. and *The Aṣṭādhyāyī of Pāṇini*, vol.I, p.102 and
vol.II, pp.93-95; G.Cardona, *Pânini: His Work and its Traditions*, vol.1, 2nd ed.,
pp.596-605. The first of these sūtras (I 2 53) was already known to Patañjali who
commented on it very briefly (Mahābhāṣya I 229,7f.).

     10. P.S.Subrahmanya Sastri, *Lectures on Patañjali's Mahābhāṣya*, vol.IV
p.111 suggested: "The words *yukta*, *vyakti* and *vacana* are the *saṃjñās* of *Pāṇini's*
predecessors for *prakṛti* (stem), *liṅga* (gender) and *sāṅkhyā* [sic] (number)," making
virtually the whole sūtra pre-Pāṇinian.

     11. Mahābhāṣya, ed. F.Kielhorn, I 145,26.

     12. Mahābhāṣya I 7.8-18.

"form."[13] Finding *jāti* in the two following sūtras (I 2 52 and 58) strongly suggests the contrary meaning "individual manifestation" for *vyakti* in I 2 51. Only strong reasons could compel us to accept instead "grammatical gender."

The first vārttika on I 2 51[14] gives the reason why the rule is necessary. "The instruction that it is like the [basic] word joined [with the suffix is needed], because otherwise[15] gender and number of the named object would result." The following will give an illustration. After the word *lavaṇa* "salt" the suffix *-ika* (ruled in by IV 4 1) is deleted (by IV 4 24 *lavaṇāl luk*) by *luk*, giving us an adjective *lavaṇa* "salty"; in gender and number the adjective follows the noun to which it is attached. But whenever the elision is caused by *lup*, this is not supposed to happen. Thus, e.g., a suffix *añ* is attached (by IV 1 86 and IV 2 69) to the tribal name *Pañcālāḥ* "the Pañcālas" forming an adjective *Pā́ñcāla*;[16] this suffix is elided by *lup* if the word denotes the country (IV 2 81 *janapade lup*). By force of I 2 51 *lupi yuktavad vyakti-vacane* we obtain Pañcālāḥ "the land of the Pañcālas." Likewise: from *śirīṣāḥ* "acacias" a place name Śirīṣāḥ "a village close to acacia trees" is formed by IV 2 70 and 82. From *kaṭubadarī* (the jujube tree) there is Kaṭubadarī "a village close to the *kaṭubadarī*." Pañcālāḥ and Śirīṣāḥ are plural masculine forms, Kaṭubadarī singular feminine – exactly as the basic words from which they are derived.

Thus far a shorter sūtra would have sufficed*: *lupi yuktavat* "If there is elision by *lup*, the word[17] (or: the operation) is like the original that was joined with the suffix." What is the point of adding *vyakti-vacane*? This question is first clearly formulated in the surviving literature by Patañjali, but it had concerned already previous interpreters whose solution is the background for Patañjali's discussion. To understand it, we must consider the simple meaning of the expression *vyakti-vacane*, viz., "when an individual item is denoted."

Pāṇini's sūtra means accordingly that the derivation shall happen

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13. E.g., Nyāyasūtra ed.W.Ruben, Leipzig 1928, pp.55-57 (II b 57-64).

14. Mahābhāṣya I 227,12: *anyatrâbhidheya-vyakti-vacana-bhāvāl lupi yuktavad-anudeśaḥ*.

15. When the elision is effected by *luk* etc., i.e. in the case of adjectives.

16. An adjective *pāñcāla* 'belonging to the Pañcālas' is attested.

17. If we assume that *prātipadikam* from sūtra I 2 45 is to be supplied.

only for individual objects: a certain village that is near the acacias or a *kaṭubadarī*, but not all villages in such a neighborhood; or the country of the Pañcālas, a certain area in Northern India, not all areas where Pañcālas may live.

The interpreters saw themselves facing a typical difficulty. The expression *vyakti-vacane* is long with redundancy and could easily be replaced by a much shorter *vyaktau*. They searched for a special motive for Pāṇini's seemingly prolix formulation and came up with the proposal to take *vyakti-vacane* not as the locative singular of a tatpuruṣa compound, but the nominative dual of a dvandva instead: "*vyakti* and *vacana*." From *eka-vacana* "singular," *dvi-vacana* "dual," and *bahu-vacana* "plural" one could abstract a *vacana* "number." From *vya-ñjana* "mark of sex/gender"[18] one could suggest a meaning "grammatical gender" for *vyakti*. Thus it was possible to interpret sūtra I 2 51 as: "In the elision [of a taddhita suffix] by *lup*, gender and number are like in the [word that was] joined [with the elided suffix]."

But what purpose can such rule have except that of a restriction: "only gender and number?" Indeed Patañjali was able to offer examples where such a restriction is both meaningful and necessary.

"For what purpose [does Pāṇini teach] *vyakti-vacane*?" "A village that lies near the *śirīṣāḥ* ('Acacias') [is called] Śirīṣāḥ. The forest of this village [is called] Śirīṣa-vanam." "And what would be [if Pāṇini had not given the restriction regarding gender and number]?" "By [Pāṇini's sūtra] VIII 4 6 *vibhāṣauṣadhi-vanaspatibhyaḥ*[19] there would be wrongly substitution of /ṇ/."[20]

By VIII 4 6 optionally the /n/ in *vana* is made retroflex[21] (across the juncture of the compound), when the name of a plant or tree precedes in a compound. The "forest of acacias" is then optionally *śirīṣa-vana* or *śirīṣa-vaṇa*. But the forest of the village Śirīṣāḥ ('which is close

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18. Āpastamba-dharma-sūtra II 26,12; Mahābhārata I 145,34; Rāmāyaṇa II 36,11.

19. VIII 4 6 *vibhāṣauṣadhi-vanaspatibhyaḥ* "Sometimes /n/ in *vana* is replaced by /ṇ/ after words denoting herbs or trees. Böhtlingk's edition reads *vanaspatibhyām*.

20. Mahābhāṣya I 226,20-22 *vyakti-vacane iti kim-artham? śirīṣāṇām adūra-bhavo grāmaḥ: Śirīṣāḥ. tasya grāmasya vanam: Śirīṣa-vanam. kim ca syāt? 'vibhāṣauṣadhi-vanaspatibhyaḥ' iti ṇa-tvaṃ prasajyeta.*

21. The cause for the retroflexion is the /ṣ/ in *śirīṣa*.

to the acacias') may only be called Śirīṣa-vana; i.e., the derived place name Śirīṣāḥ shall behave like the base word only in regard to gender and number, but not be, like the original, a word for acacias (the condition for the application of VIII 4 6). Nobody will claim that this distinction was of great practical importance for Pāṇini or anyone else.[22]

"Somebody else says: the village that lies near the *kaṭubadarī* [tree is called] Kaṭubadarī. There shall be no genitive suffix based on the 'being-like-what-is-joined' [taught by Pāṇini]."[23]

From the name of the jujube tree (*kaṭubadarī*) an adjective can be formed "close to the jujube tree" (*kaṭubadaryā[ḥ] adūra-bhavaḥ*) with the suffix a^n (IV 1 83), where the name of the jujube tree is given in the genitive, to which the suffix forming the adjective is added. When the place name is derived from it, the suffix a^n is deleted by *lup* and the remaining word shall behave like the base word to which the suffix was added. Now there is concern that the original *kaṭubadaryāḥ* would be the name of the village (*Kaṭubadaryāḥ). Even a restriction *vyakti-vacane* "[only] gender and number" may not be a remedy if *vacana*, abstracted from *bahu-vacana* "plural" or "plural ending" etc., includes reference to a case suffix. But *vacana* could be a non-technical word meaning "expression [of 'number']." Or there would be no need for the genitive ending, since "the notion of being near to" is already expressed in the name Kaṭubadarī with the deletion by *lup*. These explanations raise other problems that are of lesser interest in this context.[24] One may also say that the suffix is not attached to the genitive case but directly to the stem.[25] The objections voiced in the

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22. One would also assume that the forest of the village called "Close-to-the-acacias" would consist of acacias; then both variants would be appropriate, since it would indeed be a forest of acacias.

23. Mahābhāṣya I 226,23f. *apara aha: kaṭubadaryā adūra-bhavo grāmaḥ: Kaṭubadarī. ṣaṣṭhī yuktavad-bhāvena mā bhūd iti.*

24. The details are conveniently available in P.Filliozat's annotated translation of the Mahābhāṣya with the commentaries of Kaiyaṭa and Nāgojībhaṭṭa*: Le Mahābhāṣya de Patañjali*, Adhyāya 1 Pāda 2, pp.216-227.

25. G.Cardona, *Pāṇini. A Survey of Research*, The Hague 1976, p.334, has objected that (traditionally) the taddhita suffix is added to an *inflected* noun; the case suffix is elided before the taddhita suffix is phonetically joined to the stem. Rule V 1 1 (*ṅy-āp-prātipadikāt* "[The following suffixes] are attached to feminine nouns ending in -ī or -ā and noun stems"), on the other hand, would suggest that the taddhita suffix is joined to the stem immediately. On this apparent contradiction cf. S.Bhate, *Pāṇini's*

Mahābhāṣya are logical delicacies, but can hardly have been the rea-
son for Pāṇini to formulate the rule the way he did.

So we will stay with the a priori probable interpretation: "When
[the suffix] is elided by *lup*, [the new word behaves] like [the base
word] that was linked [with the elided suffix], when an individual item
is denoted."

The next sūtra I 2 52 *viśeṣaṇānāṃ câjāteḥ* brings a supplement,
linked with a *ca* 'and'. Attributes, too, often behave as they would
have with the base word; thus one can say of the country Pañcālāḥ
Pañcālāḥ ramaṇīyāḥ. But we do not want assimilation on number and
gender with the base word in all instances, e.g. not in the expression
Pañcālā janapadaḥ) "the land *Pañcālāḥ*" or "*Pañcālāḥ* is a country").
Therefore Pāṇini restricted the validity of the rule: "[Words] of quali-
fication [only] when they are not a class name."[26] But – if what is not
a class name: the attribute or its noun of reference?

"How is that understood: 'the attribute, that is a class name' or
'attribute of a class name?'"

"What results from that?"

"When it is understood: 'the attribute that is a class name'
Pañcālā[ḥ] janapadaḥ ('the country *Pañcālāḥ*') results correctly, but
[the further attributes] *subhikṣaḥ saṃpanna-pānīyaḥ* and *bahu-mālya-
phalaḥ* ('is excellent through alms,[27] has enough water, [and] many
flowers [for garlands] and fruit') do not result [in the desired singular].
But when it is understood: 'the attributes of a class name' *subhikṣaḥ
saṃpanna-pānīyaḥ* and *bahu-mālya-phalaḥ* [i.e., *janapadaḥ*] result
correctly; but *Pancālā[ḥ] janapadaḥ* does not result."

"Then it will be neither understood as 'the attribute that is a class

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taddhita Rules, pp.2f. and 16f. and S.D.Joshi, *JIPh* 29 (2001), pp.159-165. Either way
the taddhita suffix is joined by internal sandhi to the stem. Patañjali deduced from the
formulation of II 2 19 *upapadam a-tiṅ* that *gati*-s, *kāraka*-s and *upapada*-s are com-
pounded with primary nouns before case suffixes arise: Mahābhāṣya I 418,7f. *gati-
kārakôpapadānāṃ kṛdbhiḥ saha samāsa-vacanam prāk sub-utpatteḥ*, expanded from
Kātyāyana's vārttika 4 on IV 1 48 (Mahābhāṣya II 218,22) and listed in
Nāgojībhaṭṭa's Paribhāṣenduśekhara as *paribhāṣā* nr.75.

26. Thus the assimilation is desired only for adjectives; the word *janapada*, on
the other hand, denotes a class "country."

27. It grants good alms to mendicants (including Veda students and ascetics),
since food is in abundance; the opposite is *durbhikṣa* 'famine.'

name' nor as 'the attributes of a class name' but as 'the attributes be-have [as they would have towards the base word that is] connected [with the suffix] up to the application of a class name.'"[28]

The word *janapada* 'country' is a class name and retains its own grammatical form as far a gender and number are concerned. Already Patañjali registered the objection that this would be quite obvious. When we want to make specific additions to this attribute by an adjective like *subhikṣa* "marked by abundant alms," the question arises, where to connect this adjective grammatically. Not being a class name, it could and should behave like the base word linked with the suffix (*Pañcālāḥ*) according to I 2 51f. And yet in the expression *Pañcālā[ḥ] janapadaḥ subhikṣaḥ* "the country Pañcāla with good alms" shall have the adjective in the singular. We get that result, if we understand in I 2 52 "attribute of a class name"; because then *subhikṣa* is an attribute to the class name *janapada* and is given properly in the singular. But we face difficulties with this interpretation for *janapada* itself which is a class name and not the attribute of a class name. Patañjali extracted himself from this dilemma through an interpretative trick. He parsed *câjāteḥ* not as *ca + ajāteḥ* (which appears obvious) but as *ca + ā + jāteḥ* and interpreted: "and attributes up to [and exclusively,[29] the instance of] a class name [appearing]."

Sūtra I 2 58 which followed immediately in the original text teaches that in a class name the plural is optionally used, even when there is only one [class]. For a class exists, as Kātyāyana and Patañjali explained, in different individuals, even though it is only one. Therefore one may say *vrīhiḥ* 'rice' (singular) as well as *vrīhayaḥ* (plural);[30]

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28. Mahābhāṣya I 228,5-10 *katham idaṃ vijñāyate: jātir yad viśeṣaṇam iti, ahosvij jāter yāni viśeṣaṇânîti? kim câtaḥ? yadi vijñāyate: jātir yad viśeṣaṇam iti, siddhaṃ Pañcālā janapada iti, subhikṣaḥ saṃpanna-pānīyo bahu-mālya-phala iti na sidhyati. atha vijñāyate: jāter yāni viśeṣaṇânîti, siddhaṃ subhikṣaḥ saṃpanna-pānīyo bahu-mālya-phala iti, Pañcālā janapada iti na sidhyati. evaṃ tarhi naîvaṃ vijñāyate: jātir yad viśeṣaṇam iti, nâpi: jāter yāni viśeṣaṇânîti. kathaṃ tarhi? viśeṣaṇānāṃ yuk-tavad-bhāvo bhavaty ā jāti-prayogāt.*

29. In Pāṇini's grammar, however, *ā* always means "up to inclusive" versus *prāk* "up to exclusive": Joshi/ Roodbergen, *Aṣṭādhyāyī*, vol.IX, pp.64f.

30. Note the plural in Homeric πυροί, Lith. *pūraĩ* 'wheat', etc. (E.Schwyzer, *Griechische Grammatik*, vol.II, p.43). Julius Caesar clearly distinguished between *fru-mentum* 'wheat' (a class name) and *frumenta* 'grains' (collective plural): Commentarii

without this rule the plural *vrīhayaḥ* would result correctly only in references to several kinds of rice.

Now we have in I 2 51 *vyakti-vacana*, I 2 58 *jāty-ākhyā* (the opposite of *vyakti-vacana*!) and in I 2 52 a negative *a-jāti*.[31] That raises it to a certainty that these sūtras deal with class and individual items and that *vyakti* indeed here too denotes "individual item" and not "gender." With that conclusion also the last alleged attestation for *vacana* 'number' in Pāṇini's grammar vanishes.[32] *vacana* in I 2 51 has its usual meaning "expressing" and corresponds to (*jāty-*)*ākhyā* in I 2 58.

Even though Pāṇini did not know *vacana* "number,"[33] the term is attested in the texts of later grammarians. Kātyāyana used the word in vārttika 1 on Pāṇini I 2 51 and in the vārttikas 10 and 46 on Pāṇini I 2 64.[34] The āryā stanza quoted by Patañjali (vol.I p.227,5f.) presupposes a *vacana* "number" by paraphrasing *vyakti-vacane* (from I 2 51) with *liṅga-saṃkhye*. Another old attestation is Bṛhaddevatā[35] I 43, not to mention Patañjali's own use in his Mahābhāṣya.[36]

vacana "number" is thus demonstrably younger than *eka-vacana* "singular," *dvi-vacana* "dual," and *bahu-vacana* "plural"; it has been abstracted from these three terms used by Pāṇini, as I indicated above. This abstraction is arbitrary, disregarding other old expressions like *dvir-vacana* "reduplication" (literally "expressing twice"). But *vacana*

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de bello Gallico (ed. Heinrich Meusel, 19th ed. Berlin 1961) I 16,2 (*frumenta*) and 5 (*frumentum*); in I 40,11 *frumentum* as transportable goods contrasts with *frumenta* as grain on the field. Cf. J.Wackernagel, *Vorlesungen über Syntax*, vol. I, p.96.

31. While *vyakti* and *jāti* are opposite notions, they are not exact antonyms. Adjectives like *subhikṣa* express neither a "class" nor "individuality." It was necessary therefore to include a restriction *ajāteḥ* in I 2 52; continuance of *vyakti-vacane* from I 2 51 would not be sufficient.

32. G.B.Palsule, *ABORI* 30 (1949), pp.135-144 had argued that the rule is an interpolation, and Joshi/Roodbergen, *Aṣṭādhyāyī*, vol.II p.90 tended to agree with him. With the argument presented above the major concerns regarding I 2 51 are resolved.

33. That is evident not only from the absence of the term in Pāṇini's grammar, but also from the cumbersome formulation in II 3 46 (*parimāṇa-vacane*). Besides, the generous use of *vacana* 'expressing' (more than two dozen times) in a work of this kind speaks against the possibility that the author also knew *vacana* 'number.'

34. Mahābhāṣya I 227,12; 235,19 and 244,10.

35. The Bṛhaddevatā ed. A.A.Macdonell, *HOS* vol.V/VI 1904 repr. Delhi 1965.

36. E.g. Mahābhāṣya I 461,8. Also Atharva Prātiśākhya ed. and trans. by Sūrya Kānta, Delhi 1968, I 3,13 (=56; p.48) and III 3,15 (=211; p.128) *sarva-liṅga-vacaneṣu* "in all genders and numbers."

prevailed in the end, because it filled a gap in the grammatical terminology; *saṃkhyā* was already employed in Pāṇini's grammar as a term denoting numerals and certain words of a similar character: I 1 23 *bahu-gaṇa-vatu-ḍati saṃkhyā* "*bahu*, *gaṇa*, [noun bases ending in] *va-t^{u}* [and] *^{ḍ}ati* are [also called] *saṃkhyā*."

We gain here some insight into the development of the grammatical terminology. *vacana* "number" could turn out to be a valuable criterion for the dating of old texts. The occurrence of the word in the Kauṭalīya Arthaśāstra[37] (II 10,61) argues strongly against a pre-Pāṇinian date for this text, as had been proposed by R.P.Kangle.[38]

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37. The Kauṭilīya Arthaśāstra ed. R.P.Kangle, Bombay 1960.
38. The Kauṭilīya Arthaśāstra, part II, Bombay 1963, pp.106f. (in his note on II 10,14).

vyākaraṇa and *śābdabodha*

The grammarians were not the only ones to deal with the questions of language. There were the students of the old science of phonetics whose main concern was the preservation of the correct recitation of the Vedic texts, the etymologists who searched for the true and deep meaning of words (primarily Vedic words), and the ritualists who became experts on Vedic exegesis in their effort to determine the exact value of Vedic injunctions. Later they were joined by the logicians and epistemologists of the Nyāya school who searched for an understanding of verbal perception – important not only for a proper appreciation of the Vedic texts but also for a deeper insight on how we communicate with one another and how we conceive and structure ideas. *śabda-pramāṇa*, authoritative word as a source of valid knowledge, was considered in Nyāya philosophy as parallel to perception, inference, and identification/comparison.[1] Their concepts, as they evolved, eventually became known under the term *śābdabodha* "verbal understanding," or "knowledge of the sentence meaning,"[2] essentially "comprehension of the syntactico-semantic relations between word-meanings,"[3] and "By extension the term is then applied to a paraphrase of a given expression, a paraphrase in which the denotation of each element and the relation between these elements are rendered explicit."[4] Their terminology and their way of parsing a sentence with great (if cumbersome) precision greatly influenced later scholars of

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1. The standard illustration example for *upamāna* is that a person ignorant of the exact meaning of the word *gavaya* "wild buffalo" is told that it is similar to a cow; he sees in the wild an animal similar to a cow and identifies this animal as the *gavaya* he was told about (e.g. Tarkasaṃgraha 37 in S.Kuppuswami Sastri, *A Primer of Indian Logic*, 3rd ed. Madras 1961, pp.28 and 250).

2. The latter translation was proposed by B.K.Matilal, in *Sanskrit and Indological Studies* (Fs.V.Raghavan), Delhi 1975, p.222.

3. V.P.Bhatta, *Navya-Nyāya Theory of Verbal Cognition*, vol.I (Delhi 2001), p.30; N.S.Ramanuja Tatacharya, *Śābdabodha-mīmāṃsā*, Pondichéry 2005, vol.I, p. xxi.

4. S.D.Joshi, *Nagoya Studies* 14 (1993), p.16. Also Joshi/Roodbergen, *The Aṣṭādhyāyī* (vol.V, p.57) "In a *śābdabodha* what is offered is an analysis, an explication of these interrelations by means of a *viśeṣaṇaviśeṣyabhāva* 'qualifier-qualified relation'."

the Pāṇinīya tradition.[5] S.D.Joshi[6] gave an example of parsing the sentence *Caitras taṇḍulān pacati* "Caitra cooks the rice grains": *ekatv-âvachinnacaitrâbhinnakartṛko vartamānakālikas taṇḍulâbhinnakarma-niṣṭhaviklittyanukūlaḥ phūtkārâdirūpavyāpāraḥ* "An activity in the form of blowing [on the fire] etc., of which the agent is limited by singularity and non-different from Caitra, belonging to the present time, and favorable to the [result, namely] the becoming soft [of the rice grains] which [result] resides in an object non-different from rice grains."

There are fundamental differences between Indian schools of thought in their analysis even of such a simple sentence as *Caitro grāmaṃ gacchati* "Caitra goes to a village". N.S.Ramanuja Tatacharya[7] offered some illustrations. A grammarian would say: "There is an activity of going – the activity which leads to the contact with <the> village and which is carried out by Caitra." A follower of the Mīmāṃsā would parse: "The volitional effort which is present in Caitra is conducive to the activity that leads to the contact with the village." The exponent of the Nyāya philosophy would say: "Caitra is the substratum of the volitional effort which is conducive to the activity that leads to the contact with the village." This follows from their basic assumptions: that for the grammarian the verb is the basic expression, for the Mīmāṃsaka the verb ending, and for the Naiyāyika the noun in the nominative case (the subject, as traditional Western grammar and logic would say).

Pāṇini's grammar shows us how words and sentences are "built-up" or "formed out" (*vyākriyante*) from the elementary building blocks, viz. roots, suffixes, infixes and augments, in order to express a notion that the speaker wants to convey. It is centered on the verb, and later grammarians had to find a way to explain the nominal clauses (i.e., sentences without verbs) that are common in Sanskrit. In most sentences, the nouns are linked to the action (or situation) expressed by the verb, while adverbs, particles, etc. round out the sentence.

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5. Joshi/Roodbergen, *The Aṣṭādhyāyī* (vol.V, pp.56-59) went so far as to state that "by adopting the *śabdabodha*-technique the later grammarians have abandoned grammatical analysis as taught by Pāṇini."

6. S.D.Joshi, *Nagoya Studies* 14 (1993), p.17.

7. N.S.Ramanuja Tatacharya, *Śābdabodhamīmāṃsā*, Part I, pp.li-lii.

The *śābdabodha* thinkers are on the side of the listener.[8] The ritual-ists of the Mīmāṃsā tradition were concerned with the interpretation of the injunctions regarding rituals, customs, and duties given in Vedic texts. The most important part of a sentence was therefore the verb, more precisely the imperative or optative ending marking an injunction (*vidhi*) or authorization (*codanā*).[9] In Nyāya philosophy, word (*śabda*) was one of four sources of knowledge. There is primarily perception by the sens-es (*pratyakṣa*), then inference based on logical principles (*anumāna*), the recognition of identity (*upamāna*), and verbal testimony (*śabda*). The last is important first as basis of the religious truths promulgated by the Veda; to be valid, the source must be trustworthy, a condition satisfied with the assumption that the Veda is created by God himself. But a word is also a valuable source of knowledge in daily life, when we ask for di-rection, what the weather is like, or whether a man has seen his brother that day, etc. If the speaker is trustworthy, the knowledge is presumed to be valid. While we understand such a statement in our mother tongue na-ively and mostly without difficulty, the philosopher wants to analyze and understand rationally how such a sequence of sounds can evoke certain predictable notions in the mind of the listener.

This actually is some reasoning that Pāṇini (or his predecessors) must have undertaken himself, before he composed his grammar – consciously or subconsciously. For the roots, suffixes, etc. were not

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8. An early mark of this distinction is the different analysis of a compound like *śaka-pārthiva*. Kātyāyana (vārttika 8 on II 1 69; Mahābhāṣya I 406,5) assumed the deletion of the latter part of the initial member (*uttara-pada-lopa*): *śāka-bhojī pārthivaḥ* "vegetable eating king" > *śāka-pārthivaḥ*). Philosophers (Vasubandhu, Abhidharmakośabhāṣya I.6 [p.4,2 ed. P.Pradhan, Patna, 2nd ed.1975] and Nyāyasūtrabhāṣya on NS IV 1.35 [Nyāyadarśanam, ed. Taranatha Amarendramohan, p.291,12], etc.) assumed that in a hypothetical *pratisaṃkhyā<prāpya>virodhaḥ* or *aneka<vidha>lakṣaṇair* the middle member was deleted (*madhyama-pada-lopa*), in-dicating a position shifting from a building-up of forms to the analysis of existing words. Up to at least the Kāśikā, grammarians followed Kātyāyana, later grammarians followed the philosophers: Madhav M.Deshpande, *ABORI* LXVII (1986), pp.251-257, who thought that the change was due to the eclipse of Sanskrit as peoples' first lan-guage. The reference to the "vegetable eating king" was likely to the vegetarian king Aśoka: H.Scharfe, *Zeitschrift für vergleichende Sprachforschung* 85 (1971), pp.219-224.

9. On this distinction see Francis X.Clooney, *Thinking Ritually*, Vienna 1990, pp.129-139 and 218f.

freely existing elements in the minds of the Sanskrit speakers of his time, but had to be discovered by an elaborate analysis. That analysis had to go way beyond the Vedic speculations quoted above (pp.108-110), that, e.g., the rivers (*nadyaḥ*) were called so because they re-sounded (*anadatā*), or the waters were called *āpaḥ* because Indra ob-tained (*āpnot*) them. The first has an element of truth in it (as the his-torical linguist would see it; the rivers are indeed called the "roaring ones" from the same root that is at the base of verb forms expressing "roaring"), the second plays on the similarity of unrelated words. But the Aṣṭādhyāyī says nothing about this underlying analysis, and it is only later that Kātyāyana and Patañjali illustrated (and named) the two basic principles of such analysis: *anvaya* and *vyatireka* "concurrent presence and concurrent absence." A comparison of *aśvaḥ*, *aśvau*, *aśvāya*, and *puruṣaḥ*, *puruṣau*, *puruṣāya* reveals on the one hand a contrast of a initial sequence *aśva* versus *puruṣa* parallel to a contrast-ing meaning "horse" versus "man," and on the other hand a contrast-ing final (i.e., *ḥ*, *au*, *āya*) parallel to contrasting roles in a sentence (singular, dual; agent, recipient). The procedure leads to the recogni-tion of noun stems and inflectional suffixes with multiple functions (case, number, gender). Pāṇini's complete silence on how he arrived at his insights indicates according to P.Thieme that he did not, at least not consciously, follow the reasoning by *anvaya* and *vyatireka* but was led by intuition and meditation.[10]

In Nyāya, verbal phrasing played an important role in the formu-lation of inference (syllogism) which was centered on a subject ex-pressed by a noun in the nominative case. "This mountain is fire-per-vaded-smoke-possessing" is the summation of the inference: "This mountain is fire-possessing, because it is smoke-possessing; whatever is smoke-possessing is fire-possessing, as the kitchen. This is so, and thus it is such."[11] Verbs are unnecessary; all qualifications are ex-

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10. P.Thieme, *Studien zur Indologie und Iranistik* 8/9 (1982), pp.3-34 (*Kl.Schr.* pp.1170-1201).

11. Tarkasaṃgraha 31 (*A Primer*, p.18) *'vahni-vyāpya-dhūmavān ayaṃ parva-taḥ' iti jñānaṃ parāmarṣaḥ*. V.P.Bhatta, *Navya-Nyāya Theory of Verbal Cognition*, vol.I, Delhi 2001, p.25 argued that "They are influenced by the fact that the nomina-tive meaning, the grammatical agent who is independent in his actions controls all the other *kārakas* through his actions." But in passive constructions it is the object (*kar-*

pressed as properties of the leading noun.[12] The logicians were, like virtually all educated men of their times in India, familiar with Pāṇini's grammar and used his rules in their interpretation of statements – but in reverse order: not to build up a sentence but to break it down into its elements. For a sentence to be meaningful, its elements must have *ākāṅkṣā* (expectancy), *yogyatā* (congruity), and must be pronounced without undue delay. A series of words like *gauḥ aśvaḥ puruṣaḥ hastī* ("cow, horse, man, elephant") lacks expectancy, *vahninā siñcet* ("one should sprinkle with fire") lacks congruity, and *gām... ānaya* ("bring...the cow!") with the words spoken hours apart is not understood for lack of proximity. But when these conditions appear to be met, a detailed analysis of the sentence is made, using the tools provided by grammar. A sentence *Devadattaḥ vṛkṣaṃ paśyati* "Devadatta sees a tree" was paraphrased by the Nyāya commentator Vācaspatimiśra (10th cent.) with *devadatta-samavetayā hi kriyayā darśana-lakṣaṇayā vṛkṣa-viṣayo 'nubhavo janyate* "A perception in which the tree is a content is produced by the action in form of seeing which is residing in Devadatta."[13] Bhavānanda Siddhāntavāgīśa in a similar fashion referred to the logicians of the 'Old School' who viewed the sentence *gṛhe sthālyām odanaṃ pacati* "He cooks rice in a pan in the house" as *gṛhâdhikaraṇaka-sthāly-adhikaraṇakaûdana-karmaka-pākânukūla-kṛtimān* "He has the effort conducive to the act of cooking in which rice is the object, pan is the locus of it [i.e., of the rice], and house is the locus of it [i.e., of the pan]."[14]

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man) that is in the nominative (and is the subject of the syllogism).

12. Compare the similar statement by the Greek grammarian Apollonios Dyskolos (2nd century A.D.) in his Περί συντάξεως I 16 "The noun necessarily precedes the verb, since influencing and being influenced are properties of physical things, and things are what nouns apply to, and to things belong the special features of verbs, namely doing and experiencing": *The Syntax of Apollonius Dyscolus*. Translated...by Fred W. Householder, Amsterdam 1981, p.25 and Esa Itkonen, *Universal History of Linguistics*, Amsterdam 1991, p.213.

13. Nyāyavārttikatātparyaṭīkā ch.1, p.437,20f. in Nyāyadarśanam of Gautama edd.Taranatha Amendramohan, Calcutta 1936-1944.

14. Bhavānanda Siddhāntavāgīśa's Kārakacakra ed. Govindacandra, Calcutta 1937 (repr.1991), p.187; cf. N.Kudo, *Nagoya Studies* 20 (1999), p.71. Such ideas have roots in some of the earliest grammatical works: Kātyāyana in vārttika 3 on III 1 87 (Mahābhāṣya II 66, 15) spoke of roots whose action or status is manifested in the object (*karma-stha-bhāvaka* or *karma-stha-kriya*), and Patañjali (Mahābhāṣya II 66,

It is in this context that a recent dispute gains interest. George Cardona[15] had stated that in grammar case suffixes "are deictic in that they designate unspecified kārakas. The nominal stems used in sentences denote the particular individuals in questions, so that they are co-referential (*samānādhikaraṇa*) with affixes which signify kārakas." In my review of his book[16] I had called this "a dubious theory" that "goes against the patterns of Pāṇini's grammar" and challenged Cardona to indicate "if any Pāṇinīya ever said this." G. Cardona[17] defended his position in the second edition of his book with a reference to "Kauṇḍabhaṭṭa, who explicitly says that in all instances where a kāraka-signifying ending is introduced, there is an identity relation (*abhedaḥ saṃsargaḥ*), between the meanings of the base and affix … The reason for this is that the vibhaktis signify property bearers (*vibhaktīnāṃ dharmivācakatvāt*) not properties; that is, they signify an object (*karman*), an agent (*kartṛ*), and so on, not the properties of being an object (*karmatva*), of being an agent (*kartṛtva*), and so forth. If, on the contrary, they were considered to signify properties alone (*dharmamātravācakatve*), an undesirable consequence would ensue: the intent of a sūtra like **A** 2.3.2[18]… would be violated[19]… Thus, for example, in *kambala-am* (> *kambalam*), the meanings of the base *kambala* and the affix *am* are related through identity… The affix signifies an unspecified object and the base signifies a blanket… Accordingly, the principal meaning signified by *kambala-am* is that of the endings [sic! H.S.] *am*, namely a kar-

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16f.) mentioned in contrast those whose action or status is manifested in the agent (*kartṛ-stha-bhāvaka* or *kartṛ-stha-kriya*); cf. also Vākyapadīya III 321 *karmastha-bhāvakatvam* and III 867 *kartṛstha-bhāvakaḥ*.

15. G.Cardona, *Pāṇini. His Work and its Traditions*, Delhi 1988, p.169 (2ⁿᵈ ed. p.145).

16. H. Scharfe, *JAOS* 109 (1989), p.656.

17. G.Cardona, *Pāṇini. His Work and its Traditions*, 2ⁿᵈ ed., Delhi 1997, pp.xxvii-xxix.

18. II 3 2 *karmaṇi dvitīyā* "When [the factor is] an object, the second case suffix [is added]."

19. Cardona, *ibid.*, p. xxviii referred to Kauṇḍabhaṭṭa's Vaiyākaraṇabhūṣaṇa p.108 *atra sarvatra prakṛti-pratyayârthayor abheda eva saṃsargaḥ, vibhaktīnāṃ dharmi-vā-cakatvāt* and Vaiyākaraṇabhūṣaṇasāra p.129 *atra sarvatra prakṛti-pratyayârthayor abhedaḥ saṃsargaḥ, vibhaktīnāṃ dharmi-vācakatvāt. dharma-vācakatve 'karmaṇi dvitīyā' iti sūtra-svarasa-bhaṅgâpatteḥ.* Cardona quoted from other editions of these two texts, and his page numbers therefore differ from those quoted in this chapter.

man. The meaning of the preceding base, then, qualifies this main
meaning: The complex *kambala-am* refers to a karman qualified
(*viśiṣṭa*) as being a blanket in particular." Cardona also quoted
Harivallabha's commentary Darpaṇa on Kauṇḍabhaṭṭa's work. Both au-
thors - Kauṇḍabhaṭṭa lived in the seventeenth century, Harivallabha in
the eighteenth century – composed their works two millennia after
Patañjali. Reliance on Kauṇḍabhaṭṭa would surely be a weak argument
to uphold Cardona's thesis that case endings in Pāṇini's grammar "des-
ignate unspecified kārakas." But Kauṇḍabhaṭṭa indeed was a Pāṇinīya,
and Cardona seems to have made his point so far – more on that later.

Cardona quoted also Mahābhāṣya II 58,11f. *prakṛti-pratyayau
pratyayârthaṃ saha brūtaḥ* which he rendered as "a base and an affix
together are considered to denote the meaning of the latter."[20] That
was not the understanding of at least some traditional Pāṇinīyas. The
Kāśikā[21] paraphrased or reworded the statement as *prakṛti-pratyayau
sahârthaṃ brūtaḥ* "base and suffix together express the meaning" and
attributed it to earlier teachers whose teaching Pāṇini allegedly reject-
ed in the spurious sūtra I 4 53, and Nāgojībhaṭṭa in his Uddyota[22]
glossed Patañjali's *pratyayârtham* with *pratīyamānârtham* "the under-
stood object." L.Renou, relying on the basic meaning of *pratyaya* and
following Nāgojībhaṭṭa, translated the phrase "radical et suffixe expri-
ment conjointement le sens qui est compris (du mot)."[23]

The phrase is embedded in the Mahābhāṣya in a discussion whether
it is the personal endings or the *vikaraṇa*-s[24] that indicate agent, object
or status (impersonal passive). A solution is proposed and then rejected.
"Let it be thus, then: when *L* (the cover term for the personal endings)

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20. G.Cardona, *Pāṇini*, 2nd ed., p.xxix with reference to #878 of his book
(p.604).

21. Kāśikā on I 2 56 (vol.I p.362,2f.).

22. Uddyota on II 1 67 (vol.III p.148,28) and IV 1 82 (vol.III p.541,25).
Nāgojībhaṭṭa knew also a variant reading *pratyeyârtham* "object to be understood,"
presumably in Kaiyaṭa's Pradīpa (in the latter passage).

23. L.Renou, *Terminologie grammaticale du Sanskrit*, Paris 1942, pt.II, p.29.

24. The *vikaraṇa* is "an affix placed between a root and the personal ending,
for showing the specific tense or mood or voice to convey which, the personal ending
is applied" (K.V.Abhyankar, *A Dictionary*, 2nd ed., p.351). They are deleted by *luk* in
the case of verbs of the second class and by *ślu* in verbs of the third class; they are al-
together absent in the forms of the perfect, etc.

denotes status or object, then the *vikaraṇa*-s denote the agent; when *L* denotes the agent, then the *vikaraṇa*-s denote status and object." That idea, too, is rejected: "This is his [solution], whether by its own nature or by an express statement (*vacana*[25]): 'A base and an affix together signify the understood meaning [of the word],'[26] and it is not possible that one base is combined simultaneously with two different meanings. And out of this consideration this is adopted as one alternative, viz. [agent, object, and status] are the meanings of the personal endings alone."[27]

Śabarasvāmin on Mimāṃsāsūtra III 4 13 put *prakṛti-pratyayau pratyayârtham saha brūtaḥ* in the mouth of a *pūrvapakṣin* (as in the two other quotations on MS XI 1 22 and 24)[28] and called it an instruction of the teacher (*ācāryôpadeśa*), meaning Patañjali.[29] This passage can in no way prove that the concepts underlying the *pūrva-pakṣa* stated by Kauṇḍabhaṭṭa and Harivallabha can be traced back to Patañjali.[30] The whole noun[31] denotes a *kāraka*, as Cardona admits, in

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25. No such statement (*vacana*) was made by Pāṇini, and Nāgojībhaṭṭa in his Uddyota (vol.III, p.148,28) remarked on the word *vācanika*: *vyākaraṇântara iva* "as in another grammar."

26. See p.212 above for Cardona's translation.

27. Mahābhāṣya II 58,9-13 (regarding Pāṇini's rule III 1 67). *evaṃ tarhîdaṃ syāt. yadā bhāva-karmaṇor Las tadā kartari vikaraṇā yadā kartari Las tadā bhāva-karmaṇor vikaraṇāḥ. idam asya yady eva svābhāvikam athâpi vācanikaṃ 'prakṛti-pratyayau pratyayârthaṃ saha brūta' iti, na câsti saṃbhavo yad ekasyāḥ prakṛter dvayor nānârthayor yugapad anusahāyībhāvaḥ syāt. evaṃ ca kṛtvaîka-pakṣībhūtam evêdaṃ bhavati sārvadhātukârthā evêti.*

28. Mimāṃsādarśana edd. Kāśīnāth Vāsudevaśāstrī Abhyankar & Gaṇeśaśāstrī Jośī (ĀSS nr. 97, Pune 1970), vol.6, p.3013; cf. D.V.Garge, *Citations*, p.239.

29. Mimāṃsādarśana, vol.3, p.349.

30. Noriyuki Kudo (*Nagoya Studies* 18, p.150) erroneously tried to trace the maxim *prakṛti-pratyayârthayoḥ pratyayârthaḥ prādhānyaḥ* (sic; no reference is given) to the Mahābhāṣya passage II 58,11f. Nor can two stanzas of the Vākyapadīya be used to support the view of the case suffix as *pradhāna*: Bhartṛhari in Vākyapadīya II 164 asked if the case endings teach (*vācikā*) or reveal (*dyotikā*) duality and plurality or if the whole unit expresses the meaning including the number, and in III 299 (III 7,43) he inferred by *anvaya* and *vyatireka* that case suffixes have meanings. That thought was already expressed in the half-śloka quoted in the Mahābhāṣya I 322,17:

   supāṃ karmâdayo 'py arthāḥ saṃkhyā caîva tathā tiṅām /

"Object etc. are also the meaning of case suffixes along with number, and it is thus also with the verbal personal endings."

31. Note also Kātyāyana's vārttika 4 on I 3 1 (Mahābhāṣya I 254,25): *saṃghātenârtha-gateḥ* "Since meaning is understood from the whole word" with Patañjali's paraphrase *saṃghātena hy artho gamyate saprakṛtikena sapratyayakena*

Pāṇini's system: when an item is a factor in the action (I 4 23 *kārake*) it receives certain labels (*apādāna*, *karman*, etc.) that eventually are linked to case suffixes. One should not interpret Pāṇini's rule II 3 2 *karmaṇi dvitīyā* ("When [the factor] is an object, the second case ending") in a way that arbitrarily equates the suffixes *am/au/as* with *karman*: rather, the suffixes are employed when the word denoting a *karman* is used in a sentence. While stems and suffixes are associated with meanings that can be ascertained through a process of "concurrent occurrence and concurrent non-occurrence" (*anvaya* and *vyatireka*),[32] it would not be quite correct to say that, e.g., the second case endings denote *karman* "object" or, as some have written, *karmatva* "object-ness."

The grammarians and etymologists

For a proper appreciation we have to step back about two millennia. In Nirukta I 1, Yāska had contrasted noun and verb with the words: *bhāva-pradhānam ākhyātaṃ, sattva-pradhānāni nāmāni* "The verb has 'becoming' as its fundamental notion, nouns have 'being' as their fundamental notion." Patañjali quoted Yāska's statement loosely (or paraphrased it) as *kriyā-pradhānam ākhyātaṃ bhavati…dravya-pradhānaṃ nāmêti.*[33] Twice he stated that certain forms are *kriyā-pradhāna* and others *dravya-pradhāna.* "*uccaiḥ* 'high' [and] *nīcaiḥ* 'low' have their emphasis on the suffix (which has been deleted), *hiruk* 'away' [and] *pṛthak* 'separate' have their emphasis on the action (which separates). Also some nouns with secondary derivation have their emphasis on the suffix, some on the action: *tatra* 'there' [and] *yatra* 'where' have their emphasis on the suffix (indicating location), *nānā* 'separate' [and] *vinā* 'without' on the action."[34]

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sôpasargeṇa ca, i.e. roots/stems, endings and prefixes are understood as a unit.

32. E.g., vārttika 9 on I 2 45 with Bhāṣya: Mahābhāṣya I 219,19-27.

33. Mahābhāṣya II 418,15f. This has been quoted in turn in Kārakacakra (ed. Govindracandra, Calcutta 1937), p.13, lines 2f.

34. Mahābhāṣya I 95,19-21 *kiṃcid avyayam vibhakty-artha-pradhānaṃ kiṃcid kriyā-pradhānam. uccair nīcair iti vibhakty-artha-pradhānaṃ hiruk pṛthag iti kriyā-pradhānam. taddhitaś câpi kaś cid vibhakty-artha-pradhānaḥ kaś cit kriyā-pradhānaḥ. tatra yatrêti vibhakty-artha-pradhāno nānā vinêti kriyā-pradhānaḥ.* In Mahābhāṣya I

Patañjali[35] classified compounds according to the position of the *pradhāna*. In a tatpuruṣa compound[36] the second noun is the *pradhāna* "main item": in *rāja-puruṣaḥ* ("king's officer") the word *rāja-* qualifies *puruṣa* (even though the king himself would, of course, be more prominent). Similarly Upagu gives up his own position when the reference is to his offspring.[37] Helārāja[38] on Vākyapadīya III 1,49[39] suggested that Patañjali's sentence *prakṛti-pratyayau pratyayârthaṃ saha brūtaḥ* refers to replacements like *Upagor apatyam > Aupagavaḥ* "Upagu's offspring," where the notion "offspring" is restricted by the qualification "Upagu." Helārāja obviously here took *pratyayârthaṃ* to mean "meaning of the suffix." In the same paragraph he expressed the opinion that in *pacati* "he cooks" the meaning of the suffix qualifies the meaning of the root which he called the *pradhāna* "main item."[40] The Nyāsa and the Padamañjarī on Kāśikā I 2 56[41] are in accord with Helārāja,[42] saying that the base Upagu and the suffix *aṇ* (that takes the place of *apatyam* by IV 1 92 *tasyâpatyam*) together express the meaning of the suffix defined as "offspring," implying that the suffix denoting "offspring" is the *pradhāna*, qualified by the meaning of the stem (Upagu). Still, this is a substitution, where the underlying word

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223,3-6 he extended this distinction tentatively also to verbal forms (*tib-anta*).

35. Mahābhāṣya I 378,24-379,3.

36. Mahābhāṣya I 379,2 *uttara-padârtha-pradhānas tatpuruṣaḥ*.

37. Mahābhāṣya I 364,12f. *rājā puruṣârthe vartamānaḥ svam arthaṃ jahyād Upagus câpatyârthe vartamānaḥ svam arthaṃ jahyāt* "The word *rāja-* engaged in conveying the meaning of *puruṣa* gives up its meaning, and the word Upagu, engaged in conveying the meaning of *apatya* ('offspring') gives up its own meaning."

38. According to K.A.Subramania Iyer, *Bhartṛhari* p.40, Helārāja may have lived in the early 10th century A.D.

39. Vākyapadīya…with Helārāja, ed.K.A.Subramania Iyer, Poona 1963, Kāṇḍa III, Part 1, p. 58,5-11.

40. *Ibid.* p.58,6f. *pacatîty-ādau sādhyatvāt prakṛty-arthasya prādhānyāt kārakâdinā pratyayârthena tasya viśeṣaṇāt* "In *pacati* etc., because it to be realized, because of the predominance of the base meaning, because of its qualification by the suffix-meaning [expressing] factors etc., [action is dominant in the verb]."

41. Kāśikā vol.I, p.362.

42. Jinendrabuddhi, the author of the Nyāsa (8th or 9th century?) likely preceded Helārāja, while Haradatta, the author of the Padamañjarī (11th century?), followed much later (On these dates see G.Cardona, *Pāṇini, A Survey of Research*, pp.280f.). These authors appear to have brought the Mīmāṃsaka interpretation of *prakṛti-pratyayau prakṛty-arthaṃ saha brūtaḥ* into the grammatical tradition.

apatyam "offspring" was the "main item."[43] Both texts added that also the opposite takes place: *svârthikeṣu ca prakṛti-pratyayau prakṛty-arthaṃ saha brūtaḥ: śuklatara iti* "And in the case of suffixes that denote the base itself, base and suffix together denote the base [as in the comparative suffix]: *śuklataraḥ* 'whiter'." The argument of Nyāsa and Padamañjarī is part of a hypothetical reasoning regarding the spurious sūtra I 2 56 in which Pāṇini allegedly rejected such reasoning.

   The sūtras I 2 53-57 in Pāṇini's grammar are interpolations; I 2 53 received a very short comment by Patañjali, the others are not even mentioned anywhere in the Mahābhāṣya. Their argumentative style stands out among Pāṇini's other rules, and their potential importance for the interpretation of the Aṣṭādhyāyī makes the conclusion unavoidable that they were not part of the Pāṇini text known to Patañjali. Among them, I 2 56 contains the word *pradhāna:* [53 *tad aśiṣyam*] *pradhāna-pratyayârtha-vacanam arthasyânya-pramāṇatvāt* which has received two different interpretations.[44] The Kāśikā[45] took it as a reference to compounds and secondary suffixation: "The expression of meaning by a particular member [in a compound] which is the principle [member, or] by a suffix [which is the principle element][46] need not be taught, because meaning is decided by something else (than rules of grammar)." The Siddhāntakaumudī[47] parsed the initial compound differently: "A statement to the effect that the meaning of a suffix is the primary thing [need not be taught], because meaning is decided by something else (than rules of grammar)." I think that, if this meaning were intended, the proper sequence would have been **pra-*

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43. Compare the remarkably similar explanation offered by the Greek grammarian Apollonios Dyskolos (2nd century A.D.) in his Περί συντάξεως III 61 "Every derivative in general can be analyzed into its base (*prōtotupon*) plus a word synonymous with its derivational suffix (*paragōgē*)… thus *Hektorides* ('son-of-Hektor') is analyzed into *Hektoros huios* ('Son of Hector')": *The Syntax of Apollonius Dyscolus*. Translated…by Fred W. Householder, Amsterdam 1981, p.178; cf. Esa Itkonen, *Universal History of Linguistics*, Amsterdam 1991, p.208.

44. Note the discussion by S.D.Joshi and J.A.F.Roodbergen in *The Aṣṭādhyāyī of Pāṇini*, vol.II (New Delhi 1993), pp.97-99.

45. Kāśikā vol.I, p.361,7f. *pradhānaṃ samāse kiñcit padam, pratyayaḥ tavyad-ādiḥ, tābhyām artha-vacanam.*

46. For the examples, i.e., *rāja-puruṣa* and *Aupagava* see above p.215.

47. Siddhāntakaumudī no.1829 *pratyayârthaḥ pradhānam ity evaṃ-rūpaṃ vacanam apy aśiṣyam.*

tyaya-pradhānârtha-vacanam. This interpretation appears rather late and may show the influence of other schools of thought outlined below. Whichever interpretation is accepted, and whether the attribution to Pāṇini is accepted or not – the teaching of the doctrine is rejected.

The ritualists

The Mīmāṃsakas share with the grammarians the belief that the verb is the core element of a sentence. But since their interest was centered on the Vedic commands to carry out certain rituals, their focus was on the verbal endings, especially those of the optative commonly used in Vedic prescriptions.[48] There were subtle differences between schools of the Mīmāṃsā. We read of opinions of a certain Bādari regarding ritual duties[49] that were rejected by Jaimini in the earliest preserved text of the Mīmāṃsā, the Mīmāṃsā-sūtras. Of the later authorities, Prabhākara held that the verbal endings denote a reference to the *apūrva-kārya*, the transcendental effect to be achieved by a conscious effort (*yatna*),[50] Kumārilabhaṭṭa that they express *bhāvanā*, the impelling force which is different from the meaning of the root.[51] In Kumārila's Tantravārttika I found the earliest statements that the suffix is the dominant part of a word; but note that the reference is always to the verbal endings only.[52] He commented on Mīmāṃsā-sūtra II 1 1:

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48. V.P.Bhatta, Bhāvanāviveka, pp.19f., 23f. Kumārila differentiated between *śābdī bhāvanā* ("word-impelling-force") "the sense conveyed by only the injunctive words such as '*yajeta*' etc." and the *ārthī bhāvanā* ("end-efficient-force") "the sense conveyed by conjugational endings of all the finite expressions such as '*yajeta*', '*pacati*' etc." Cf. P.V.Kane, *History of Dharmaśāstra*, vol.V, Part 2, p.1236.

49. Bādari held "that finite verbs express merely the performance of the compulsory duty (*niyoga*) such as offerings" without reference to hoped for results (V.P.Bhatta, Bhāvanāviveka, p.53).

50. V.P.Bhatta, *Navya-nyāya Theory of Verbal Cognition*, vol.I, p.54.

51. While Kumārila included an expectation of a result (e.g., the attainment of heaven), Prabhākara insisted that the Vedic injunction is to be obeyed simply because it is a command; there is no need to indicate the fruit of action (Harold G.Coward and K.Kunjunni Raja, in *Encyclopedia of Indian Philosophies*, vol.5, p.25).

52. Kumārila remarked, though, that number and *kāraka*s are signified by the case suffixes – which he took as established by Kātyāyana and Patañjali: *dvābhyām api vākyakāra-bhāṣyakārābhyāṃ bahuvacana-vārtike 'nabhihita-vārtike ca dvāv api karmat-vâdi-ekatvâdi-vācyatva-pakṣau dūram anusṛtyânte nirdoṣatayā 'vadhāritam: karmatvâdi-*

*śāstre tu sarvatra pratyayârtho bhāvanêti vyavahāraḥ. tatrâyam abhi-
prāyaḥ:*
pratyayârthaṃ saha brūtaḥ prakṛti-pratyayau sadā /
prādhānyād bhāvanā tena pratyayârtho 'vadhāryate //
*yady api anyad viveka-kāraṇaṃ nâsti, tathâpi prādhānyaṃ pratya-
yârtha-dharmaṃ dṛṣṭvā nūnam iyaṃ pratyayârtha ity avagamyate.*
tathā kramavator nityaṃ prakṛti-pratyayâṃśayoḥ /
pratyaya-śruti-velāyāṃ bhāvanâtmâvagamyate //[53]

"In the [Mīmāṃsā] system, however, the *bhāvanā* is always held
to be the meaning of the suffix. The sense of this [theory] may thus be
briefly explained:

Stem and suffix always express the meaning of the suffix togeth-
er; because of its pre-eminence therefore the impelling force is ascer-
tained as the meaning of the suffix.

Though there is no other ground for differentiating exactly (by
which of the two the *bhāvanā* is denoted), yet, inasmuch as it is a
well-established fact that greater importance is always attached to the
denotation of the suffix, (and in the case in question, the *bhāvanā* is
the most important factor), we naturally conclude that this [*bhāvanā*]
must be denoted by the suffix.

The base and the suffix are always found to appear in a definite
sequence; only when the suffix is heard to be pronounced, we have an
idea of the *bhāvanā* (leading us to the conclusion that the *bhāvanā* is
denoted by the suffix)."

and on Mīmāṃsā-sūtra II 2 1

pratyayârtha-pradhānatvāt pratidhātu na bhidyate /
tatrôpādīyamānatvād dhātv-arthāḥ saṃhatāḥ punaḥ //[54]

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viśiṣṭā ekatvâdayo vibhakty-arthāḥ (Tantravārttika on Mīmāṃsā-sūtra III 4,13 in
Mīmāṃsādarśana, vol.4, p.355,19-21; trans. Gaṅgānātha Jhā, *Tantravārttika*, Calcutta
1903-1924, repr. Delhi 1983, vol.II, p.1337). Cf. Deshpande, *The Meaning of Nouns*, p.188.

53. Mīmāṃsādarśana vol.2, p.347. My translation is based on that of
Gaṅgānātha Jhā, *Tantravārttika*, vol.I, pp.482f.

54. Mīmāṃsādarśana vol.2 p.3, trans. after G.Jha, *ibid.*, p.612. Cf.
K.V.Abhyankar, Mīmāṃsā-nyāya-prakāśa, Poona 1972, p.212; Mīmāṃsā-nyāya-
prakāśa ed. and trans. Franklin Edgerton, New Haven, 1929, pp.165 and 261;
Mīmāṃsā-nyāya-prakāśa, ed. and trans. K.N.Chatterjee, Calcutta 1993, pp.239f.

"Because the suffix meaning is pre-eminent it is not divided (i.e., is not different) for separate roots; inasmuch as the root-meanings are spoken of as subservient to the denotation of the suffix, they must be taken as collectively [qualifying it.]."

Kumārila clearly referred to the Mahābhāṣya passage *prakṛti-pratyayau pratyayârthaṃ saha brūtaḥ* (which already Śabarasvāmin had quoted on Mīmāṃsā-sūtra III 4 13, etc.) and alluded to Nirukta I 1 *bhāva-pradhānam ākhyātam* and possibly the spurious sūtra Aṣṭādhyāyī I 2 56 *pradhāna-pratyayârtha-vacanam arthasyânya-pramāṇatvāt*. He derived his position with the following reasoning:

"If (in the case of verbs) the root-meanings formed the predominant factors, then the *bhāvanā* would be subservient to them and as such would be different (with each root-meaning). But since the predominance in the verb belongs to the *bhāva*, and since root and suffix are both part of the meaning of the suffix, worship etc.[55] all jointly qualify a single *bhāvanā*, just as in the sentence "he buys the soma with a tawny, one year old cow with reddish-brown eyes" (all adjectives qualify the noun "cow"). Even though it is not possible for the principle objects to be repeated with each of its subsidiaries (qualifications), yet, inasmuch as it is impossible for the root itself or the suffix by itself to be used in a sentence, it becomes necessary for us to repeat the suffix with each root, at least with a view to making the use of the root possible (as without a suffix the root could not be used, and a use of the root is necessary, as pointing out the qualifications of the *bhāvanā*)."[56]

Kumārila's disciple Maṇḍanamiśra (ca. 700 A.D.)[57] explicitly affirmed in his Bhāvanā-viveka that this statement does not apply to nom-

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55. The reference is to the use of verbs like *yajati* "worships," *dadāti* "gives," and *juhoti* "pours libation" which are only different aspects of the ritual act, governed by one impelling force (*bhāvanā*) expressed by one and the same verbal suffix.

56. Mīmāṃsādarśana vol.2 p.3 *yadi hi dhātv-arthānāṃ prādhānyaṃ bhavet, ta-to bhāvanā tān praty upādīyamānā pratipradhānaṃ bhidyeta. bhāva-pradhānatvāc câkhyātasya prakṛti-pratyayayoś ca pratyayârtha-śeṣatvād aruṇaîkahāyany-ādivad yāgâdibhiḥ saṃhatyaîkā bhāvanā viśeṣyate. yady api pradhānānāṃ guṇânurodhenâ-vṛttir ayuktā, tathâpi kevala-prakṛti-pratyaya-prayogâsaṃbhavād avaśyaṃ tāvad dhātu-saṃbandhârthaṃ pratyayaḥ punar āvartayitavyaḥ.*

57. Jean-Marie Verpoorten, *Mīmāṃsā Literature*, Wiesbaden 1987, p.35. V.P.Bhatta, in his Introduction to his edition of the Bhāvanāviveka (Delhi 1994), p.21 suggested a date between A.D. 680 and 720.

inal suffixes. For a form like *pacati* can be analyzed as having two components as in a paraphrase *pākam karoti* ("he undertakes cooking," i.e., root meaning and the dominant notion of activity), whereas such a separation is not done in a word like *pākaḥ* "cooking."[58] The verb denotes an action yet to be accomplished (*bhāvya*); the action denoted by the noun *pāka*,[59] on the other hand, is already accomplished (*siddha*).[60] He too considered the accomplishing activity as dominant in relation to the root of the verb. He wrote in his Bhāvanā-viveka: "It is indeed true that affixes such as verbal endings, due to their non-distinct nature everywhere, are not sufficient enough for (i.e., are not competent to produce) the knowledge of the sense of the particular activity (of producing the cooking etc.). However, the finished word, (i.e., a word associated with the ending such as *pacati*), which is distinct due to the difference of the base, and which has the sense of the suffix (such as *-ti*) as its chief qualificand (*pradhāna*) connected with the meaning of the base [is competent to produce the knowledge of the sense of the particular activity] (of producing cooking etc.)."[61]

Pārthasārathimiśra (1050-1120 A.D.)[62] in his commentary Śāstradīpikā may have been the first to include the case endings among the chief qualificands (*pradhāna*), at least as an option. In his remarks on Mīmāṃsā-sūtra II 2,11 he wrote: *vibhaktyâbhihita-kāraka-viśiṣṭaṃ*[63] *dadhi [vidhīyate], dadhi-viśiṣṭaṃ vā kārakaṃ pratyayârtha-prādhā-nyād phalāya vidhīyate*[64] "[Either] the curd which is qualified by the factor expressed by the case suffix, or the factor which is qualified by

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58. Bhāvanāviveka ed. and trans. V.P.Bhatta, stanza 31 (p.285; trans. p.172)
   pākaṃ karoti pacatîty ākhyātârtho nirdiśyate /
   bhedena śabda-vṛtti-jñaiḥ pākâdau na tv ayaṃ kramaḥ //
59. *pāka* is derived from the same root with the nominal suffix *ghañ*: Pāṇini III 3 18 [16 *ghañ*] *bhāve*. This suffix expresses the root-meaning (*dhātv-artha*), i.e. *bhāva*, as Maṇḍanamiśra pointed out in his comment on stanza 30.
60. Maṇḍanamiśra's comment (pp.169f.) on stanzas 30 and 31 (where also the word *sādhya* is used instead of *bhāvya*).
61. Bhāvanā-viveka, prose comment (p.284) on his stanza 27 *yady api pratyayo 'bhedān na viśeṣâvagamāyâlam, padaṃ tu prakṛti-bheda-bhinnaṃ prakṛty-arthânurakta-pratyayârtha-pradhānam [viśeṣâvagamāyâlam].*
62. Verpoorten, *Mīmāṃsā Literature*, p.41.
63. I propose to read *vibhakty-abhihita-*… to avoid the undesirable construction of *vibhaktyā* with the initial part (*abhihita*) of the following compound.
64. Śāstradīpikā ed. P.N.Pattabhirama Sastri, New Delhi 1978, p.185, lines 10f.

curds – because the meaning of the suffix is predominant – is given for the result." Here the predominance of the suffix is assumed, as an option, also for case suffixes.

I found the next occurrence (in a Mīmāṃsā text) in Khaṇḍadeva's Bhāṭṭa-tantra-rahasyam[65] on p.57,10f. *prakṛti-pratyayau pratyayârtham saha brūtaḥ, tayos tu pratyayaḥ prādhānyena iti smṛti-vaśād.*[66] In this work we find expressed references to the Mahābhāṣya II 58,11f. (where, however, only the first part of the quoted sentence is found) and Nirukta I 1. The latter is quoted twice: on pages 49f. *ākhyātârthânekatve kasya prādhānyam, kasya vā guṇatvam ity apekṣite 'bhāva-pradhānam ākhyātam' iti smṛtyā bhāvanâtiriktâkhyātârthaṃ prati bhāvanāyā eva prādhānyam iti* "When a verb has more than one meaning – which is the dominant and which the secondary? In this deliberation [I declare] the predominance of the impelling force with regard to the meaning of the verb that goes beyond the impelling force (e.g., the root meaning) based on the tradition: 'The verb has 'becoming' as its fundamental notion'."[67] On page 56 we read *tatrâpi 'bhāva-pradhānam' iti smṛtyā, pratyayârtha-prādhānya-smṛtyā ca bhāvanāyā eva prādhānyam* "There, too, based on the tradition: 'has becoming as its fundamental notion,' and the tradition of the predominance of the suffix, the impelling force is predominant." Yāska's *bhāva* "becoming" is here re-interpreted as *bhāvanā* "impelling force" and is considered the function of the verbal ending. The arbitrariness of this interpretation was pointed out by Mahādeva Puṇatāmbekara in his Nyāyakaustubha,[68] a commentary on Gaṅgeśa's

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65. Bhatta(tantra)rahasyam by Acharya Khandadeva, ed. A.Subrahmanya Sastri, Varanasi 1970, bhūmikā p.73: 17th century; Verpoorten, *ibid.*, p.51 dated him "mid-17th c." and S.D.Joshi, *Nagoya Studies* 14 (1993), p.17 "A.D. 1596-1666." Karl H.Potter, *Encyclopedia of Indian Philosophies*, vol.I, 3rd ed., 1995, p. 630: "1640."

66. Also Bhatta(tantra)rahasyam on p.49,12. I do not know, on what basis N.S.Ramanuja Tatacharya in his monumental *Śābdabodhamīmāṃsā,* Delhi 2005, p.304, called it a *Nairuktânuśāsana*.

67. This means that the impelling force (*bhāvanā*), expressed by the verbal ending, is dominant over the meaning of the root (*dhātv-artha*).

68. Nyāyakaustubha (Śabdapariccheda), ed. V.Subrahmanya Śāstri, Tanjāvur 1982. According to the editor (Preface, pp.111f.) the author, hailing from Mahārāṣtra, was later than Bhavānanda but close in time to Kauṇḍabhaṭṭa and Khaṇḍadeva which would place him in the late 16th or early 17th century.

Tattvacintāmaṇi, in which he defended the position of the Naiyāyikas
that the noun in the nominative case is the dominant feature in a sen-
tence. He pointed out that, according to Yāska, of the several elements
contained in a verb (number, tense, etc.) "becoming" is the dominant
one, i.e., within the verb; nothing is said about dominance in the sen-
tence. If it were so, the immediately following *sattva-pradhānāni
nāmāni* "Nouns have 'being' as their fundamental notion" would indi-
cate the exact opposite.[69]

Khaṇḍadeva, too, held the pre-eminence of the verbal suffix to be
different from the role of the case suffixes; for he (on p.91,18) approv-
ingly referred to Mahābhāṣya I 365,13f. *kriyā-kārakayor abhisaṃ-
bandhasya dvitīyā vācikā bhavati* "the second case ending expresses
the connection of action and factor [of the action]" which shows that
the case ending itself was not considered to be a *kāraka.*[70]

The logicians

It appears that the next step was taken by the logicians of the
Navya Nyāya School in Navadvīpa (in Bengal). The Navya-naiyāyika
Bhavānanda Siddhāntavāgīśa (ca. 1570 A.D.) had still defined *kāraka* in
his Kārakacakra p.4 [section 3]: *vibhakty-artha-dvārā kriyânvayitvam
… kārakatvam* "Being a *kāraka* means being linked with the action
through a case ending," and p.186 [text section 106] he stated as the
position of the Naiyāyikas: *adhikaraṇatvam ādheyatvaṃ vā saptamy-
arthaḥ. sa ca yatra kriyânvayī tatra kārakatva-vyavahāraḥ* "The loca-
tive case ending denotes the locus-ness or the superstratum-ness (*ādhe-
yatva*). Whenever it is related to the action, it is called *kāraka*-ness."

69. Nyāyakaustubha, p.604.
70. Kaiyaṭa (on II 1 1; vol.II p.525) suggested that word *kāraka* refers to the
thing that is the abode of the power (*śakty-ādhāra*, i.e., of all syntactic relations). The
second case ending expresses the power (*śakti*) of the *kāraka*, or the word *kāraka* it-
self expresses the power. As V.P.Bhatta (*Navya-nyāya Theory*, vol.I, p.130) has sug-
gested, a noun stem would potentially expresses any *kāraka*. Patañjali (Mahābhāṣya I
441,4) assumed that in a sentence *kaṭaṃ karoti* "he makes a mat" the "object" resided
in the thing: *kaṭa-śabdād utpadyamānayā dvitīyayā yat kaṭa-sthaṃ karma tac chaky-
am abhidhātum* "The object residing in the mat can be referred to by the second case
ending that arises after the word for 'mat'." Note that in this passage he used *abhidhā-
tum* for referral, but *vācikā* for denotation in I 365,13.

But Śrījagadīśa Tarkalaṃkāra,[71] another Navya-naiyāyika from Navadvīpa and a disciple of Bhavānanda Siddhāntavāgīśa,[72] wrote in his Śabda-śakti-prakāśikā,[73] stanza 67:

kārakârthêtarârthā ca sup dvidhā ca vibhajyate /
dhātv-arthâṃśe prakāro yaḥ sub-arthaḥ so 'tra kārakam /67/

"The case suffix falls in two categories: denoting a factor [of the action] or something else. That meaning of the case suffix which is predicated on a part of the root meaning is here the factor [of the action]."

Here, it seems, the meaning of the ending is the *kāraka*, and he elaborated in his prose: "The meaning of a case ending, therefore, posited as the feature against the meaning presented by the root-verb involved is regarded as a case in respect of the said act borne out by the root-verb concerned … But the meaning of the noun that qualifies the meaning of such a case-ending, because of being [indirectly] related to the meaning of a root-verb is known as a factor (*kāraka*) in respect of the meaning of the said verb [in a secondary sense]. Therefore, in a sentence like *vṛkṣāt patati* 'He falls from a tree' *vṛkṣa* etc. are spoken of as factors (*kāraka*) 'separation' etc. with regard to actions like falling."[74]

And in stanza 62 he declared:

prakṛty-arthasya yaḥ svârthe vidheyatvena bodhane /
samarthaḥ so'thavā śabdo vibhaktitvena gīyate //

"By inflectional ending is understood a speech-unit that is capable

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71. Dhundhīrāj Śāstri in his edition of the text (see below fn.73) dated the text A.D. 1635 (*bhūmikā* p.3); Karl H.Potter, *Encyclopedia*, vol.I, p.618 remarked: "1620."

72. According to the *nivedanam* of the editor of the Kārakacakra.

73. Śabda-śakti-prakāśikā ed. Dhundhīrāj Śāstri, Benares 1934, p.294.

74. Śabda-śakti-prakāśikā, pp.294f. *tatra yad-dhātûpasthāpya-yādṛśârthe 'nva-ya-prakārībhūya bhāsate yaḥ sub-arthaḥ, sa tad-dhātûpasthāpya-tādṛśa-kriyāyāṃ kārakam … yādṛśena nāmârthenâvachinnasya sub-arthasya yādṛśa-dhātv-arthe 'nva-yaḥ sa eva tādṛśa-dhātv-arthe kārakatayā vyapadiśyate. tena vṛkṣāt patatîty-ādau vṛkṣâder api patanâdi-kriyāyām apādānâdi-kāraka-vyavahāraḥ.* Cf. K.N.Chatterjee, *Word and its Meaning*, pp.340f. and V.P.Bhatta, *Navya-Nyāya Theory*, vol.I, pp.63f.; Giridhara (acc. to Bhatta, *ibid.*) in his Vibhakty-artha-nirṇaya (pp.1-10) essentially followed Jagadīśa.

of bearing out the verbal knowledge of what its base means predicated against the meaning of itself."

In the prose comment on this stanza of his, Śrījagadīśa para-phrased that "meaning of itself" (*svârthe*) with "qualificand" (*dharmiṇi*)[75] and analyzed a sentence like *ghaṭaṃ pacati* ("he cooks the pot"): "As in [a word like] *ghaṭam* by the case suffix the notion 'pot-related object-ness' etc. [is raised], [thus in a word like] *pacati* by the verbal suffix the notion 'cooking-related activity' etc. is raised."[76]

Gadādhara (middle of the seventieth century)[77] was familiar with the Śabda-śakti-prakāśikā[78] and continued this tradition of *śabda-bodha* analysis in his Vyutpattivāda. He, too, held that the noun stem qualifies the case ending.[79] The use of *dharma* and *dharmin* as near-synonyms of *viśeṣaṇa* and *viśeṣya* links him not only with Jagadīśa[80] and Khaṇḍadeva,[81] but also with the Navya-Nyāya in general and the Mīmāṃsā. Dharmendra Nath Shastri stated that "The dualism of *dharma* and *dharmin* is the dividing line between the Nyāya-Vaiśeṣika and the *Pūrva-Mīmāṃsā* on the one hand, and all the idealistic schools, the Vedānta, the Yogācāra, the Mādhyamika on the other."[82] And in the

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75. Śabda-śakti-prakāśikā p.285 *yaḥ śabdaḥ svârthe dharmiṇi sva-prakṛty-artha-vidheyakânvaya-bodhaṃ prati samarthaḥ, sā sub-ādi vibhaktir ity ucyate* "A speech-unit that is capable of understanding the nexus predicated by the meaning of its base on its own meaning, which is the qualificand, [viz.,] *sup* etc. is called a case ending." Cf. K.N.Chatterjee, *Word and its Meaning*, pp.323f.

76. Śabda-śakti-prakāśikā p.285 *ghaṭam ity-ādau supā 'karmatvaṃ ghaṭīyam' ity-ādāv iva, pacatîty-ādau tiñâpi 'kṛtiḥ pākīyā' ity-ādir…dhīr utpādyate.* This formal-ism, in which the relations expressed by suffixes dominate over the content expressed by stems or roots may remind one of L.Bloomfield's tendency to sideline meanings: *Language* rev. ed., New York 1933, pp.74f., 139f. – or even Patañjali's reasoning why meanings are not to be taught in grammar (Mahābhāṣya I 363,15-19; cf. Joshi/ Roodbergen, *Vyākaraṇa-Mahābhāṣya, Samarthâhnika*, trans. p.68).

77. Karl H.Potter, *Encyclopedia*, vol.I, p.657: "1660"; V.P.Bhatta, *Vyutpattivāda (Theory of the Analysis of Sentence Meaning)*, trans. V.P.Batta, vol.I, Delhi 1990, introduction p.3.

78. V.P.Batta, *ibid.*

79. *Ibid.*, vol.I, pp. 305f.

80. Above fn.75.

81. Bhāṭṭa-tantra-rahasyam p.91.

82. Dharmendra Nath Shastri, *Critique of Indian Realism*, Agra 1964, p.78; see also Musaki Tachikawa, *The Structure of the World in Udayana's Realism*, Dordrecht 1981, p.10.

words of Gerdi Gerschheimer, [83] "La notion de *dharma*, «propriété», oc-
cupe dans la vision du monde navya-naiyāyika une place privilégiée,
que reflète l'usage généreux que l'École fait des abstraits." While *dhar-
ma* is attested in various roles from the earliest texts, *dharmin* is not. It
is not found in the Vedic texts, in Pāṇini's Aṣṭādhyāyī, the Mahābhāṣya
or the Vākyapadīya. [84] In Yogasūtra III 14 "A substance (*dharmin*) con-
forms itself to quiescent and uprisen and indeterminable external-as-
pects (*dharma*)" [85] indicating the essential identity of matter in its trans-
formations; *dharma* is paired and contrasted with *dharmin* in
Vācaspatimisra's Nyāya-tātparyaṭīkā (9th century) [86] and Udayana's
Nyāyakusumāñjali (late 10th century); [87] Raghunātha Śiromaṇi (ca.
1500) used *dharmin* three times in his Ākhyāta[śakti]vāda. [88]

The neo-grammarians

These ideas of the modern logicians concerning the dominant role
of the suffixes (of which I found no indication in Gaṅgeśa's

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83. Gerdi Gerschheimer, *La théorie de la signification chez Gadādhara*, Paris
1996, vol.I, p.20.

84. Exceptions are only apparent. Pāṇini's rule V 2 132 [128 *iniḥ*] *dharma-śīla-
varṇântāc ca* rules in "a suffix -*in* also after [a stem] ending in *dharma*, *śīla* or
varṇa," allowing compounds like *brāhmaṇa-dharmin* "having the ethics of a
Brahmin" (Kāśikā vol.IV, p.233 on V 2 132) or *dravye cânukta-dharmiṇi* "And in a
substance whose specifics are not told" (Vākyapadīya III 14,441 = III 1141) which do
not contain the word *dharmin* but are compounds with the word *dharma* to whom, as
a whole, the suffix -*in* is attached.

85. *śāntôditâvyapadeśya-dharmânupātī dharmī* (Pātañjala-yogasūtra-bhāṣya-
vivaraṇam ed. Rama Sastri and Krishnamurthi Sastri, Madras 1952, p.255; the transla-
tion is by James Haughton Woods, *The Yoga-system of Patañjali*, Cambridge/Mass.
1914, p.224). I found *dharmin* also in Kumārila's Tantravārttika on Mīmāṃsā-sūtra II
1, 46 (vol.II, p.432).

86. Nyāya-vārttika-tātparyaṭīkā p.843 line 18 *dharmaś ca dharmiṇo vastuto
bhidyate* "Property is essentially different from its substratum" (cf. Dharmendra Nath
Shastri, *Critique*, p.15, fn.24).

87. Nyāyakusumāñjali of Udayanācārya ed. N.S.Dravid, New Delhi 1996,
chapter II, p.113 (lines 6 and 11) contrasts *dharma* "property" and *dharmin* "subject."

88. Ākhyātaśaktivāda ed. K.N.Chatterjee, Varanasi 1981, p.7 *anyathā
dharmiṇo 'pi vācyatâpatteḥ*, p.8 *dharmi-viśeṣa-niṣṭhatā ca yatnasya na syāt*, and p.27
bhinnābhyāṃ rūpābhyāṃ eka-dharmi-bodhakatva-lakṣaṇam ... and Rāmabhadra
Sārvabhauma's Ākhyātavādavyākhyā ed. Prabal Kumar Sen, Calcutta 1979 on these
passages (pp.7, 14f.).

Tattvacintāmaṇi) seem to have entered the grammatical tradition[89] with Bhaṭṭoji Dīkṣita, who wrote in his Śabdakaustubha[90] on I 4 24 *pañcamī tv avadhau śaktā. tatrâbhedena saṃsargeṇa prakṛty-artho viśeṣaṇam. pratyayârthas tu kriyāyāṃ viśeṣaṇaṃ kārakāṇāṃ kriyayaî-va saṃbandhāt*[91] "The fifth case ending denotes the fixed point. In that case, the meaning of the nominal stem is a qualifier [to the case ending] through the relation of identity. And the meaning of the suffix serves as the qualifier to the action because *kāraka* is the one which is related to the action."[92] As far as the verbal endings are concerned, Bhaṭṭoji Dīkṣita stayed with the standard view of the grammarians that the root is dominant and the verbal ending a qualifier: "And one should not say that this [action] shall be expressed by the suffix alone in the way proclaimed by the Mīmāṃsakas[93] … If one says that the meaning of the base is constructed as a qualification of the meaning of the suffix in Aupagava 'off-spring of Upagava,' etc., that is not [a val-id argument], for [the maxim:] 'The meaning of the suffix is predomi-nant' is a general rule, and it is set aside here because of a tradition: 'The verb has action as its dominant feature.' "[94]

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89. When Haradatta in his Padamañjarī (vol.I, p.362) on I 2 56 said *yadā 'prakṛtiḥ pratyayârthaṃ prati viśeṣaṇatayā svârthaṃ abhidhatte' iti siddhaṃ bha-vati…,* the context shows that he still thought of certain secondary noun suffixes.

90. The Śabdakaustubha was the earliest of his grammatical works, followed by the *kārikā*-s known as Vaiyākaraṇa-matônmajjana or Vaiyākaraṇa-siddhānta-kārikā, the Siddhānta-kaumudī, and the commentary on the latter called Prauḍha-manoramā: Suryakant Bali, *Bhaṭṭoji Dīkṣita. His contribution to Sanskrit Grammar*, New Delhi 1976, p.11. Bhaṭṭoji Dīkṣita's literary activity is variously assumed to extend from about A.D. 1560 to 1620 (P.K.Gode, AŚVOI 1 (1940), pp.117-127 = *Studies in Indian Literary History*, vol.II, pp.65-74); from the last quarter of the sixteenth to the first quarter of the seventeenth century (Suryakant Bali, *Bhaṭṭoji Dīkṣita*, p.4); Karl H.Potter (*Encyclopedia*, vol.I, 3rd ed., p.600) re-marked: "1590"; Noriyuki Kudo (*Nagoya Studies* 17 (1996), p.27) gave the dates 1575-1640; P.V.Kane (*History of Indian Poetics*, 3rd ed., Delhi 1961, p.324) suggested activity be-tween 1580 and 1630. As long as the relative chronology of Jagadīśa and Bhaṭṭoji Dīkṣita is not settled, it remains unclear if the former could have been the source of Bhaṭṭoji's ideas.

91. Śabda Kaustubha of Bhaṭṭojī Dīkṣita ed. Gopāl Śāstrī Nene, 2nd ed., Varanasi 1991, vol.II, p.116,7-9.

92. Cf. N.Kudo, *Nagoya Studies* 18 (1997), p.150.

93. Śabdakaustubha vol.II, p.51,17f. *na câsau [kriyā] mīmāṃsakôkta-rītyā pra-tyaya-vācyaîvâstām iti vācyam.*

94. Śabdakaustubha vol.II, p.52,12-15 *pratyayârthaṃ prati prakṛty-arthasya viśeṣaṇatāyā Aupagavâdau klptatvād iti cen na, "pratyayârthaḥ pradhānam" iti hy utsargaḥ. Sa cêha tyajyate "kriyā-pradhānam ākhyātam" iti smaraṇāt.*

The second stanza of his Vaiyākaraṇa-matônmajjana (or Vaiyākaraṇa-siddhānta-kārikā) stated: "A verbal root is said to denote a result and an activity; *tiṅ* to denote the substratum thereof. The activity is predominant (i.e., qualificand) with respect to the result. That which is denoted by *tiṅ* stands as qualifier."[95]

It appears that Bhaṭṭoji Dīkṣita was a bit of a rebel who had a falling out with his teacher's descendents, though the exact circumstances of the conflict are not clear,[96] and he took different positions in several critical areas of grammatical theory.[97] That tendency may be linked to the fact "that Bhaṭṭoji revived the philosophy of Sanskrit grammar after an interval of more that 1000 years," i.e. after Bhartṛhari, as J.Bronkhorst put it.[98] Actually, speculations on the philosophy of Sanskrit grammar never really ceased, but they took place mostly in the schools of the Mīmāṃsā and Nyāya, maybe also the Buddhists. Even among the grammarians, the commentators of the Vākyapadīya should not be totally forgotten. In his second grammatical work, the Vaiyākaraṇa-matônmajjana or Vaiyākaraṇa-siddhānta-kārikā, Bhaṭṭoji wrote much more ambiguously on the relation of stem and case suffix.[99] His nephew Kauṇḍabhaṭṭa com-

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95. Vaiyākaraṇa-matônmajjana stanza 2
   phala-vyāpārayor dhātur āśraye tu tiṅaḥ smṛtāḥ /
   phale pradhānaṃ vyāpāras, tiṅ-arthas tu viśeṣaṇam /2/
The text is contained in the editions of Vaiyākaraṇa-bhūṣaṇa p.2,5f. and Vaiyākaraṇa-bhūṣaṇa-sāra p.101,21f.; the translation follows S.D.Joshi, *Nagoya Studies* 16 (1995), p.3.
96. He came, according to Suryakant Bali, *Bhaṭṭoji Dīkṣita*, p.2, from a family of temple priests (*dīkṣita*) which might have brought him in closer contact with Mīmāṃsā doctrines; cf. J.Bronkhorst, *JIPh* 33 (2005), p.32 fn.83.
97. J.Bronkhorst, *JIPh* 33 (2005), pp.11-23.
98. J.Bronkhorst, *JIPh* 33 (2005), p.3.
99. In his still later Siddhāntakaumudī Bhaṭṭoji's treatment of nr.765 (Pāṇini's II 3 46) offered the only instance of such terminology: assuming that *parimāṇa* in this sūtra means "measure" – thereby allowing that the nominative of *droṇa*, a vessel of a certain size, can denote in a secondary meaning the amount of rice, etc. contained in it – he stated that the meaning of the stem is by identity a qualification of the meaning of the nominative suffix ("measure"): *pratyayârthe parimāṇe prakṛty-artho 'bhedena saṃsargeṇa viśeṣaṇam.* This whole interpretation of II 3 46 is a sophism that goes back to the Mahābhāṣya: P.Thieme, *JAOS* 76 (1956), pp.8-10 (= *Kl.Schr.* pp.580-582). In his own commentary Prauḍha-manoramā on Siddhāntakaumudī nr.856 (I 4 24) Bhaṭṭoji Dīkṣita gave a longer formulation: *pañcamy-arthe 'vadhau abhedena saṃsargeṇa prakṛty-artho viśeṣaṇam; pratyayârthas tu kriyāyām [viśeṣaṇam], sa ca dharmī na tu dharma-mātram* (Prauḍha-manoramā ed. Sitaram Sastri, Varanasi 1964, vol.I, p.703,8-10). This use of *dharmin/dharma* shows the influence of the Navya Nyāya school on Bhaṭṭoji Dīkṣita.

mented on these kārikā-s in two works: the more expansive Vaiyākaraṇa-bhūṣaṇa and its abridged version Vaiyākaraṇa-bhūṣaṇa-sāra. Of special interest are here his comments on stanzas 8, 24 and 25.

In the course of his explanation of stanza 8 he said in the larger text: "Actually with regard to the statement that the meaning of the suffix is predominant – there is no restriction such as 'What is predominant is exclusively the meaning of the suffix' or 'What is the meaning of the suffix is exclusively predominance,' because it deviates in words like *ajā* 'she-goat', *chāgī* 'she-goat' or *pācikā* 'female cook.' For nobody understands in a word like *pācikā* feminine-ness as a qualificand (i.e., a female qualified as being a cook)."[100] In his later and abridged Vaiyākaraṇa-bhuṣaṇa-sāra he is more outspoken: "In reality [the maxim] that the meaning of the suffix stands as syntactically predominant does not mean that what is predominant is always the meaning of the suffix nor that the meaning of the suffix is always predominant. If it did, in such examples as *ajā*, *chāgī* ('female goat'), *aśvā* ('female horse') the meaning female denoted by <the> feminine suffix would be predominant and the sense goat etc. [denoted by the base forms] would not be predominant. Rather, this is a general maxim to which there are exceptions.[101] What one understands as qualificand depends on one's training."[102] Instead of *na niyamaḥ* "no restriction" in the earlier work he wrote *nârthaḥ* "does not mean" in the later.

āśrayo 'vadhir uddeśyaḥ saṃbandhaḥ śaktir eva vā /

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100. Vaiyākaraṇa-bhūṣaṇa p.39,7-10 *vastutaḥ pratyayârthaḥ pradhānam ity atra yaḥ pradhānaṃ sa pratyayârtha eva. yaḥ pratyayârthaḥ sa prādhānyam evêti vā na niyamaḥ, ajā chāgī pācikêty-ādau vyabhicārāt. na hi pācikêty-ādau strītva-viśeṣyako bodhaḥ kasya cit.*

101. That repeats his statements in his commentary on stanza 2, viz. that this predominance of the meaning of the suffix is "constructed somewhere else" (*anyatra kḷptatvād* Vaiyākaraṇa-bhūṣaṇa p.20,11) or "seen somewhere else" (*anyatra dṛṣṭam* Vaiyākaraṇa-bhūṣaṇa-sāra p.104,10) with reference to Kumārila, while Nirukta and Mahābhāṣya point to the predominance of the root meaning.

102. Vaiyākaraṇa-bhūṣaṇa-sāra p.109,12-15 *vastutaḥ pratyayârthaḥ pradhānam ity atra yaḥ pradhānaṃ sa pratyayârtha evêti vā, yaḥ pratyayârthaḥ sa pradhānam evêti vā nârthaḥ, ajā, aśvā chāgîty atra strī-pratyayârthe strītvasyaîva prādhānyâ-patteḥ chāgy-āder anāpatteś ca. kiṃtu utsargo 'yam. viśeṣyatvâdinā bodhas tu tathā vyutpatty-anurodhāt.* The translation is by S.D.Joshi, *Nagoya Studies* 16 (1995), p.54.

yathāyathaṃ vibhakty-arthāḥ [103] *supām karmêti Bhāṣyataḥ* /24/

    "Substratum, [104] point of departure, [105] addressee, [106] relationship [107] – or [alternatively] the capacity [of any one of these] are the proper meaning of the case-endings as it is ascertained from [Patañjali's] Bhāṣya [i.e., through the quoted stanza] *supāṃ karma…*"

    Kauṇḍabhaṭṭa [108] in the Vaiyākaraṇa-bhūṣaṇa dutifully first presented his uncle's concept: "There is everywhere the relation of identity of the meanings of stem and suffix, because the case endings denote the property bearers (*dharmin*). And one should not say: 'Why could it not be by denotation of the property (*dharma*)?' because it would be cumbersome if the substratum-ness would be denoted and as a result the substratum-ness-ness would be the determinant…And because the intent of sūtras like II 3 2 *karmaṇi dvitīyā* 'The second case ending [to denote] an object' would be put in question." [109] But subsequently he rejected that argument [110] (something George Cardona failed to tell us): "If it is said, that it would be cumbersome, if the substratum-ness would be denoted, and as a result that fact would be the determinant – that is not so, because it is possible that it is the determinant by identity" (*āśrayatvasya vācyatve tattvasyâ-*

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    103. The edition of the Vaiyākaraṇa-bhūṣaṇa by Vidya Niwas Misra reads °*ar-thaḥ*, all three editions of the Vaiyākaraṇa-bhūṣaṇa-sāra seen by me read °*arthāḥ*.

    104. This includes object, instrument, and location of the action, frequently expressed by the second, third and seventh case endings.

    105. Frequently expressed by the fifth case ending.

    106. Frequently expressed by a fourth case ending.

    107. Frequently expressed by a sixth case ending.

    108. His date (between A.D. 1610 and 1660) can be ascertained by references to contemporary rulers: P.K.Gode, *Adyar Library Bulletin* 18 (1954), pp.201-211 (*Studies in Indian Literary History*, vol.III, pp.207-211); Jayashree Gune, *The Meaning of Tenses and Moods*, Pune 1978, pp.48f.; S.D.Joshi, *Nagoya Studies* 14 (1993), p.5: "first half of the 17th century."

    109. Vaiyākaraṇa-bhūṣaṇa, p.108,19-24 *atra sarvatra prakṛti-pratyayârthayor abheda eva saṃsargaḥ, vibhaktīnāṃ dharmi-vācakatvāt. na ca dharma-vācakatayaîva kiṃ na syād iti vācyam, āśrayatva-rūpasya vācyatve āśrayatvatvasyâvacchedakatvâpat-tau gauravāt…'karmaṇi dvitīyā' ity-ādi-sūtra-svara[sa]-bhaṅgâpatteś ca.* Vidya Niwas Misra's edition reads -*svara*-, but all three editions of the Vaiyākaraṇa-bhūṣaṇa-sāra seen by me read on the parallel passage -*svarasa*-.

    110. Noted by S.D.Joshi in *Encyclopedia of Indian Philosophies*, vol.V, pp.271f., and Sandhya Rathore, *Kauṇḍa Bhaṭṭa's Vaiyākaraṇabhūṣaṇasāra: An Analytical Study*, New Delhi 1998, p.65 with reference to both works of the author.

vacchedakatvâpattau gauravam iti cen na, tasyaiva tādātmyenâvaccheda-katva-saṃbhavāt).[111] He thus rejected the idea that Pāṇini's rules make sense only if suffixes like the second case ending denote the substratum (*āśraya*). On the contrary, they denote the abstract substratum-ness (*āśrayatva*), while the noun-stem expresses the substratum itself. And as regards II 3 2 *karmaṇi dvitīyā* – if the rules IV 1 2 *sv-au-jas-...* (that teach the actual case endings *-s*, *-au*, *-as*, etc.) are taken as one expression together with applications like *karmaṇi dvitīyā*, the latter are merely restrictions: "The second case endings [are applied] only when relating to objects" or "When relating to objects only the second case endings [are applied]."[112] The validity of II 3 2 is therefore not in jeopardy.

In his Vaiyākaraṇa-bhūṣaṇa-sāra on this stanza, too, he first expounded his uncle's concept: that the case suffix is the *dharmin* or *viśeṣya*, i.e., the carrier of characteristics to be qualified by the nominal stem. *vibhaktīnāṃ dharmi-vācakatvāt. dharma-vācakatve karmaṇi dvitīyā' iti sūtra-sva-rasa-bhaṅgâpatteḥ* "Because the case endings express the carrier of characteristics; if they expressed only the qualification (*dharma*) the intent of sūtra II 3 2 *karmaṇi dvitīyā* would be violated." But then he reversed himself and inserted a new argument: *āśrayasyâpi prakṛtyaîva lābhān na vibhakti-vācyatā, kiṃtu āśrayatva-mātraṃ vācyam. tad eva ca tādātmyenâvacchedakam* "And because the substratum is obtained by the stem alone, there is no need to express it by the case ending; but only the abstract substratum-ness need to be expressed. And that is the determinant by identity."[113] As for the argument that rules like Pāṇini's II 3 2 *karmaṇi dvitīyā* "the second case ending [is attached] for an object" would be put in question, he argued – as in the Vaiyākaraṇa-bhūṣaṇa – that they are only restrictions on the rule IV 1 2 *sv-au-jas-...* in which the actual case suffixes are taught.[114]

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111. Vaiyākaraṇa-bhūṣaṇa, p.109,19-21.

112. Vaiyākaraṇa-bhūṣaṇa, p.111,14-18 *eka-vakyatayā karmâdeḥ saṃkhyāyās ca vācyatā-lābhaḥ. tathā tatra niyamaś ca śāstre prasiddhaḥ: karmaṇi dvitīyaîva,... dvitīyā karmaṇy eva.* The notion of restrictions (*artha-niyama*, *pratyaya-niyama*, and *vibhakti-niyama*) is already found in the Mahābhāṣya I 322,8-15 and 463,5.

113. Vaiyākaraṇa-bhūṣaṇa-sāra, p.129,10-16.

114. I.e., "the second case ending only to denote the object" and "only the second case ending to denote the object" (*dvitīyā karmaṇy eva...karmaṇi dvitīyaîva*), Vaiyākaraṇa-bhūṣaṇa-sāra, p.130,6f.

In both of his commentaries Kauṇḍabhaṭṭa also commented on kārikā 25

ekaṃ dvikaṃ trikaṃ câtha catuṣkaṃ pañcakaṃ tathā /
nāmârtha iti sarve 'mī pakṣāḥ śāstre nirūpitāḥ /25/

"The [primary] meaning of a noun consists of one [element], [or group of] two, three, four, or five [elements]. All these alternative views have been explained in the tradition [of Sanskrit grammar]."

Kauṇḍabhaṭṭa explained in his Vaiyākaraṇa-bhūṣaṇa that the first alternative refers to the generic property (*jāti*), the second to generic property and individual entity (*jāti* and *vyakti*), the third to these two plus gender, the fourth includes also number, the fifth the factors [of the action].[115] He continued: "Even though on the basis of concurrent occurrence and concurrent non-occurrence it is appropriate to say that the three elements beginning with gender are signified by the affix, [on the contrary] the primary signification function of a nominal stem with respect to these [elements] is assumed on the following grounds: There is cognition of gender etc. in usages such as *dadhi paśya* "look at the curd", where the [accusative singular] case affix [after the stem *dadhi*] is deleted…When [the nominal base and the case affix] occur together, [there is a cognition of gender etc.] from both. This also agrees with the Vākyapadīya: 'case affixes could be either signifiers or co-signifiers of duality etc.'"[116] An objection is raised: "If it is the case [that all five elements are signified by the nominal stem], then the following doctrine will become invalidated: 'A [meaning] cognition from a *sup* [= case affix] is a cause of a verbal cognition in which the meaning of the nominal is the qualifier [and the meaning of the affix is the qualificandum].'" Then the objection is rejected: "This [objec-

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115. Vaiyākaraṇa-bhūṣaṇa, p.113,5f. *ekaṃ jātiḥ. dvikaṃ jāti-vyaktī. trikaṃ sa-liṅge te. catuṣkaṃ sa-saṃkhyāni tāni. pañcakaṃ sa-kārakās tāḥ.*

116. Vaiyākaraṇa-bhūṣaṇa, p.121,3-8 *yady api liṅgâdīnāṃ trayāṇām anvaya-vyatirekâdibhyaḥ pratyaya-vācyatā yuktā, tathâpi pratyaya-varjite dadhi paśyêty-ādau tat-pratīter liṅgânuśāsanasya prakṛtāv eva darśanāc ca prakṛter api tatra śaktiḥ kalpyate… ata eva*
    vācikā dyotikā vā syur dvitvâdīnāṃ vibhaktayaḥ /
    iti Vākyapadīyaṃ saṃgacchate.

tion] is not valid. One could still explain [the above doctrine] by taking recourse to the co-signified meaning of case-affixes. By saying that [all these five alternatives are found] in grammatical texts, [Bhaṭṭoji Dīkṣita] removed a possible misconception that these [alternatives] are not in accordance with [the teaching of] the three great sages. Here, 'grammatical texts' is a reference to [discussions in the Mahābhāṣya] on I 2 64 etc."[117]

In the Vaiyākaraṇa-bhūṣaṇa-sāra Kauṇḍabhaṭṭa argued thus: "Some might say that by concurrent occurrence and concurrent non-occurrence this [group of five elements] is denoted by the suffix alone, since there is no proof for the presence of gender etc. being denoted by the stem. – True. [But] in [a phrase] like *dadhi paśya* "See the curds!" that is devoid of any case ending, since even someone knowing nothing about suffixes understands it, it is postulated that it is the stem alone that denotes [object, etc.]." He concluded: "Therefore among these alternatives there is no insistence, because it is quite logical that the case ending alone would denote [syntactic function, gender, etc.], and because both alternatives have been approved in the Vākyapadīya: case suffixes may either co-signify or denote duality, etc."[118] As in his larger commentary, Kauṇḍabhaṭṭa here admitted the validity of all these viewpoints.[119]

Nāgojībhaṭṭa, a disciple of Bhaṭṭoji Dīkṣita's grandson Hari Dīkṣita, rejected the preeminence of the suffix outright.[120] An example

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117. Vaiyākaraṇa-bhūṣaṇa, p.121,9-11 *nanv evaṃ nāmârtha-prakāraka-śābdabodhaṃ prati sub-ādi-janyôpasthiter hetutvam ity-ādikam vilīyetêti cen na, vibhakti-dyotyârtham ādāyôpapatteḥ. naîtad trimuni-saṃmatam iti bhramaṃ nirācaṣṭe 'śāstre' iti sarūpa-sūtrâdau.* Cf. M.M.Deshpande, *The Meaning of Nouns*, pp.189f.

118. Vaiyākaraṇa-bhūṣaṇa-sāra p.132,2-8 *nanu anvaya-vyatirekābhyāṃ pratyayasyaîva tad vācyaṃ, tata eva liṅgâdīnām upasthitau prakṛti-vācyatve mānâbhāvāt iti cet – satyam; pratyaya-varjite 'dadhi paśya' ity ādau pratyayam ajānato 'pi bodhāt prakṛter eva vācakatvaṃ kalpyate. … ata eva eṣu pakṣeṣu na nirbandhaḥ pratyayasyaîva vācakatāyā yuktatvāt.*

    dyotikā vācikā vā syur dvitvâdīnāṃ vibhaktaya[ḥ] (Vākyapadīya II 164ab)
    iti Vākyapadīye 'pi pakṣa-dvayasya vyutpādanāt. Trans. pp.240f.

119. S.D.Joshi, *Vishveshvaranand Indological Journal* 18 (1980), p.94 and in *Encyclopedia of Indian Philosophies* vol.V, The Philosophy of the Grammarians, ed. Harold G.Coward and K.Kunjunni Raja, Delhi 1990, pp.271f.; M.Deshpande, *The Meaning of Nouns*, pp.190f.; and Sandhya Rathore, *Kauṇḍa Bhaṭṭa's Vaiyākaraṇabhūṣaṇasāra*: *An Analytical Study*, New Delhi 1998 p.65.

120. M.Deshpande, *The Meaning of Nouns*, p.191 with reference to Vaiyākaraṇa-siddhānta-laghumañjūṣā (ed. Madhava Shastri Bhandari, Banaras 1925) pp.1150f. and

of Nāgojībhaṭṭa's tactful criticism is the following. On Siddhānta-kaumudī nr.766 (Pāṇini's II 3 47) Bhaṭṭoji had remarked in this own commentary Prauḍha-manoramā: *iha saṃbodhanaṃ prakṛty-arthaṃ prati viśeṣyam, kriyāṃ prati viśeṣaṇam iti siddhāntaḥ* "Here is the vocative [suffix] the qualificandum with regard to the base meaning, the qualifier with regard to the action – that is the doctrine." [121] Nāgojībhaṭṭa, in his sub-commentary Bṛhacchabdenduśekhara [122] made some significant modifications by additions (here printed in bold letters): *evaṃ ca 'sambodhanaṃ prakṛty-arthaṃ prati viśeṣyam* **viśeṣaṇam vā, tad-vibhakty-antârthaś ca** *kriyāṃ prati viśeṣaṇam' iti siddhântaḥ* "And thus 'the vocative [suffix] is the qualificandum with regard to the base meaning **or its qualifier**, **the meaning of [the word] ending in this case suffix** the qualifier with regard to the action – that is the doctrine'." Nāgojībhaṭṭa thus politely corrected his teacher's grandfather by declaring the suffix the qualifier of the stem at least as an option, and by declaring the whole word (not just the suffix) the qualifier of the action of the verb.

The meaning of case endings

The interactions between he schools of grammar and the various schools of philosophy have raised many questions of interest to general linguists. One such topic started with Patañjali's statement *uk-târthānām aprayogaḥ* "Non-use of [words] whose meaning is already expressed." [123] This statement concluded a discussion about the possible simultaneous suffixation of similar suffixes. Sūtra III 1 96 rules in the suffixes *-tavyat*, *-tavya*, and *-anīya* (resulting in forms like *kar-*

1210-1212; Parama-laghumañjūṣā p.200 in Kālikāprasād Shukla's ed. (Baroda 1961): *kārakam api prātipadikârtha iti pañcakaṃ prātipadikârthaḥ. nanv anvaya-vyatirekābhyāṃ pratyayasyaîva tad vācyam iti cet, na. dadhi tiṣṭhati dadhi paśyêty-ādau kartr-ādi-kāraka-pratīteḥ pratyayaṃ vinâpi siddhatvāt. na ca lupta-pratyaya-smaraṇāt tat-pratītir iti vācyaṃ pratyaya-lopam ajānato 'pi nāmata eva tat-pratīteḥ.*

121. Prauḍha-manoramā ed. Sitaram Shastri, vol.I, Varanasi 1964, pp.619f.

122. Bṛhat-Śabdenduśekhara by Nāgeśa Bhaṭṭa ed. Sītārāmaśāstrī, Varanasi 1960, vol.II, p.796.

123. Mahābhāṣya I 105,3 and often (fourteen times). The idea is already present in vārttika 29 on I 2 64 *sarūpāṇām ekaśeṣa eka-vibhaktau* (Mahābhāṣya I 240,23): *aśiṣya ekaśeṣa ekenôktatvāt* "The single remainder need not be taught, because [the meaning] is already expressed by one word."

tavyà, *kártavya*, and *karaṇī́ya*); sūtra IV 1 119 allows the alternate de-
rivatives *māṇḍūka* and *māṇḍūkeya* from *maṇḍuka* "monkey." We do
not want all these suffixes to apply at the same time. "That is no prob-
lem. The use of speech-elements aims at the understanding of the
meaning. One uses a speech-element with the intent to convey a
meaning. Under this condition, since this meaning has [already] been
expressed by one [suffix], there should be no employment of the sec-
ond [according to the maxim]: non-deployment [of words/elements]
whose meanings are [already] expressed."[124] This maxim is listed as
paribhāṣā 28 in Candragomin's grammar and as paribhāṣā 46 in the
Kātantra and Kālāpa and paribhāṣā 46a in the Paribhāṣāvṛtti ascribed
to Vyāḍi.[125] The principle is not always observed as forms like
śreṣṭhatama[126] show, where both superlative suffixes are attached to
the stem,[127] and it creates occasionally problems in interpreting
Pāṇini's rules. In his rules II 3 1-70 Pāṇini taught the deployment of
case suffixes to denote syntactical relations, conditioning their use
with rule II 3 1 *anabhihite* "when [their meaning] is not already ex-
pressed." Kātyāyana and Patañjali[128] were concerned that the rule may
be redundant, because usually meanings that have been expressed al-
ready are not expressed again. When the notion of possession has al-
ready been expressed in a bahuvrīhi compound like *citra-gu* "owner of
brindled cows" it is not expressed again with the possessive suffix
-mat (*citra-gu-mat* would mean "one who owns the owner of brindled
cows"). It would follow that in a sentence like *kaṭaḥ kṛtaḥ* "a mat is
made" the suffix *ᵏta* in the participle *kṛtaḥ* "is made" already denotes

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124. Mahābhāṣya I 105,1-3 *naîṣa doṣaḥ. artha-gaty-arthaḥ śabda-prayogaḥ.
arthaṃ saṃpratyāyayiṣyāmîti śabdaḥ prayujyate. tatraîkenôktatvāt tasyârthasya
dvitīyasya prayogeṇa na bhavitavyam 'uktârthānām aprayoga[ḥ]' iti.*

125. K.V.Abhyankar, *A Dictionary*, 2nd ed., p.76; Dominik Wujastyk, *Metarules
of Pāṇinian Grammar. Vyāḍi's Paribhāṣāvṛtti*, Groningen 1993, vol.I, p.54; vol.II,
pp.181f. The *paribhāṣā* collections in the Pāṇinian tradition omit it.

126. Ṛgveda I 113,12; Mahābhāṣya II 416,3 (with reference to the beginning of
the Yajurveda, e.g., Taittirīya-saṃhitā I 1,1), etc., following Pāṇini's sūtras V 3 55-60.
Double negation is found not only in colloquial English ("I didn't tell nobody"), but in
many Indo-European and non-Indo-European languages (Eduard Schwyzer, *SPAW*
1940, pp.10f. = *Kleine Schriften*, pp.131f.).

127. The principle was not accepted by the ritualists in regard to the accusative
(V.P.Bhatta, *Navya Nyāya Theory of Verbal Cognition* vol.I, p.140).

128. Mahābhāṣya I 440,3-441,18.

the object (by III 4 70). The use of the accusative ending to denote the object (i.e. *kaṭa*) by rule II 3 2 *karmaṇi dvitīyā* is therefore set aside and the nominative ending steps in (by II 3 46). But Pāṇini did teach the rule II 3 1 *anabhihite* and, since his rules cannot be meaningless, interpreters groped for the reasons behind his formulation. Could it be that the main role of the case suffixes really is to denote "number": being one, two or many? While the notion "object" is already expressed by the suffix *ᵏta*, "number" is not – and a singular accusative suffix would wrongly come into play, since the accusative is used for an object (resulting in a wrong *kaṭam kṛtaḥ).[129] This notion that the case suffixes do not express syntactic relations (object, instrument, etc.), because these are expressed by the verb or are inherent in the noun stem has been found in later texts. Kauṇḍabhaṭṭa argued in his two commentaries on Bhaṭṭoji Dīkṣita's Vaiyākaraṇa-matônmajjana: "Isn't it so that the substratum also is not the meaning of the case ending, because this, having the form of the pot etc. is obtained by the base itself"[130] and "Because the substratum is also obtained by the base itself, it need not be expressed by the case ending; but the substratum-ness alone need to be expressed"[131] and in another context: "Now, since both action and fruition are meant exclusively by a verbal root, the substratum thereof which is not otherwise available is the very denotation of a case ending."[132] Gadādhara stated in his Vyutpattivāda II(1)1 that the older[133] logicians claimed the effect (*phala*) as the meaning of the accusative, since the action and the relation of being produced are already obtained from the verbal root,[134]

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129. Cf. the translation and notes by S.D.Joshi and J.A.F.Roodbergen, *Vyākaraṇa-Mahābhāṣya, Anabhihitāhnika*, pp.6-19.

130. Vaiyākaraṇa-bhūṣaṇa p.109,7f. *nanv āśrayo 'pi na vibhakty-arthaḥ, ghaṭâdi-rūpasya tasya prakṛtyaîva lābhāt.*

131. Vaiyākaraṇa-bhūṣaṇa-sāra p.129,15f. *āśrayasyâpi prakṛtyaîva lābhān na vibhakti-vācyatā, kiṃtu āśrayatva-mātraṃ vācyam.*

132. Vaiyākaraṇa-bhūṣaṇa-sāra p.123,4 *tathā ca kriyāyāḥ phalasya ca dhātunaî-va lābhād ananya-labhya āśraya evârthaḥ.*

133. The value of the labels *prācya/prācīna* "older" and *navya* "modern" varies: below p.238f.

134. Vyutpattivāda ed.V.P.Bhatta (in *Navya-Nyāya Theory of Verbal Cognition*), vol.I, p.240 (trans. p.599): II(1)1…*karmatvaṃ dvitīyârthaḥ...; karmatvaṃ ca kriyā-janya-phala-śālitvam…*

and stated in II (1)9 as the position of the modern logicians that, as ac-
tion and effect are already expressed by the verb, only the relation of
superstratumness (*ādheyatva*) remains as the meaning of the accusa-
tive ending.[135] His own position (in II 1,21f.) is that the accusative
suffix denotes only "number," though he alternatively allowed that it
could denote superstratumness (*ādheyatva*).[136] Though the maxim
uktarthānām aprayogaḥ is not quoted explicitly in these texts, their
authors followed the same reasoning. The new maxim was *ananya-la-
bhyaḥ śabdârthaḥ* "That is considered to be the meaning of a word,
which cannot be obtained from elsewhere,"[137] which expresses the
same concept from the opposite angle, i.e. the meaning of a word/suf-
fix is that which cannot be obtained from other words/suffixes.

      Western grammarians have spoken of congruence that links the
words of a sentence for proper understanding. The Roman poet
Propertius[138] sighed: *Non sum ego qui fueram* "I am not what I was,"
where the first person singular *sum* "I am" is followed by *ego* "I" – a
seeming redundancy. In *puruṣā gacchanti* "the men go" both the noun
and the verb are marked as plural.[139] Such linkage is extremely helpful
in longer or complicated sentences, linking adjectives with their
nouns, pronouns with verbs, etc. Only such linkage made such intri-
cate structures like the first verse of the Meghadūta possible, where

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      135. *Ibid.*, pp.243 and (trans.) 615f.
      136. *Ibid.* pp.247f. and (trans.) 640-642. Cf. V.P.Bhatta, *Vyutpattivāda (Theory
of the Analysis of Sentence Meaning)*, Delhi 1990, pp.32-34, 155, 170.
      137. Kumārila on Mīmāṃsā-sūtra II 1 1 (vol.II p.339,16): *yāvān eva hy ananya-
labhyo 'rthaḥ śabdād gamyate, sa sarvaḥ śabdârthaḥ.* Vācaspatimiśra in his Tattva
Bindu seems to have given it a different twist: *ananya-labhyaḥ śabdârthaḥ iti hi
traividya-vṛddhaḥ* "Les sages versés dans le trois Veda dissent en effet que 'le sens
d'un mot ne peut être compris que par lui-même'" (M.Biardeau, Le Tattvabindu ed.
and trans., Pondichéry 1956 repr. 1979, p.47 and 85,8). Cf. Achyutananda Dash,
Bulletin of the Deccan College 49 (1990), p.106; Madhav M.Deshpande, *The
Meaning of Nouns*, p.95. Compare the similar wording in Kauṇḍabhaṭṭa's
Vaiyākaraṇabhūṣaṇasāra (above p.235 fnn.131 and 132).
      138. Propertius, Elegies ed. and trans. G.P.Gold, Cambridge/Mass. 1990, pp.80f.
      139. Eduard Schwyzer, *SPAW* 1940, pp.16f. = *Kleine Schriften*, pp.137f. re-
ferred to Latin *trēs virī* "three men," where the plurality is expressed three times: by
the stem of the numeral, and by the plural suffixes after both the numeral and the
noun. Note in contrast English "*three sheep*" or the first line of a German traditional
song "*Hunderttausend Mann, die zogen ins Manöver.*"

linked words are not always in proximity.[140] But Indian grammarians saw problems. Kātyāyana had initiated a debate, whether Pāṇini's rule II 3 1 *anabhihite* should be rejected. This rule allowed the use of the case ending only, if their meaning had not already been expressed by something else. He argued that the ruling was commonsensical and need not be stated. Patañjali was concerned that in a sentence *kataṃ karoti bhīṣmam udāraṃ śobhanaṃ darśanīyam* "He makes a mat, a huge, fine, beautiful [and] lustrous one," where the notion of "object" (*karman*) is expressed by the case ending *-am* in *kaṭam*, it may not be possible to attach this suffix after the adjectives that follow the noun.[141] The problem does not occur in a passive version of the sentence like *kṛtaḥ kaṭaḥ bhīṣma udāraḥ śobhano darśanīyaḥ*, where "object" is expressed by the suffix *-^{k}ta* of the participle (i.e., *kṛtaḥ*) and the nominative ending is applied to all other words by II 3 46 (which rules in the nominative suffix when no *kāraka* relations are to be expressed, only the gender and number of the stem notion). Kātyāyana and Patañjali in the end found ways to solve the problem. Among them are an additional rule proposed by Kātyāyana and the suggestions by Patañjali that all these words are "objects" in their own right or that the adjectives receive their meaningless endings only for the sake of syntactic agreement.[142]

The meaning of the case endings has engaged Indian grammarians and philosophers over the centuries. Pāṇini's rule II 3 2 [1 *anabhihite*] *karmaṇi dvitīyā* has been translated "Der Accusativ bezeichnet das Object, wenn dieses nicht schon sonst ausgedrückt ist" (Böhtlingk), "When the object is not denoted by the termination of the verb, *i.e.*

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140. Or Horace's artful lines (Ode IX, 21f.) where the drawing shows the pairing:
nunc et latentis proditor intimo / gratus puellae risus ab angulo

"…and the merry tell-tale laugh of maiden hiding in farthest corner" (*Horace. The Odes and Epodes* with an English translation by C.E.Bennett, Cambridge/Mass. 1939, pp.28f.; The Loeb Classical Library). Cf. P.Thieme, *ZvS* 86 (1972), p.68 (*Kl. Schr.* vol.II p.998).

141. The nominative suffix would wrongly be attached instead to the adjectives by rule II 3 46 "The nominative ending is added when there is to be designated nothing but the gender and the number of the nominal stem notion."

142. Mahābhāṣya I 440,27-441,1. The arguments have been laid out in detail by S.D.Joshi and J.A.F. Roodbergen in *Vyākaraṇa-Mahābhāṣya, Anabhihitāhnika*, pp.6-33.

when the verb does not agree with it, the second case-affix is attached
to the word" (Vasu), "Les désinences du deuxième cas valent quand il
s'agit de l'object-direct" (Renou), "The second sUP triplet is intro-
duced [when not specified otherwise] to denote the object" (Katre), "A
dvitīyā occurs when *karman* is not expressed otherwise" (Sharma),[143]
where Renou's rendering reflects Pāṇini's thinking best. Patañjali's and
Kaiyaṭa's remarks have already been cited.[144] Khaṇḍadeva in his
Bhāṭṭatantrarahasyam asserted that according to sūtra II 3 2 *karmaṇi
dvitīyā* "objectness" (*karmatva*) is the meaning of the second case
ending,[145] and rejected the idea of "some" that (based on Pāṇini's
rules) the *dvitīyā* suffix denotes *karman*, not *karmatva* or *āśrayatva*.[146]
These "some" are, in the opinion of the editor, the "older grammari-
ans." Khaṇḍadeva distinguished elsewhere[147] between the "older"
(*prāñcaḥ*) and "new grammarians" (*vaiyākaraṇa-navyāḥ*) without giv-
ing names. Bhavānanda Siddhāntavāgīśa[148] once quoted Bhartṛhari's
Vākyapadīya III 404 with *vṛddhā tatrâhuḥ*. Nāgojibhaṭṭa (d.1755
A.D.)[149] referred to Sīradeva (12th or 13th century A.D.) as "old" (*prāñ-
caḥ*), and to Bhaṭṭoji Dīkṣita (ca. 1600 A.D.) as "new" (according to his
student and commentator Vaidyanātha Pāyaguṇḍa)[150]; Gadādhara[151] re-
ferred to *prācīna* and *navīna* authors which S.D.Joshi identified as

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143. Otto Böhtlingk, *Pâṇini's Grammatik*, p.56; Srisa Chandra Vasu, *The
Ashtádhyáyí of Páṇini*, vol.I, p.277; Louis Renou, *La grammaire de Pāṇini*, vol.I,
p.111; Sumitra M.Katre, *Aṣṭādhyāyī of Pāṇini*, p.138; Rama Nath Sharma, *The
Aṣṭādhyāyī of Pāṇini*, vol.III, p.108.

144. Above p.222, fn.70.

145. Bhāṭṭatantrarahasyam, p.82,3 *dvitīyârthas tu "karmaṇi dvitīyā" iti sūtrāt
karmatvam*.

146. *Ibid*., pp.90,22-91,1 *yat tu na karmatvam āśrayatvaṃ vā dvitīyârthaḥ … api
tv āśrayasyaîva dvitīyârthatvam … "karmaṇi dvitīyā" ity-ādy anuśāsanam api
saṃgacchata iti kaiś cid uktam – tan na.*

147. *Ibid*., p.106,10 + 13; 129,14 etc.

148. Kārakacakra p.182,15-17.

149. Nāgojibhaṭṭa in his Paribhāṣenduśekhara on paribhāṣā LV (p.114,2 ed.
K.V.Abhyankar) referred to *prāñcaḥ* and on paribhāṣā LXXXVII (p.170,24) to *navyāḥ*.

150. F.Kielhorn's footnotes in his translation (pp.299 and 428) following
Pāyaguṇḍa: Vaidyanāthakṛta-gadāṭīkāsamvalitaḥ Paribhāṣenduśekharaḥ ed. V.Ś.R.R.
Gokhale Gaṇeśaśāstrin, Poona 1913 (ĀSS no.72), pp.122 (*Sīradevâdayaḥ*) and 186
(*Dīkṣitâdayaḥ*).

151. Vyutpattivāda (in V.P.Bhatta, *Navya-Nyāya Theory of Verbal Cognition*,
vol.I) II (i).64 (pp.264f.); trans. pp.731f.

Udayana and Gaṅgeśa ("old") as opposed to Raghunātha ("new").[152] These terms are obviously relative; but they are all related to time. The idea of an "eastern school of grammarians" (*prācya-vaiyākaraṇa*)[153] has no basis in fact; there has been no term that could mean "western/southern/northern school." When Nāgojībhaṭṭa[154] referred to the works of *prācīna-vaiyākaraṇa*-s he meant grammarians of the hoary (or even mythical) past, as his commentator Vaidyanātha Pāyaguṇḍa explained: Indra etc.[155]

Gadādhara argued about the meaning of case endings similarly to Khaṇḍadeva: "Since the grammatical rule 'The accusative case endings are used in the sense of the grammatical object (*karmaṇi dvitīyā*, P.ii.3.2) assigns the accusative case in the sense of the grammatical object, the grammatical objecthood (*karmatva*) is the meaning of the accusative case endings. In such a rule, the term 'grammatical object' (*karman*) is meant to convey the sense of the property of the grammatical object (i.e. objecthood)"[156] – i.e., when Pāṇini said *karmaṇi* in II 3 2 *karmaṇi dvitīyā*, he really meant *karmatve*. The same applies, mutatis mutandis, to the other case endings. Jagadīśa used *karmatā*[157] and *karmatva* without apparent distinction of meaning.[158]

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152. S.D.Joshi, *Nagoya Studies* 16, p. 33.

153. K.V.Abhyankar, *A Dictionary*, 2nd ed., p.275.

154. Paribhāṣenduśekhara p.1,7 (on paribhāṣā 1).

155. It is altogether different when Pāṇini repeatedly referred to the usage of Eastern (*prācām* e.g., III 1 90) or Northern (*udīcām* e.g., III 4 19) people of his time.

156. Gadādhara, Vyutpattivāda II 1,1 (trans.V.P.Bhatta, in *Navya-Nyāya Theory,* vol.I, p.599).

157. Śabda-śakti-prakāśikā ed. Dhundhīrāj Śāstri, p.320,6 *bhedo 'pi karmatā-vā-ci-pratyayasyârthaḥ*… "A suffix denoting the state of the object denotes also difference…

158. Śabda-śakti-prakāśikā p.329,13f. (stanza 74) *karmatā* and p.330,2 *karmatva*. In the stanza *karmatā* was required by the meter, but in prose on p.285,3 (*karmatvam*) it was not.

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