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The orthoepic diaskeuasis of the Ṛgveda and the date of Pānini*

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1.1. The Ṛgveda is known to us in a form which is fixed down to the minutest details. It obtained this form as the result of a process which, in as far as it concerns details of sandhi etc., is known by the name "orthoepic diaskeuasis".

The main hypothesis to be defended in this article is that the orthoepic diaskeuasis of the Ṛgveda was not yet completed in the time of the Ṛgveda-Prātiśākhya, and ended when but one version of the Ṛgveda remained, i.e., probably with the disappearance of the Bāṣkala Saṃhitā. (I do not take here into consideration the Kashmir Ṛgveda; see Bronkhorst, 1982.) The hypothesis contrasts with the currently held belief that the Śākhās of the Ṛgveda, as well as the Ṛgveda-Prātiśākhya, presuppose, and therefore postdate, the final redaction of the Ṛgveda (Renou, 1947: 21, 35; cf. 1960: 1-2, 10).

A decision procedure, on the basis of which we can choose between these two opinions, is provided by the following. We have some idea of the original form of the hymns of the Ṛgveda, since the present Ṛgveda often deviates from the metre in a way that can easily be restored by undoing the sandhi or other minor changes. If the Ṛgveda-Prātiśākhya stands somewhere in the process which began with the original form of the Ṛgvedic hymns, we may expect that at least some of the authorities who preceded the Prātiśākhya but took part in the same process, came out in defence of a form of those hymns which, at least in some cases, deviates from their present, and is closer to their original one. If, on the other hand, the Prātiśākhya belongs to a period which came after the orthoepic diaskeuasis, we may not expect such opinions on the part of those who took part in the development in which the Prātiśākhya participates.

1.2. The Ṛgveda-Prātiśākhya mentions the following authorities: Ānyatareya¹ (3.22(208)), Gārgya (1.15(16); 6.36(412); 11.17(629); 11.26(638); 13.31(739)), Pañcāla

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¹ The Ṛgveda-Prātiśākhya does not enable us to decide whether "Anyatareya" or "Ānyatareya" is the correct name. The commentator on *Caturādhyāyikā* 3.74, however, cites the opinion of one Ānyatareya. See Whitney, 1862: 174.

(2.33(137); 2.81(185)), Prācyā (2.33(137); 2.81(185)); Mākṣavya (Intr. v. 2); Māṇḍūkeya (Intr. v. 2; 3.14(200)), Yāska (17.42(993)), Vedamitra [84] (1.51(52)), Vyāli (3.23(209); 3.28(214); 6.43(419); 13.31(739); 13.37(745)), Śākaṭāyana (1.16(17); 13.39(747)), Śākala (1.64(65); 1.75(76); 6.14(390); 6.20(396); 6.24(400); 6.27(403); 11.19(631); 11.21(633); 11.61(673)), Śākalya (3.13(199); 3.22(208); 4.13(232); 13.31(739)), Śākalya (sthavira) (2.81(185)), Śākalya-pitṛ (4.4(223)), Śūravīra (Intr. v. 3), Śūravīra-suta (Intr. v. 3). Unfortunately, none of the opinions ascribed to these authorities in the Prātiśākhya has an effect on the metre of the hymns, be it positively or negatively. However, many of these authorities are mentioned elsewhere in the ancient, and not so ancient, literature,² and opinions are ascribed to them which are not found in the Ṛgveda-Prātiśākhya. Many of these other opinions, also, do not affect the metre, but there are some which do in a way that deserves our attention:

(i) Pāṇini's Aṣṭādhyāyī contains the following rule: P. 6.1.127: *iko 'savarṇe śākalyasya hrasvaś ca [saṃhitāyām (72), ekaḥ pūrvaparayoḥ (84), na (115),³ aci (125)]* "[In the opinion] of Śākalya, in connected speech (*saṃhitā*), no single [substitute] of what precedes and what follows [comes] in the place of [the vowels] *i, ī, u, ū, ṛ, ṝ, ḷ*, when a dissimilar vowel follows; and [if the earlier vowel is long,] a short [vowel comes in its place]."

The translation here given follows the interpretation of the Kāśikā (except in so far as this is not possible in view of footnote 12). The interpretation may, however, be improved upon by understanding the word *chandasi* "in Sacred Literature" (Thieme, 1935: 68) in this rule, from the preceding one. Both the mention of the name "Śākalya" and the unusual kind of sandhi described support this. We may expect that this rule was (also) valid for the Ṛgveda.

The Ṛgveda in its present form is not in agreement with Śākalya's rule. The earlier form of the Ṛgveda, on the other hand, agrees with it. E. Vernon Arnold (1905) makes the following statements about the original Ṛgveda. First: "Before dissimilar vowels final *-i -ī -u -ū* are regularly used without hiatus" (p. 76). Second: "The vowels *-ī, -ū* are regularly shortened when followed by dissimilar vowels, but there are many exceptions" (p. 135). Third: "Final *-a, -ā* are regularly combined with an initial vowel or diphthong following; and final *-i -ī -u -ū* are regularly combined with similar vowels, that is *-i* or *-ī* with either *-i* or *-ī*, and *-u* or *-ū* with either *-u* or *-ū*" (p. 72). These three statements are so close to the opinion ascribed to Śākalya in P. 6.1.127 that they are almost a translation of that rule.

² Many such passages are given in Mīmāṃsaka, 1973: I: 69-71, and elsewhere in the same book, to be found with the help of the index (Mīmāṃsaka, 1973: III: 111-50).

³ See note 12, below.

(ii) Puruṣottamadeva's Bhāṣāvṛtti on P. 6.1.77 contains the following line (quoted in Mishra, 1972: 30n, 32n; Mīmāṃsaka, 1973: I: 26): *ikāṃ yaṅbhir vyavadhānaṃ vyāḍigālavayor iti vaktavyam/ dadhiyatra dadhy atra madhuvatra madhv atra/*"It must be stated that [in the opinion] of Vyāḍi and Gālava there is separation of [the vowels] *i, u, ṛ, ḷ* by [the consonants] *y, v, r, l* [respectively. Examples are] *dadhi-y-atra* [for *dadhi atra*, where we normally find] *dadhy atra, madhu-v-atra* [for *madhu atra*, where we normally find] *madhv atra*." The kind of [85] sandhi here ascribed to Vyāḍi and Gālava is not found in our Ṛgveda. (It is found in a few places elsewhere in Vedic literature; see Mīmāṃsaka, 1973: I: 27 f.) It would, however, make good the metre of the hymns of the Ṛgveda in innumerable instances (Whitney, 1888: 39, § 113).

(iii) The third case rests upon a somewhat unorthodox interpretation of some rules of the Aṣṭādhyāyī, an interpretation which, however, has rather strong arguments to support it. They will be discussed in § 1.2.3.

Pāṇini's grammar contains the following three rules:

P. 8.3.17: *bhobhagoaghoapūrvasya yo 'śi [roḥ (16), raḥ (14)]* "In the place of *rU*, which is preceded by *bho, bhago, agho, -a* or *-ā*, [comes] *y*, when a vowel or voiced consonant follows."

P. 8.3.18: *vyor laghuprayatnatarah śākaṭāyanasya [aśi (17)]* "According to Śākaṭāyana, in the place of *v* and *y* [comes a substitute] of which the [articulatory] effort is lighter, when a vowel or voiced consonant follows."

P. 8.3.19: *lopaḥ śākalyasya [vyoḥ (18), aśi (17)]* "According to Śākalya, there is elision of *v* and *y* when a vowel or voiced consonant follows."

When these rules are applied to a word ending in *-as* that is followed by *a-*, this sandhi evolves: *-as+a-* > *-a-rU+a-* (8.2.66) > *-ay+a-* (8.3.17) or *-a'y+a-* (8.3.17&18) or *-a+a-* (8.3.17&19). None of these three forms is ever found in our Ṛgveda, which invariably has *-o-* or *-o+a-*. The metre requires two distinct syllables in the vast majority of cases and that the first syllable be metrically short (Wackernagel, 1896: 324, § 272b; Ghatage, 1948: 14). Oldenberg (1888: 458) has argued that the original reading was *-a+a-*.⁴ We note that this is the opinion of Śākalya expressed in P. 8.3.19. Oldenberg (1888: 457-58) further shows that *-ay+* for *-as+* occurs in Vedic literature, and does not exclude the possibility that *-ay+a-* for *-as+a-* was the original form in the Ṛgveda. This would correspond to the opinions of Śākaṭāyana (P. 8.3.18) and Pāṇini (if P. 8.3.17 gives indeed Pāṇini's opinion).

All these three passages need some further comments.

⁴ Ghatage's (1948) attempts to prove that the passages concerned must be read *-Mo+a-*, with short *Mo*, show at best that this was "an intermediate stage of *abhinihita sandhi*", as he himself seems to admit (p. 18).

1.2.1. There is no reason to doubt that the Śākalya mentioned in the Aṣṭādhyāyī is identical with the Śākalya mentioned in the Ṛgveda-Prātiśākhya. On one occasion we find in the Aṣṭādhyāyī an opinion ascribed to Śākalya which the Ṛgveda-Prātiśākhya ascribes to the followers of Śākalya (Bronkhorst, 1982). P. 1.1.16, moreover, seems to bring Śākalya in connection with a Padapāṭha. We know from Nirukta 6.28 that the author of the Padapāṭha of the Ṛgveda was called thus. The connection of the Śākalya mentioned in the Aṣṭādhyāyī with the Ṛgveda seems therefore established.

1.2.2. Of the two, Vyāḍi and Gālava, only the first one is mentioned in the Ṛgveda-Prātiśākhya.⁵ It is unlikely that Puruṣottamadeva derived his knowledge directly or indirectly from the Saṃgraha, a word reputedly⁶ written by someone [86] called 'Vyāḍi'. All we know about this work (see Mīmāṃsaka, 1973: I: 282-90) shows that the Saṃgraha dealt with philosophical questions, and was not just a grammar. We are therefore justified in neglecting the claim of the commentator Abhayanandin on the Jainendra grammar to the extent that this rule derives from the Saṃgraha and is there ascribed to "some" (Jainendra Mahāvṛtti 1.2.1: *ikāṃ yaṅbhir vyavadhānam ekeṣāṃ iti saṃgrahaḥ*; quoted in Mīmāṃsaka, 1973: I: 26n). We further do not have to decide whether the two Vyāḍis are one and the same or not.

1.2.3. The example *-as+a-* would yield *-o-* according to the orthodox interpretation of Pāṇini's grammar, in the following manner: *-as+a-* > *-a-rU+a-* (8.2.66) > *-a-u+a-* (6.1.113) > *-o+a-* (6.1.87) > *-o-* (6.1.109). There can be no doubt that this form of sandhi was *also* accepted by Pāṇini, for his own grammar makes an abundant use of it, e.g., in P. 8.3.17 (see above) which has *yośi* for *yas+aśi*. The question is if *only* this form was accepted. Some circumstances indicate that such is not the case.

The fact is that a strict application of the principles of Pāṇini's grammar can *not* lead to *-o-*, *only* to *-ay+a-*, *-aMy+a-*, and *-a+a-*! To understand why, we must recall that the substitute *rU* for *s* is introduced in P. 8.2.66, a rule which is part of the last three sections of the Aṣṭādhyāyī, the so-called "Tripādī", which has a linear rule ordering (Bronkhorst, 1980: 72f.). Use of P. 8.2.66 can therefore only be followed by application of a rule which comes after P. 8.2.66, certainly not by application of P. 6.1.113, which would be necessary to obtain *-o-*.

The location of P. 6.1.113 is the most flagrant violation of the principle of linear rule ordering of the Tripādī which there is in the Aṣṭādhyāyī (cf. Buiscool, 1939: 83,

⁵ 'Vyāḍi', which is found in the Ṛgveda-Prātiśākhya, is a śākalization of 'Vyāḍi'. See Bronkhorst, 1982.

⁶ Explicitly said by Bhartrhari, Mahābhāṣyadīpikā p. 23, l. 19. Vyāḍi and the Saṃgraha are both mentioned in Patañjali's Mahābhāṣya, possibly with the understanding that the former was the author of the latter; see Scharfe, 1977: 125.

99). P. 6.1.113 reads: *ato ror aplutād aplute [ati (109), ut (111)]* "In the place of *rU* which follows *a* that is not prolated, [comes] *u*, when a non-prolated *a* follows." This rule presupposes the presence of the substitute *rU*. But *rU* is not introduced except in the Tripādī. Strictly speaking P. 6.1.113 should never apply, and be superfluous. Why was P. 6.1.113 not located in the Tripādī, somewhere after P. 8.2.66 and before P. 8.3.17?

I think there are two answers to this question, which are simultaneously valid. The first is that P. 6.1.113 has to "feed" P. 6.1.87 in the derivation of *-o-* out of *-as+a-* (see above). This answer alone is not fully satisfying, for if the linear ordering of the Tripādī was to be broken, then why not *after* the application of P. 6.1.113?⁷ The second answer is that if P. 6.1.113 were located in the Tripādī, it would make the derivation of *-ay+a-/-a~y+a-/-a+a-* out of *-as+a-* impossible. That this second answer leads to a result which agrees so well with the original Ṛgveda, only confirms that it is most probably correct.

1.3. The above shows that Śākalya was not the final redactor of the Ṛgveda, as [87] Patañjali's Mahābhāṣya seems to say he was (on P. 1.4.84, vol. I, p. 347, l. 3: *śākalena sukr̥tām saṃhitām anuniśamya devaḥ prāvarṣat*). Patañjali's opinion illustrates the process of apotheosis which Śākalya underwent,⁸ as I observed elsewhere (Bronkhorst, 1982).

I shall now show that other data we possess about Śākalya and his Padapāṭha agree, or at any rate do not disagree, with the view that Śākalya preceded the final redaction of the Ṛgveda.

1.3.1. Aitareya Āraṇyaka 3.2.6 lays down two rules: where there is doubt whether or not *ṇ* is to be used, there *ṇ* must indeed be used;⁹ where there is a similar doubt regarding *ṣ*, there *ṣ* must be used (p. 139: *sa yadi vicikitset saṅakāraṃ bravāṇī3ṃ aṅakārā3ṃ iti saṅakāraṃ eva brūyāt saṣakāraṃ bravāṇī3ṃ aṣakārā3ṃ iti saṣakāraṃ eva*

⁷ As far as I can see, no difficulties would arise if P. 6.1.113 and 6.1.87 — but then also P. 6.1.109 and 6.1.78 — were taken into the Tripādī, in this order (after 8.2.66 and before 8.3.19, of course). If this is correct, the riddles surrounding P. 6.1.113 intensify and depend for their solution exclusively on the second answer.

⁸ Interestingly, Patañjali has no respect for the makers of Padapāṭhas (*padakāra*), for he says that they must follow grammar (*lakṣaṇa*), rather than vice versa: *na lakṣaṇena padakārā anuvartyāḥ/ padakārair nāma lakṣaṇam anuvartyam/ yathālakṣaṇam padam kartavyam//* (vol. II, p. 85, ll. 4-5; vol. III, p. 117, ll. 18-19; p. 398, ll. 8-10). We may recall that also Yāska did not hesitate to disagree with Śākalya's Padapāṭha (Nirukta 6.28).

⁹ This advice has been followed by the Taittirīyas with regard to borrowed mantras (Renou, 1947: 33n). According to Bhartr̥hari (Mahābhāṣyadīpikā p. 1, l. 7) the Taittirīyas read even the word *agni* with *ṇ*. This probably refers to Taittirīya Brāhmaṇa 3.5.6 (borrowed from RV 6.16.34): *agnir vṛtrāṇi jaṅghanat*. This line has no *ṇ* in *agnir* in our version of that text, but Jayantabhaṭṭa records that it sometimes has (Nyāyamañjarī vol. I, p. 685).

brūyāt). The same chapter of the Aitareya Āraṇyaka (3.1.2) mentions the opinion of Śākalya regarding the mystical significance of union (*saṃhitā*). Doubts regarding the correct form of the Ṛgveda were apparently still alive in the time after Śākalya.

1.3.2. Six verses of the Ṛgveda have no Padapāṭha. They are RV 7.59.12; 10.20.1; 121.10; 190.1-2-3 (Kashikar, 1951: 44). This is most easily explained by the assumption that these verses were not considered part of the Ṛgveda by Śākalya. It further shows that the final redactors did not hesitate to deviate from the composer of the Padapāṭha in deciding what did, and what did not, belong to the Ṛgveda. (It is interesting to note that at least one hymn of the Ṛgveda (10.95) is known to have had fewer verses than at present at as late a date as that of the Śatapatha Brāhmaṇa. See Oldenberg, 1912: 303.)

1.3.3. Oldenberg (1888: 384-85) points out that the Saṃhitā text contains several nom. sing. fem. words ending in *-ā* which are not joined with a following vowel. Oldenberg, following Lanman, explains this by assuming that the final redactors of the Ṛgveda considered these words as really ending in *-āḥ*. The Padapāṭha, on the other hand, presents all these forms as actually ending in *-ā*. This indicates that the maker of the Padapāṭha and the final redactors of the Saṃhitā were different persons. Since the final redactors did not consider the Padapāṭha authoritative (see above, further fn. 8), this fact does not conflict with Śākalya's temporal priority to these redactors.¹⁰

2.1. In what phase of the development of the Ṛgveda does Pāṇini fit? There is no doubt that Pāṇini came after Śākalya, for he mentions the latter four times (P. 1.1.16; 6.1.127; 8.3.19; 4.51; see above pp. 84 and 85). The question is: Had the Ṛgveda known to Pāṇini already obtained the form which it had in the time of the [88] Ṛgveda-Prātiśākhya, and which was to remain virtually unchanged ever since? Three places of the Aṣṭādhyāyī seem to indicate that this was not the case.

(i) P. 6.1.134: *so'ci lope cet pādapūraṇam [sulopaḥ (132)]* "There is elision of [the nom. sing. case-affix] *sU* of *sa* 'he' before a vowel, if, in case of elision, there is completion of the Pāda." This rule is obeyed in our Ṛgveda where *sas* is followed by a vowel different from *a*; e.g., in RV 1.32.15: *sed u rājā kṣayati carṣaṇinām* for *saḥ/ it/* etc., and in RV 8.43.9: *sauśadhīr anu rudhyase* for *saḥ/ ośadhīḥ/* etc. (cf. Oldenberg, 1888: 464; Arnold, 1905: 74). Where, however, *sas* is followed by *a*- and the metre requires contraction, "ist in einer Reihe von Fällen *sā-* überliefert ..., in einigen andern

¹⁰ Oldenberg (1888: 386) thinks that these redactors preceded the Padapāṭha. Since he gives no real arguments, we can ignore his opinion.

so a- oder so mit dem Abhinihita Sandhi" (Oldenberg, 1888: 464; cf. Arnold, 1897: 292). Oldenberg is of the opinion that all these cases originally had *sā-*.¹¹ Apparently Pāṇini defends here quite generally an older reading which survived but in a number of cases. Moreover, Pāṇini's concern for metre contrasts with the unconcern for the same found in the Ṛgveda-Prātiśākhya; see Oldenberg, 1888: 372-73n; Müller, 1891: lxxix f.

(ii) P. 6.1.115: *nāntaḥpādam avyapare*¹² [*saṃhitāyām* (72), *ekaḥ pūrvaparayoḥ* (84), *pūrvāḥ* (107), *eṇaḥ padāntād ati* (109)] "In a Saṃhitā [text], when *e* or *o* which are final in a word precede, [and] when *a* which is not [itself] followed by *v* or *y* follows, [then] the preceding [sound is] not the single [substitute] of both the preceding and the following [sound], when [these sounds occur] in the interior of a Pāda."

P. 6.1.116: *avyādavadyādavakramuravratāyamavantvavasyuṣu ca* [*saṃhitāyām* (72), *ekaḥ pūrvaparayoḥ* (84), *pūrvāḥ* (107), *eṇaḥ padāntād ati* (109), *nāntaḥpādam* (115)] "In a Saṃhitā [text], when *e* or *o* which are final in a word, precede, [and] when *a* follows which is [the initial sound] in [one of the following words:] *avyāt*, *avadyāt*, *avakramuḥ*, *avrata*, *ayam*, *avantu*, *avasyu*, [then] the preceding [sound is] not the single [substitute] of both the preceding and the following [sound], when [these sounds occur] in the interior of a Pāda."

P. 6.1.116 is not in agreement with the facts of our Ṛgveda. There are at least two places where *ayam* has been joined with a preceding *-e* or *-o*, viz. RV 1.108.6 *vṛṇāno 'yam* and RV 5.30.3 *vahate 'yam*. Nowhere does *ayam* behave in the prescribed manner. *Avasyu* is joined with a preceding *-o* in RV 8.21.1 *bharanto 'vasyavaḥ*. And *avantu* is always joined with a preceding *-e* or *-o* (RPr 2.40(144); Böhtlingk, 1887: 298). The precise prescription contained in P. 6.1.116 makes it very difficult to believe, with Thieme (1935: 51), that this rule does "not imply strict application". Indeed, there is reason to believe that sūtras 6.1.115 and 116 were forerunners of certain sūtras from the Ṛgveda-Prātiśākhya, and, like those, did imply strict application; see below § 2.2.

(iii) Pāṇini seems to consider the sandhi form *-ay+a-* for *-as+a-* correct, which agrees with the original Ṛgveda, but not with the Ṛgveda known to us. This has been explained in § 1.2, above.

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2.1.1. It must still be shown that the sūtras 6.1.134 and 6.1.115-116 really are about the Veda. In the case of P. 6.1.134 there can be no doubt. The preceding rule contains the

¹¹ Oldenberg later (1907: 834-35) changed his view, on the basis of the later language. This, of course, is a weak argument. Pāṇini's rule is evidence that Oldenberg's earlier opinion was the correct one.

¹² This is the reading found in Patañjali's Mahābhāṣya. The Kāśikā has: *prakṛtyāntaḥpādam avyapare*. The Bhāṣya-reading seems to be older, for, although Patañjali is acquainted with the reading *prakṛtyā*, Kātyāyana's vārttikas show no sign of such an acquaintance. See Thieme, 1935: 47-48. The word *prakṛtyā* may have been borrowed from RPr 2.51 (155), which defines the meaning of *pragrhya*.

word *chandasi* "in Sacred Literature". The Kāśikā illustrates the rule with the help of the two examples from the Ṛgveda which were reproduced above (and adds that *some* think that the rule is not confined to Vedic verse alone (*pādagrahaṇenātra ślokapādasyāpi grahaṇaṃ kecit icchantī*; this would justify a verse subsequently quoted in the Kāśikā)). It seems that wherever in the Aṣṭādhyāyī the word *pāda* is used to specify a context, it refers to feet of Vedic verse. The remaining places are: P. 3.2.66: here *chandasi* is understood from rule 63; P. 8.3.9: *ṛkṣu* is understood from the preceding rule; P. 6.1.115 and 8.3.103: here *yajūṣi* "in a sacrificial formula in prose" occurs in a following rule (P. 6.1.117 and 8.3.104 respectively), suggesting that the verse-feet (*pāda*) talked about in the earlier rules likewise belong to sacrificial formulas, and therefore to Vedic verse; P. 8.1.6, finally, deals with a phenomenon which is only found in Vedic verse (see the Kāśikā on this rule).

2.1.2. P. 8.3.17, which justifies the sandhi form *-ay+a-* for *-as+a-*, occurs in the company of P. 8.3.18 and 19, which mention Śākaṭāyana and Śākalya respectively (see p. 85, above). These two authorities are mentioned in the Ṛgveda-Prātiśākhya, and their opinions may be considered to apply also to the Ṛgveda, if not primarily to that work. It is therefore safe to say the same of P. 8.3.17.

2.2. The above seems to show that Pāṇini worked with a version of the Ṛgveda which is earlier than the versions described in the Ṛgveda-Prātiśākhya. The only serious objection which one might raise, as far as I can see, is that Pāṇini's version is not earlier, but quite simply different from the ones of the Prātiśākhya. And indeed, we have no guarantee that the Ṛgveda-Prātiśākhya describes all the versions of the Ṛgveda which existed in its time. The fact that we obtain opinions of the authorities mentioned in the Prātiśākhya from sources other than the Prātiśākhya shows that the information provided by the Prātiśākhya is in no way complete.

There is, nonetheless, reason to think that Pāṇini did not draw upon an altogether different version of the Ṛgveda. To begin with, Pāṇini mentions Śākalya on four occasions (p. 87, above) and also knows of the Śākalas, or so it seems (P. 4.3.128). Perhaps more important is that his rules 6.1.115-116 (which we have discussed in § 2.1, above) seem to be an earlier version of some rules of the Ṛgveda-Prātiśākhya.¹³ This I shall show now.

P. 6.1.115-116 specify the circumstances in which *e* and *o* retain their original form before *a*. The Ṛgveda-Prātiśākhya adopts the opposite procedure: it specifies the

¹³ Already Renou (1957: 120, n. 580) pointed at the similarity between P. 6.1.115 f. and RPr 2.35(139) f.

circumstances when *e* and *o* merge with *a*. In spite of this difference, there is a remarkable similarity.

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RPr 2.35(139) reads: *antaḥpādam akārāc cet saṃhitāyāṃ laghor laghu yakārādy akṣaram param vakārādy api vā bhavet* "In the interior of a Pāda, if, in the Saṃhitā [text], a light syllable beginning with *y* or even *v* follows a light vowel *a*, [this *a* becomes one with the preceding *e* or *o*]". This means the same as P. 6.1.115, and more. In addition it contains a restriction on that rule. According to P. 6.1.115, *e* and *o* merge with a following *a*, when that *a* is followed by *v* or *y*. According to RPr 2.35(139), *e* and *o* merge with a following *a*, when that *a* is followed by *v* or *y*, *and is a light vowel, and when moreover the syllable beginning with v or y is light.*

The advantage of the formulation in the Prātiśākhya is clear. Of the seven exceptions which Pāṇini had to enumerate in rule P. 6.1.116, six are excluded by the added restriction of the Prātiśākhya. But a price had to be paid. Twenty exceptions are enumerated in the immediately following sūtras of the Ṛgveda-Prātiśākhya.¹⁴ This means that the complicated qualification which we find in RPr 2.35(139) does not in any way simplify the description of the subject-matter. The formulation of the Prātiśākhya can most easily be accounted for by taking it as an improvement upon an earlier formulation, the one found in the Aṣṭādhyāyī or one closely similar to it.

2.3. I shall now enumerate a few more circumstances which seem to fit our conclusion that Pāṇini preceded the Ṛgveda-Prātiśākhya and made use of an earlier version of the Ṛgveda.

2.3.1. Pāṇini's grammar does not know the retroflex consonant *ḷ*. Our Ṛgveda contains this sound, but we know that not all versions had it (Bronkhorst, 1982). The introduction of *ḷ* was "doubtless a dialectical anticipation of the more general identical process in MidIA" (Allen, 1962: 54) and may have taken place rather late. This is supported by the fact that *ḷ* occupies the place of *ḍ* where our Ṛgveda would otherwise have had *ḍ* between two vowels, *not where the original Ṛgveda would otherwise have had ḍ between two vowels* (Wackernagel, 1896: 255-56). E.g., *vīḍv-aṅga* was originally pronounced *vīḍuv-aṅga*, but contains nonetheless no *ḷ*. One way of explaining the absence of *ḷ* in the Aṣṭādhyāyī is that Pāṇini lived before this sound made its appearance

¹⁴ Sandhi with preceding *e* or *o* takes place in *avartraḥ*, *avyatyai*, *ayopāṣṭiḥ*, *avantu*, *avīratā*, *avatvacah*, *avirate*, *avāmsi*, *avah* (RPr 2.40(144)). Further exceptions: *agne 'yam* (RPr 2.42(146)); *yavase 'viṣyan*, *vṛtrahatye 'vīḥ* (RPr 2.43(147)); *tavase 'vāci*, *vahate 'yam*, *januṣo 'yā* (RPr 2.44(148)); *viśo 'yanta*, *santo 'vadyāni*, *bharanto 'vasyavaḥ* (RPr 2.45(149)); *te 'vardhanta* (RPr 2.46(150)); *te 'vindan* (RPr 2.47(151)).

in the Veda, and therefore before the Ṛgveda-Prātiśākhya.¹⁵ (If Pāṇini lived after the sound *ḷ* had found entrance into the Śākala version of the Ṛgveda, it would be hard to account for the absence of *ḷ* from the Aṣṭādhyāyī by saying that this sound was not used in the language of the region where Pāṇini lived (Lüders, 1923: 301-02). Pāṇini knew the Śākalas (above, p. 89) and therefore probably also the peculiarities of their version of the Ṛgveda. If these peculiarities included *ḷ* in Pāṇini's time, this sound would, and should, have been mentioned in the Aṣṭādhyāyī, irrespective of the presence or absence of the sound in Pāṇini's own dialect.)

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2.3.2. Vowels with circumflex accent are described as follows in the Aṣṭādhyāyī:

P. 1.2.31: *samāhāraḥ svaritaḥ [ac (27)]* "A vowel which is a mixture [of an *udātta* and an *anudātta* vowel] is *svarita*."

P. 1.2.32: *tasyādīta udāttam ardhahrasvam* "Of that [*svarita* vowel] half [the length of] a short [vowel, starting] from the beginning, is *udātta*."

There has been some discussion why this description is included in the Aṣṭādhyāyī (Thieme, 1957; Cardona, 1968), which does not concern us here. We note the difference from the Ṛgveda-Prātiśākhya,¹⁶ which has the following sūtras:

RPr 3.4(189-90): *tasyodāttatarodāttād ardhamātrārdham eva vā* "Of that [*svarita* accent¹⁷] half a mātrā or even half [of the *svarita* accent] is higher than the *udātta* [accent]."

RPr 3.5(191): *anudāttaḥ paraḥ śeṣaḥ sa udāttaśrutiḥ* "The following remainder [of the *svarita* accent] is *anudātta*; it sounds like *udātta*."

RPr 3.6(192) further specifies that this description is not valid when a syllable follows which has an *udātta* or *svarita* accent. The commentator Uvaṭa explains that in such cases the latter part of the *svarita* accent becomes really *udātta* (p. 114: *yadi tūdāttaṃ svaritaṃ vā paraṃ syāt tadānudāttaḥ paraḥ śeṣaḥ syāt*). The description of the Ṛgveda-Prātiśākhya makes the impression of being more sophisticated than the description of the Aṣṭādhyāyī. This may be due to the fact that the former is of later date than the latter.¹⁸

¹⁵ That the Padapāṭha contains *ḷ*, may be explained by the process of śākalization, which also affected the Ṛgveda-Prātiśākhya (Bronkhorst, 1982).

¹⁶ The Aṣṭādhyāyī differs in this respect from the other Prātiśākhyas as well. See Whitney's (1862: 164-69) description of the *svarita* in the Prātiśākhyas.

¹⁷ The terms *udātta*, *anudātta* and *svarita* apply to vowels in the Aṣṭādhyāyī, to accents in the Ṛgveda-Prātiśākhya (Cardona, 1968: 455).

¹⁸ Cardona (1968: 459) thinks that the description of *svarita* in the Aṣṭādhyāyī was only meant for *svarita* vowels occurring in the Aṣṭādhyāyī. This seems unlikely.

3.1. We see that there are good reasons to think that our hypothesis is correct. The orthoepic diaskeuasis of the Ṛgveda took place over a rather long period of time, and was not yet fully completed when the Ṛgveda-Prātiśākhya was composed (better perhaps: reached its present form).

The investigation has further provided us with some chronological information, most important among which is, no doubt, that Pāṇini's Aṣṭādhyāyī is older than the Ṛgveda-Prātiśākhya. We also saw that Śākalya, who in Yāska's Nirukta was no more than the composer of the Padapāṭha, had become the redactor of the Saṃhitā in Patañjali's Mahābhāṣya. Since in the Anuvākānukramaṇī he is said to have seen the Veda (Bronkhorst, 1982) and apparently has reached his apex, it is reasonable to think that these three works have this chronological order: the Nirukta preceded the Mahābhāṣya, which in its turn preceded the Anuvākānukramaṇī.

There have been attempts to discover the rules employed in the orthoepic diaskeuasis of the Ṛgveda (Hejib-Sharma, 1979; Ghatage, 1948: 18). Such rules may be discoverable in some cases, but the complicated history of the process, in which many people participated while representing different views, makes it unlikely that all phonetic peculiarities of our Ṛgveda fall under rules.

It must, finally, be pointed out that the lack of agreement between the Aṣṭādhyāyī and our Ṛgveda may henceforth have to be looked at through different [92] eyes. Certainly where phonetic questions are concerned, Pāṇini may describe an earlier form of the Ṛgveda, and may not deserve to be blamed for being lacunary, as he is, e.g., by Renou (1960: 27).

3.2. It remains to say a few words about the difference that may have existed between schools that were concerned primarily with the Ṛgveda Saṃhitā and those that were concerned primarily with the ritual. Karl Hoffmann (1974) has argued — on the basis of P. 7.2.69: *saniṃ sasanivāṃsam*, which is found in Mānava Śrauta Sūtra 1.3.4.2 and Vārāha Śrauta Sūtra 1.3.5.16 — that Pāṇini lived in the older Sūtra period,¹⁹ i.e., after the Mānava Śrauta Sūtra and the Vārāha Śrauta Sūtra. I am not sure if Hoffmann's arguments are compelling, for (as Hoffmann himself observes, pp. 75-76) the words *saniṃ sasanivāṃsam* occur in a cited mantra, which may be older than these two Sūtras. Be this as it may, Hoffmann's hypothesis places Pāṇini in a time when differences of opinion regarding the ritual had given rise to different schools (Renou, 1947: 25-26). This means that we may have to distinguish between simultaneously existing schools connected with the supposedly correct form of the Ṛgveda Saṃhitā, and such as owe

¹⁹ Of course, we must be careful not to revert to the belief that there was a clear Brāhmaṇa period followed by a clear Sūtra period; see Renou, 1947: 36, Gonda, 1975: 22.

their existence to particular views on the ritual. Schools belonging to these two groups may, but by no means have to, coincide.

We know the names of at least three schools that were concerned with the form of the Ṛgveda: Śākala, Śaiśirīya (see Bronkhorst, 1982), Bāṣkala. Schools of the second type, which were primarily concerned with the ritual, may have been the Āśvalāyana and Śāṅkhāyana schools (Renou, 1947: 25 f.). R. G. Bhandarkar (1893) has argued that these two schools belonged to both the Śākala and the Bāṣkala Śākhā. This point of view is confirmed by the commentator Gārgya Nārāyaṇa on Āśvalāyana Śrauta Sūtra 1.1.1 (p. 1); see also his comments on Āśvalāyana Gṛhya Sūtra 3.5.9 (pp. 167-68). Some other evidence tends to ascribe both the Āśvalāyana and the Śāṅkhāyana school to the Bāṣkala Śākhā (Renou, 1947: 25, and esp. Aithal, 1969: 187-89).

It is interesting to observe that the unification of Śākhās which we noticed with respect to the form of the Saṃhitā, has its counterpart in the tendency to rejoin which is found in the ritual schools of the Ṛgveda (Renou, 1947: 46; cf. Surya Kanta, 1933: 9-11, 66).

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ABBREVIATIONS

- P. Pāṇinian sūtra
RPr Ṛgveda-Prātiśākhya. The sūtra numbers both according to Mangal Deva Śhastrī's and Max Müller's editions are given.
RV Ṛgveda