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Pāṇini and the Kramapāṭha of the Ṛgveda*

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1. In an earlier article (Bronkhorst, 1982a: § 1.2) it has been argued that retroflexion as a result of sandhi conditioned by the reduplication of a verb or by the earlier member of a compound did not yet take place at the time of composition of the Padapāṭha of the Ṛgveda. We can be sure that retroflexion conditioned by an earlier word was also foreign to the Ṛgveda at that time. Retroflexion of this type had become a common feature of the Ṛgveda in the time of the Ṛgveda-Prātiśākhya. This means that the text of the Ṛgveda went through a process of evolution in this respect. In the following pages an attempt will be made to derive conclusions on chronology by assigning the Kramapāṭha of the Ṛgveda and Pāṇini's Aṣṭādhyāyī to different stages in this process.

2.1. The Kramapāṭha¹ is described in chapters 10 and 11 of the Ṛgveda-Prātiśākhya. These chapters give indications how to arrive at the Kramapāṭha on the basis of the Padapāṭha and the Saṃhitāpāṭha. the relationship between chapters 10 and 11 is a peculiar one. Chapter 11 restates much that is said in chapter 10 and adds explanations as well as alternatives proposed by others.² Already Müller (1869: CCXLVI; cf. Shastri, 1959: 76) concluded from this that chapter 11 is a supplement to chapter 10, the main aim being to give reasons for the rules of chapter 10. But the search for reasons, Müller observes, led to something else. Where the presumed rationale of certain rules was not fully attained by these rules, new rules were added or modifications proposed. One traditionally handed down Kramapāṭha was none the less known to the author of chapter 11. This is clear from certain sūtras in this chapter. Sūtra 11.8 (620) questions the rationality of some features of the Kramapāṭha, thus indicating that the Kramapāṭha existed in a fixed form even where this was considered irrational. Sūtras 11.63-65 (675-76) are quite explicit on this point: "But one should not go beyond what is customary. While saying that both tradition and [186] reasoning are the way of the Kramapāṭha, one should praise other [rules regarding the formation of the Kramapāṭha only in as far as they are] in agreement with its (i.e., of the Kramapāṭha) completion. The rules of the Kramapāṭha are correct as they were taught in

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¹ The Kramapāṭha has been committed to writing by Bhalchandrashastri Karambelkar in Poona, perhaps for the first time. Let us hope that it will soon be published.

² Cf. Devasthali, 1981.

the beginning, but not with all kinds of deviations [therefrom]. Thus Bābhavya, the propounder of the Kramapāṭha, propounded and praised the Kramapāṭha." (*ācaritaṃ tu notkramet/ kramasya vartma smṛtisaṃbhavau bruvaṇ samādhim asyānv itarāṇi kīrtayet// yathopadiṣṭaṃ kramaśāstram āditaḥ punaḥ pṛthaktvair³ vividhair na sādhuvat/ iti pra bābhavya uvāca ca kramaṃ kramapṛavaktā prathamam śaśaṃsa ca//RV. Pr. 11.63-65.*)

In view of the above, we can conclude that chapter 10 of the Ṛgveda-Prātiśākhya describes the Kramapāṭha as it was traditionally handed down and, we may assume, as it was at the time of its composition.

2.2. Some features of the Kramapāṭha as described in chapter 10 of the Ṛgveda-Prātiśākhya allow us to gain knowledge of the stage to which retroflexion in the Saṃhitāpāṭha had reached. Sūtra 10.3 (592) of the Ṛgveda-Prātiśākhya tells us that "they finish [a group of words joined in the Kramapāṭha] having passed over ... *su* and *sma* when retroflexed and followed by *naḥ* (*nate susmeti naḥpare ... atītyaitāny avasyanti*). In these cases the Kramapāṭha contains groups of three rather than two words. The examples given by the commentator Uvaṭa are: *mo ṣu naḥ* (RV 1.38.6); *āsu śmā naḥ* (RV 6.44.18). For *sma* there are no further examples; for *su* there are, such as: *ū ṣu naḥ* (RV 1.36.13); *o sū naḥ* (RV 1.138.7); *te ṣu naḥ* (RV 1.169.5); *mo sū naḥ* (RV 1.173.12); etc.

It is clear why in these cases three rather than two words form a group. Retroflexion of *s* in the second word is conditioned by the first word, the second word — thus modified — causes in its turn retroflexion of *n* in *naḥ*. Retroflexion in the third word is therefore (indirectly) conditioned by the first word. Groups of two words at a time would not show the Saṃhitā-form *naḥ*,⁴ contrary to what is desired.

The above shows that at the time of composition of the Kramapāṭha the Saṃhitāpāṭha read *mo ṣu naḥ*, *āsu śmā naḥ*,⁵ with retroflex *ṣ* and *ṇ*. In this respect the Kramapāṭha agrees with the Ṛgveda as described in the [187] Ṛgveda-Prātiśākhya, not with the Ṛgveda as it existed when the Padapāṭha was composed.

3.1. I have argued elsewhere (1981: § 2) that Pāṇini is to be dated after the Padapāṭha and before the Ṛgveda-Prātiśākhya. In that same article I concluded that differences between the Aṣṭādhyāyī and the Ṛgveda known to us may be significant: "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" (1981: 91-92). What are the consequences of this in the present context?

³ Müller's edition has *pṛthaktair*.

⁴ The reason is that retroflexion of *s* in the second word is not allowed when the cause of this retroflexion is not present; see Ṛgveda-Prātiśākhya 10.5 (594). *mo ṣu naḥ*, e.g., would be *mo ṣu / su naḥ*.

⁵ To be exact: *āsu śmā ṇo*, due to following *maghavan*.

3.2. P. 8.4.27 reads: *naś ca dhātusthoruṣubhyaḥ [chandasi (26), raśābhyāṃ no ṇaḥ (1)]* "In Sacred Literature, ṇ [comes] in the place of *n* of *nas* after *r* or *ṣ* when part of a root, *uru*, or *ṣu*." This sūtra accounts for *mo ṣu ṇaḥ* and the other phrases containing *ṣu ṇaḥ*. However, this sūtra does not account for *āsu śmā ṇaḥ*; nor does any other sūtra in the Aṣṭādhyāyī do so. If the Ṛgveda had read *āsu śmā ṇaḥ* in the time of Pāṇini, the Aṣṭādhyāyī should have accounted for it. If Pāṇini had known the Kramapāṭha and its peculiar shape in this particular place, he could not possibly have failed to account for it. The conclusion seems unavoidable that Pāṇini preceded the Kramapāṭha.

3.3. There is nothing implausible in the assumption that *naḥ* got retroflex ṇ following *śmā* at a later time than *ṣu ṇaḥ*. The cases described in Pāṇini's rule have none but vowels intervening between the conditioning *ṣ* or *r* and *naḥ*. The Ṛgveda-Prātiśākhya (5.58; 374), on the other hand, prescribes retroflexion in *naḥ* also after *purupriyā*, *brahma*, *aryamā*, and of course *śmā*. Intervention of a non-vowel without prevention of retroflexion may not have taken place until after Pāṇini.

4. The use of *padaka* "one who studies or knows the Pada"⁶ in the Pāli Buddhist scriptures provides some evidence in support of the view that the Kramapāṭha did not yet exist about Pāṇini's time. This word is used as an attribute of Brahmans who excel in learning. If the Kramapāṭha had existed when *padaka* made its appearance in Buddhist literature, a term might have been used that shows the Brahman's familiarity with the Kramapāṭha,⁷ such as *kramaka*; but such terms are unknown to the Buddhist canon. [188] Buddhist literature originated after the Buddha. Irrespective of the precise dates of the Buddha's death and of Pāṇini⁸ it is likely that the earliest Buddhist literature and Pāṇini's grammar were not far apart, and that, if anything, the former was later than the latter.

5. There is a complication. P. 4.2.61 reads: *kramādibhyo vun* "After *krama* etc. [comes the suffix] *vuN* (= *aka*)." This sūtra accounts for the formation of *kramaka*.⁹ The sense to be assigned to *kramaka* must be "one who studies or knows the Krama", in view of P. 4.2.59

⁶ See note 9 below.

⁷ Similarly today a learned Brahman is called 'Ghanapāthin' after the last and most complicated *vikṛti* which he masters. (See Abhyankar and Devasthali, 1978: XVII-IL for a discussion of the eleven modes of Vedic recitation: three *prakṛti*, eight *vikṛti*.)

⁸ For the date of the Buddha, see Barea, 1953 and now Bechert, 1982. A survey of opinions regarding Pāṇini's date is given in Cardona, 1976: 260-70. The interval between Pāṇini and Kātyāyana is to be taken as rather wide, in view of Kātyāyana's recurrent lack of knowledge regarding Pāṇini's intention (Thieme, 1935: 130; and esp. Kiparsky, 1980; Bronkhorst, 1980). Pāṇini may further antedate parts of Vedic literature (Bronkhorst, 1982b) and should therefore not be dated too late.

⁹ It also accounts for *padaka*. This word does not occur in early Sanskrit literature (it does occur in Pāli and the Buddhist Divyāvadāna, see above) so that it does not affect the argument which follows.

tad adhīte tad veda. P. 4.2.61 seems a clear indication that Pāṇini knew the Kramapāṭha of the Ṛgveda. That is to say, once we accept that P. 4.2.61 was part of the original Aṣṭādhyāyī we are almost compelled to believe that Pāṇini knew the Kramapāṭha.

But here there is room for doubt. I shall show i) that there is no evidence *against* the assumptions that P. 4.2.61 is a later interpolation in the text of the Aṣṭādhyāyī, and ii) that there is some evidence *in support of* this assumption.

(i) P. 4.2.61 is not commented upon nor in any other way used in Patañjali's Mahābhāṣya (Lahiri, 1935: 44; Birwé, 1966: 205). It can moreover be removed from its context without difficulty. The rule can therefore have been added in the time separating Patañjali from Candra.¹⁰ It is known that much grammatical activity characterized this period, resulting in various additions and modifications in Pāṇini's grammar (Bronkhorst, 1983).

(ii) Some positive evidence may be seen in the fact that the word *krama* occurs in the gaṇa accompanying the preceding sūtra P. 4.2.60 *krātūkthādisūtrāntāṭ ṭhak*. This sūtra is thus made to teach the formation of *krāmika* in the sense "one who studies or knows the Krama". The mention of *krama* in the immediately following sūtra 4.2.61 may be more than coincidence. Conceivably there was a grammarian who did not approve of the word *krāmika* and preferred *kramaka* instead.¹¹ He added P. 4.2.61 in order to justify *kramaka*. [189]

A disagreement of the type hypothesized above may well have existed. Neither of the two words *krāmika* and *kramaka* seems to occur in the ancient Sanskrit literature in the sense here required. The fact that *krama* occurs in the gaṇa of P. 4.2.60 does not in any way prove that Pāṇini knew the Kramapāṭha. The gaṇas are known to have undergone modifications and additions. There are even some indications that gaṇas were not originally part of Pāṇini's grammar (Scharfe, 1977: 102-04).

Some further, be it negative, evidence for the late origin of P. 4.2.61 is as follows. P. 4.2.61, together with the accompanying gaṇa, accounts for the words *kramaka*, *padaka*, *śikṣaka*, *mīmāṃsaka*, and *sāmaka*. All these words are of extremely rare occurrence in the ancient literature, and a grammatical derivation is never given. There is one exception. The Jaina Tattvārthādhigama Bhāṣya, which may date from the fourth century A.D. (Bronkhorst, 1985), paraphrases the word *śaikṣaka* which occurs in Tattvārtha Sūtra 9.24 as *śikṣaka* (II, p. 256). It explains this (p. 257):

acirappravrajitaḥ śikṣayitavyaḥ śikṣaḥ śikṣām arhatīti śaikṣo vā

¹⁰ The rule occurs in Candra's grammar (3.1.40).

¹¹ Or in addition to *krāmika*.

"One who has recently renounced is someone who must be instructed (*śikṣayitavya*) [and is called] *śikṣa* because 'he deserves instruction' (*śikṣām arhati*), or [he is called] *śaikṣa*."

The author of the Tattvārthādhigama Bhāṣya gives evidence of being acquainted with Pāṇini's grammar at a few places.¹² There can therefore be no doubt that his remark 'he deserves instruction' (*śikṣām arhati*) is a reference to P. 5.1.63: *tad arhati*. His word *śikṣaka* is therefore derived, through *śikṣa*, with the help of P. 5.1.63. (A *svārthika* suffix -*ka* or -*aka* is added after *śikṣa/śaikṣa*; cf. P. 5.3.70 f.) The alternative derivation with P. 4.2.61 from *śikṣām adhīte* 'who studies the precepts'— the only derivation in the grammar which is explicitly meant to produce *śikṣaka*— would also yield an acceptable meaning.¹³ Its non-mention *may* indicate that P. 4.2.61 was not yet part of the Aṣṭādhyāyī at that time.

6. The above arguments do not prove beyond doubt that Pāṇini preceded the Kramapāṭha of the Ṛgveda. They do however show that this is possible or even probable. We shall therefore consider one of its consequences.

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Aitareya Āraṇyaka 3.1.3 speaks of *nirbhujā*, *pratṛṇṇa* and *ubhayamantara*. These terms find their explanation in the statement: "For when he unites the words, that is the Nirbhujā form. When he pronounces the two syllables pure, that is the Pratṛṇṇa form. This is the first. By the Ubhayamantara both are fulfilled." (cf. Keith, 1909: 241, 128: *yad dhi saṃdhiṃ vivartayati tan nirbhujasya rūpam atha yac chuddhe akṣare abhivyāharati tat pratṛṇṇasyāgra u evobhayamantareṇobhayaṃ vyāptaṃ bhavati*.) It seems clear that the three terms refer to the Saṃhitāpāṭha, Padapāṭha and Kramapāṭha respectively.¹⁴

If we accept that Pāṇini preceded the Kramapāṭha of the Ṛgveda, we must also accept that he preceded the portion of the Aitareya Āraṇyaka which refers to it. This would be a welcome addition to our knowledge of late-Vedic chronology. However, the evidence discussed above makes Pāṇini's priority in time to the Aitareya Āraṇyaka no more than a probability.

¹² A full sūtra (P. 5.2.93) is quoted under Tattvārtha Sūtra 2.16 (I, p. 162). A full entry from the Dhātupāṭha (X.300) is cited under 1.5 (I, p. 44). Oblique references occur repeatedly.

¹³ The derivation of *śaikṣaka* from *śikṣaka* with a *svārthika* suffix, e.g. *aN*, could not be a problem. Note the meaning assigned to *śikṣā* in the Tattvārthādhigama Bhāṣya on sūtra 1.3 (I, p. 35): *adhigamaḥ adhigama āgamo nimittaṃ śravaṇaṃ śikṣā upadeśa ity anarthāntaram*.

¹⁴ A closely similar description of the terms is found in the introductory stanzas of the Ṛgveda-Prātiśākhya, vv. 3 and 4.

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