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Did Pāṇini write?

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DID PĀṆINI WRITE?

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In a recent article—"Pāṇini's *Aṣṭādhyāyī*: A turning point in Indian intellectual history"—Vincenzo Vergiani (2019) presents arguments in support of the thesis that Pāṇini used writing while composing his grammar. Critics will no doubt try to pick holes in those arguments. Not all of these critics will be ready to change their conviction that Pāṇini did *not* use writing.

Why? At first blush the situation looks simple enough. Pāṇini was aware of the existence of writing (he has a word for 'scribe': *lipikara-*). He lived in a region (Gandhāra) that some two hundred years before him had become part of the Achaemenid empire, which used writing. Furthermore, the complexity of Pāṇini's grammar is such that its composition without the help of writing is wellnigh inconceivable.

Those who stick to the view that Pāṇini did *not* use writing must necessarily assume that Pāṇini *could* compose his grammar *without* it. Most of them will also assume that Vedic memorisation allowed him to do so.

There is no need to look at the arguments against Pāṇini's use of writing. If he could *not* compose his grammar *without* the use of writing—in other words: if he could *only* do so with the help of writing—all arguments that claim to show that he did not use writing, whatever they are, are necessarily invalid. This is a matter of simple logic.

It follows that—at least for those who insist that Pāṇini did not use writing—it is imperative to show that composing his grammar without

writing is possible.[1] Without such a demonstration, the case in favour of Pāṇini's use of writing is overwhelming.

To my knowledge, only two scholars have addressed this problem. Frits Staal is one of them. He proposes the following solution (1986: 36–37/284–285):[2]

> Pāṇini worked in close collaboration with some colleagues or, more likely, pupils. Let us assume, for example, that he had more or less completed the rules of vowel sandhi, and provisionally formulated these in a consistent manner and to his satisfaction. Now there appears a problem elsewhere in the grammar; and the only way in which it can be given a simple solution is by inverting two of the sandhi rules he had just formulated. Immediately a host of problems arise, and the rule system begins to generate ungrammatical forms. How to save it, safely modify and keep track of it without losing the thread?
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> The solution is simple: Pāṇini asked his favorite pupil to memorize the rules for vowel sandhi he had provisionally formulated. He turned his attention elsewhere, and returned to effect the required inversion. The student who was given the special assignment heard it, and knew precisely how to react to it by reformulation. Other pupils who had memorised other portions of the grammar were eagerly listening in order to find out how any proposed modification would affect their domain; and if trouble arose, they immediately took steps to overcome the problem by changing the rules, their order, their formulation, or whatever else had to be changed. This led to revisions elsewhere in the grammar, supervised and synthesized by Pāṇini himself. There are many *ad hoc* devices for patching up rules that must have been resorted to on such occasions and that can in fact explain certain oddities that we meet with in the corners of Pāṇini's grammar.

At least Staal recognised the complexity of the undertaking. Michael

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1. Keeping in mind Leonard Bloomfield's (1933: 11) frequently quoted claim that Pāṇini's grammar is "one of the greatest monuments of human intelligence".

2. Quoted and criticized in Bronkhorst 2002: 803 ff.

Witzel does not even do that. All he says about the issue is (Witzel 2011: 516; similarly pp. 521–522):

> … while composing his complex grammar without the use of script, [Pāṇini] could have used the 'tape recording' memory of his students, a sand box, arrangements of stones, shells or twigs … to indicate the many nested, recurrent frames of his grammar.

It is hard to believe that such speculative explanations will convince anyone. They look like desperate attempts to "rescue" the no-script position.[3] What Pāṇini supposedly did is without known parallel in world history, both within and outside India. It is true that ancient (and modern) India provides many examples of almost unbelievable feats of memorisation, but there is not a single example (except allegedly Pāṇini) of the composition of a text as complex as the *Aṣṭādhyāyī* with no help other than that kind of memorisation (not to mention Witzel's sandbox etc.). Vedic memorisation may retain texts of almost any length; its usefulness in the composition of very complex texts is not supported by any known evidence.

In a footnote Vergiani (2019: 11 fn. 3) states: "There has been surprisingly little research and reflection in modern Indology on the effects of the introduction of literacy in ancient India", then adds, in parentheses: "often, ironically, aimed to emphasize its extraordinary 'memory culture'." It is time to stop using this extraordinary 'memory culture'—i.e., Vedic memorisation—as a magic wand that supposedly explains the unexplainable. Those who seriously believe that Vedic memorisation, rather than writing, played an essential role in the composition of Pāṇini's grammar have a lot of explaining to do before they should be taken seriously.

We arrive at the provisional conclusion that Pāṇini's grammar was composed with the help of writing. This does not tell us which script Pāṇini used, or whether that script had signs for all the sounds of the

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3. Witzel's (2011: 518) suggestion to understand Pāṇini's *Aṣṭādhyāyī* as a countermove against writing ("the *utmost* possible countermove against *writing* down a long grammar") does not look any less desperate.

Sanskrit language; if Pāṇini needed writing, he will have found ways to deal with its shortcomings. Nor does it commit us to the view that the *Aṣṭādhyāyī* was handed down in written form. Once composed, it could be memorised or was perhaps even meant to be memorised, right from the beginning. Our conclusion only concerns the *composition* of the *Aṣṭādhyāyī*, not the way it was subsequently handed down.

Most scholars so far have started from the assumption that Pāṇini's grammar was composed *without* the help of writing. Hartmut Scharfe (2009: 48), for example, puts it most clearly: "*If we assume* that the *Aṣṭādhyāyī* is the product of the Vedic oral tradition, we can find good supporting evidence." (my emphasis). However, if we do not make that assumption, all the so-called supporting evidence can easily be explained differently. There is no need to spend time on this supporting evidence, given that the assumption that Pāṇini did not use writing cannot seriously be made as long as it has not been made clear *how* Pāṇini could have composed his grammar without it. Without a clear and convincing answer to that question, we can save ourselves the trouble.

Writing had been around for a long period at the time of Pāṇini, perhaps for as long as two centuries, right from the time his region was incorporated into the Achaemenid empire. Pāṇini had predecessors, many of whom are mentioned by name. Vergiani plausibly assumes that these earlier grammarians, too, used writing.[4]

Vergiani is less convincing where he speaks about linguistic thought before Pāṇini and his predecessors. To begin with, he speaks of "the impact that the introduction of writing around 500 BCE had on the contemporary Gandhāran society" (Vergiani 2019: 13). So far, so good. But he then continues: "As is well known, by that time the language-related Vedāṅgas—*śikṣā*, *vyākaraṇa* and *nirukta*—already had a long history behind

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4. "The painstaking work of isolating and classifying the morphemes of the language ... must have been carried out by a few generations of grammarians before Pāṇini. ... My hypothesis is that these unknown pioneers were ... among the first Indians who had recourse to writing." (Vergiani 2019: 17)

and were deeply entrenched in Brahmanical culture." Is this well-known? If so, it should have been easy to provide evidence or references, but none are given. Worse, in a footnote (p. 14 fn. 13) Vergiani admits: "In their present form some of these works [i.e., Padapāṭhas and Prātiśākhyas] are certainly post-Pāṇinian". Does he mean to say that all these texts, in their original form, were pre-Pāṇinian? Evidence to support this claim would have been welcome.

One of these texts, presumably the earliest one, is the Padapāṭha of the Ṛgveda. It is certainly pre-Pāṇinian, even in its present form. It was known to Pāṇini and is therefore older than him. It is also older than the surviving Saṃhitāpāṭha (not to be confused with the original Ṛgveda).[5] In an article that came out in 1982, I drew attention to a number of features of the Ṛgveda Padapāṭha that are most easily explained if we assume that this text had initially been written down: most notably certain archaic features that have not been preserved in the Saṃhitāpāṭha,[6] and the fact that the earliest written form of the Gathas of Zarathustra looks like a padapāṭha in its presentation. In spite of criticism from the "no-script lobby", these features have never been explained in any other manner. Interestingly, Witzel (2011: 506) recognises the Persian influence and now thinks that the first formation of *pada* texts can be pictured as a secondary effect of the initial introduction of literacy into India via Gandhāra during the early Persian era.[7] It is of course only a small step from a Padapāṭha created under the influence of writing to a Padapāṭha that was itself initially written down. As in the case of the *Aṣṭādhyāyī*, this way of thinking of the formation of the Padapāṭha has no implications for the way it came (or was meant) to be handed down.

Having convincingly argued for the use of writing in the composition of the *Aṣṭādhyāyī*, why does Vergiani not even consider the possibility that

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5. Bronkhorst 1981.

6. For an updated version of the argument, see Bronkhorst 2016: 98–107 (§ I.2.6).

7. It is hard to avoid the impression that this is another desperate attempt to "rescue" the no-script position; see above.

it was also used in the composition of other linguistic texts? Is it possible that he has been taken in by the image he apparently tries to impose on the early history of linguistics in India? According to this image the use of writing was responsible for the "turning point in Indian intellectual history" that figures in the title of his article. This turning point was Pāṇini's *Aṣṭādhyāyī* (plus perhaps a handful of grammarians who preceded it); before this, and before the introduction of writing, there had supposedly been linguistic thought that found expression in (orally composed) texts such as early *Padapāṭha*s and *Prātiśākhya*s.[8]

I am less than sure that this image fits the early history of linguistics in India. Even if we admit that Vergiani's turning point in Indian intellectual history was only possible after the introduction of writing, this does not mean that the introduction of writing would immediately lead to such a turning point. Perhaps the introduction of writing made possible the composition of linguistic texts of India (including *Padapāṭha*s, *Prātiśākhya*s, *Śikṣā*s, *Nirukta*) whether before or after Pāṇini. Vergiani is right in complaining about the "surprisingly little research and reflection in modern Indology on the effects of the introduction of literacy in ancient India". In fact, these effects may have been even more important than he suspects.

Bibliography

Bloomfield, Leonard (1933). *Language*. New York. Revised and reprinted: George Allen & Unwin, London, 1969.

Bronkhorst, Johannes (1981). "The orthoepic diaskeuasis of the Ṛgveda and the date of Pāṇini". *Indo-Iranian Journal* 23, pp. 83–95.

— (1982). "Some observations on the Padapāṭha of the Ṛgveda". *Indo-Iranian Journal* 24, pp. 181–189.

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8. "It is easy to imagine that the Brahmans of Gandhāra, equipped with a rich and sophisticated legacy of linguistic knowledge, quickly realized the significance of writing and applied the new technology to the study of language." (Vergiani 2019: 13.)

—   (2002). "Literacy and rationality in ancient India". *Asiatische Studien / Études Asiatiques* 56.4, pp. 797–831.

—   (2016). *How the Brahmins Won. From Alexander to the Guptas.* Handbook of Oriental Studies 2/30. Leiden and Boston: Brill.

Scharfe, Hartmut (2009). *A New Perspective on Pāṇini.* Torino: Pubblicazioni di "Indologica Taurinensis".

Staal, Frits (1986). *The Fidelity of Oral Tradition and the Origins of Science.* Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Letterkunde, Nieuwe Reeks, deel 49, No. 8. Amsterdam, Oxford, and New York: North-Holland Publishing Company, pp. 251-288/3–40.

Vergiani, Vincenzo (2019). "Pāṇini's Aṣṭādhyāyī. A turning point in Indian intellectual history". *Rivista degli Studi Orientali* 42.3-4, pp. 11–25. DOI: https://doi.org/10.17863/CAM.41288.

Witzel, Michael (2011). "Gandhāra and the formation of the Vedic and Zoroastrian canons". In: *Proceedings of the International Symposium. The Book. Romania. Europa. Études euro- et afro-asiatiques.* Bucharest: Biblioteca Bucureştilor, pp. 490–532. URL: http://nrs.harvard.edu/urn-3:HUL.InstRepos:9887626.

ABSTRACTS

Arguments in favour of the view that Pāṇini used writing in composing his *Aṣṭādhyāyī* are strong. In spite of this, several scholars do not accept it. And yet, they have no arguments to support their critical position. What is worse, they refuse to address the question how Pāṇini could possibly have composed his grammar without the help of writing. The present article reviews some of the arguments used in this discussion, and hopes to put an end to a largely ideologically inspired misunderstanding.

« PĀṆINI ÉCRIVAIT-IL ? »

Les arguments en faveur de l'hypothèse selon laquelle Pāṇini a fait usage de l'écriture en composant son *Aṣṭādhyāyī* sont forts. Malgré cela,

certains savants n'acceptent pas cette idée. Pourtant, ils n'ont pas d'arguments pour soutenir leur position. Pis, ils refusent de poser cette question : Comment Pāṇini aurait-il pu composer sa grammaire sans l'aide de l'écriture ? Cet article considère certains des arguments employés dans cette discussion, et cherche à mettre fin à un malentendu d'inspiration largement idéologique.