PĀṆINI 1.4.23:
EMENDATION PROPOSAL

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The well known sūtra 1.4.23 of Pāṇini’s Aṣṭādhyāyī, reading kārake, has been given at least three different interpretations by the commentators: it could be a section heading, a technical term or a semantic condition for the following rules. However, such a threefold interpretation is shown to be hardly acceptable. Therefore, a textual emendation is suggested in order to emend kārake (locative) to kārakam (nominative). Such a textual error is assumed to be the result of the Middle Indian influence on the transmission of the Aṣṭādhyāyī and/or Mahābhāṣya. Such an influence is not to be excluded a priori, and is indeed indirectly proven by the well studied texts of the Buddhist Hybrid Sanskrit tradition. In fact, a termination -e for the nominative masculine and neuter is not uncommon in Prakrits. Once entered in the text (directly or through the citation phrasing kāraka iti with the loss of the final -m), the ending would be reinterpreted as a metalinguistic locative; to account for it the ultimate bhāṣya 39 of Mahābhāṣya on sūtra 1.4.23 would be added by an anonymous author predating Kāśikā.

INTRODUCTION

The sūtra 1.4.23

One of the sections of Pāṇini’s Grammar, where syntactical issues are taken into consideration, is the sequence of rules that begins with the well known sūtra 1.4.23 reading kārake. This is followed by about thirty definitions that describe the basic elements of Pāṇini’s syntactical theory: the so called kārakas. These seem to be equivalent to the modern functional linguistics’ semantic (macro)roles.1 In other sections of the Aṣṭādhyāyī, the

1. This theoretical and terminological equivalence will not be discussed here, being worthy of a larger debate. The equivalence was initially made between kārakas
relationship between the abstract grammatical category of kāraka and its concrete linguistic expressions is described. Thus, in the section opening with sūtra 2.3.1 anabhihite for each of the kārakas the morphological expression through the nominal inflections (called vibhaktis) is prescribed.

The sūtra 1.4.23 is probably the most famous rule of all of Pāṇini’s Grammar, and it is undoubtedly the one in which the modern scholarship is most interested. Indeed, the ancient Indian grammarians took this sūtra into great consideration in their commentaries. This is not surprising, though, since the interpretation of the whole Pāninian theoretical apparatus depends upon the comprehension of this sūtra (at least as far as the morphosyntax of the simple sentence is concerned).

The first comments to sūtra 1.4.23 belong to Kātyāyana, author of the first collection of vārttikas ‘glosses’ to Aṣṭādhyāyī. The received interpretation of this grammatical rule belongs to Patañjali, author of Mahābhāṣya ‘Great Comment’, a work foundational for the following Indian tradition. Patañjali, together with the authors of Kāśikā, that is the earliest commented edition of Aṣṭādhyāyī in its entirety (Mahābhāṣya, in fact, comments on less than a quarter of the sūtras of the Aṣṭādhyāyī), has been the main authority on the subject for a long time, if not until present times. However, some other works of more recent grammarians have contributed to shape the kāraka theory as we know it today.

The modern translations of Aṣṭādhyāyī make sūtra 1.4.23 keep into account the explanation of this concept which goes back to Patañjali’s Mahābhāṣya (and its commentaries) and to the Kāśikā. As a matter of fact, only tradition could account for the fact that in the modern versions of this sūtra we can find long paraphrases translating the simple original wording. I shall not discuss extensively here the foundations of Pāṇini’s syntactical theory in general and those of the kārakas system in particular, for which I shall refer to more authoritative sources.

The main aim of this paper is rather to propose a linguistic-philological solution to some
of the theoretical and interpretative issues which seem to be implied by the \textit{sūtra} 1.4.23.

The difficulty of \textit{sūtra} 1.4.23 clearly depends upon the extreme brevity of its wording, which reads simply \textit{kārake} (this brevity, however, is quite customary with the style, or rather the \textit{metalanguage}, of Pāṇini’s Grammar). We are concerned here with one single grammatical term, in the locative case, not followed by any specification. The Indian grammatical tradition foresees at least three different explanations of this \textit{sūtra}.

In the first of the three explanation hypotheses \textit{sūtra} 1.4.23 should belong to the \textit{adhikāra} category, i.e. a heading of a section. As a matter of fact, the Grammar can be divided in what may be called thematic sections, consisting of a certain number of rules related to the treatment of a certain grammatical phenomenon. In the past, according to what we learn from \textit{Aṣṭādhyāyī} itself, these thematic sections were metalinguistically marked by the insertion of the \textit{svarita} stress in the rule of the heading.\footnote{See \textit{sūtra} 1.3.11, \textit{svaritena adhikārah}, ‘a heading is marked with \textit{svarita}’.
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Nonetheless, the exact location of these technical markers in the sequence of rules was lost so early that even Kātyāyana wondered about this (see Scharfe 1977, 89 and Cardona 1997, 51). Accordingly, today we are able to outline the composition of some of the thematic sections solely by induction, that is, starting from the fact that there are sequences of rules which share the same topic. Thus, \textit{sūtra} 1.4.23 can be considered as \textit{adhikāra} since the following rules, from 1.4.24 to 1.4.55, all deal with the same topic: the semantic definition of the \textit{kāraka}s.

On the other hand, according to the second explanation hypothesis, with the wording \textit{kārake a samjñā}, i.e. a technical term of the Grammar, is introduced. As a matter of fact, each of the six semantic roles defined by the rules that go from 1.4.24 to 1.4.55 is considered as being part of the general category of \textit{kāraka}. Such a technical term can also refer to each of the elements belonging to the category of \textit{kāraka}, and not only to the category per se (just as, nowadays, the general concept of semantic (macro)role is explained by the various particular roles, such as agent, patient, recipient etc.).

The word \textit{kāraka} belongs to the category of the so called \textit{mahati samjñās} ‘long terms’, as opposed to the \textit{pratyāhāras} ‘acronyms’, which constitute the greater part of the grammatical terminology of Pāṇini. The peculiarity of such long terms is that their meaning does not have to be expressed explicitly if it can be retrieved by the “etymological” analysis of the term itself. We
are dealing here with words that belong to every day language and that are not artificially coined by the grammarians (as are pratyāhāras), and so their meaning can be deduced from the current meanings of the components that constitute their morphological structure (the correct designation is anvarthasamjñā which will be translated here as ‘etymological term’). From a morphological point of view, kāraka is a regular nomen agentis formed by adding the suffix -aka to the root kr ‘to do’. Thus, being a grammatical term, the meaning of kāraka would be ‘the doer’.

Finally, according to the third traditional reading, this sūtra functions as a meaning condition on each of the following rules. In other words, it would all be about a general semantic constraint which implicitly recurs in each of the definitions of the kārakas. Each of the definitions, thus, should be preceded by a wording such as if an action has to be expressed (see the later discussion on why an action and not a doer is dealt with here).

The latter interpretation needs some clarification. As is well known, one of the most complex, unusual and innovative features of the metalanguage of Pāṇini’s Grammar is the technical usage of case endings. Since such a usage can be highly different from the ordinary syntax of the cases in classical Sanskrit, one can talk of the cases’ symbolism, that is, of metalinguistic cases.

The endings of the various elements that compose the rules of grammar allow the identification of the role played by these elements within the Grammar. These metalinguistic cases do not have to be understood as dealing with ordinary Sanskrit endings, but have to be considered from a conventional and abstract, almost algebraic, point of view.

The metalinguistic usage refers to four grammatical cases: the nominative, the ablative, the genitive and the locative; each one of them can hold different functions in diverse contexts. We could briefly sum up the system quoting the definition by Kiparsky (forthcoming, 34): “Genitive case marks the item to be replaced, Nominative the replacement, Ablative the left context, and Locative the right context”. Such technical uses are more or less explicitly defined in appropriate paribhāṣās ‘meta rules’ of the Grammar. When the explicit definitions were missing in Pāṇini’s text, they were subsequently formalised by commentators who deduced them by the logical structure of Aṣṭādhyāyī.

The metalinguistic functions of the locative case (the one being of most interest to us here) can vary between at least three different possibilities,

5. For further details on metalanguage of Pāṇini refer to Scharfe 1971.
depending on the context in which the element marked with this technical case appears (see Misra 1966, 37). In particular, the locative case can:

1. mark the conditioning of a grammatical operation by the following context, or “from the right”; such a function is defined in the sūtra 1.1.66 tasminn iti niridiṣṭe pūrvasya ‘that which is used with the locative specifies the right context of an operation on what precedes’;

2. mark a generic meaning condition of a grammatical rule; the source for this metarule is vārttika vi to sūtra 2.3.36, where Kātyāyana states: nimittāt karmasamyo ge saptamī vaktavyā ‘Locative should also be used with a term which denotes the cause (or purpose) in connection with an object’; it is not a true metarule, but a simple grammatical rule (related to the usage of the locative case in standard Sanskrit); however, its application domain could be extended to the metalanguage of the Grammar itself;

3. mark an upapada, that is the subordinate member of a compound; the source of this metarule is in the sūtra 3.1.92 tatropapadam saptamīstham ‘that which is specified in this section by means of a locative is termed an upapada’.

The second function of the locative case is the one found in the sūtra 1.4.23: thus its interpretation as a semantic condition for the following sūtras can be explained.

The present-day Pāṇinian school is now considering the three aforementioned interpretations of kārake as not conflicting with each other, and, furthermore, deems them to be all valid. Even today the threefold interpretation of the sūtra 1.4.23 is accepted by some western scholars too. Thus, according to Joshi and Roodbergen (1975, §1.1.1) it would all be about a rule of heading which also introduces a technical term of the grammar and at the same time works as a meaning condition for the definitions contained in the following sūtras.

However, the fact that the three interpretations are based on different sources (none of which is Pāṇini himself) cannot be denied. Thus, Kātyāyana includes in his vārttikas only the terminological interpretation of the three hypotheses. Next, the interpretation as a meaning condition is based exclusively upon a single comment by Patañjali. Finally, the fact that kārake is a header can be stated only indirectly from some other passages of the Mahābhāṣya (see Joshi and Roodbergen 1975, 9, note 21). Accordingly, the traditional approach cannot be accepted without a further discussion; some modern scholars move towards this direction, among whom R.N. Sharma (2002, 143), who underlines the incompatibility of the terminological interpretation with the meaning condition-hypothesis.
The kāraka doctrine, in its present form, is the result of centuries of comments on and reprocessing of Pāṇini’s words; this brought about a kind of “sedimentation” of subsequent interpretations which do not completely deny the previous ones, but are accumulated to the official doctrine. This is the typical way of thinking of the Indian grammarians: on the one hand, the total loyalty to the founder of the Grammar and to the most ancient commentators (i.e. Pāṇini, Kātyāyana and Patañjali, defined as munitraya ‘the three sages’) is openly professed. The personalities of the munitraya are invested with an almost religious cult. Very soon the Aṣṭādhyāyī was considered to be a text belonging to śrūti ‘revelation’, comparable to Veda, hence perfectly accomplished and flawless. At the same time, however, many of the later commentators add new hypotheses and new readings, which are often not directly inferable from the text of the Aṣṭādhyāyī, introducing them in the official doctrine as if they constituted the explicit implementation of Pāṇini’s thought. The result is that one part of the doctrine known at present is the outcome of later additions and of rethinking attributed to Pāṇini, the unique justification of which is that this would be the only way the theoretical perfection of the Aṣṭādhyāyī can be reached.

I should here like to demonstrate how one of the three sūtra 1.4.23 interpretations can be considered as a recent interpolation resulting from a textual error occurring in the text of the Aṣṭādhyāyī (or that of the Mahābhāṣya, from which it would have passed, by contamination, to Aṣṭādhyāyī). The commentaries of the Mahābhāṣya on sūtra 1.4.23 (i.e. the glosses by Kātyāyana and comments by Patañjali) can be taken into account as a first step to demonstrate my thesis. Only in such a manner can the ancient thought be separated from the latter theoretical stratifications.

The logical composition of Mahābhāṣya is as follows. The sūtra of Pāṇini is first glossed in Kātyāyana’s vārttikas, which have the substantial purpose of rendering the content of the rules of Aṣṭādhyāyī explicit, rules that are not at all obvious or transparent in their way of functioning. In some cases, Kātyāyana proposes some emendations to the canonical text

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6. Thus since Patañjali’s times: as Deshpande notices (1997, 446, 451), on the one hand “[...] Kātyāyana and Patañjali consider Pāṇini to be a respected teacher (ācārya), but not a seer (ṛṣi)”, but on the other hand “Patañjali, in fact, says that Pāṇini’s rules are like Vedic statements (cf. chandovat sūtrāṇi bhavanti [MB, I: 37]).” Eventually, the religious interpretation of the Grammar has been extended so far as to include Kātyāyana and Patañjali themselves within the sacred sphere. See Deshpande 1997, 446-448.
of the Aṣṭādhyāyī which can either be the elimination, addition or modification of some sūtras or parts of them.

The sūtra text, with or without the notes of Kātyāyana, is subsequently taken into consideration by Patañjali, who in this regard elaborates a whole series of bhāṣyas ‘comments’ where he discusses and accepts or refuses the notes of Kātyāyana, proposes new solutions and, sometimes, doubts the authority of Pāṇini himself.

The bhāṣya have a dialogue structure: some questions and/or objections that a fictional critical interlocutor (which the following tradition identifies as pūrvapakṣin ‘the one who makes the first objection’) are challenged through certain theses with the aim of showing the validity of the “doctrinal orthodoxy” (the defendant of which is called siddhāntin ‘the one versed in the doctrine’).

The following material constitutes the summary of Mahābhāṣya section where Patañjali argues with Kātyāyana about the meaning that shall be attributed to the sūtra 1.4.23. The Sanskrit text is not quoted, except for when it is strictly necessary, since it is widely known: the reference edition is the one by Kielhorn (1962-72); almost all the modern editions, among which is the translation commented upon by Joshi and Roodbergen (1975) on which I base my study, depend on this one. The numbering of the vārttikas and bhāṣyas found in Joshi and Roodbergen’s edition, while not a genuine fact of the text, is here used consistently for the sake of simplicity.

Patañjali and Kātyāyana on kārake

In the four bhāṣyas that open, as a preamble, this chapter of Mahābhāṣya, Patañjali considers the word contained in the sūtra 1.4.23 as a technical term (saṃjñā) of the Grammar. This is not because such a term is explicitly defined in the Aṣṭādhyāyī, nor because its technical meaning could be easily deduced from the common sense of this word. The only reason to consider kāraka a technical term is the fact that the sūtra 1.4.23 is located within the section of Aṣṭādhyāyī dealing with terminology and general categories.

In his 1 vārttika Kātyāyana complains that the sūtra 1.4.23 does not provide further information to formally define the grammatical notion designated by the term kāraka (in other words, it does not give its saṃjñin ‘definiendum’). Patañjali comments by stating: an explicit definition of kāraka is missing, for example a rule which would state that kāraka is only what is distinguished by being sādhaka ‘accomplisher’ or nirvartaka
‘producer’. These two wordings, which for Patañjali are just a hypothetical example of a possible definition, are taken into consideration and discussed by the following commentators as if they were his own explanatory proposal, a real definition.

In the Ⅺ vārttika, Kātyāyana maintains that, without an explicit definition of the concept of kāraka, the wrong identification of kāraka could be possible; and this would be, as the Indian grammarians would say, aniṣṭa ‘not desirable’. As an example, Kātyāyana takes into consideration a whole series of expressions and tries to identify the kāraka roles in them, which leads to some incorrect assignments of the kārakas. This demonstrates, in his opinion, that an explicit and formal definition of this category is necessary to avoid such erroneous applications.

The first example is the genitive noun phrase in the sentence grāmasya samīpād āgacchati ‘he comes from the vicinity of the village’. Here, we could be tempted to classify the word grāmasya ‘of the village’ as an apādāna (i.e. the kāraka corresponding to the semantic role termed source in modern linguistics), and thus to the general category of kāraka. In fact, as the subsequent commentators explain, the movement away from the vicinity of a village implies the movement away from the village itself, and, thus, village in this context is directly involved in the accomplishing of the action, and thus could receive the technical designation of kāraka.

However, such an application of the apādāna term is not acceptable, because the genitive noun phrase, according to the received interpretation of the kāraka theory, can never express any kāraka at all (except for in some particular situations). In fact, the sūtra 2.3.50 states that the morphological case that we call genitive, and that Pāṇini refers to as ṣaṣṭī ‘the sixth case’, unlike the other cases, is not the expression of a specific kāraka role, but expresses only the so called śeṣa ‘rest’. Accordingly, a genitive noun phrase cannot express an apādāna. Therefore, the lack of an explicit definition of kāraka is an important issue.

Patañjali states, on the other hand, that the above mentioned example has no argumentative power: in the sentence ‘He comes from the vicinity of the village’ the ‘village’ is not strictly linked (yukta) to the action of ‘moving away’, but to the word samīpād ‘vicinity’; since it does not have anything to do with bringing the action to completion (that is, it is not

7. The rule reads ṣaṣṭi śeṣe ‘the sixth Case [is used] if all the rest has to be expressed’. However, what he means with the ‘rest’ is open to interpretation, and Patañjali deals with it in the appropriate bhāṣya.
sādhaka), and therefore it cannot be attributed to the apādāna (and therefore kāraka) class.

This dialectic paradigm, consisting in proposing some Sanskrit sentences the grammatical analysis of which would render the theoretical positions under criticism invalid, is used more than once in the subsequent vārttikas and bhāṣyas. It is worth noting that the weakness on which the debate depends is always the same: the genitive noun phrase, which can be qualified as belonging to a certain kāraka role if the concept of kāraka is not explicitly defined.

Patañjali argues against this and other similar pūrvapakṣin’s counterexamples, showing that with a different interpretation of the meaning of the sentence at issue, the improper kāraka identification is out of the question. Apparently, Patañjali seems to be the winner of the debate, but nevertheless, in the bhāṣya 14, he reopens the problem of the missing definition of the term kāraka, stating that this term should be considered an “etymological” one (anvarthasaṃjñā). In other words, Pāṇini may have used kāraka because it is a long term (mahati saṃjñā), instead of using just a pratyāhāra ‘artificially made designation’, as is usually done in the Aṣṭādhyāyī, to exploit the meaning that derives from the morphological structure of this word. As a matter of fact, the term kāraka derives from the agent suffix ṇvul (technical denomination of the nominal suffix -aka). Such a morpheme is explicitly mentioned among those that can express the meaning of kartṛ ‘agent’ (see sūtra 3.4.67 kartari kṛt, together with 3.1.133 nvulṛcau).

The “etymological” interpretation has the advantage of justifying the definition of kāraka as sādhaka ‘he who accomplishes’. However, one problem might arise: since kartṛ ‘agent’ is involved in the semantic definition of the suffix which forms the word kāraka, one could come to the conclusion that each one of the six kārakas somehow becomes an agent.

To support the “etymological” interpretation, making all the kārakas equal to the kartṛ, a theory is proposed according to which each of the kārakas possesses its own agent factor related to a single aspect of the action expressed in the sentence. For the purpose of this aim, the typical example of the verb pac ‘to cook’, built with many kārakas, is taken into consideration. So, the sentence devadattaḥ sthālyām odanaṃ kāṣṭhaiḥ pacati ‘Devadatta cooks rice in a pot with wooden sticks’ contains a kartṛ (that is, the agent, Devadatta), an adhikaraṇa (the location, pot), a karmāṇa (the scope, rice) and a karaṇa (the instrument, wood). Now, the main action is analysed through as many “sub-actions” as the kārakas in the sentence taken into consideration; each of these kārakas functions as a
*kartr*, although with different nuances, of the related “sub-action”. On the other hand, all of them are subordinate to the real *kartr*, which leads the main action.\(^8\)

The following paragraphs show how each of the four *kārakas* of the verb *pac* can work as *kartr* in the related “sub-action”.\(^9\) The argumentation is then re-proposed for the verbs *chid* ‘to cut’ and *vidyut* ‘to lighten’, which demonstrate the agency of the *kārakas* known as *karaṇa* ‘instrument’ and *apādāna* ‘source’.\(^10\) The agency of the *sampradāna* ‘receiver’ remains unexplained.

Patañjali closes the issue stating: each *kāraka* (including also, by analogy, *sampradāna*) can be expressed as independent\(^11\) (so that it becomes, on a syntactical level, the *kartr* of the sentence) or dependent on a real *kartr*:\(^12\)

Patañjali, starting from *bhāṣya* 26, proposes a different interpretation of the 15th (and last) vārttika of Kātyāyana which raises another difficulty in the hypothesis of the agency feature attributed to all *kārakas*: the multiple classification of one and the same grammatical element is not allowed in this section of the Grammar. In other words, it is forbidden to consider as a *kartr* something which was already attributed to another *kāraka* category.

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8. As often noted, this is an *ad hoc* solution, created by Kātyāyana and Patañjali and developed by the subsequent commentators, but which does not appear in Pāṇini. See Deshpande 1990, 47.

9. Somewhere else in the *Mahābhāṣya* (see Kielhorn 1962-1972, ii, 242-43) each of the specific cases is validated by a Sanskrit sentence which ascertains the possibility of the single *kāraka* to function as a *kartr*, so we have: sthāli *pacati* ‘the pot cooks’, kāṣṭhāni *pacanti* ‘the wooden sticks cook’, odanah *pacyate* ‘the rice is being cooked’ and, obviously, devadattah *pacati* ‘Devadatta cooks’. In other words, these are sentences where, in present-day terminology, arguments with various semantic roles become, each at a time, the Subject of the sentence. In terms of Functional Grammar, we are concerned here with an instance of the so-called *valency-decreasing derivation* plus *subject-raising*.

10. The example sentence are, respectively: paraśunā *chinatti* ‘he cuts with the sword’ (where the sword is only an instrument) vs. paraśuś *chinatti* ‘the sword cuts’ (the sword is *kartr*); and balāhakād *vidyotate* ‘it is lightening from the cloud’ (the cloud is the source of the action) vs. balāhako *vidyotate* ‘the cloud is lightening’ (the cloud being *kartr*).

11. Because of the *sūtra* 1.4.54, which defines the role *kartr* as *svatantra* ‘independent’.

12. These two possibilities are governed by *vivakṣā* ‘communicative intent’ of the speaker: with this category, which does not appear in the *Aṣṭādhyāyī* but is put into theory by Patañjali, the ancient Indian grammatical theory features what in modern linguistics is called *topicalization*. In fact, the sentences with valency-decreasing derivation and subsequent subject-raising, mentioned in footnote 9, differ from the base-sentence for the topic marking of the semantic valencies of the verb.
According to the sūtras 1.4.1-2 rules (ā kaḍārād ekā saṃjñā // vipratiṣedhe pарам kāryam), in fact, in the section of the Grammar which corresponds more or less to the last quarter of the first and the first half of the second book, if two definitions seem to be applicable to one and the same grammatical element, the one which prevails (kāryam) is the rule prescribed in the later (param) sūtra of the Grammar. Thus, as far as kārakas are concerned, when there is a double classification, preference will be given to the kāraka which is placed later in the Aṣṭādhyāyī. However, in this way the kartr would prevail over any other kāraka in all the contexts, since the sūtra which contains the definition of this role is the last one in the section dedicated to the kārakas. This issue is solved by Patañjali who asserts that the double attributions do not happen at the same time, but take turns, so that the risk of simultaneous application of different kāraka terms to the same element is avoided.

The fact that the kārakas can be both dependent and independent at the same time (since each of them can be transformed in kartr) is further discussed from the semantic point of view. In particular, one could state that something is independent if its specific contribution to the action is emphasized in the sentence; on the other hand, it has to be considered dependent if the real kartr appears in the sentence. Patañjali closes by stating that the independence of single kārakas is provided for by the fact that they all contribute to the accomplishment of the action. With such a statement he seems to demonstrate the “etymological” interpretation of the term kāraka, which then turns out to be synonymous with sādhaka.

In the very last bhāṣya 39 of this section of the Mahābhāṣya, the terminological interpretation of the sūtra 1.4.23 (supported by Kātyāyana since the beginning, though with some variations) is unexpectedly denied. Instead, the meaning condition interpretation is proposed. The different approach is underlined by the adverb athavā ‘instead’ which, placed at the beginning of the comment, seems to mark the contrast between this new hypothesis and the argumentation of the previous bhāṣyas. Only through this new interpretation, in fact, would it be possible to account for the metalinguistic locative which appears in the sūtra: “There is no satisfactory explanation for the Locative of kāraka unless one abandons the saṃjñā view”, Sharma (2002, 143). According to the bhāṣya 39, the word kārake (that is, the locative case form of an a-stem kāraka) should be read as synonymous with kriyāyām ‘in the action’ (that is, the locative of kriyā ‘action’). Putting kārake at the beginning of the definitions of the kāraka roles contained in the next sūtras, according to the principle of anuvṛtti (i.e., the recurrence of the rules as a metalinguistic device of the Gram-
mar), these definitions would have to be understood as depending on the semantic condition ‘if an action has to be expressed’.

Some complications

It is noteworthy that the interpretation given by Patañjali in the last bhāṣya implies that the meaning of the term kāraka could not “etymologically” derive from its morphological form: the formation in -aka- from the root kr ‘to do’ doubtlessly marks an agent, and is hardly identifiable with the sense of kriyā ‘action’. And this is only the first oddity which distinguishes the meaning condition reading of the sūtra 1.4.23.

Another important consideration is that the issue of the locative kārake is explicitly stated only in the very last bhāṣya by Patañjali, where it is also immediately solved. As a matter of fact, contrary to what is supported by the Indian tradition and by most modern commentators, the locative of kārake is never mentioned as the main difficulty of the sūtra 1.4.23, either in the vārttikas by Kātyāyana, or in Patañjali’s bhāṣyas from 1 to 38. As Sharma (2002, 143) states “Patañjali […] is not bothered by the locative”. Although Joshi and Roodbergen, commenting on this part of the Mahābhāṣya, assert (1975, 6) “Then why did Pāṇini state kārake in the locative? […] The question has puzzled the commentators from Kātyāyana onwards”, the truth is that only in more recently composed grammatical works (like the sub-commentaries to Patañjali’s Mahābhāṣya by Kaiyaṭa) is this problem explicitly stated as such. In other words, Kātyāyana’s and Patañjali’s doubts are concerned only with the mere meaning to be attributed to the technical term kāraka. They do not mention at all (except for the last bhāṣya) the case form of this term in the sūtra.

We thus come into contact with the phenomenon mentioned before: some theoretical developments of the later period (the problem of the locative, in this case) are ascribed to the original doctrine (in this instance to that of Kātyāyana and Patañjali) just because they are not in contradiction with it, and seem to add more details to the whole “machinery”.

For instance, the first bhāṣya reads kim idam kāraka iti ‘what does kārake mean?’. It is a general inquiry on the nature of kāraka as a grammatical category, and of the specific term that Pāṇini chooses to designate it. The fact that this is the issue at hand is clear in the debate developed from this statement up to the penultimate bhāṣya. Nevertheless, in the comment to this paragraph by Kaiyaṭa (a later grammarian) it is stated that the doubt which overwhelmed Patañjali, and Kātyāyana before him, concerned the locative form of the term kāraka in Pāṇini’s sūtra. The comment by Kaiyaṭa starts with the words:
saptaminiṁdeśan na tāvat samjñātvena adhikāraḥ ‘because of the locative, the śūtra 1.4.23 cannot be considered a section’s header, since it is a technical term’. In other words, he attributes to Patañjali some thoughts which cannot be deduced from his words: Patañjali, in fact, does not mention the locative. In such a way, the developments which the theory had undergone in Kaiyaṭa’s times are attributed anachronistically to one of the fundamental texts of the Grammar. Despite this stretch, this interpretation of the Mahābhāṣya has been considered to be correct by the greater part of modern scholars.

In my paper, on the other hand, I should like to show that the issue of the locative case form of kārake not only is not at the centre of the argumentation of the Mahābhāṣya, but could also be the result of a later textual corruption, and thus an innovation from the grammatical point of view.

I am well aware that any hypothesis of textual interpolations in the Aṣṭādhyāyī and in the Mahābhāṣya overrules one of the most famous “taboos” of Pāṇinian studies, which consider the Indian grammatical tradition in general, and the Aṣṭādhyāyī in particular, as flawlessly and perfectly conserved. Thus, the act of supposing that Pāṇini’s Grammar as it is known today generates well-formed sentences in classical Sanskrit necessarily implies that the text currently known under the title of Aṣṭādhyāyī is perfectly identical to the original outline of the Grammar by Pāṇini himself.

Such a hypothesis, even if shared by many modern scholars (with some exceptions which we are going to mention later) is really improbable from a general point of view: no text of antiquity handed down to the present day can be said to perfectly match the author’s version, and the work of Pāṇini is no exception. The claim of textual perfection can be explained if we think of the sacral features that the grammatical school of Pāṇini has acquired in India (eventually even influencing many western scholars). The Vedic religion was already in ancient times not followed in its primitive form, allowing the ideological separation between the scholar and his subject matter which is necessary for the philological and linguistic analysis of sacred books. The Pāṇinian grammatical school (pāṇinīya vaiyākāraṇa), almost a religious group, has on the other hand been active almost until our days (in an “updated” form, but never radically reformed) preventing the development of a “lay” manner of thinking regarding the Aṣṭādhyāyī and related questions.¹³

¹³. Let us remember that in the Christian world a similar level of philological objectivity towards the Holy Scriptures was to be reached only with the movement of the so called Biblical Critics promoted within the liberal Protestant theology and within Catholic modernism at the end of the 19th cent. The Bible then for the first time started to be considered not the source of indisputable truth, but a literary source subject to contextualisation
On the other hand, J. Houben in one of his recent works (2003, 158) considers as “myths” the following beliefs of modern Pāṇinian studies: “(1) the myth of Pāṇini’s grammar as a powerful, almost perfect, purely formal system; (2) the myth of a purely descriptive grammar; (3) the myth of the well-defined object-language given in advance”. The idea of textual perfection of the sources, together with that of changelessness in time and space of classical Sanskrit defined in the Grammar, and the purely oral transmission of the text of the Aṣṭādhyāyī, fall perfectly within the “myths” Houben discusses.

In the light of the claim of textual perfection, if a statement of Pāṇini’s Grammar seems to be a strange one, before proposing a textual change one should try other ways in order to solve the issue, as for example new interpretations of the text (attributed to the original thought of Pāṇini), because such a procedure saves the dogma of grammatical perfection. As Cardona (1976, 158) states “[…] the researcher should be intent not on finding an interpolation in every case where there is an apparent conflict but on studying carefully all such apparent anomalies and trying to reconcile them with the whole of the Aṣṭādhyāyī, taking into consideration what is said in the commentarial literature”. The ambiguous passages and the variant readings known from ancient times are thus explained by stating that Pāṇini had didactic aims when he envisaged them in this form.

and interpretation from a historical, archaeological and philological point of view. See Soggin 1979, 66-69, 77-78.

14. As Deshpande (1985, 127) notices, “In terms of what Kātyāyana and Pataňjali actually say, all the evidence supports the view that in their eyes Sanskrit was an eternal language […]. To a modern historian, the notion of eternal Sanskrit may very well seem to be like an illusion of permanence, and yet that was the basic paradigm of Sanskrit grammarians”.

15. According to some, the oral transmission is actually the cause of the textual perfection: “The main reason as to why the text of the Aṣṭādhyāyī remained almost intact was its oral character of transmission” (Misra 1966, 21). Such a belief is generated in the denial of written culture which is peculiar to the Indian civilization (see Malamoud 1997). According to others, however, the preclusion of writing was not absolute (cf. Torella 2006).

16. See also Iyer 1983, 142. As Houben (2003, 127-128) points out, this is a great leap forward compared to the extremist position Cardona supported in his previous works, where he denied altogether the presence of unclear passages.

17. Cf. Iyer 1983, 143: “Pāṇini himself is taken as having taught some of his sūtras differently to different sets of his pupils”.
A Pāṇinian philology

Because of the various “myths” that burden Pāṇinian studies, a real critical edition of Aṣṭādhyāyī or of the Mahābhāṣya is still lacking. This situation was already deplored more than a century ago by Franz Kielhorn (1887, 115): “[…] the text of Pāṇini’s rules has neither in the editions of the Aṣṭādhyāyī nor in that of Kāśikā-Vṛtti […] received that critical care and attention which it undoubtedly deserves”. This situation remains unchanged even today, as pointed out by A. Aklujkar (1983, 1): “[…] a comprehensive objective textual criticism of Pāṇini’s […] Aṣṭādhyāyī […] is still a desideratum”; see also Iyer (1983, 155). As a matter of fact, the edition of the Aṣṭādhyāyī by Böhtlingk18 (which serves as textus receptus of Pāṇini’s Grammar) does not contain any critical apparatus, while the philological issue is only briefly dealt with in the introduction (and this is understandable given the titanic challenge Böhtlingk had to face as a pioneer in the studies on Pāṇini, and on the Indian language and literature in general).

The work of some scholars who, in contrast with the Pāṇinian “orthodoxy”, suggested a few hypotheses on the theoretical and textual stratification of the Aṣṭādhyāyī should not be forgotten: Bahulikar 1973, Aklujkar 1983, Joshi and Roodbergen 1983,20 Butzenberger 1995. These attempts are useful and interesting given the lack of a real critical edition. Furthermore, at least in one case, a work of the Indian grammatical literature, Paribhāṣāvṛtti (a text attributed to Vyāḍi, who apparently lived in an intermediate era between Pāṇini and Patañjali), explaining the meta-rules used in the Grammar, has undergone critical analysis, by D. Wujastyk (1993). This work shows that the grammatical literature is not so safe from textual corruption as the traditional supporters maintain; moreover, they have a rather common kind of textual corruption.20

Additionally, the fact that already some medieval commentators noticed the presence of variant readings in the texts of the Aṣṭādhyāyī and Mahābhāṣya themselves, nowadays grouped together by Iyer (1983), can-

18. For the editorial history of Pāṇini’s Aṣṭādhyāyī see Renou 1969, 483ff.
19. The vehement points of critique that Cardona (1999, 112–140) expresses regarding the work of these two scholars are symptomatic.
20. In particular, Wujastyk (1993, xvi–xxii) shows how many transcription errors were made in the transliteration of a manuscript written in a script not well known to the scribe (in this case, śāradā, an alphabet of Kashmir, not well understood outside of its borders) into one more widely used, like devanāgarī.
not be ignored. They did not give much importance to these phenomena, however, trusting their ability to give the text back its original perfection, starting from their knowledge of Sanskrit and of the descriptive techniques of the Aṣṭādhyāyī. In other words, according to the ancient Indian grammarians, since a textual mistake leads to a mistake in the description of Sanskrit, all that was necessary was a correct description of the latter to trace the original wording of the text. Today, instead, we may not feel exempted from taking into account these textual errors which demonstrate that Pāṇini’s work is not free from textual corruption.

The possibility of a philological approach to Pāṇini is a necessary condition for the hypothesis I should like to suggest here. In particular, what I should like to propose belongs to the “secondary textual criticism”, as Aklujakar called it: in other words, it is the theorizing of some conjectures on Pāṇini’s text based not on the direct analysis of the manuscripts, but on the content of the work itself. At this stage, we are more interested in the history of the composition of the work and thus in the history of the Indian grammatical thought in general than in the history of the transmission of the text (which will remain unclear until a critical edition is issued).

The final aim is that of explaining the most obscure passages through philological conjectures on the text of the Grammar. Accordingly, we are completely separate from the traditional approach, supported by many modern scholars (primarily by G. Cardona), which basically consists of leaving the text as it is known today and of adjusting the theory instead — with ad hoc solutions — in order to clarify the difficult passages.

EMENDATION PROPOSAL

Hypothesis and some typological parallels

The hypothesis that I hereby should like to support is that we can obtain a better interpretation of sūtra 1.4.23 if kārake were considered a late corruption in Pāṇini’s text. The original reading would have been in the nominative case (*kārakam) instead of the locative, and so the only possible interpretation of this grammatical rule would have been that of the section header and/or that of the technical term (or both of them, which is not impossible from a logical point of view: these two interpretations are not mutually exclusive). The interpretation of the semantic condition would be totally disallowed because of a lack of the main formal support, i.e. the technical locative case form.

The textual corruption hypothesized here could have happened in the manuscript transmission of either the Aṣṭādhyāyī itself or the commentar-
ies. Particularly, it could have taken place in the quotation of Pāṇini’s rule in the Mahābhāṣya, from where the corruption would then have passed to the text of the Grammar itself.

The reason for the modification is to be found in the influence of a Middle Indian dialect on the scribe who handed down the text of the Grammar. Such an influence could have happened at two different but connected levels: that of the pronunciation, at which the influence would be a phenomenon of linguistic contamination between two (mor)phonological systems in contact, or at the orthographical level, at which the impact would have been more of a cultural one, that is, linked to the writing habits of the time. Whatever the form of contact, the history of the manuscript transmission of the ancient Indian literature provides much evidence of the Middle Indian contamination.

An important piece of evidence of the Middle Indian influence even in the manuscript transmission of the Aṣṭādhyāyī is provided by the medieval grammarians. The variant readings noticed by some commentators, in fact, are clear instances of modernization of the text towards a more Prakritized form, especially from a phonological point of view, as seen in the following list in Iyer 1983, 151-152:
1. monophthongal outcome of the diphthongs au and ai into o and e;
2. syllabic outcome of r (such as ra);
3. etymologically unexpected retroflection of the dentals;
4. loss of the occlusive feature in the voiced aspirates (such as bh > h);
5. confusion (maybe at least partly orthographical) between the three Sanskrit sibilants;
6. spirantization of intervocalic p and b into v (maybe also due to a high graphical resemblance of these akṣaras).

As a further paradigmatic example we shall take into consideration some thoroughly studied cases of linguistic contamination between the Sanskrit and the Prakrit, that is, the so called Buddhist Hybrid Sanskrit, and also the Epigraphic Sanskrit, strictly connected to the previous one. According to F. Edgerton, the main theorist of Hybrid Sanskrit, we are dealing with the language of the Buddhist literature composed in the late ancient pe-

21. It is interesting to observe that some of the Prakritisms even belong to the textus receptus, while some variant readings ruled out by the commentators show more conservative linguistic features. This is evidence of the fact that the commentators of the Aṣṭādhyāyī were not always able to preserve the canonical text from linguistic innovation, notwithstanding their claim of the perfection of the grammatical tradition.
when the prestige of Sanskrit — the holy language of the Veda and of the Brahmanic religion (direct competitor of Buddhism and predecessor of modern Hinduism) — returned in Indian society (which is the period of the Sanskrit Renaissance, according to a well known denomination given by Max Müller). In order to keep up with the cultural pressure of the age-old Vedic civilization, the Buddhists adopted Sanskrit as the cultural language and abandoned the Prakrit vernaculars of the original Buddhist predication. For the same reasons of prestige, at some time also the language of epigraphy turned into Sanskrit, abandoning the Middle Indian dialects of the inscriptions of Aśoka and his successors.

In both cases, the knowledge of Sanskrit by the scribes cannot have been perfect, at least not at the beginning. Now, if on the one hand it is true that with the passing of time the quality of the Buddhist Sanskrit improved (something evident also by the comparison of the manuscripts which, as the centuries went by, tended to purge the Prakritisms), it is on the other hand also true that a classical Sanskrit was never reached. On the contrary, a language not completely free from Middle Indian influence crystallized into an autonomous cultural medium: “It seems to me no exaggeration to speak of this hybrid Sanskrit of the Buddhists as a language, in its own right. Not a vernacular, of course; a literary language; an artificial language, if you like” (Edgerton 1936, 504).

The Middle Indian influence on Hybrid Sanskrit had brought about a double effect. On the one hand, there are phonological and morphological forms of a Prakrit shape which regularly occur as preferred forms, or alternate, at different levels, with corresponding Sanskrit forms (in the latter case, we are most probably dealing with orthographical phenomena more than phonological ones: the correct Sanskrit form was written down which in reading was “transformed” into its Middle Indian correspondent). On the other hand, though, there is a mechanism, especially in poetry texts, which makes it possible to systematically exploit the multiplicity of alter-

22. According to the dating of the information provided indirectly to us by the Chinese translations of the Buddhist texts, it would be the 2nd Century BC. Some scholars refer the Hybrid Sanskrit phenomenon back to the 4th Century BC; see Edgerton 1953, §1.34.

23. It is not by chance that Hybrid Sanskrit becomes closer to classical Sanskrit as time goes by: “[…] from the very beginning of its tradition as we know it (that is, according to the mss. we have), and increasingly as time went on, it was modified in the direction of standard Sanskrit, while still retaining evidence of its Middle Indic origin” (Edgerton 1953, §1.33).
native forms for metric purposes: as Edgerton (1946) demonstrated, many of the orthographic changes are explained by the need to open or close the syllables of a verse.\footnote{For instance, “[…] a naturally long vowel may be shortened metri causa: ā is reduced to a, […], o (which frequently represents Skt. -as) to u, or a […]” (Edgerton 1946, §28). It has to be noticed that the short/long fluctuation affected even the final vowels which did not derive from Sanskrit -as, see forms like tasyo for tasya ‘his’ and similar ones (Edgerton 1946, §§55-57).}

In the case of Epigraphic Sanskrit, the Middle Indian influence was strong because often the inscriptions were physically done by persons who did not know Sanskrit very well. Most probably they had to translate the text dictated in a Middle Indian vernacular by the commissioner of the inscription into Sanskrit at once, with obvious consequences for the correctness of the resulting text. In fact, the Sanskrit language of the inscriptions, not differently from the Hybrid Sanskrit of the Buddhist literature, is distinguished by its numerous innovative and Prakrit features (see Salomon 1998, 96).

It is true that the Pāṇinians fell within the opposed ideological field (the Grammar was considered one of the six vedāṅgas ‘auxiliary sciences of the Veda’, thus an appanage of the Brahmanic religion), and had, at least in the beginning, nothing to do with Buddhism. However, the choice of texts in Buddhist Hybrid Sanskrit (and Epigraphic Sanskrit) as a term of comparison is dictated by the fact that the writing habits of ancient times are here clearly observable. Furthermore, those features (such as the influence of the spoken tongue on the written language) that in other genres tend to be purged, are still evident and raised to the system level. In other words, if we want to have an idea of which mistakes an Indian scribe of the first Centuries AD could have made, then Hybrid and Epigraphic Sanskrit is the main source for this information.

\textit{Nominative in -e}

This hypothesis is based on the existence of a singular masculine/neuter nominative ending in -e in some Middle Indian dialects. The distinction between the two grammatical genders was no longer vital in the Middle Indian period. There are at least two reasons for this simplification. The first factor is the phonological coincidence of the nominative endings of both the singular masculine and neuter. This, for example, has happened in the late vernacular called Apabhramśa, where the following endings are witnessed:
-as > -o > -u for the masculine and -am > -am > -u for the neuter of the thematic declension. As we can see, the resulting ending -u represents the regular phonetic outcome of the two series of endings. This had as its consequence the removal of the formal difference between the two genders in the thematic declension, that is, the most productive one of the Indo-Aryan (see Pischel 1981, §§346, 351).

The second factor is the formal analogy: the neuter nominative forms in -as (which is not a real ending but only the final part of the stem with zero ending) could be easily confused with the thematic masculine with its regular ending in -as.25 Such a confluence is, by analogy, extended to the more numerous neuters of the thematic ending: “Like the neuter nouns in -as, many neuter nouns in -a have dialectically become masculine in Pkt.” (Pischel 1981, §357).26

The final evidence that shows the disappearing, in Prakrit, of the neuter as a grammatical category is the fact that the confluence is also related to the third person indicative pronoun, that is, the most referential form as far as gender is concerned: “[t]he pronoun so, properly masc[uline], is also used as [neuter] nom. and acc.”, Edgerton (1936, 512). In other words, without the neuter pronoun tat (substituted by the Prakrit outcomes of the masculine pronoun sa) the category of the neuter gender has lost its main referential support. Such a situation is also witnessed by Hemacandra, the most important Prakrit grammarian: in the sūtra 4.445 of his Siddhahema we read liṅgam atantram, which Edgerton (1953, §6.1) translates as “[…] gender has no rule”.

Now, let us look at the origin of the nominative ending in -e, which is an easy derivation: already at the ancient stage of the Indo-Aryan the ending in the final sandhi of the sequence -as before the voiced phonemes could produce an -e (as an alternative to -o, which is the main variant); it was certainly a minor one, which never appears in classical Sanskrit, while there

25. It must be remarked that the sigmatic neuter stems and the masculine ending of the thematic declension coincide in the nominative also in other ancient Indo-European languages, such as in Greek γένος ~ λύκος, Latin genus ~ lupus. It is not by chance that in the passage from Latin to Romance languages there has been a confusion of the neutrers in -us with the masculine of the second declension, which, together with many other forms of the neuter assimilated to the masculine, contributed to the disappearing of the neuter gender in the Romance languages; see Italian tempo, cornu (masculine), compared to the Latin tempus, cornu (neuter) (Väänänen 1963, §214).

26. On the confusion of the genders in the Prakrits see also Sen 1960, 74, 80, and Hinüber 2001, 220.
is only one example in the Vedic language: *sūre duhitā* ( < *sūras + duhitā*) ‘daughter of the sun’ (*Rgveda* 1.34.5), see Wackernagel (1896, §285bβ).

Furthermore, if we include also the internal sandhi in the analysis, beyond the external one, we can observe that the vowel *e* as a result of *-as* in a voiced context inside the word fully belongs to both Vedic and classical Sanskrit. Some examples: *edhi* ‘be!’ ( < *as- ‘to be’ plus the imperative suffix -dhi*); *medhā* ‘wisdom’ ( < *masdhā*, along with Avestic Mazdā with the original cluster almost intact); *sed-* the perfect stem with doubling from the root *sad-* ‘to seat’ ( < *sasd- ).*

In the Middle Indian languages, what in classical Sanskrit was just a contextual outcome (that is, the final sandhi of *-as*, be it *-o* or *-e*), is generalized as a normal and phonologically independent form of the ending of the nominative, not necessarily followed by a voiced phoneme. This result is witnessed already in the language of the Aśokan inscriptions, which corresponds to the most archaic form of Prakrit known today, see Salomon (1998, 73). Amongst the literary Prakrits, which are more recent in comparison with the language of the epigraphy, the nominative in *-e* is regularly found in Māgadhī and in Ardhamāgadhī, while there are some further examples in other Middle Indian dialects, see Burrow (1972, 101), Pischel (1981, §345), Hinüber (2001, 221). In the Hybrid Sanskrit of the Buddhist texts, the ending in *-o* is more frequent; despite this, there are also known cases of Nominative in *-e* (Edgerton 1953, §8.18).

It is more difficult, on the other hand, to explain the reasons for the oscillation between the two outcomes of final *-as*. If we take a look at the whole geographic area where the Ancient and Middle Indo-Iranian languages are distributed as a dialectal continuum, we are tempted to think about the two endings (*-o* and *-e*) as constituting a normal diatopic variation, with an isogloss that not only included Sanskrit and the Prakrits, but some Iranian varieties. The exact extension of the two variants, however, is not always clear.

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27. In fact, “[i]n both classes of cases […] the general principles of combination are the same — and likewise, to a great extent, the specific rules” (Whitney 1924, §110).

28. See Burrow 1972, §16, and Macdonell 1916, §§4.6, 15.2.k.

29. Pischel (1981, §357) quotes different cases taken from the *Mṛcchakaṭikā*, a medieval drama with the common usage of Prakrit, for instance Māgadhī, for the characters belonging to lower social levels. For example: *eśe śe dāśanāmakā maï kāle* (*Mṛcchakaṭikā* 11.1), transportable in Sanskrit as *etad tād dāśanāmakaṃ mayā kṛtam*, that is, a sequence of neuters (in Sanskrit) which turn into masculines in *-e* (in Māgadhī).

30. Furthermore, even in Pali there are “[…] notorious but only very sporadic substitutions of *e* for *o* […]” (Edgerton 1953, §1.32).
According to Sen (1960, 80), the outcomes of -as allow the identification of three dialectal areas: 1) in some parts of India we observe -as > -a; 2) in all dialects except for the eastern ones we observe -as > -o, finally turning into -u; 3) in the east and in some dialects of the northwest we have -as > -e. Even the inscriptions of Aśoka show a rather sharp distinction between the epigraphic Prakrit of the west where we have the ending -o, and that of the east which has the termination in -e (see Salomon 1998, 73-75).

In reality, as of today a strong distinction between the various outcomes is not always possible. Inside the same group of dialects, but also within one and the same dialect, there are often both endings, but it is not always possible to justify their distribution phonologically. The epigraphic Prakrit of the northwest has had both endings since the beginning, while more or less sporadic cases of nominative in -e are found in many Indian areas and in Ceylon. A confused situation example is the so called Gāndhārī, that is, the epigraphic Prakrit of the northwest of the post-Aśokan period: here we have instances of inscriptions which have both endings within one and the same line, or even other variants (such as -a). This makes us think of a purely orthographic and conventional differentiation. It is noteworthy that in some inscriptions in khāraṣṭhā it was customary to distinguish in an artificial manner the ancient neuters (written with final -e) from the masculines (written in -o). From the phonetic point of view, it had to be a weakened, maybe indeterminate, final vowel (see Fussman 1989). The prevalence of the variant in -o was probably due to the influence of the Sanskrit orthography where it was the only allowed one. A morphological consequence of

31. Also in Avestan, in turn, both endings are to be found, depending on a diachronic distinction: in the ancient dialect we have the type -o, while in the more recent Avestan we can observe an ending which could be assimilated to the one in -e of the Middle Indian, see Kellens 1989, 38-39. According to Renou (1957, 8) the ending -e in Indian could be due to the Middle Iranian influence on the Indian area.

32. See Edgerton 1953, 4, note 1, for examples and bibliography.

33. One should point out that this orthographic convention is rather similar to that which, at the same time, was under formation in the writing of Bactrian, a Middle Iranian language written with the Greek alphabet used by the Kushāns: the grapheme o was used in Bactrian to identify the indeterminate vowel, especially in the final position (cfr. Sims-Williams 1989, 234).

34. For this purpose it has to be remarked that the phonological confluence of -as (or better: -aḥ) with -e and -o in final position (even though the latter is rather rare) has been prepared by some Sanskrit phenomena. As a matter of fact, in the rules of sandhi of the standard Sanskrit, these three elements are neutralised in one simple -a if followed by a vowel different from a-. See Whitney 1924, §§933-134. Thus, both deva + iti and deve + iti lead to deva iti (maintaining the hiatus). In sum, they were three different phonological
the new termination of the nominative in -e was the fact that the ending of
the locative (which in Sanskrit in the thematic declension terminates in -e)
had acquired newly created endings through the agglutination of pronomi-
nal forms (such as -anmi, -aṃsi, -ahiṃ, from the Sanskrit -asmi) to the
substantival stem; see Sanskrit putraḥ (nom.) ~ putre (loc.) versus Māgadhī
putte (nom.) ~ puttāhiṃ (loc.) (Pischel 1981, §363).

The genesis of the mistake

This Middle-Indian nominative ending could be, I think, that linguistic evi-
dence which could have made possible the substitution of the original form
of the sūtra 1.4.23, which I believe should be restored as *kārakam (in the
nominative), with the locative in -e form as we know it today; in other words,
it would not be a real locative, but a Middle-Indian nominative inserted in the
text by mistake and then reinterpreted as a locative. The locative interpreta-
tion must have been supported by the fact that this morphological case, in
the functioning of the Aṣṭādhyāyī, had a precise metalinguistic function. At
a certain point of the manuscript tradition, a scribe (skilled in the Pāṇinian
grammatical technique) left the ending in -e (instead of correcting it into the
neuter nominative in -am) because its interpretation as technical locative was
to him a lectio difficilior compared to the nominative form. But it still has to
be understood how the original corruption happened.

The appearance of the Middle-Indian ending in the text is attributable
to different causes. It could have been negligence in the pronunciation dur-
ing the dictation of the manuscript (provided the copying took place in
this manner; or, otherwise, during the self-dictation): the one who dictated
the text could have read the sūtra 1.4.23 attributing to the term kāraka a
nominative ending of the Middle Indian type, since perhaps the orthoepic
conventions of the time allowed this kind of variations in the pronunciation
of Sanskrit, as long as the correct form was restored in writing, something
that could not have happened in our case.36

manifestations which, however, must have had something in common among them. Thus,
it is not surprising that in the Middle Indian dialects the variant in -e or the one in -o pre-
vailed; the issue requiring explanation is the disproportion between the two outcomes.

35. In this, the Indo-Aryan follows a morphological drift found also in the Germanic
and Balto-Slavic languages, in which the adjectival endings are formed through the agglu-
tination of pronominal endings to the nominal stems.

36. It has to be remembered that often in a diglossia situation (such as the one between
classical Sanskrit and the Middle Indian vernaculars) the prestige language is pronounced
An alternative possibility could have been the fact that the copyist must have transformed a Sanskrit nominative into a Prakrit one since that must have been the writing praxis at the time, i.e. the orthographic convention (in this case not a phonological phenomenon). Thus, on behalf of the inscription which can be read on the statue of King Kaniṣka, and which states mahārājā rājātirājā devaputro kanīska, Salomon (1998, 84) asserts that it “[…] actually reflects not “wrong sandhi” but retention of the old [Middle Indo-Aryan] ending in the otherwise (i.e., orthographically) Sanskritized word”. Buddhist Hybrid Sanskrit (also epigraphic), is nothing but this: reshaping Sanskrit words in a more or less Prakritized form. Usually, the root of the word was transformed back into original Sanskrit form, while the ending was left in Prakrit.

However, the genesis of the mistake could have taken place elsewhere, that is, not directly in the text of Pāṇini but instead in the comment of Mahābhāṣya, from where it could have been transferred, by contamination, to the Aṣṭādhyāyī. As a matter of fact, in the ancient editions the text of the Grammar was always followed by a comment; it could be vārttikas by Kātyāyana with the bhāsyas by Patañjali, or a more recent comment, such as the Kāśikā. The issue is that without a comment which explains their meaning, the grammatical sūtras of Pāṇini are not comprehensible. Accordingly, even as far as the textual transmission is concerned, Pāṇini’s text is not a pure sūtras sequence, but is always accompanied by interventions by commentators, so much so that we could consider it an indirect testimony of the Aṣṭādhyāyī. As usual, the indirect transmission can be a source of interpolations; thus it seems that some of Pāṇini’s sūtras are the result of the transfer of some parts of commentaries (both the vārttikas by Kātyāyana, or the interrogations by pūrvapakṣin, that is, the critical voice of the Mahābhāṣya) into the commented text (see Iyer 1983, 153-154). Let us see, then, the textual structure of the comment to the sūtra 1.4.23.

The commentary (not necessarily the grammatical one) in India is almost a literary genre per se and as such it envisages precise stylistic conventions, including some recurring formulaic expressions. In particular,

in a conventional way, following the phonology (or simply the orthographic norms) of the low variety. This is the reason why Italian speakers (but not, for example, German ones) pronounce the Latin cluster gn as a nasal palatal, and realising as affricates c and g before high vowels. Similarly, in Russian pronunciation of the Church Slavonic the grapheme ě sounds like [e], while in Ukrainian we have [i]. According to the recitation norms in use today in India, the sound -ḥ at the end of a word is followed by the so called echo vowel which refers back to the previous vowel (despite the fact that in Sanskrit the visarga sharply marks the end of the word).
when a commentator glosses an extremely prestigious text (such as the one by Pāṇini), the typical procedure is quoting exactly the words of the commented text followed by the quotation mark *iti* (lit.: ‘so’), which has a similar symbolic function to the inverted commas of today; then the real comment follows. In the *Mahābhāṣya*, in the section related to the *sūtra* 1.4.23, the wording *kāraka iti*, that is, the text of the commented *sūtra* (*kārake*) plus the term *iti*, with the sequence -a i- derived from -e i- for the rules of Sanskrit sandhi, appears twice.37 Both Kātyāyana and Patañjali, in fact, comment on the term by Pāṇini. In the *bhāṣya* 1 Patañjali wonders: *kim idāṃ kāraka iti* ‘What does kārake mean?’. Thus in the first vārttika by Kātyāyana, the same quotation formula is repeated again, followed by a more detailed commentary: *kāraka iti saṃjñānirdeśaḥ cet saṃjñīno’pi nirdeśaḥ* ‘If kārake is a technical term, then the object designed by such a term has to be defined’.

Now, if we hypothesize that the original reading of the *sūtra* 1.4.23 was a nominative (*kārakam*), then the quotation formula used by Patañjali and Kātyāyana would have been *kārakam iti*, which differs just by a nasal from the reading as we know it today. So the problem is demonstrating how *kārakam iti* could have lost the final phoneme of the first word and transformed itself into *kāraka iti*. To me this stage could be more or less plausible, especially if we were to suppose an intermediate stage where the final nasal consonant was identified as an *anusvāra* (nasalization of the vowel), instead of a real consonant. The diachronic pattern would have thus been the following:
1. *kārakam iti* (original reading);
2. *kārakaṃ iti* (transitional reading);
3. *kāraka iti* (actual reading).

The identification of the *anusvāra* instead of the “full” nasal is not surprising. On the contrary, according to the orthographic rules of classical Sanskrit the *anusvāra* could substitute any final nasal, but only when the following word started with a consonant, see Whitney (1924, §73b). As the centuries went by, then, this rule started to be disregarded: maintaining the distinction between the *anusvāra* and the “full” nasal depended on the precision of the copyist, and, more generally, on local orthographic usage. In epigraphic Sanskrit the rules on the collocation of the *anusvāra* 37. And maybe even thrice if we consider the *varia lectio* of the second *bhāṣya*. See Joshi and Roodbergen 1975, 3 (Sanskrit section), footnote 1.
(as well as the rules of sandhi in general) were often disregarded: “Notation of anusvāra and nasals is often in violation of strict orthographic rules. Anusvāra is commonly used in pausa in place of m”, Salomon (1998, 96). In the Hybrid Sanskrit of Buddhist texts the usage of anusvāra becomes predominant: “[…] every word-final nasal (if preserved at all) ‘became anusvāra’ (in terms of writing); or, as I prefer to put it, resulted in nasalization of the preceding vowel […]” (Edgerton 1946, §49).

The same has to be said for the Prakrit orthography. In Middle Indian, in fact, the nasal at the very end of the word shows a clear tendency towards disappearing completely;38 thus, according to Pischel (1981, §183) “Final n and m as a rule become anusvāra, which in A[rdha]m[āgadhī], M[āgadhī] and J[ain]-M[āhāraṣṭṛ] often vanishes before vowels and consonants”. Therefore, as far as Middle Indian is concerned, there is no sense in talking about the distinction between the nasal and anusvāra: the latter, if present in the manuscripts, could only be a redundant graphic sign due to the influence of Sanskrit.39 Also in Middle Indian epigraphy, as Salomon reminds us (1998, 72), this sign tended to disappear: “[…] the anusvāra is only sporadically used to indicate a homorganic nasal before a stop consonant, the nasal often being unindicated”.

Different factors lead us to think that in Prakrit anusvāra was completely mute in the final position. Thus, anusvāra does not prevent the elision of the initial vowel in the next word: “An initial a in verses […] is sometimes elided […] also after anusvāra with weakening of the nasal sound as in A[rdha]m[āgadhī] kahām ’bhitāvā = kathamabhitāpāḥ” (Pischel 1981, §175). In other words, kahām + abhitāvā gives the same outcome in sandhi of a hypothetical *kaha + abhitāvā. Furthermore, especially in Hybrid Sanskrit poetry, the alternation between the nasal and the anusvāra was used for metrical purposes. The final nasal, in fact, leaves the syllable open, while anusvāra is tautosyllabic by convention with the nasal vowel, therefore lengthening the syllable: “[t]his option before

38. In general, Hybrid Sanskrit can omit, not only metri causa, the final consonants of a word, which were lost in the Prakrit, see Edgerton (1946, §69): “As to writing of final consonants, the mss. of M[ahā]y[astu] are exceptional in that they very often omit them even in prose (e.g. yāva = yāvat 1.8.14; 20.4; ci for cit i.328.8; 364.7)”.

39. Historical spelling is not an exceptional issue for Middle Indian; in Hybrid Sanskrit it even raises itself as a system: for example, all the consonant clusters are fully written out, while in pronunciation, as metrics show (and also from what we know of Prakrit phonology), assimilations and consonant simplifications occur regularly (see Edgerton 1946, §37).
a vowel is constantly utilized for metrical convenience in B[uddhist] H[ybrid] S[anskrit] verses. [...] If the word-final syllable is required to be long, they write e. g. -am, -im, -un; if short, -am, -im, -um (before initial vowel). [...] E. g. 'haṃ (long) iha S[addharma]P[uṇḍarīka] 61.7; 'haṃ (long) imu 62.11; ghoṣaṃ (long) ahaṃ 63.3, but in the same line ahaṃ adya, -am being a short syllable; kathāṃ (long) imaṃ (long) adb- hutam (short) īḍṛśaṃ te 313.5 [...]” (Edgerton 1946, §50; see also Pischel 1981, §§348, 350).40

Therefore, as we may also notice from these last examples, the sequence -Vṛ- is perfectly well attested, despite the fact that the rules of sandhi in classical Sanskrit explicitly excluded it. Thus, it is not impossible to suppose the form *kārakaṃ iti as the orthographic variant reading of the original quotation formula *kārakam iti. Later on, the anusvāra sign could disappear, just as a simple writing mistake: in many Indian scripts it has the shape of a simple dot above the aṅkāra, which the copyist could easily miss, since it could be confused with a flaw of the writing support, as some epigraphy cases testify (see Salomon 1998, 162).

At least one case of anusvāra loss — even though in a more favourable phonological context — is to be found in the text of Aṣṭādhyāyī: the sūtra 4.4.130 sahasreṇa sammitau gah, according to what was stated by Bhaṭṭoji Dīkṣita (a medieval grammarian who listed all the reading variations of Aṣṭādhyāyī) had a variant reading samitau, that is without anusvāra.

However, even the simple final nasal, for all the reasons stated above, could be omitted without going through the anusvāra stage; similar cases are attested in Hybrid Sanskrit (and not only in metrics); in particular, this phenomenon often occurs in the inflexional terminations (which is exactly the case with the term kārakam).41

40. It would be useful in this regard to remember that also in Latin a similar situation took place: “Im Altlatein wurde -m in jeder Stellung sehr reduziert ausgesprochen [...]” (Leumann 1977, §228.11.b; cp. also Väänänen 1963, §127). The weakening of the nasal is confirmed by Quintilian (9.4.40), according to whom the final m was “weakly pronounced” (parum exprimitur); in classical poetry, the nasal was restored before the consonant, but before a subsequent vowel it did not prevent the latter’s elision; in archaic poetry it did not make position before a consonant.

41. See the following examples: “[...] katha = katham S[addharma]P[uṇḍarīka] 314.4; L[alita]V[istara] 233.4; eva = evam LV 55.21; evatūpa = evamrūpa is a very common cpd., SP 83.14; LV 55.9, etc., and is even recorded in the prose of LV at 13.22 and 307.13 [...] Common in inflexional endings, usually m[etri] c[ausa]: acc. sg. m. and n.-acc. sg. nt. of a-stems, and acc. sg. of consonantal noun-stems; mahya for mahyam, iya and ida for iyam and idam [...]” (Edgerton 1946, §70).
In turn, the wording *kāraka iti* represents the standard outcome of the external sandhi of *kārake* + *iti*. Such an erroneous reestablishment of the original form from this sandhi in the commentary subsequently led to the emendation of the diction of Pāṇini himself, definitively establishing the *kārake* (in the locative case) instead of the original *kārakam* (in the nominative case).

**Chronology and consequences of the emendation**

The suggestion of emending the locative *kārake* into *kārakam* (the nominative) has several consequences from the theoretical and grammatical point of view and also from the philological one. First of all, it would be useful to see the advantages of this emendation.

The first one is related to the functioning of the Grammar. In fact, by putting the term in the nominative case, all the technical complications to which the locative leads disappear; there is no further need to theorize a semantic condition to be placed before each of the rules that teach the expression of the *kāraka* roles. In other words, it is no longer necessary to subject the definition of each of the single *kārakas* to the presumption that they are “instrumental in bringing about an action”, as it instead results from the *bhāṣya* 39 by Patañjali where the semantic condition *kārake* is glossed as *kriyāyām* ‘in connection with an action’. The equivalence *kārake* = *kriyāyām*, furthermore, is highly improbable from the morphological point of view because the term *kāraka* cannot be considered synonymous with ‘action’, as it has a marked agent meaning ‘the one who accomplishes [the action]’.

Accordingly, *kāraka* has to be interpreted as a technical term, defined either “etymologically”, or by the listing of the objects it designates, as later commentators (e.g. Kaiyata) suggest. Furthermore, this term is introduced as a section heading in the nominative case, like similar rules of the Grammar testify: “[t]here are several instances in the *Aṣṭādhyāyī* in which *adhikāra* rules introduce a *samjñā* defined by enumeration, e.g., P. 2.1.22 (*tatpuruṣah*), P. 3.1.1 (*pratyayah*), P. 3.1.95 (*kṛtyāḥ*)” (Joshi and Roodbergen 1975, 9).

The second advantage of the emendation is the fact that it becomes possible to rationally explain the behaviour of ancient commentators. In fact,

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42. See also the long list of grammatical terms that Pāṇini uses without any definition, as quoted by Joshi and Roodbergen (1975, 7, note 12).
as already stated, if one excludes the very last *bhāṣya* to *sūtra* 1.4.23, neither *Patañjali* nor *Kātyāyana* seem to explicitly acknowledge the problem represented by the locative of *kārake*. The fact that *Kātyāyana* and *Patañjali* start their comments to this *sūtra* by quoting literally its wording does still not imply that the main issue was the locative of *kārake*, as the later tradition would want it, which is followed by most recent scholars. Simply, the two commentators faced a rather difficult rule, but one at the same time extremely important for the functioning of the grammatical system, to which, thus, they had to pay particular attention; in other words, the quotation formula *kim idaṃ kāraka iti* ‘what does *kārake* mean?’ refers to the entire *sūtra* 1.4.23, and not just to its locative form.

The latter factor leads us to wonder about the possibility of establishing a relative chronology of the textual mistake. On the one hand, we have *Mahābhāṣya* which seems to not have the locative form but in one single *bhāṣya*; on the other hand, we can determine that the entire subsequent tradition acknowledges the “new” form of the *sūtra* 1.4.23 (for the authors of *Kāśikā*, interestingly, it seems to be just a marginal issue). It is thus rational to suppose the presence of a more ancient variant of the text of *Mahābhāṣya*, where *Patañjali* considered the different interpretative hypotheses of the term *kāraka* not yet in the locative; obviously, in this variant *bhāṣya* 39 was missing. Subsequently, in post-*Patañjali* times, the textual mistake came to be, so that the locative form was created *ex nihilo*. This could have happened either directly in the text of *Aṣṭādhyāyī* thanks to the influence of the nominative Prakrit form, or it could have happened in the quotations commented upon by *Patañjali* and *Kātyāyana*. This locative case form was then established as the received reading, for it represented a *lectio difficilior* from the point of view of grammatical technique (since it implied the involvement of a metalinguistic device). Finally, an unknown author must have inserted a spurious paragraph in the text of *Mahābhāṣya*, that is *bhāṣya* 39, with the aim of conciliating the comment with the new form of the commented text (as often happens with emendations, such an addition has been placed at the end of the related chapter of *Mahābhāṣya*).

The whole process must have happened after the composition of the original *Mahābhāṣya* by *Patañjali* (around the 2nd century BC, see Cordona 1976, 263-268), and before the composition of the *Kāśikāvṛtti* (around the 7th Century AD, see Renou 1969, 486-487). The authors of the latter demonstrate a knowledge of the reading in the locative case and comment in compliance with *bhāṣya* 39 by *Patañjali*; on the other hand, though, they behave as if the term were in the nominative case: “[…] from P. 1.4.23
onwards the \([Kāśikā Vṛtti]\) practically ignores the locative and glosses the rule in question as if it contains the term \(kārakam\) in the nominative” (Joshi and Roodbergen 1975, 7). Such an ambiguity can be explained if we imagine that the authors of \(Kāśikā\) knew two alternative textual traditions, one containing the locative form and one the nominative, both of which they considered worthy of particular attention, even though the second one seemed to them preferable.

One could counter the probable objection of the lack of any evidence of the original reading in the nominative case which I here suggested, maintaining that we truly know very little about the situation of the manuscripts of \(Aṣṭādhyāyī\), of \(Mahābhāṣya\) and of \(Kāśikā\), since—as we have already stated—the critical edition of the most important grammatical works of the ancient Indian tradition is missing. However, one need not exclude beforehand the chance of finding in the future a manuscript with the reading \(kārakam\). Without this proof, one might reasonably suspect that all the manuscripts of \(Aṣṭādhyāyī\) (and those of \(Mahābhāṣya\)) known today go back to a single archetype which does not necessarily coincide with what Pāṇini had written. This possibility cannot be excluded: as briefly mentioned by Bhartṛhari, some time before the composition of his \(Vākyapadīya\), the (presumably) oral tradition of \(Mahābhāṣya\) was totally discontinued in the north area, but subsequently restored thanks to a manuscript coming from a southern region of India (cf. Torella 2006, 247, note 7).

As already stated, the hypothesis suggested here implies the disruption of more than one of the “myths” of Pāṇinian studies. In truth, these myths could have been the main cause of the textual error at issue. Specifically, the trust in the textual perfection, in the perfection of the grammatical description and in the eternity of Sanskrit has worked as a sort of “self-repairing mechanism”, emending the text of the grammar from the possible textual corruptions. That is, a reading variant which made the grammatical description inappropriate was immediately corrected into the one which seemed to work for the best.

However, such a mechanism is a double-edged sword: some corrupt variants could seem to be more correct than the original ones and could then be established as the norm. A similar situation could have occurred regarding the \(lectio difficilior\) of the \(sūtra\ 1.4.23\), after which the tradition, thanks to the strength of the grammatical scholasticism, swept away the one which appeared as \(lectio facilior\), that is, the form of \(kārakam\) in the nominative.
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