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### Declension and Description - The Ways of Sanskrit Grammarians

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#### Abstract

This paper studies the different ways in which ancient Sanskrit grammarians presented nominal declensions. Based on twelve Sanskrit grammars (from Pāṇini's *Aṣṭādhyāyī* up to Bhaṭṭoji Dīkṣita's *Siddhāntakaumudī*) classified into three categories ("wholly generative" grammars, "partly generative" grammars and "pedagogical" grammars), it shows that though nominal paradigmatic sets were known from and used by various scholars – among whom grammarians – at a relatively early date, it is only with pedagogical grammars that they really enter the scene of grammatical description, i.e. as "official" grammatical or language teaching tools.

#### **Key words**

nominal declensions, paradigmatic sets, pedagogical grammars, Sanskrit grammarians.

#### 1. Introduction

Sanskrit is – among its other properties – a highly inflected language. It is also one of the very few languages of the world which has given birth to a long – and deeply elaborate – tradition of endogenous description (*Vyākaraṇa* in Sanskrit), a tradition which is generally considered as starting in the 5th c. BC (with Pāṇini's *Aṣṭādhyāyī*) and ending in the 18th c. AD (with Nāgeśa Bhaṭṭa's works).

This paper aims to study the different ways in which Sanskrit grammarians presented nominal declensions, an essential component of both the Sanskrit language and the descriptive apparatus of Sanskrit grammarians.

By "nominal declensions", I mean the set of forms a nominal item – i.e. a noun, an adjective or a pronoun – can take depending on its syntactic functions within a sentence. Word-classes were identified quite early in Ancient India. The oral transmission of Vedic hymns led to the elaboration of sophisticated parsing methods and, on the basis of recurring morphophonological features, to the identification and the classification of segments terminating with endings (Cardona 2014: 91-92).

The most ancient formal distinction between nouns and verbs we are acquainted with goes back to Pāṇini, the author of the  $Astadhyay\bar{t}$  (hereafter A), the founding text of the Sanskrit grammatical tradition. Pāṇini classifies finite words (padas) into two groups: sub-anta-padas "words ending in sUP (i.e. nominal endings)" and tin-anta-padas "words ending in  $ti\dot{N}$  (i.e. verbal endings)", sUP being the acronym of the nominal endings list – to which I will come back later – and  $ti\dot{N}$  the acronym of the verbal endings list.

This being said, does Pāṇini account for the set of forms nominal items can take? And, if he does, how does he proceed? How did grammarians who succeeded him proceed? Do we have lists of rules for declining nouns? Paradigmatic sets? If yes, how many sets? Presented in which order? These are some of the main questions to which this paper tries to provide answers. It is organised into four parts: Part 1 gives a brief presentation of the corpus studied, Part 2 is devoted to the presentation of nominal declensions in wholly and partly generative grammars, Part 3 to the presentation of nominal declensions in pedagogical grammars and Part 4 is intended as a concluding thought on the emergence of paradigmatic sets in Sanskrit grammars.

## 2. The corpus

The study is based on twelve grammars of Sanskrit, all written in Sanskrit. The list is provided in Table 1.

Table 1.

<i>Aṣṭādhyāyī</i>	5th c. BC	Cat. 1
Kātantra	5th c. AD?	Cat. 2
Cāndravyākaraṇa	5th c. AD	Cat. 2
Jainendravyākaraṇa	5th-7th AD?	Cat. 1
Śākaṭāyanavyākaraṇa	9th c. AD	Cat. 2
Rūpāvatāra	10th-12th c. AD?	Cat. 3
Sarasvatīkaṇṭhābharaṇa	1042	Cat. 2
Siddhahemacandra	10th-12th c. AD	Cat. 2
Mugdhabodha	13th c. AD	Cat. 2
Prakriyākaumudī	14th-15th c. AD	Cat. 3
Prakriyāsarvasva	1616	Cat. 3
Siddhāntakaumudī	16th-17th c. AD	Cat. 3

These twelve grammars can be subdivided into three categories, according to the way they organize, formulate and illustrate the grammatical rules:

a. The first category (Cat. 1) brings together "wholly generative" grammars: (1) they are not organized in topical sections, (2) their rules, which aim to generate finite words, are formulated in a very concise way and follow a number of metarules, (3) they do not provide examples (these are generally given in glosses);

- b. The second category (Cat. 2) includes grammars which consist in generative strings organized in topical sections: their rules, which aim to generate finite words, which are formulated in a very concise way and which follow a number of metarules, are grouped together in topical sections. The topical sections recurrently (if not systematically) present are: technical terms, phonetics, nouns and verbs. These grammars do not provide examples either;
- c. The third category (Cat. 3) is comprised of grammars which consist in pedagogical and detailed instructions organized in topical sections: as manuals, they explain, in a very pedagogic way, grammatical procedures making it possible to derive finite words from A to Z. They are organized in topical sections and subsections, and provide examples.

Texts which came down to us suggest that there is a historical continuity between the three categories: the most ancient grammar, the *Aṣṭādhyāyī* of Pāṇini, on which nearly all of the other grammars are more or less based, is wholly generative; and grammars of the third category were still composed at a late date, as is the case for the *Siddhāntakaumudī*. But it is not at all impossible that pedagogical tools (like oral explanatory glosses) were used at a very early date. The fact is that there is no ancient trace of such tools.

As I am going to show, the most drastic changes, in the presentation of nominal declensions, appear with grammars of the third category. Let us first see how things are going in "wholly" and "partly generative" grammars.

### 3. Presentation of nominal declensions in wholly and partly generative grammars

The best example of a wholly generative grammar is without a doubt  $P\bar{a}nini$ 's  $Ast\bar{a}dhy\bar{a}y\bar{\imath}$ . On a practical level, this grammar provides guidelines for forming finite words – the padas – by means of affixes. These affixes (pratyaya) are directly introduced (under meaning conditions and cooccurrence conditions) in some of the four thousand  $P\bar{a}ninian$  rules, unlike most of the bases with which they combine and which are either verbal roots  $(dh\bar{a}tu)$  or nominal bases  $(pr\bar{a}tipadika)$ . Verbal and nominal bases constitute the two main formal starting points of the derivational process which occurs throughout  $P\bar{a}ninian$  rules. A crucial point for our topic, is

that the very first step, in the Pāṇinian derivational system, is a weak semantic level, closely related to syntax: nouns and verbs are not derived apart from the utterance of which they are a constituent (cf. Cardona 1997: 136-185). This explains, I think, the way in which nominal inflection is presented in wholly and partly generative grammars of Sanskrit.

In Pāṇini's grammar, several groups of rules, located in different parts of the work, are involved in the derivation of inflected nouns:

a. The first group of rules, which goes from A 1.4.23 up to A 1.4.55, introduces the syntactic-semantic values (the *kārakas*) the nominal endings can convey. One of the characteristics of Pāṇini's approach is that he clearly distinguishes both the syntactic-semantic values and the linguistic forms which convey them. As an example of a rule belonging to this first group, one can quote the *sūtra* A 1.4.49 *kartur īpsitatamaṃ karma* "[The technical term] *karman* ['object', designates] what the agent most desires [to reach through his action]";¹

b. The second group of rules, which goes from A 2.3.1 to A 2.3.73, stipulates which ending can be used to express which syntactic-semantic value: e.g. A 2.3.2 *karmaṇi dvitīyā* "The second [case (i.e. the accusative) is used to express] the object (*karmaṇi*)". It is in this group of rules that the names of the seven cases are given: *prathamā* "first" (A 2.3.46) which corresponds to what we call "nominative case", *dvitīyā* "second" = our "accusative" (A 2.3.2), *tṛtīyā* "third" = our "instrumental" (A 2.3.6), *caturthī* "fourth" = our "dative" (A 2.3.13), *pañcamī* "fifth" = our "ablative" (A 2.3.28), *ṣaṣṭhī* "sixth" = our "genitive" (A 2.3.50) and *saptamī* "seventh" = our "locative" (A 2.3.36). Note that numerical indices were frequently used in the field of ritual to denote various things (formulas, ceremonial tools, specific times); this procedure of naming nominal cases, hence, is not at all special within the context of ancient India (cf. Pinault 1989: 328).<sup>2</sup>

c. The third group of rules consists in two rules A 4.1.1 and 4.1.2. Rule A 4.1.1 states the forms which the nominal endings are added to:  $\dot{N}y$ - $\bar{a}P$ - $pr\bar{a}tipadik\bar{a}t$  "After [a word ending in]  $\dot{N}\bar{i}$  or  $\bar{a}P$  (i.e. after a feminine word) and after a nominal stem" and rule A 4.1.2 enumerates the list of nominal endings which can be added to these forms: sU-au-

<sup>&</sup>lt;sup>1</sup> Adapted translation of Katre (1989).

<sup>&</sup>lt;sup>2</sup> Note these two exceptions: the *Jainendravyākaraṇa*, from the seven phonemes of the word *vibhakti* ("division"), creates the terms  $v\bar{a}$  for  $pratham\bar{a}$ , ip for  $dvit\bar{\imath}y\bar{a}$ ,  $bh\bar{a}$  for  $tr\bar{\imath}\bar{\imath}y\bar{a}$ , ap for  $caturth\bar{\imath}$ ,  $k\bar{a}$  for  $pa\bar{n}cam\bar{\imath}$ ,  $t\bar{a}$  for  $sasth\bar{\imath}$  and  $\bar{\imath}p$  for  $saptam\bar{\imath}$ ; the Mugdhabodha uses  $pr\bar{\imath}$  for  $pratham\bar{a}$ ,  $dv\bar{\imath}$  for  $dvit\bar{\imath}y\bar{a}$ ,  $tr\bar{\imath}$  for  $tr\bar{\imath}\bar{\imath}y\bar{a}$ ,  $c\bar{\imath}$  for  $caturth\bar{\imath}$ ,  $p\bar{\imath}$  for  $pa\bar{n}cam\bar{\imath}$ ,  $s\bar{\imath}$  for  $sasth\bar{\imath}$  and  $pt\bar{\imath}$  for  $sastam\bar{\imath}$ .

Jas-am-auŢ-Śas-Ṭā-bhyām-bhis-Ne-bhyām-bhyas-NasI-bhyām-bhyas

Table 2.

sU-au-Jas	sgdual-pl. endings of the 1st case
am-auṬ-Śas	sgdual-pl. endings of the 2nd case
Ṭā-bhyām-bhis	sgdual-pl. endings of the 3rd case
Ne-bhyām-bhyas	sgdual-pl. endings of the 4th case
NasI-bhyām-bhyas	sgdual-pl. endings of the 5th case
Nas-os-ām	sgdual-pl. endings of the 6th case
Ni-os-suP	sgdual-pl. endings of the 7th case

If we look at the first triplet, sU-au-Jas, we have sU, the singular ending of the first case, au, the dual ending of the first case, and Jas, the plural ending of the first case. And so on and so forth. Capital letters correspond to metalinguistic markers used for various purposes I will not explain here.

d. All the morpho-phonological phenomena linked to or generated by the addition of the various endings to the nominal forms – that is to say, the inflexion process as such from a Greco-Latin point of view – are treated in a huge group of rules (going from A 6.1.1 up to A 8.4.68) dealing with all kinds of substitution and/or junction processes. Some of these rules concern nominal stems ending in a specific phoneme, like A 7.1.9 *aTo* bhisa ais "ais replaces bhis (i.e. the plural ending of the third case) **after [a stem ending in]** a" (deva+bhis=devais "by/with the Gods"), while others concern various nominal stems, like A 6.1.102 prathamayoh pūrvasavarṇaḥ "[A long vowel, homophonous to the final vowel of **a stem**, <sup>5</sup> replaces this final vowel and the initial vowel of the ending] of the first and the second cases", which accounts for the forms agni+au = agnī "two fires",  $v\bar{a}yu+au = v\bar{a}y\bar{u}$  "two winds",  $vrksa+as = vrks\bar{u}s$  "trees".

<sup>&</sup>lt;sup>3</sup> In order to facilitate the reading of the list, sandhi rules are not applied. Note that suP designates the locative plural ending (su + P, a letter, conventionally transcribed as an upper-case letter in Western works, which is added for metalinguistic purpose). sUP is an abbreviation made up of sU (which designates the nominative singular ending, given at the very beginning of the list in A 4.1.2) and P, the metalinguistic marker which closes the said list; sU...P designates the whole list of nominal endings. In the following footnote, sUPah is the genitive singular of sUP.

<sup>&</sup>lt;sup>4</sup> Cf. A 1.4.103 sUPaḥ "[The triplets of endings' series denoted] by sUP [taken one by one, are respectively designated by ekavacana 'singular', dvivacana 'dual' and bahuvacana 'plural']."

<sup>&</sup>lt;sup>5</sup> prātipadikāt "nominal stem" (mentioned in A 4.1.1) must be tacitly understood in A 6.1.102.

So we have only one abstract nominal paradigm, represented by the complete endings list, and from this initial abstract paradigm, a long series of rules teaches how to inflect all nominal stems. Pāṇini does not resort to different paradigmatic sets, then. As I said previously, within his perspective, finite forms are considered as *sentential units* and are generated as such. Finite forms – hence, inflected nouns – are therefore thought of within *syntagmatic* strings (as if the grammar user were taking the sentence *devadatta odanaṃ pacati* "Devadatta cooks rice" and asks himself how to proceed to form each unit of *this* sentence). It would simply make no sense to deal with paradigmatic sets within such a framework.

"Partly generative" grammars also operate with generative rules (Pāṇinian rules in most cases) but tend to bring together rules related to the same topic.

In the  $C\bar{a}ndravy\bar{a}karaṇa$  (hereafter C) for instance, the list of nominal endings (C 2.1.1) – the same as in Pāṇini's grammar – is followed by a group of rules (C 2.1.2-2.1.42) accounting for morpho-phonological substitution and/or junction phenomena specific to nominal declensions. Thus, C 2.1.2 is nothing more than A 7.1.9  $aTo\ bhisa\ ais\ "ais\ replaces\ bhis\ (i.e.$  the plural ending of the third case) after [a stem ending in] a" (note however that not all rules for substitution/junction phenomena are given here: some – related to stems ending in -i, -u, -r or consonants – are located in Sections 5 and 6 of the  $C\bar{a}ndravy\bar{a}karaṇa$ ).

Succeeding immediately this group of rules (i.e. C 2.1.2-2.1.42), one finds (up to C 2.1.98)  $s\bar{u}tras$  stipulating the syntactic-semantic values nominal endings can convey: C 2.1.43  $kriy\bar{a}$ - $\bar{a}pye$   $dvit\bar{i}y\bar{a}$  corresponds to A 2.3.2 karmani  $dvit\bar{i}y\bar{a}$  "The second [case (i.e. the accusative) is used to express] the object". So the  $C\bar{a}ndravy\bar{a}karana$  puts, in one and the same section – the first  $p\bar{a}da$  of the second  $adhy\bar{a}ya$  – the various rules dealing with nominal declensions. And the other partly generative grammars do the same.

The organization of generative rules according to topics certainly gives more visibility to the nominal inflexion thematic and is much more "learner friendly". In substance however, it does not entail any deep change in the wholly generative (Pāṇinian) system: the syntagmatic perspective is still there, and furthermore, paradigmatic sets do not arise in partly generative grammars either.

#### 4. Presentation of nominal declensions in pedagogical grammars

As mentioned earlier, the most drastic changes, in the presentation of nominal declensions, appear in grammars of the third category.

The topical arrangement of these works is generally very clearly structured. For instance in the  $R\bar{u}p\bar{a}vat\bar{a}ra$ , which dates back to the 10th–12th centuries AD, and which, as far as we know, is the most ancient pedagogical manual based on Pāṇinian rules which has come down to us, the section dealing with nominal declensions runs as follows:<sup>6</sup>

- aJanta-pumlinga-prakaranam || "Chapter on masculine [nominal stems] ending in vowels"
  - followed by the grammatical procedure for the declension of masculine stems ending in -a,  $-\bar{a}$ , -i, -i, -u, -r, -l, -e, -o, -ai and -au.
- atha\_aJanta-strīlinga-prakaraṇam || "Now, the chapter on feminine [nominal stems] ending in vowels"
  - followed by the grammatical procedure for the declension of feminine stems ending in  $-\bar{a}$ , -i,  $-\bar{i}$ , -u,  $-\bar{u}$ , -r, -ai and -au.
- atha\_aJanta-napuṃsakaliṅga-prātipadikāni || "Now, neuter nominal stems ending in vowels"
  - followed by the grammatical procedure for the declension of neuter stems ending in -a,  $-\bar{a}$ , -i,  $-\bar{i}$ , -u,  $-\bar{u}$ .
- haLanta-pumlinga-prakaranam || "Chapter on masculine [nominal stems] ending in consonants"
  - followed by the grammatical procedure for the declension of masculine stems ending in -h, -v and -r ( $ya\dot{N}$ ), -m and -n ( $\tilde{n}aM$ ), -dh, -j and -d ( $jha\dot{S}$ ), -th, -c, -t and -p (khaY),  $-\dot{s}$ ,  $-\dot{s}$  and -s ( $\dot{s}aR$ ).
- atha haLanta-strīlinga-prātipadikāni || "Now, [the chapter on] feminine nominal stems ending in consonants"
  - followed by the grammatical procedure for the declension of feminine stems ending in -h, -v, -r, -m, -h, -dh, -j, -d, -c, -t, -p, -s, -s and -s.
- atha haLanta-napuṃsakalinga-prātipadikāni || "Now, [the chapter on] neuter nominal stems ending in consonants"
  - followed by the grammatical procedure for the declension of neuter stems ending in -h, -v, -r, -m, -n, -j, -d, -c, -t, -p, -s and -s.
- *iti lingaviśiṣṭā haLantāḥ parisamāptāḥ* || "These were all [the nominal stems] ending in consonant [and] distinguished by gender"

<sup>&</sup>lt;sup>6</sup> Cf. Rangacharya's edition (1916-1927).

- *atha haLanteṣv aliṅga-prakaraṇam* || "Now, the chapter on genderless [nominal stems] ending in consonant"

- iti vibhakty-avatāraḥ || "This was the introduction [of nominal] endings"

As is obvious, the division into different subsections appears clearly. We note moreover that:

a. nominal stems are classified

b. stem ending associated with stem gender are used as criteria for nominal stems' classification

c. the subclassification of vocalic and consonantal stem endings is made according to the order of Pāṇini's sound catalog (akṣarasamāmnāya): a, i, u, r, l, e, o, ai, au, h, (y), v, r, (l),  $(\tilde{n})$ , m,  $(\dot{n})$ , (n), n, (jh), (bh), (gh), (dh), dh, j, (b), (g), (d), d, (kh), (ph), (ch), (th), th, c, (t), t, (k), p, s, s, s.

This classification of nominal stems, which is explicitly stated in the  $R\bar{u}p\bar{a}vat\bar{a}ra^7$  at the beginning of the chapter on masculine stems ending in vowels, is not the only significant innovation.

The text provides the detailed grammatical procedure to form the entire paradigm of *vṛkṣa*- ("tree"), a masculine stem ending in short -a. Step by step, the formation of the nominative singular, dual and plural, then the formation of the accusative singular, dual and plural, and so on up to the locative case, are explained (as well as the syntactic-semantic values of the cases) and relevant Pāṇinian rules are quoted in support. Once the grammatical procedure to form the entire paradigm of *vṛkṣa*- is over, a brief stanza gives again the whole paradigm.<sup>8</sup> Same thing with *kavi*- ("poet"), a masculine stem ending in short -i, and so on, up to *adas*-

<sup>&</sup>lt;sup>7</sup> sU au Jas iti prathamāḥ, am au T Śas iti dvitīyāḥ, Ṭā bhyāṃ bhis iti trtīyāḥ, Ne bhyāṃ bhyas iti caturthī, NasI bhyāṃ bhyas iti pañcamī, Nas os ām iti ṣaṣṭhī, Ni os sup iti saptamī | etāḥ sapta-vibhaktayaḥ prātipadikāt pare bhavanti | dvividhaṃ prātipadikam ajantaṃ halantaṃ ca | tat punaḥ trividhaṃ pumlingaṃ strīlingaṃ napuṃsakalingaṃ ceti | tatra ajanteṣu prātipadikeṣu pumlingeṣu prathamam akārāntāt vrkṣa-śabdāt sapta-vibhaktayaḥ pare yojyante | tat kathaṃ? [...] "sU au Jas [are the endings of] the first [case], am au T Śas [the one of] the second [case], Ṭā bhyām bhis [the one of] the third [case], Ne bhyām bhyas [the one of] fourth [case], NasI bhyām bhyas [the one of] the fifth [case], Nas os ām [the one of] the sixth [case], Ni os suP [the one of] the seventh [case]. These seven endings come after nominal stems. Nominal stems are of two kinds: those which end in a vowel and those which end with a consonant. [Nominal stems] are also of three kinds: masculine, feminine and neuter. In the case of masculine stems with a vocalic ending, the seven endings are first added to the word vṛkṣa-("tree") which ends in -a. How? [...]"

<sup>&</sup>lt;sup>8</sup> **vṛkṣas** tiṣṭhati kānane kusumitā **vṛkṣaṃ** latā saṃśritā **vṛkṣeṇa**\_abhihato gajo nipatito **vṛkṣāya** deyaṃ jalam | **vṛkṣād** ānaya mañjarīm abhinavāṃ **vṛkṣasya** śākhonnatā **vṛkṣe** nīḍam idam kṛtaṃ śakuninā he **vṛkṣa** kiṃ kampase || (p. 36).

<sup>&</sup>lt;sup>9</sup> Except that there is no "conclusive stanza" in that case (as well as in the following).

("that"), a neuter pronoun ending in -s. So we clearly have a presentation of nominal declensions according to *paradigmatic sets*.

Moreover, these paradigmatic sets are generally not limited to the declension of only one stem. One observes that a first paradigm, considered as the most representative, is explained in its entirety. Then follows the explanation of some other paradigms which are more or less distinct from the most representative one. A good example is provided by the paradigm set of masculine stems ending in short -*i*:

- a. first, the grammatical procedure to form the entire paradigm of kavi- ("poet" the most representative stem) is given, together with the Pāṇinian relevant rules;
- b. the grammatical procedure ends with the following indication: *evam agni-giri-hari-ravi-maṇi-prabhṛṭayaḥ* "the same [procedure] applies to *agni-* ("fire"), *giri-* "mountain"), *hari-* ("horse"), *ravi-* ("sun"), *maṇi-* ("jewel"), etc.";
- c. then the text says: *sakhi-śabdasya tu bhedaḥ* "But the word *sakhi-* ("friend") is different". And the forms of *sakhi-* which do not follow the *kavi-* paradigm are explained;
- d. after that, one observes the same thing with *pati* ("husband"): the special forms are explained and without much comment the whole paradigm is given, in the running text, in list form: [Nom.] *patiḥ*, *patī*, *patayaḥ* | [Voc.] *he pate*, *he patī*, *he patayaḥ* | [Acc.] *patim*, *patī*, *patīn* | [Instr.] *patyā*, *patibhyām*, *patibhiḥ* | [Dat.] *patye*, *patibhyām*, *patibhyaḥ* | [Abl.] *patyuḥ*, *patibhyām*, *patibhyaḥ* | [Gen.] *patyuḥ*, *patyoḥ*, *patīnām* | [Loc.] *patyau*, *patyoḥ*, *patiṣu* ||
- e. then the text goes on: *dvi-śabdasya bhedaḥ* "The word *dvi-* ('two') is different" and the special forms are explained;
- f. again: *tri-śabdasya bhedaḥ* "The word *tri-* ('three') is different" and the special forms are explained;
- g. two last words are given, including *kati* (interrogative pronoun "how much"); the special forms are explained and the text states: *anyatra kavi-śabdavat* "elsewhere (i.e. for the other cases), [the declension of *kati* proceeds] as in the case of the word *kavi*-."

This last mention obviously shows that pedagogical manuals function with an initial paradigm which serves as a basis for the other members of the set; the explanation is limited to what distinguishes the other members of the set from the initial paradigm, and only to that.<sup>10</sup>

In a later stage pedagogical grammars will follow the same presentation of nominal declensions, with an almost identical number and order of paradigmatic sets. Some texts are nevertheless more complete than others in that they quote all the Pāṇinian rules. This is the case of the *Siddhāntakaumudī*, in particular.

#### 5. About the emergence of paradigmatic sets in Sanskrit grammars

Data presented so far tend to demonstrate that the emergence of nominal paradigmatic sets lies in pedagogical grammars. I am still convinced of that. Two arguments can nevertheless be put forward to show the reverse, in other words, that pedagogical grammars did not bring anything new. Let us consider briefly these arguments.

The first argument is that we do find early traces of paradigmatic sets. Evidence comes both from outside and inside the grammatical field:

a. In the ritual sphere, to begin with, a domain which grammar is largely rooted in (cf. Renou 1941–42), some invocations are used for ritual purposes which contain the name of divinities inflected in all cases. A good illustration is provided by Yāska, in his *Nirukta* (a work providing an elucidation of the meaning of difficult Vedic words, the goal being to attempt to find out how a word comes to mean what it does), on p.132 (cf. Sarup's edition: 1998):

índro divá índra īśe pṛthivyāḥ | (nominative case)
índram íd gāthíno bṛhát | (accusative case)
índreṇa\_eté tṛ́tsavo véviṣāṇāḥ | (instrumental case)
índrāya sāma gāyata | (dative case)
na\_indrād ṛté pavate dhāma kíṃ caná | (ablative case)
índrasya nú vīṛyāṇi prá vocam | (genitive case)
indre kāmā ayaṃsata | 11 iti | (locative case)

<sup>&</sup>lt;sup>10</sup> Note that, in its principle, this way of explaining facts is not an innovation specific to pedagogical grammars. It is one of the characteristic features of the "scholastic spirit" of ancient India, which can be observed particularly in ritual and grammar (not only Sanskrit grammar).

<sup>&</sup>lt;sup>11</sup> The quotation is untraced.

"Indra rules heaven, Indra the earth.

The chanters [praise] very much Indra alone.

These Trtsus being active with Indra.

Chant the sāma-stanzas for the sake of Indra.

Without Indra, no place whatsoever is pure.

I will indeed proclaim the heroic exploits of Indra.

Our desires rest on Indra."12

These seven *mantras*, which are mainly verses extracted from Rgvedic hymns, begin with the name *indra* inflected in a different case and they are recited together, *as a set*. The initial intent was certainly not grammatical: using the name *indra* in all its inflected forms was, first of all, a way to exalt the divinity in all its aspects and then, to make the invocation more efficient (cf. Pinault 1989: 325). But the fact is that these series of *mantras* give, at a very ancient date, complete paradigms.<sup>13</sup> The brief stanza which gives the whole paradigm of *vṛkṣa*- in the *Rūpāvatāra* can be seen as a late echo of these series of *mantras*.<sup>14</sup>

b. Another evidence, though perhaps less direct, is the idea of a representative nominal stem  $(n\bar{a}yaka)$ , which one finds for instance in the  $Agnipur\bar{a}na$ , a theological text whose earliest layers date back to the 7th c. AD. There, the term  $\dot{s}raddh\bar{a}$ - ("faith") is used to denote feminine stems ending in  $-\bar{a}$ , the term  $nad\bar{i}$ - ("river") denotes feminine stems ending in  $-\bar{i}$  or  $-\bar{u}$ , and the term agni ("fire") denotes masculine stems ending in -i or -u (cf. Chatterji 1964: 62).

c. Finally, in the grammatical sphere, the evidence comes from glosses (*vṛtti*), which are generally transmitted along with wholly and partly generative grammars. In the case of Pāṇini's grammar, the most ancient complete gloss that came down to us – the *Kāśikāvṛtti* (KV) – dates back to the 7th c. AD, so it would have been composed long after the text it comments on. But, as I mentioned earlier, we suspect that oral glossing accompanies Pāṇini's text right from the beginning. In the case of Candra's grammar – the partly generative grammar I dealt with previously –, the gloss edited by Liebich (1966 [1918]) would have been composed by the author of the grammar himself<sup>15</sup> and then, probably transmitted along with the text right from the beginning. And the fact is

<sup>&</sup>lt;sup>12</sup> Sarup's translation (1998: 113).

<sup>&</sup>lt;sup>13</sup> The play on the various inflected forms of the name of a God is observed in Poetics as well (cf. Filliozat 1988: 90).

<sup>&</sup>lt;sup>14</sup> This kind of stanza is still used in modern Sanskrit manuals (cf. K.L.V. Sastry & L. Anantharama Sastri: 2000).

<sup>&</sup>lt;sup>15</sup> On this complicated issue see, among others, Timalsina (2022).

that, in their commentary on the rule which provides the list of nominal endings, these glosses give complete nominal paradigms:  $kum\bar{a}r\bar{\imath}$ - ("young gril", as a Ny-anta-pada "word ending in suffix  $N\bar{\imath}$ ", cf. A 4.1.1 on page 5),  $khatv\bar{a}$  ("couch", as an  $\bar{a}P$ -anta-pada "word ending in suffix  $\bar{a}P$ ", cf. A 4.1.1 on page 5) and drsad- ("rock", as a  $pr\bar{a}tipadika$  "nominal stem", cf. A 4.1.1 on page 5) in the KV, drsad- in the Candravrtti.

So nominal paradigmatic sets were known from and used by various scholars – among whom grammarians – at a relatively early date.

The second argument is that classes of nominal stems based on stem ending and on stem gender are already present in Pāṇini's grammar though not taught explicitly. Indeed, rules such as A 7.1.9 aTo bhisa ais "ais replaces bhis (i.e. the plural ending of the third case) after [a stem ending in] a" and A 6.1.111 rTa uT" [A single substitute vowel] short u replaces [both the stem-final] short vowel r [and the following initial short a of the fifth and sixth case endings in continuous utterance]" presuppose that some nominal stems end in -a, some other in -r, and that the grammatical operations they are subjected to are not the same. Same thing with gender: A 7.1.72 napuṃsakasya jhaL-aCaḥ "[The increment n is added after the last vowel] of a neuter [stem ending in] a non-nasal consonant or a vowel [before the strong sUP triplets]" implies that some grammatical operations are specific to neuter nominal stems.

To the first argument, one could reply that, indeed, paradigmatic sets were known and used at an early date. But they really enter the scene of grammatical description – that is to say as "official" *grammatical* or *language teaching tools* – with pedagogical grammars.

To the second argument, one could reply that, with the exception of feminine stems ending in  $-\bar{a}$  ( $\bar{a}P$ ), in  $-\bar{\iota}$  ( $N\bar{\iota}$ ) or in  $-\bar{u}$  ( $nad\bar{\iota}$ ), it's quite obvious that classes of nominal stems based on *both* the stem ending *and* the gender are not operative classes within Pāṇini's generative system. One cannot simply reduce variations in grammatical description to a mere matter of "arrangement", as already stated by Scharfe in his volume on Sanskrit grammatical literature (1977: 175): "Because so much in grammar is formal, it is not a meaningful critique of these works [i.e. pedagogical grammars] to say that 'they differ only in the arrangement of the material'."

If one is sensitive to this idea, one must concede that nominal paradigmatic sets in Sanskrit pedagogical grammars do constitute a grammatical innovation.

<sup>&</sup>lt;sup>16</sup> Note that *nadī*-covers feminine stems ending in  $-\bar{i}$  or in  $-\bar{u}$  (cf. A 1.4.3).

#### Abbreviations

A: Aṣṭādhyāyī

C: Cāndravyākaraņa

KV: Kāśikāvṛtti

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