

# A Controversial Provision for the Nominative Ending: Nominal Sentences and *Aṣṭādhyāyī* 2.3.46

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The present joint contribution offers a tentative comprehensive re-interpretation of Pāṇini's rule A 2.3.46, and shows how that rule teaches the application of the nominative ending without making use of the notion of "subject," a notion that belongs to other grammatical systems, but not to Pāṇini's. We discuss the controversial domain of some segments of its wording by attempting to adhere to Pāṇini's framework and his *usus scribendi*.

In particular, we read the first constituent of the compound *prātipadikārthaliṅgaparimānavacana-* as a genitive (*prātipadikasya*) depending on a dvandva made up of three constituents, i.e., *artha-*, *liṅga-*, and *parimānavacana-*, and we take *parimāṇa-* as denoting a quantity ('one', 'two', or 'many') that, combining with *vacana-* ('signifying'), is substantially equivalent to the concept of grammatical number in modern linguistics.

We finally show that our reading of A 2.3.46 is able to generate the nominative endings affixed to the subject and (nominal) predicate of a nominal sentence: as a consequence, nominal sentences might actually not have been neglected by Pāṇini.

## 1. INTRODUCTION

Nominal sentences, i.e., sentences where the predicate is realized as a noun phrase (or an adjective phrase), and not as a lexical verb, are commonly taken as being absent in Pāṇini's syntax.<sup>1</sup> By contrast, however, one would have expected them to be taught in the *Aṣṭādhyāyī*, since a particular type of nominal sentence—namely, the so-called "Vedic equivalences," such as *uṣā vā āśvasya médhyasya śīraḥ* "The head of the sacrificial horse is indeed the dawn" (BĀU 1.1)—occurs with frequency in the language analyzed in this grammar.

*Authors' note:* All translations are by the authors, unless explicitly stated otherwise. This paper is the result of joint research entirely discussed and shared by both authors. Just for the sake of academic requirements, §§ 1, 2.1-2, 2.4.1, 2.4.4-5, Appendix are attributed to Tiziana Pontillo and §§ 2.3, 2.4.2-3, 3, 3.1, 4 to Davide Mocchi. Our sincere gratitude goes to Maria Piera Candotti and Madhav M. Deshpande for commenting on a preliminary version of the present paper. We also wish to thank Stephanie Jamison for spending her time and generous attention on our proposal in all its phases. Finally, we should like to explicitly recognize our debt to the anonymous reviewer for the *Journal*, who corrected our numerous mistakes with rare kindness and competence, improved our translations of commentarial passages, and advanced insightful and thought-provoking comments that prompted us to strive to sharpen our argumentation: his/her precision will remain an inspiring model for us.

1. Indeed, in a broader perspective, a crucial problem in the *Aṣṭādhyāyī* "lies in the formulation—or rather, non-formulation of the sentence domain" (Hock 2014: 145) and in the absence of the concept of concord or agreement (Hock 2015: 8; P. Joshi 2015: 347–54). Cf. Cardona 1976a: 223–24; Deshpande 1980, 1985, 1987; Hock 2014: 143–45, 2015: 8. Moreover, there is controversy as to whether a zero-copula has to be understood in nominal sentences (Breunis 1990: 9; Bronkhorst 1990: 301) or not (Kiparsky 1982: 11; Deshpande 1987).

Our paper thus stems from our belief that grammarians did account for the formation of nominal sentences, and it attempts to question the assumed absence of this type of sentence in Pāṇini's grammar. In fact, the *kāraka*-system—the cornerstone of the Aṣṭādhyāyī—accounts for a number of syntactic generalizations, but not for the two fundamental relations between two inflected nouns, namely, that of co-referentiality (lit. “sharing the same substratum”—mentioned, e.g., in A 1.4.105 and 2.1.49)<sup>2</sup> and the relation conveyed by the genitive ending (which is instead dealt with in A 2.3.50). Therefore, Pāṇini makes “a basic distinction between a semantic relation between a noun and a verb on the one hand, and all other semantic relations on the other” (Sinha 1973: 34).

We will try to argue that the nominal sentence was encompassed by Pāṇini's syntax among these “other semantic relations” that do not combine a noun with a verb. A 2.3.46 is at the core of our argument: this rule, which is indeed “riddled with controversies beginning with Kātyāyana and ranging all the way down to modern times” (Deshpande 1987: 72), teaches the conditions with which a nominative ending must comply for it to apply to a nominal base.<sup>3</sup> It is currently translated as follows:

A 2.3.46 *prātipadikārthaliṅgaparimāṇavacanamātre prathamā*  
A first triplet of nominal endings occurs when only meaning of the stem, gender, measure or number is to be expressed. (Sharma 1987–2003, 3: 149)<sup>4</sup>

## 2. THE SEVERAL SEGMENTS OF RULE A 2.3.46

### 2.1. -vacana-mātra-

Despite the several tentative explanations advanced first of all in M 1.461 ll. 14–22 *ad* A 2.3.46, let us restart from the simple segmentation and analysis of the long compound (i.e., *prātipadikārthaliṅgaparimāṇavacanamātre*) included in this sūtra, in order to understand how each single constituent contributes to the overall meaning of the rule. We will begin from the end, by pondering on what *vacana* actually teaches.

The current interpretation of *vacana-* in rule A 2.3.46 is based on the conviction that *vacana-* can be a synonym for *saṃkhyā-*, i.e., that it can be used to denote ‘grammatical number’ (Cardona 1997: 156). There are only two occasions where the commentaries interpret *vacana-* as ‘grammatical number’, namely, *ad* A 1.2.51<sup>5</sup> and 2.3.46<sup>6</sup> and only once is it explained as *saṃkhyā-* in the M commentary and once in the KV. The first grammarian to

2. See below nn. 41, 43.

3. All the twenty-one basic nominal endings (distributed among seven triplets respectively conveying the sense of singular, dual, and plural number) are listed in A 4.1.2, and rules such as A 2.3.46 (mainly A 2.3.2, 13, 18, 28, 36, 50, 65) provide for the selection of particular triplets of these endings under stated conditions.

4. Cf. Cardona (2015: 62 n. 24): “[...] when there is to be signified nothing more than a base meaning and a gender, a measure, or a number.”

5. In a concise statement in verses (*kārikā*) and in Patañjali's relevant commentary (M 1.227 ll. 5–6 *ad* A 1.2.51; M 1.227 ll. 7–10; 1. 22 *ad* Vt 3 *ad* A 1.2.51) *vyaktivacane* is unequivocally paraphrased as *liṅgasamkhye*. Nonetheless, the term seems to be questioned in M 1.227 ll. 1–2 *ad* A 1.2.51, where *vacana-* is not understood in the rule as a technical term (*pāribhāṣika-*), but according to its etymological sense. KV *ad* A 1.2.51 explains *vyaktivacane* as *liṅgasamkhyayoḥ pūrvacāryanirdeśaḥ*, i.e., “a special way of mentioning gender and number used by the previous teachers.”

6. The interpretation of M 1.461 ll. 13–14 *ad* A 2.3.46 is undoubted: *idaṃ tarhi prayojanam ukteṣv apy ekatvādiṣu prathamā yathā syāt* “Then, the purpose might have been that the nominative ending is allowed to be used even though the condition of being one, etc., is already signified.” Cf. KV commentary on *vacana-* occurring in A 2.3.46: *vacanagrahaṇam kim. ekatvādiṣukteṣv api yathā syāt. ekaḥ, dvau, bahavaḥ* “Why is *vacana-* mentioned?”

take *vacana-* as a term for *saṃkhyā-* is Kātyāyana,<sup>7</sup> probably because of incorrect segmentation of *ekavacana-*, *dvivacana-*, *bahuvacana-*.<sup>8</sup>

Indeed, Joshi and Roodbergen (1982: 69 n. 16) point out that rule A 1.2.51 *lupi yukta-vad vyaktivacane* (“When a taddhita-affix is zero-replaced by LUP (A 1.1.61), the gender and number of the derived word conforms to that of the original word”—tr. Katre 1987) is assumed to “contain three peculiar terms,” i.e., *vyakti-*, *vacana-*, and *yukta-*, which are employed in a sense alien to Pāṇini’s usage, according to the relevant commentaries.

In point of fact, *vyakti-* occurs only once in the A, namely, in A 1.2.51, as noticed by Scharfe (2009: 198).<sup>9</sup> Elsewhere it occurs as a common term for a *śabdārtha-*, namely, “the single individual manifesting the relevant generic quality,” according to Joshi and Roodbergen (1986: 79 n. 294).<sup>10</sup> It is interesting therefore—as was already suggested by Scharfe 1965—to notice the occurrence of the term *jāti-* ‘class’ in the following sūtra (A 1.2.52). Moreover, *vacana-* regularly occurs in the A as the second constituent of compounds such as *maryādā-vacana-* “denotation of a limit” (A 1.4.89), *kṣipra-vacana-* “a word for denoting ‘quickly’,” to convey a semantic constraint.<sup>11</sup> In particular, it often combines with a *śabdārtha-* name, to form, e.g., *guṇa-vacaṇa-* (A 2.1.30; 4.1.44; 5.1.124; 5.3.58; 6.2.24; 8.1.12), *viśeṣa-vacana-* (A 8.1.74), *sāmānya-vacana* (A 2.1.55; 3.4.5; 8.1.73), which designate a class of words that respectively denote qualities, specific properties, and common properties.<sup>12</sup>

Thus, a perceptive reading advanced by Scharfe (1965: 243; 2009: 197–205) rejected the traditional interpretation of *vyaktivacane* as a dual dvandva in the sense of “gender and

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So that even though the condition of being one, etc., is already signified, such as in ‘one’, ‘two’, or ‘many’ (singular, dual, or plural), [the use of the nominative ending is allowed].”

7. We can see this, e.g., in M 1.422, l. 10 Vt 7 *ad* A 2.2.24, where *liṅga-* and *saṃkhyā-* respectively match *vyakti-* and *vacana-*: *vibhaktiyarthābhīdhāne ’dravyasya liṅgasamkhyopacārānupattiḥ* “If [a bahuvrīhi] conveys the meaning of a case-ending, the specific association with gender and number cannot be explained, since it does not denote an individual substance.” Cf. M 1.430 l. 10 *ad* A 2.2.29, where *liṅgavacana-* and *liṅgasamkhyā-* coexist in two contiguous sentences.

8. See below § 2.4.2 (A 1.4.102–3). The KV attributes this distinctive terminology to previous teachers (*pūrvācārya-*), while Thieme (1956: 2–4) considers that the interpretation of *vacana-* as ‘grammatical number’ only belongs to post-Kātyāyana literature, and Scharfe (1965: 245) judges that Kātyāyana shares the interpretation of later Pāṇinīyas. That the ancient occurrences of *vacana-* as ‘grammatical number’ are limited to the post-Pāṇinian literature is a fact. As a consequence, Scharfe (2009: 205) even considers the usage of *vacana-* as ‘number’ “to be a valuable criterion for the dating of old texts.” Furthermore, in the past the *Brhaddevatā* was assumed to include an occurrence of *vacana-* in the sense of ‘number’, because Macdonell’s edition (1904) includes the phrase *bhede vacanaliṅgayoh* “when there is a distinction of number and gender” in *Brhaddevatā* 1.43. However, this whole verse was expunged from Tokunaga’s (1997) edition. On the other hand, *Brhaddevatā* 4.107 rather employs the series of terms *ekavat-* ‘singular’, *dvivat-* ‘dual’, and *bahuvat-* ‘plural’ (picked out by Chatterji 1964: 151), which is dependent on *Nirukta* 2.24, according to Tokunaga 1981: 282 n. 32. To reconstruct the discussion about the dubious usage of *vacana-* in A 2.3.46, from Speijer (1886: 26 n. 1) onward, see also Cardona 1976a: 229 and the bibliography quoted there. Cf. also Joshi and Roodbergen 1981: 9ff.; Joshi and Roodbergen 1993: 88ff.

9. Nevertheless, the KV attributes the term to some predecessors of Pāṇini, and Chatterji (1964: 145) repeats this attribution.

10. In M *vyakti-* is opposed to *sāmānya-* ‘generality/commonality’ (M 1.145 ll. 25–26 *ad* A 1.1.57); it is opposed to *ākṛti-* ‘visible form/universal’ in the *Mīmāṃsā* literature (see, e.g., *Śābarabhāṣya ad Mīmāṃsā-Sūtra* 1.3.33), and to both *ākṛti-* ‘configuration’ and *jāti-* ‘universal/class’ in the *Nyāya* (see, e.g., *Nyāya-Sūtra* 2.2.59). Cf. Renou 1942: 101; Sarma 1957: 54–57; Abhyankar 1961: 373; D’Sa 1980: 84–97; Kumar 1981: 163; Deshpande 1992: 15, 20, 22; Scharf 1996: 153, 289; Pandurangi 2006: 120, 134ff.; Ganeri 2006: 20ff.; Roodbergen 2008: 398. In the A, *ākṛti-* does not occur, while *jāti-* is used in the sense of ‘class’; see Deshpande 1992: 15, 22.

11. As far as A 2.3.46 is concerned, Joshi and Roodbergen (1998: 80) also emphasize that “*vacana* is taken in the sense of ‘expressing’.”

12. Cf. Scharf 2009: 104–5.

number” and advanced a *tatpuruṣa* meaning, namely, “on condition that an individual is denoted.” This proposal was accepted by Wezler (1976: 367) and Thieme (1982: 9 n. 7), but Cardona (1976a: 196, 334 n. 203), Kiparsky (1979: 215 n. 9), Joshi and Roodbergen (1982: 88), Scharf (1996: 74 n. 78), and Cardona (1997: 594) continued to follow the traditional interpretation. In a similar vein, the standard reading of A 1.2.51 as “original base” (see, e.g., Katre’s translation above) interprets *yuktavat-* in a way that is incompatible with the twelve technical A occurrences of *yukta-*.<sup>13</sup>

Indeed *yukta-* is never used in the A as a simple noun standing for the ‘original base’<sup>14</sup> in a morphological or etymological sense. Rather it is always the second constituent of a compound<sup>15</sup> adopted in the wording of rules to teach a co-occurrence in the real syntax (ten occurrences) or in the matching *vigraha* of a *taddhita*-nominal stem (two occurrences). The pattern of these rules is something like this: “Let X and Y be two given units: Y applies in a stated syntagm or in a *taddhita*-derivative stem, provided that Y is *X-yukta-* (i.e., provided that Y co-occurs with, and is syntactically connected to, X).”<sup>16</sup> Thus, Pontillo (2009 [2010]: 150) proposed a new interpretation of *yuktavat-* in A 1.2.51, which we rephrase here as follows:

a denominal derivate X\* is ‘as if it were’ (*-vat*) a unit X (i.e., X\* is morphologically non-distinct from X), X being such that:

- X is included in a string Z (Z being the *vigraha* of X\*) that supplies the meaning of X\*, and

- X co-occurs with, and is syntactically connected to (*yukta-*), the other words of Z.<sup>17</sup>

For instance, A 4.2.82 teaches to derive the toponym *kaṭubadarī-* (denoting something “situated not far [*adūrabhava-*] from the *kaṭubadarī-*”) by applying the LUP-zeroing of the *taddhita* affix (taught in A 4.2.70: *adūrabhavaś ca*) to its etymon, i.e., to *kaṭubadarī-* (which is a plant name). Since the LUP-zeroing permits the newly formed derivate (i.e., *kaṭubadarī-*) to keep the feminine affix *-ī* (proper to the plant name),<sup>18</sup> such a derivate turns out to be morphologically non-distinct from the unit *kaṭubadarī-*. Now, the unit *kaṭubadarī-* (X), from which the homophonous *taddhita* *kaṭubadarī-* (X\*) is derived, is the *yukta*-unit, because

- X (*kaṭubadarī-* as a plant name) is included in the *vigraha* of the *taddhita* X\* (namely, *kaṭubadaryā adūrabhavo grāmaḥ* “village situated not far from the jujube tree”)<sup>19</sup> that supplies the derivational meaning of X\* (so that X\* is interpreted as a toponym);

- X (in the inflected form *kaṭubadaryāḥ*) co-occurs with, and is syntactically connected to, the words *adūrabhavo grāmaḥ* in this *vigraha*.

To sum up, gender and number features of LUP derivatives are de facto unquestionably involved in the commentarial examples; however, the semantic constraint *vyakti-vacane* (“on condition that an individual is denoted”) may rather have restricted the denotation of the

13. We are intentionally disregarding A 4.2.3 and A 4.2.66, as *yukta-* is not used as a grammatical term in either rule.

14. See Böhtlingk 1887: 18; Vasu 1891: 100; Renou 1947–54: 35; Cardona 1976a: 332 n. 192; Katre 1987: 44; Joshi and Roodbergen 1993: 88. Cf. Scharf’s (1996: 74 n. 78) translation of *yukta-*: “the object denoted by the pre-affixal base.”

15. It combines with the name of a nominal triplet (A 1.3.54; 1.4.9), with the name of a grammatical category (A 2.3.8), with one or more lexemes (A 2.3.4; 2.3.19; 2.3.29; 8.1.24; 8.1.30; 8.2.96), with a demonstrative pronoun or adverb referring to a previously taught semantic constraint (A 1.4.50; 5.3.77; 5.4.36).

16. See Pontillo 2009 [2010]: 147–49.

17. Cf. Scharf’s translation of *yuktavat-* (2009: 199): “is like the original that was joined with the suffix.”

18. The feminine affix *-ī* would instead have been zero-replaced if the LUK-zeroing of the derivational affix had applied.

19. See, e.g., KV *ad* A 4.2.82.

derivate *kaṭubadarī* to “the individual village” situated not far from the homonymous tree, without any reference to gender and number.<sup>20</sup>

The previous discussion illustrates that, besides A 2.3.46, *vacana-* is not used in the sense of ‘number’ in the *Aṣṭādhyāyī*: rather, it is a semantic constraint that can be rendered as ‘expressing’. Given that the lexical and syntactic environment within which *vacana-* occurs in A 2.3.46 is the same as in all the other surveyed A occurrences of *vacana-*, we conclude that *vacana-* is used in the sense of ‘expressing’ in A 2.3.46 too. In other words, we consider unjustified the postulation of the meaning ‘number’ for the use of *vacana-* in A 2.3.46.

Yet we still wonder what purpose the segment *-mātre* actually serves, since a simple locative applied to the whole string *prātipadikārthaliṅgaparimāṇavacana-* (i.e., *prātipadikārthaliṅgaparimāṇavacane*) would suffice to give a semantic constraint to the nominative ending affixation. We should recall that A 2.3.46 does not assign the nominative ending to any *kāraka*, even though it is almost the final part of section A 2.3 (A 2.3.2–45), whose target is the assignment of cases to the *kāra*kas. After teaching a substantial and consistent set of rules whose pattern is roughly as follows,

“when the *kāraka* Z is to be signified, the ending Y applies to the nominal stem X,”

Pāṇini enunciates a definitely different rule in A 2.3.46. Its schema is something like this:

“when nothing more is to be conveyed than what is explained in the remaining segments of the compound (*prātipadikārthaliṅgaparimāṇavacana-*), the nominative ending applies to the nominal stem X.”

In order to understand the content of this rule, we must therefore bear in mind that every *pada* inflected in any nominal ending can convey the signification mentioned as *prātipadikārthaliṅgaparimāṇavacana-*; i.e., such a signification is irrespective of the case-ending that will eventually apply to the nominal stem used. Now, whereas each of the other nominal endings (e.g., accusative, instrumental, locative) is used when the *prātipadikārthaliṅgaparimāṇavacana-* and something more are to be conveyed (for instance, the accusative is utilized when the *kāraka* *karman* is also signified), the nominative is used when only the *prātipadikārthaliṅgaparimāṇavacana-* is to be conveyed. In other words, A 2.3.46 teaches that the nominative applies to a nominal stem when no *kāraka*, and nothing but the pieces of information mentioned as *prātipadikārthaliṅgaparimāṇavacana-*, is to be conveyed.

We therefore propose that there are two steps in the conceptual process of case-marking each nominal stem (*prātipadika*). In the first step, what is mentioned as *prātipadikārthaliṅgaparimāṇavacana-* in A 2.3.46 is conveyed; at this stage of the case-marking process, no case-ending is yet assigned to the *prātipadika*. In the second step, there are two possible options to choose from:

i) the previous (A 2.3.1–45) and subsequent (A 2.3.47–73) rules apply, so that some additional signification is conveyed that is not already included in the *prātipadikārthaliṅgaparimāṇavacana-*; if this option is chosen, the *prātipadika* cannot receive the nominative, and will be marked with one of the other possible case-endings (e.g., accusative, instrumental, locative, etc.);

ii) no other rule of section 2.3 applies, and only what is referred to as *prātipadikārthaliṅgaparimāṇavacana-* is conveyed; if this option is chosen, the *prātipadika* takes on the nominative case-ending.

Since the first step described above is present in the case-marking process of every *prātipadika* that is to become a *pada*, and since this first step is essentially illustrated in A 2.3.46, A 2.3.46 could be considered as the starting point for the whole A 2.3 section.

20. See Pontillo 2009 [2010]: 150–53 on some consequences of this analysis.

On this view, the segment *-mātra-* serves a twofold purpose. Firstly, it assures that a pada inflected in the nominative does not bear any further denotation that is not included in the segment *prātipadikārthaliṅgaparimāṇavacana-*, in primis any kāraka signification. Secondly, *-mātra-* (indirectly) implies that the signification conveyed when the first ending is used is always conveyed whenever any other case-ending is used: such a signification is therefore shared by any pada inflected in any case-ending. To put it another way, the case-endings matching the kārakas (and the genitive ending), as taught by the relevant rules in chapter A 2.3, only apply if something exceeding the pieces of information mentioned in A 2.3.46 as *prātipadikārthaliṅgaparimāṇavacana-* has to be conveyed.

## 2.2. A Note on Pāṇini's kāraka System

Now it might be preliminarily useful to focus on the pattern of assignment of a case-ending that also signifies a kāraka, in order to pinpoint some crucial basic operational features. As is well known, the whole chapter A 2.3 is governed by the following heading rule:

### A 2.3.1 *anabhihite*

[A nominal ending occurs only] when [what this ending signifies] is not [otherwise] signified.

What does the *anabhihite* constraint really mean? We will try to understand it by recalling how the first rule included in the section governed by this heading rule (A 2.3.1) actually works. Indeed, A 2.3.2 (*karmaṇi dviṭyā*) teaches that the second triplet of nominal endings (i.e., the accusative) applies “in order to signify a karman (‘patient’),” provided that a karman is not otherwise signified (*anabhihite*). For instance, an accusative ending can apply, e.g., to *puroḍāśa-* ‘cake’ in a sentence such as

[1] *devadattaḥ puroḍāśam pacati*  
Devadatta is baking a sacrificial cake.

Indeed, the karman of the action *pac-* ‘to bake’ is not otherwise signified. And how could this kāraka be otherwise signified, to prevent the speaker from using this specific nominal ending? A karman is frequently signified by a verbal ending. In fact, A 3.4.69 (*laḥ karmaṇi ca bhāve cākarmakebhyah [kartari]*) teaches that verbal affixes<sup>21</sup> apply to a verbal base

- i) when an agent (kartr) or a patient (karman) has to be signified,
- ii) and when an agent or the mere action has to be signified, but only when an objectless verbal base is used.

In a sentence such as [2], the verbal ending *-te* of the present passive form *pac-ya-te* denotes the patient (karman) of the action ‘to bake’.

[2] *devadattena puroḍāśah pacyate*  
A sacrificial cake is being baked by Devadatta.

Although less frequent, a primary derivative affix (kṛt),<sup>22</sup> such as the gerundive affix *-ya*, regularly denotes a karman in the framework of Pāṇini's grammar, in accordance with A

21. More precisely the ten abstract L-affixes deputed to convey the several verbal tenses and moods, which are mere place-holders to be replaced (A 3.4.77: *lasya* ‘in the place of an L-affix’) by the actual (substitute) verbal endings. The list of the basic six triplets of verbal endings that replace any L-affix is given in A 3.4.78. Verbal sets of endings are classified according to voice, person, and number in A 1.4.99–108.

22. Pāṇini's commentators, from Kātyāyana (M 1.441 l. 20 Vt 5 ad A 2.3.1) onward, maintain that a secondary affix (taddhita) and a compound (samāsa) could also signify a karman. They are sometimes followed by modern

3.4.70. For instance, in [3] the primary affix *-ya* denotes the karman of the action of studying (*adhī-*).

[3] *brāhmaṇena yajur adhyeyaṃ*

The formula has to be studied by the Brahmin.

In general, as summarized by Cardona (1997: 155) on the basis of A 2.3.1, “the expression of *kāra*kas by nominal endings is made subordinate to their expression by verbal affixes” (cf. Cardona 1974: 249). Thus, the triplets of endings taught under this heading rule (which is a restriction) can only apply if the several *kāra*kas mentioned in the relevant rules are not otherwise signified. Therefore, A 2.3.1 generally prevents the speaker from using a grammatical form to signify a *kāra*ka if it is already otherwise signified (*abhihita*), i.e., “every *kāra*ka must be expressed (*abhihita*) by a morphological element, and none can be expressed by more than one” (Kiparsky 1995: 64). In particular, for example, an accusative triplet can apply in [1], where the verbal ending *-ti* conveys the sense of agent (karṭṛ), but it cannot apply in either [2] or [3], where the verbal ending *-te* (in the passive form *pacya-te*) and the primary affix *-ya* already convey the sense of the karman *kāra*ka.

However, we have not yet defined the role of the nominatives *devadattaḥ* in [1] and *puroḍāśaḥ* in [2]. We will try to do this without resorting to the additional devices supplied by the later commentarial literature.<sup>23</sup> Let us start with the segmentation of the compound *prātipadikārthaliṅgaparimāṇavacana* contained in A 2.3.46.

### 2.3. Segmentation of the Rule’s Wording

Speijer (1886: 26 n. 1), Thieme (1956: 2), Kiparsky and Staal (1969: 114), Bronkhorst (1979: 151), and Deshpande (1990: 38)<sup>24</sup> translate the whole rule as if *prātipadikārtha* were an *upasarjana* genitive constituent that combines with *liṅga-parimāṇa-vacana-*: “The first case only serves to signify the gender and number of the thing designated by the word’s rude form or *prātipadika*” (Speijer 1886: 26 n. 1).<sup>25</sup> In contrast, our approach consists in reading the segment *prātipadikārthaliṅgaparimāṇavacana-* as a tatpuruṣa made up of a first genitive constituent (*prātipadikasya*) combining with a dvandva (as its second constituent), which encompasses three sub-constituents: *artha-*, *liṅga-*, and *parimāṇavacana-*. Now, *artha-* is what is denoted, i.e., the ‘meaning’,<sup>26</sup> while *liṅga-* is the (grammatical) ‘gender’. Thus, if

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interpreters of rule A 2.3.1, e.g., by Katre (1987: 138) and by Sharma (1987–2003, 3: 106), but, e.g., S. D. Joshi (1971: 110), Cardona (1997: 155), and Joshi and Roodbergen (1998: 5) do not adopt this unwarranted extension.

23. For instance, commentators explain such nominatives by resorting to the principle of co-referentiality (*samānādhikaraṇatva-*). However, no rule exists, in the whole A, that teaches that the nominative ending should be assigned on the basis of this principle. As a matter of fact, the *samānādhikaraṇatva-* principle is used in A 1.4.105–7, but only in order to teach how the first and second person verbal forms have to be selected (see below n. 43).

24. Note that Deshpande’s 1990 reading of A 2.3.46 (p. 38) is different from his 1992 reading (p. 15), which translates the rule as follows: “the nominative case affix is added to a nominal stem to denote the meaning of the nominal stem (*prātipadikārtha-*), gender, and number alone.” We are indebted to the anonymous reviewer for having pointed out to us this translation.

25. A dvandva made up of the following three constituents *prātipadikārtha-*, *liṅga-*, and *parimāṇa-* is assumed by Joshi and Roodbergen (1998: 80) and Scharf (2009: 105). The commentarial tradition also isolates the restriction *prātipadikārtha-* on the grounds that *uccaiḥ* ‘high, upward’ and *nīcaiḥ* ‘low, downward’ are indeclinables (*avyaya-*) and, consequently, apparently cannot be associated with gender and number (see M 1.461 ll. 2–3 *ad* A 2.3.46). By contrast, since, as indeclinables (A 1.1.37), their ending is indeed LUK-zeroed in accordance with A 2.4.82, it is as if these features were included in these indeclinable forms.

26. By translating the segment *-artha-* occurring in A 2.3.46 as ‘meaning’ (instead of ‘referent’ or ‘the thing designated’), we are implicitly assuming that the technical term for ‘referent’ in Pāṇini is not *artha-*. However, “the Sanskrit term *artha* conveys a broad range of meanings conveyed by the term ‘meaning’ though the range of ‘mean-

we temporarily suspend the interpretation of *-parimāṇavacana-*, our provisional translation of *prātipadikārthaliṅga-parimāṇa-vacana-mātre* is as follows:

“when nothing more than the meaning, the gender, and the *parimāṇavacana* of the nominal stem is to be conveyed.”

We can now come back to the announced problem (§ 2.1.2) of determining the role of the nominatives *devadattaḥ* in [1] and *puroḍāśaḥ* in [2]. Putting together what we have said so far, we know that the nominative ending applied to *devadattaḥ* in [1] does not signify the kartṛ because the kartṛ is already signified (*abhihita*) by the verbal ending *-ti* in [1]; we also know that the nominative applied to *puroḍāśaḥ* in [2] does not signify the karman, because the karman is already signified by *-te* in [2]. Therefore, *devadattaḥ* in [1] and *puroḍāśaḥ* in [2] only convey the meaning, the gender, and the *parimāṇa-vacana-* of the nominal bases *devadatta-* and *puroḍāśa-*, as required by A 2.3.46. We are in fact reading this rule as teaching that the nominative ending applies to the nominal base X when only the pieces of information mentioned as *prātipadikārthaliṅgaparimāṇavacana-* are to be conveyed, i.e., when nothing more than the meaning, the gender, and the *parimāṇavacana-* (which we have yet to translate) of the nominal base X is to be conveyed.

Under this reading of A 2.3.46, the assignment of the nominative case is not by any means dependent on the presence of a kāraka already signified by a verbal affix. In other words, no requirement exists, in A 2.3.46, that the nominal stem to which the nominative ending has to apply co-occur with a verbal affix that already signifies a kartṛ or a karman. However, such a requirement is assumed by some scholars, who maintain that “Pāṇini uses the nominative ending to express just any *abhihitakāraka*” (Joshi and Roodbergen 1975: vii; cf. Joshi and Roodbergen 1981: i). Following a proposal by Kātyāyana (see below, § 3.1), they claim that *asti* is understood in nominal sentences such as *vrkṣaḥ plakṣaḥ* “A Plakṣa (is) a tree”; in this way, the nominative affixed to both *vrkṣa-* and *plakṣa-* actually co-occurs with the verbal ending *-ti* (of the understood *asti*) that already signifies the kartṛ (cf., e.g., Cardona 1999: 191–93 contra Deshpande 1987 and 1991).

Since our interpretation of A 2.3.46 is able to generate nominative endings without appealing to any relation with kārakas, we will later try to account for the assignment of the nominative ending in nominal sentences without postulating any zero-copula.

## 2.4. *-parimāṇa-*

### 2.4.1. Short History of the Interpretation of *-parimāṇa-* in A 2.3.46

As far as the segment *-parimāṇa-* is concerned, the traditional Vyākaraṇa reading is anything but satisfactory, and even present-day translations of *parimāṇa-* in A 2.3.46 as ‘measure’ or as ‘grammatical number’ still merit further reflection. Its interpretation as ‘measure’ dates back to Patañjali’s commentary on A 2.3.46 (M 1.461 ll. 7–8):

*atha parimāṇagrahaṇam kim artham. droṇaḥ kharī āḍhakam ity atrāpi yathā syāt*

Then the mention of *parimāṇa* [has to be taken into account]. What is its purpose? That [the nominative ending applies, in order to obtain] for instance *droṇaḥ, kharī, āḍhakam*.

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ing’ in Western literature is not necessarily identical with that of the Sanskrit term *artha*” (Deshpande 1992: 1). In the A, *adhikaraṇa-* is the best candidate, in our opinion, to convey what is commonly called ‘referent’, even though, as is well known, *adhikaraṇa-* is also the name of a kāraka (A 1.4.45), explained as *ādhāra-*, i.e., ‘substratum’ or ‘locus’. In fact, this notion of ‘substratum’ in the sense of ‘the signified entity’ seems to be conveyed in all eleven occurrences of the term *adhikaraṇa-* in the A, even when it seems easier to translate it as ‘substance’ (*dravya-*), as in A 2.4.13 (cf. Deshpande 1992: 15).

The three mentioned examples are a masculine, a feminine, and a neuter noun respectively, all used to denote a measure of solids, mainly of cereals, with the special case of *droṇaḥ* which also denotes a wooden vessel. Kaiyaṭa's (eleventh century CE) commentary (*Pradīpa* 3.301 l. 7–303 l. 7 *ad M ad A* 2.3.46) is more explicit:

*droṇādayaḥ parimāṇa eva vartanta iti prātipadikāarthagrahaṇenaiva prathamā siddheti praśnaḥ. droṇa iti. yadā mānameyasambandhād vṛihyādau droṇādayo vartante tadā vyabhicārān nāsti meyasya prātipadikārthatvam*

'*droṇa-* and so on' are said to be used merely in the sense of 'a measure' (*parimāṇe*). The question is whether the first triplet (comprehending the three singular, dual, and plural nominative endings) is established merely by means of the mention of "the meaning of the nominal stem" (*prātipadikārtha-*).<sup>27</sup> When one says '*droṇa-*', if '*droṇa-* and so on' are used in the sense of 'rice and so on', because of the relation between the 'measure' (*māna-*) and 'that which has to be measured' (*meya-*), then "the condition of being the meaning of the nominal stem" (*prātipadikārthatva-*) does not belong to the *meya-* ('that which has to be measured') because it is not invariably present.

In this passage Kaiyaṭa wonders whether the fact that the (literal) meaning of a nominal stem X is conveyed is a necessary (and sufficient) condition for the nominative ending to apply to X. To answer this question, he analyzes the stem *droṇa-*, whose (literal) meaning is 'wooden bucket', i.e., a measure. He then observes that *droṇa-* can also denote the rice contained in (and thus measured by) the aforementioned wooden bucket, and—crucially—that *droṇa-* can be inflected in the nominative case even when it is used in the sense of 'rice'. Since *droṇa-* takes on the nominative ending when its (literal) meaning (namely, 'wooden bucket') is not conveyed, Kaiyaṭa concludes that the fact that the (literal) meaning of a nominal stem (i.e., *prātipadikārtha-* mentioned in A 2.3.46) is conveyed is not a necessary condition for the assignment of the nominative ending to that stem. What segment of A 2.3.46, then, permits *droṇa-* to receive the nominative case when it is used in the sense of 'rice', i.e., when something other than the (literal) meaning of *droṇa-* ('wooden bucket') is signified? The answer suggested by this passage is the following: since A 2.3.46 mentions the segment *parimāṇa-*, the fact that *droṇa-* is literally a *parimāṇa* (namely, a measure) suffices for the nominative to apply to it, regardless of whether *droṇa-* is actually used in its (literal) meaning or in the sense of 'rice', i.e., regardless of whether the so-called *prātipadikārtha-* of *droṇa-* is actually a measure (*māna-*) or something that has to be measured (a *meya-*). Therefore, in brief, the presence of the segment *parimāṇa-* in this rule is considered by the traditional interpretation of A 2.3.46 as being necessary to enable a nominative ending to apply to a nominal stem that does not convey the sense of the stem itself.<sup>28</sup>

Later on, the fact that *droṇaḥ*, which should literally denote a unit of measure (i.e., the wooden bucket), may also denote a measurable substance (e.g., the rice—*vṛihīḥ*), a sort of exception to the literal sense of the nominal stem *droṇa-*, was classified as a transfer to a figurative sense, read as a case of metonymic signification. Therefore, e.g., according to Jinendrabuddhi's (eighth century CE) commentary on the *Kāśikāvṛtti* (*Nyāsa* 2.204 ll. 23–26 *ad KV ad A* 2.3.46), the mention of *parimāṇa-* in rule A 2.3.46 aims at justifying the

27. We leave open the question as to whether *prātipadikārtha-* was used by Kaiyaṭa in the sense of "meaning of the nominal stem" or "referent of the nominal stem."

28. It is probable that Patañjali bases his interpretation on examples such as *palaṃ sūtram* "one measure (*pala-*) of yarn" (AŚ 2.15.41), where the syntactic agreement between the two inflected nouns implies that they must refer to one and the same object. It is also plausible that phrases such as *droṇo vṛihīḥ* "rice in the measure of a Droṇa," well documented in later Sanskrit grammars such as SK 532 (see *ghṛtam palam* in *Nyāsa* 2.204, here below), were actually in use in Patañjali's age, but we rather find compounds such as *vṛihī-droṇa-* (e.g., MBh 3.246.1ab).

nominative ending applied after any word used in a secondary meaning, i.e., in a meaning exceeding the *prātipadikārtha*:

*parimānagrahaṇāṅ ca yatra nimittād arthāntare so 'yam ity abhedasambandhāc śabdāḥ pravartate, tad upalakṣaṇārthaṃ veditavyam. tena parimāṇavad arthāntarabhūteṣv apy unmānādiṣu prathamā bhavati. ghṛtam palam, dīrgham kāṣṭham, śuklaḥ paṭaḥ, hasto muṣṭir vitastir ity evamādi siddham bhavati*

And the mention of *parimāṇa*- has as its purpose the indication of that range where a word is employed, for [some] reason, to convey a different meaning based on the relation of non-difference, as expressed in “this is that.” Therefore, just as in the case of a *parimāṇa*, so too in an *unmāna*, etc., as well, which have different meanings, the nominative occurs. Words such as *ghṛtam palam, dīrgham kāṣṭham, śuklaḥ paṭaḥ, hasto muṣṭir vitastir*, etc.,<sup>29</sup> are established.<sup>30</sup>

As both Thieme (1956: 9–10) and Kunjuni Raja (1965: 178) have pointed out, Jinendrabuddhi was the first commentator to make use of a technical term pertaining to the figurative sense (*lakṣaṇā*-) in a passage from the *Nyāsa* (2.204 ll. 27–28 *ad KV ad A* 2.3.46):

*tena parimānagrahaṇasyaivopalakṣaṇārthatā vijñāyate*

By this (the preceding discussion) it becomes recognizable that the expression ‘*parimāṇa*-’ itself has the sense of *upalakṣaṇa*- (‘suggestion’). (tr. Thieme 1956: 10)

Analogous terms such as *lakṣyārtha* ‘metaphoric sense’ and *lakṣaṇā* ‘figurative sense’ occur in the relevant explanations in the *Nyāsa*, *Pradīpa*, and *Uddyota* (eighteenth century CE), but Thieme’s emphasis (1956: 10) on a passage from Puruṣottamadeva’s *Bhāṣāvṛtti* (twelfth century CE) is more noteworthy in this regard. Based on the passage’s proposal to read *upacāra*- ‘metaphoric expression’ as a synonym for *parimāṇa*- (*Bhāṣāvṛtti* 82 l. 23 *ad A* 2.3.46), Thieme advances the following consideration: “Puruṣottamadeva implies that we want a special ruling for justifying predicative nominatives,” such as *siṃho māṇavakaḥ* “the young brahmin is a lion,” where *siṃhaḥ* conveys “not a ‘primary’ (*ādya*), but a ‘derived’ (*gauṇa*) sense” and means “something having certain qualities of a lion” (Thieme 1956: 7).

Nonetheless, this is a later interpretation. Speijer (1886: 27 n. 1) translates *parimāṇa*- as ‘grammatical number’ (“[...] it is not *vacana*, which here is carrying the meaning of grammatical number, but *parimāṇa*”), and Joshi and Roodbergen (1981: 23) consider “only Speijer’s explanation appears to be acceptable.” Thieme (1956: 8) translates *parimāṇa*-*vacana*- as ‘expression of number’, Kiparsky (1982: 6) as ‘number’; Deshpande (1987: 72) endorses Thieme’s interpretation, and Deshpande (1992: 15) translates *parimāṇa*- as ‘number’.

#### 2.4.2. *parimāṇa* in Other *Aṣṭādhyāyī* Occurrences (see appendix)

Indeed, *parimāṇa*- used in this specific sense of number appears to be a hapax in the A, but the grammatical number category is not completely disregarded by Pāṇini’s grammar, as the names of three sets of verbal and nominal endings quite clearly seem to show. In fact, these sets of endings are referred to as *eka*-, *dvi*-, and *bahu*-*vacana*- triplets, i.e., lit. as triplets

29. *ghṛtam palam* (where *ghṛtam* ‘sprinkled’ refers to the clarified butter that is sprinkled over the fire, etc., and *palam* is a specific name for a weight measure used in place of the measured substance) is “ghee in the measure of a Pala”; *dīrgham kāṣṭham* is “a long piece of wood,” and *śuklaḥ paṭaḥ* is “a white cloth.” In both *dīrgham kāṣṭham* and *śuklaḥ paṭaḥ* a word expressing a quality (a *guṇa*-*vacana*), i.e., ‘long’ and ‘white’, refers to a substance (a *dravya*-*vacana*), respectively ‘a piece of wood’ and ‘a cloth’. *hastāḥ* ‘hand or forearm’ denotes a measure of length equivalent to the distance between the elbow and the tip of the middle finger; *muṣṭiḥ* ‘fist’ denotes a handful, i.e., the quantity of a substance that a fist can contain. Finally, *vitastih* ‘extension’ is a third measure of length, equivalent to the distance between the extended thumb and little finger or between the wrist and the tip of the fingers.

30. We owe the correction of this translation to the anonymous reviewer.

of endings “signifying one, two, and many.” Thus, they actually correspond to what is commonly called “singular, dual, and plural” endings. The relevant *saṃjñāsūtras*, where these three terms are taught, are as follows:

A 1.4.102: *tāny ekavacanavivavacanabahuvacanāny ekaśaḥ*

These units (i.e., [*tīnas trīṇi trīṇi* A 1.4.101] = the verbal triplets) taken one by one are called *ekavacana-*, *dvivacana-*, and *bahuvacana-* respectively;

A 1.4.103: *supaḥ*

[The nominal triplets called] *sUP* [one by one are called *ekavacana-*, *dvivacana-*, and *bahuvacana-* respectively].

By contrast, the word *saṃkhyā-* ‘reckoning, number’, found in twenty-seven A rules, is a name used for a lexical class that mainly comprehends numerals, i.e., nominal bases denoting numbers. In A 1.1.23 (*bahu-gaṇa-vatuḍati saṃkhyā-*), *saṃkhyā-* is taught as a technical term for *bahu-* ‘many’, *gaṇa-* ‘group’, and nominal bases ending with the affixes *vatuP* and *Ḍati*. The *vatuP* affix is added to *yad-*, *tad-*, *etad-*, and *kim-* by A 5.2.39 and 5.2.40 to denote a *parimāṇa*, while the *Ḍati* affix is added by A 5.2.41 to *kim-* to denote either a *parimāṇa* or a *saṃkhyāparimāṇa*.

Moreover, *parimāṇa-* and *saṃkhyā-* occur together as distinct nouns in A 5.1.19 and A 5.1.39, as co-ordinate constituents of a compound, employed to express the denotation of a nominal stem. Thus, the usage of *parimāṇa-* as a synonym for *saṃkhyā-* in Pāṇini’s grammar seems to be highly improbable.<sup>31</sup> On the other hand, we must bear in mind that *saṃkhyā-* does not appear as ‘grammatical number’ in this grammar (as it does instead in its commentaries—see above nn. 5–8). We cannot therefore exclude the hypothesis that *parimāṇa-* may be a term encompassing the singular, dual, and plural number, used in this sense as a hapax.

Before surveying all the occurrences of *parimāṇa-* in Pāṇini’s grammar, we should specify that only the neuter noun *parimāṇa-* is found in the A. It can be formed, according to either

A 3.3.115: [*napuṃsake bhāve*] *lyuṣ ca*

or

A 3.3.117: [*napuṃsake*] *karaṇādhikaraṇayoś ca*

31. Both the M and KV *ad* A 5.1.19 emphasize the difference between *parimāṇa-* and *saṃkhyā-*, after reflecting on two other terms of measure, namely, *unmāna-* and *pramāṇa-*. The former commentary seems to comment on the same śloka included in the KV, but by quoting it in pieces and commenting on the single pieces step by step. The śloka is as follows: *ūrdhvamānaṃ kilonmānaṃ parimānaṃ tu sarvataḥ | āyāmas tu pramānaṃ syāt saṃkhyā bāhyā tu sarvataḥ* “*unmāna-* is indeed a measure of height. By contrast *parimāṇa-* is all-inclusive, and the extent should be *pramāṇa-*. But *saṃkhyā-* is completely outside (i.e., other than these).” With regard to this, see Sharma’s (1987–2003, 4: 442) translation of *parimāṇa-* as ‘a measure of a thing, all inclusive’ and Cardona’s (2013: 150) as ‘measuring in all directions’. Patañjali’s commentary (M 2.343 l. 23–244 l. 5 *ad* A 5.1.19) focuses on the necessity to include in A 5.1.19 both *saṃkhyā-* ‘number’ and *parimāṇa-*: *ūrdhvamānaṃ kilonmānaṃ. ūrdhvaṃ yan mīyate tad unmānam. parimānaṃ tu sarvataḥ. sarvato mānaṃ iti cātaḥ parimānam. kuta etat. pariḥ sarvatobhāve vartate. āyāmas tu pramānaṃ syāt. āyānavivakṣāyāṃ pramānaṃ ity etad bhavati. saṃkhyā bāhyā tu sarvataḥ. ātas ca sarvataḥ saṃkhyā bāhyā. bhedabhāvaṃ bravīty eṣā naiśā mānaṃ kutaś cana, “‘*unmāna-* is indeed a measure of height’. When height is measured, this is *unmāna-*. ‘By contrast *parimāṇa-* is all-inclusive’. And because there is a measure all-inclusive, therefore there is *parimāṇa-*. What is its etymology? *pari-* occurs in the sense of ‘being all-inclusive’. And the extent should be *pramāṇa-*. When a speaker’s intention aims at the extent, this becomes *pramāṇa-*. ‘But *saṃkhyā-* is completely outside’. And because *saṃkhyā-* is outside of all of these (the following is said:) ‘This (*saṃkhyā-*) denotes multiplicity, it is in no way a *māna-* (measure).’” In the introduction to the śloka in KV *ad* A 5.1.19, the definition of *unmāna-* focuses on weight, and thus differs from the definition explained in the śloka, which instead concentrates on height.*

[The primary derivative affix] *-ana* applies to a verbal base to form a neuter either as nomen actionis or as a nomen instrumenti et loci.

That said, we can now address the announced survey. Besides A 2.3.46, there are sixteen other rules in the A that involve the term *parimāṇa-*, including one that uses the derivative word *parimāṇin-* and one where the term only occurs because of the anuvṛtti. *parimāṇa-* always constitutes a semantic constraint, which nonetheless concerns rule output in only three cases. In accordance with rules A 3.3.20 and 3.3.66, kṛts such as *taṇḍulanicāya-* “a heaped measure of rice” and *śāka-paṇa-* “a handful of pot-herbs” are formed precisely as standard quantities (*parimāṇa*) probably useful in everyday life both in the bazaar and in ritual food-handling practices. A quantity (*parimāṇa*) is also denoted by the number of “handfuls of pot-herbs” (*śāka-paṇa-*) or of “heaps of rice” (*taṇḍulanicāya-*), i.e., by the combination of a number with the name of such standard quantities. Analogously, a *hāṭaká-*, i.e., ‘a fixed weight of gold’<sup>32</sup> (formed by applying the taddhita affix *-á* to the quasi-homophonous etymon *hāṭaka-* ‘gold’, endowed with initial high pitch [A 4.3.153]) is envisioned as a *parimāṇa*, namely, as the object used for establishing the value of a certain item.

In all the other thirteen rules, the *parimāṇa*-constraint serves as a criterion to restrict the class of lexemes subject to a given derivation or compounding. In fact, three of these thirteen rules (A 4.1.22; 5.1.19; 5.1.39) engender a lexical class made up of nominal stems that do not denote *parimāṇa*, i.e., that de facto are not names of a unit of measure such as *prastha-* or *āḍhaka-* involved in a quantitative assessment.

By contrast, in ten rules the *parimāṇa*-denotation of nominal stems positively ensures that they are available to be used in a given derivation or in compounding. Such tatpuruṣa compounds as *māsa-jāta-* “a one-month-old baby” (A 2.2.5) combine nouns denoting *parimāṇa* in the sense of a quantity (an extent of time) with nouns denoting beings characterized by this quantity; i.e., the *parimāṇa*—here one month of age—is a property held by the *jāta-*.

A 3.2.33 teaches the formation of kṛts, such as *prastham-pacá-* “[big enough for] cooking food whose weight is one *prastha*” (referring to something like a pot), where the *upapada* (*prastha-*) has to denote a *parimāṇa*, i.e., a specific quantity (here one *prastha*) that constitutes the weight of a certain substance.

The original nominal base of the taddhita derivatives formed in accordance with the rule *tad asya parimāṇam* (A 5.1.57) has to match the nominative *tad* (of this rule), qualified as *parimāṇam*. This means that the original nominal base has to denote a *parimāṇa-* in the sense of a quantity measured with the help of a given unit of measure (e.g., the *prastha-*, the *kuḍava-*, or the year [*varṣa-*]). This quantity (a height/weight/length/duration/extent/economic value) belongs to a substance that is referred to by (the possessive genitive) *asya* in the formula *tad asya parimāṇam*. Therefore, e.g., the original nominal base *prastha-* in the derivative stem *prāsthika-* (meaning ‘whose quantity is one *prastha*’) denotes the quantity of ‘one *prastha*’, which constitutes the weight of the referent of the whole nominal stem *prāsthika-*. Thus, the referent of *prāsthika-* in the noun phrase *prāsthiko rāśiḥ* is “a heap [qualified as] equal to one *prastha-*” (i.e., “whose weight is one *prastha-*”).

Analogously, the masculine noun *vārṣaśatikāḥ* denotes “[the (mythical) ‘sacrifice’ (*yajñam-*.)] whose quantity (duration) is a hundred years,” where the unit of measure is *varṣa-* ‘year’, but the *parimāṇa* (i.e., the duration of the sacrifice) is denoted by the whole nominal

32. As kindly signaled by the anonymous reviewer, such translations of the traditional example *hāṭako niṣkaḥ* (where *hāṭaka-* is formed according to A 4.3.153) as “A gold coin equal in weight to a *niṣka*” (Sharma 1987–2003, 4: 345) cannot be accepted: “[...] terms like *niṣka* are used in Pāṇinian sūtras to refer to weights (*parimāṇa*) of metals and not, as some scholars assume, to struck coins” (Cardona 2013: 161).

compound stem (*vārṣaśata-* “a hundred years”), which counts as the original nominal base of the taddhita derivative stem output. In the relevant rule (*tad asya parimāṇam*), this original nominal base matches the nominative *tad*, which is qualified as *parimāṇam*, while the possessive genitive *asya* specifies that the referent of the derivative stem *vārṣaśatika-*, namely, the sacrifice, is the possessor of that *parimāṇam*, i.e., of that duration of a hundred years denoted by (the original nominal base) *vārṣaśata-*.

In all the KV examples concerning rules A 4.3.156; 6.2.55; 7.3.17; 7.3.26, the original nominal base complies with this semantic constraint: it has to denote a quantity (*parimāṇa*) often expressed by means of a given unit of measure or its multiple, i.e., as “X *prasthas/niṣkas* (a specific weight of gold),”<sup>33</sup> etc. In the compound *dvisuvarṇa-dhanam* (A 6.2.55) “wealth consisting of two standard measures of gold,” *suvarṇa-* is assumed to refer to a unit of measure by means of which the weight of the gold is established.

According to A 5.2.39, the taddhita affix *-vat* applies to the (pro)nominal stems *yad-*, *tad-*, and *etad-* ending in the first triplet, provided that they denote a *parimāṇa*, to derive a taddhita stem in the sense of the genitive. In accordance with the traditional *vigraha*, the pronominal stem *etāvat-*,<sup>34</sup> for example, has to be analyzed as

*etat parimāṇam asya*  
This here (*etad-*) is its quantity.<sup>35</sup>

Therefore, the etymon *etad-* (which is also the original nominal base of the taddhita derivative stem *etāvat-*) plays the role of *parimāṇa* in the sense of a quantity or measure. The possessor of this quantity, expressed by means of the (possessive) genitive case *asya* (included in the phrase *tad asya* taught in the wording of A 5.2.39 because of the *anuvṛtti* from A 5.2.36), is the entity denoted by the whole derivative stem ending in the taddhita affix *-vat*.

Thus, in the following Vedic example *etāvad* is to be interpreted as “that whose quantity is this here” (RV 5.79.10a):

*etāvad véd uśas tvām bhūyo vā dātum arhasi*  
So much you ought to give, o Dawn, or more. (tr. Jamison and Brereton 2014)

To sum up, *parimāṇa-* always denotes a quantity in Pāṇini’s grammar, namely, a phrase made up of a unit of measurement and a number that multiplies that unit. Thus, *parimāṇa-* can be a weight (e.g., two *prasthas*), a capacity (e.g., one *drona*), a duration (e.g., a hundred years). When the number multiplying the unit of measurement is equal to one, the resulting quantity (e.g., one *drona*)—which is a *parimāṇa*—is indistinguishable from the unit of measurement itself. Then, when the quantity denoted by *parimāṇa-* is non-distinct from a unit of measurement, *parimāṇa-* can be said to be formed in accordance with A 3.3.117 (i.e., it can be considered as a *nomen instrumenti*): a unit of measurement can in fact be conceived of as an instrument or object by means of which a quantity is established. However, in all the other cases—i.e., when the quantity denoted by *parimāṇa-* consists of a unit of measurement multiplied by a number greater than one—the use of *parimāṇa-* cannot be directly traced back to A 3.3.117.

33. X stands for a number greater than or equal to one, which multiplies the unit of measure *prastha/niṣka-*.

34. The replacement of the final phoneme (here *-d*) in a pronominal stem (here *etad-*) with *ā* is taught by A 6.3.91.

35. Cf., e.g., the *vigraha* of *yāvat-* explicitly included in KV *ad* A 5.2.39: *yat parimāṇam asya yāvān*.

2.4.3. The Translation of *parimāṇa-* in A 2.3.46

Based on this result, we consider that the meaning of “expression of quantity” for the segment *parimāṇa-vacana-* in A 2.3.46 can now consistently be assumed. It definitely seems to convey the grammatical sense of ‘number’ (in this regard, let us recall that *saṃkhyā-* does not occur as ‘grammatical number’ in the A; see above § 2.4.2). In fact, we assume that the term *parimāṇa-* meaning ‘quantity’, used—as we have seen—in an almost technical manner in the other sixteen rules, is used in A 2.3.46 by Pāṇini as a sort of hyperonym for *eka-* ‘one’, *dvi-* ‘two’, and *bahu-* ‘many’.<sup>36</sup>

These three lexemes, inflected in the locative case, also constitute the *vidheya* of the following two rules, which provide “that a *bahuvacana* ending occurs if there are many (*bahuṣu*) things and that *dvivacana* and *ekavacana* endings occur respectively if there are two and one” (Cardona 1997: 151):<sup>37</sup>

A 1.4.21: *bahuṣu bahuvacanam*

A 1.4.22: *dvyekayor dvivacanaikavacane*

Thus, we consider that our research into Pāṇini’s *usus scribendi* finally provides traceable evidence to support the thesis that *parimāṇa-vacana-* actually conveys the meaning of ‘grammatical number’ (etymologically ‘expression of quantity’) in A 2.3.46. Therefore, our interpretation is somewhat different from Speijer’s (1886: 27 n. 1), since he uses *parimāṇa-*, instead of the whole segment *parimāṇa-vacana-*, to translate ‘grammatical number’.

As a consequence, our translation of *prātipadikārthaliṅgaparimāṇavacanamātre* is as follows:

when nothing more than the meaning, the gender, and the number (lit. ‘the expression of quantity’) of the nominal stem is to be conveyed

So, now that the meaning of *parimāṇa-* has finally emerged, let us return to a detail explained in § 2.3. With respect to the two translations compared by Joshi and Roodbergen (1981: 1),<sup>38</sup> we are following a third strategy in reading rule A 2.3.46.

In fact, we are not segmenting *prātipadikārthaliṅgaparimāṇavacana-* into *prātipadikārthaliṅga-parimāṇa-vacana-* “a base meaning and a gender, a measure, or a number” (cf., e.g., Cardona 2015: 62 n. 24), because we maintain that the notion of ‘number’ is conveyed in this rule by the segment *parimāṇavacana-*, and not by *vacana-*; this is consistent with the fact that *vacana-* is never used as ‘number’ in the *Aṣṭādhyāyī*, as was already seen above (§ 2.1).

Moreover, we also reject the particular segmentation of A 2.3.46 in which *artha-* is interpreted as ‘referent’, and *liṅga* and *parimāṇa-vacana-* as belonging to this referent, namely, *prātipadikārthasya + liṅga-parimāṇa-vacana-* (“to signify the gender and number of the

36. As a matter of fact, *eka-* (‘one’), *dvi-* (‘two’), and *bahu-* (‘many’) are nothing more than quantities: more precisely, they constitute a special kind of quantity known as “numerical quantities” (*saṃkhyāparimāṇa-*). In fact, they can all equally be considered as the answer to the question introduced by the interrogative pronoun *kīyat-* (‘how many’), which in A 5.2.41 is explicitly labeled as *saṃkhyāparimāṇa-* (translated as “measuring with the help of numerals” by Joshi and Roodbergen 1981: 1 n. 3). In this regard, let us recall that the lexeme *bahu-* ‘many’, which actually denotes a number greater than two, is also termed *saṃkhyā-* (‘number’) in A 1.1.23 (see above § 2.4.2).

37. The terms *bahuvacana-*, *dvivacana-*, and *ekavacana-* are taught in A 1.4.102-103. See above § 2.4.2.

38. “‘The first (case-ending is used) to merely convey the gender and number of the nominal stem meaning’ or ‘The first (case-ending is used to convey) the nominal stem meaning only, gender only, measure only and number only’.”

thing designated by the *prātipadika*”).<sup>39</sup> Indeed we maintain that this reading of the rule violates the *anabhihite* principle, which requires that whatever is signified by a certain nominal ending be only signified once. Let us examine this point using the phrase *nīlam utpalam* “blue nymphaea.” Our reasoning consists of two parts.

First, we show that *nīlam* and *utpalam* are co-referential in the analytical phrase *nīlam utpalam*: the overall optionality between compounds and their meaning-equivalent strings made up of two inflected words (A 2.1.4)<sup>40</sup> implies that the relations holding at the level of a compound also hold at the level of the string matching this compound (and the other way around). Now, *nīlam utpalam* is the string matching the karmadhāraya-compound *nīlotpalam* “blue nymphaea,” whose constituents (i.e., the stems *nīla-* and *utpala-*) are co-referential in compliance with A 2.1.49.<sup>41</sup> Hence, the co-referentiality relationship holding between *nīla-* and *utpala-* in the compound *nīlotpalam* must also obtain between *nīlam* and *utpalam* in the phrase *nīlam utpalam*.

Second, we illustrate that the number of the referent of the nominal stem *nīla-* (or *utpala-*), to which the nominative ending applies to yield the pada *nīlam* (or *utpalam*), is signified twice in the phrase *nīlam utpalam* (“blue nymphaea”): according to the segmentation of A 2.3.46 at issue here, in *nīlam utpalam* the number of the referent of the stem *nīla-* (‘blue’) is expressed via the merger of the nominative case-ending *-m* with *nīla-*, while the number of the referent of the stem *utpala-* ‘nymphaea’ is signified via the merger of the nominative case-ending *-m* with *utpala-*. Since the padas *nīlam* and *utpalam* are co-referential in the phrase *nīlam utpalam*, the stems *nīla-* and *utpala-* involved in this phrase are also co-referential, under the reasonable assumption that the stem of a pada inflected in a certain case denotes the same referent as that pada. Hence, the number of the referent of *nīla-* and the number of the referent of *utpala-* are one and the same thing in the phrase *nīlam utpalam*. A violation of the *anabhihite* principle then ensues, because one and the same grammatical piece of information (i.e., the number of the referent of the nominal stem *nīla-/utpala-*) is signified by two different morphological elements (namely, by the merger of the ending *-m* with *nīla-* on the one hand and by the merger of *-m* with *utpala-* on the other).

The problem represented by *nīlam utpalam* (“blue nymphaea”) can be immediately solved by our segmentation of A 2.3.46: *prātipadikasya + artha-liṅga-parimāṇavacana-* “the meaning, the gender, and the number of the nominal stem.” Such a segmentation takes *parimāṇavacana-* in A 2.3.46 as referring to the number of the *prātipadika* (and not to the number of the referent of the *prātipadika* itself):<sup>42</sup> hence, the merger of the nominative end-

39. Cf., e.g., Speijer’s (1886: 26 n. 1) already mentioned translation, which we repeat here for convenience: “The first case only serves to signify the gender and number of the thing designated by the word’s rude form or *prātipadika*.” On the distinction between *artha-* and *adhikaraṇa-* in the A, see above n. 26.

40. In fact, we stand with Kiparsky (1979: 39) and Radicchi (1988, 2: 56–58), who consider that the preferable option signaled by *vā* in A 2.1.18 has to be continued by ordinary *anuvṛtti* in the following compounding rules up to A 2.2.9.

41. A 2.1.49: *pūrvakālaikasarvajaratpurāṇanavakevalāḥ samānādhikaraṇena* “[A nominal pada signifying] something that is preceding in time or *eka-* ‘one’, *sarva-* ‘all’, *jarat-* ‘old’, *purāṇa-* ‘ancient’, *nava-* ‘new’, and *kevala-* ‘alone’ combines with [a nominal pada] that is co-referential [to form a tatpuruṣa karmadhāraya compound].”

42. If A 2.3.46 mentions the number of the nominal stem (rather than the number of the referent of the nominal stem), this rule appears to govern some well-known discrepancies, such as that between the masculine plural noun *dārāḥ* and its feminine singular referent, i.e., ‘wife’, since the grammatical number of this nominal stem is correctly masculine plural. Analogously, some *taddhita*-LUP examples, such as the plural *pañcālāḥ* ‘the inhabited country’ that is the place of residence of the *Pañcālas*’ denoting a singular *janapadaḥ* ‘an inhabited country’ according to A 4.2.81 or the usage of singular class names such as *brāhmaṇaḥ* used to denote the whole group of the *brāhmaṇas* according to A 1.2.58, can be immediately accommodated within our reading of A 2.3.46.

ing *-m* with *nīla-* signifies the (grammatical) number of the prātipadika *nīla-*, whereas the merger of the nominative ending *-m* with *utpala-* expresses the (grammatical) number of the prātipadika *utpala-*. Since no information results as being expressed by two different morphological elements, no violation of the *anabhihite* principle arises.<sup>43</sup>

However, we wonder why such a simple reading of *parimāṇavacana-* as ‘number’ was traditionally discarded in favor of the more complicated and sophisticated interpretation explained above (§ 2.4.1). Indeed, the general pattern of the commentarial interpretation of A 2.3.46 is far more complex, because at least Patañjali explicitly singled out the mention of the grammatical number in this rule, namely, in the isolated segment *vacana-*.<sup>44</sup> It is therefore only natural to wonder on what data he grounded his alternative sophisticated reading of *parimāṇavacana-*. In fact, Patañjali’s interpretation of *parimāṇa-* in A 2.3.46 is consistent with all the occurrences of this term in Pāṇini, since *droṇaḥ*, *khari*, and *ādhakam* are units of measurement Pāṇini often mentions. Nevertheless, Patañjali does not understand Pāṇini’s use of the segment *-parimāṇa-vacana-* as a hyperonym for the three terms *ekavacana-* ‘singular’, *dvivacana-* ‘dual’, and *bahuvacana-* ‘plural’, a use that remained confined to A 2.3.46, and disappeared without trace in the rest of the Vyākaraṇa literature.

#### 2.4.4. A Couple of Eccentric Usages of *parimāṇa* in the *Mahābhāṣya*

However, in the reading of a single rule, namely, A 5.2.39, according to which the affix *-vat* applies to the pronominal stems *yad-*, *tad-*, and *etad-*, provided that they denote a *parimāṇa*, Patañjali (M 2.379 ll. 3–5 *ad* Vt 1 *ad* A 5.2.39) raises the issue of *parimāṇa-* being different from *pramāṇa-* as understood in earlier rules, and then quotes with apparent approval Kātyāyana’s text:

*vatupprakaraṇe yuṣmadasmadbhyāṃ chandasi sādrśya upasaṃkhyānam*

43. The same reasoning arguably extends to the verbal domain. In fact, we already know that the referent of, e.g., an active verbal affix is the karṭṛ (see § 2.2); moreover, we learn from A 1.4.105 (*yuṣmady upapade samānādhikaraṇe sthāniny api madhyamaḥ*) and 1.4.107 (*asmady upapade samānādhikaraṇe sthāniny api uttamaḥ*) that the second person (*madhyamaḥ*) and first person (*uttamaḥ*) verbal triplets are co-referential (*samānādhikaraṇa-*) with a co-occurring (*upapada-*) second and first person personal pronoun respectively. Hence, given the verbal sentence *tvam krāmasi* ‘you are walking,’ the karṭṛ must be the referent of both the active verbal ending *-si* and the pronoun *tvam*: in other words, *tvam* informs us about the identity of the karṭṛ already signified by *-si*; i.e., *tvam* tells us who (or what) the karṭṛ is. Now the whole pronoun *tvam* inflected in the nominative expresses the number of the referent of the prātipadika *tvad-*, if the nominative ending is assigned to a prātipadika when the gender and number of the referent of this prātipadika are to be conveyed, as in Speijer’s (1886: 26 n. 1) interpretation of A 2.3.46; on the other hand, the L-affix *-si* arguably expresses the number of the referent of this affix itself. Since the pada *tvam* and *-si* are co-referential in the sentence *tvam krāmasi*, the prātipadika *tvad-*, involved in this sentence, and *-si* are also co-referential: therefore, the number of the referent of *tvad-* and the number of the referent of *-si* are one and the same thing in *tvam krāmasi*. But this means that one and the same grammatical piece of information (i.e., the number of the referent of *tvad/-si*) is signified twice (namely, by the pronoun *tvam* inflected in the nominative and by the L-affix *-si*), which results in a violation of the *anabhihite* principle.

However, no violation of the *anabhihite* principle arises in *tvam krāmasi* ‘you are walking,’ if our interpretation of A 2.3.46 is adopted: according to this interpretation, the nominative ending applies to a prātipadika when the number (and the gender and the meaning) of this prātipadika (and not the number of the referent of the prātipadika itself) is to be signified. Thus, the pronoun *tvam* inflected in the nominative signifies the (grammatical) number of the prātipadika *tvad-*, whereas the verbal ending *-si* attached to *kram-* expresses the (grammatical) number of *-si* itself. As a result, no information is being expressed twice. It is controversial whether the same reasoning could be extended to sentences that include a third person verbal ending, because the rule teaching how this ending applies to a verbal base (i.e., A 1.4.108: *śeṣe prathamah*) does not mention any specific co-referentiality and co-occurrence with any pada whatsoever.

44. See above n. 6.

In the section where *vatUP* (i.e., *-vat*) is taught, an additional statement [should be made saying that *vatUP* should apply] to the pronominal stems *yusmad-* and *asmad-* in Vedic, when the sense of similarity is to be expressed.<sup>45</sup>

The fact that Kātyāyana adopts the restriction *sādrśye* (“when the sense of similarity is to be expressed”) in the extension of a rule (A 5.2.39) constrained by *parimāṇe* reveals that, at least according to him, the sense of similarity is not incompatible with *parimāṇa*.

If we check the three *Rgveda* passages hinted at by Patañjali (M 2.379 ll. 3–5 *ad Vt 1 ad A 5.2.39*), we realize that they are actually consistent with this Vt, i.e., *-vat* is actually used in a comparative sense, like the quasi-homophonous (but indeclinable and with final udātta pitch) *taddhita* affix *-vāt*, taught in A 5.1.115–116:

RV 7.32.23: *nā tvā́vām anyó divyó ná pā́rthivo ná jā́tó ná janī́syate*

There is no other heavenly one like you, nor earthly; neither born, nor to be born.

RV 8.46.1: *tvā́vataḥ purūvaso vayám indra praṇetaḥ | smā́si [...]*

To such a one as you, [Indra,] you leader with many goods [do we belong] [...].

RV 1.142.2: *ghṛtāvantaṃ úpa mā́si mádhumantaṃ tanū́napat | yajñám víprasya má́vataḥ śaśamā́nāsya dāśúśaḥ*

[O Tanū́napat, measure out the ghee-filled, honey-filled] sacrifice of an inspired priest like me, [of the pious man who labors].

(tr. Jamison and Brereton 2014)

Patañjali’s final comment (M 2.379 l. 5 *ad Vt 1 ad A 5.2.39*) unequivocally points to a comparative sense, whereby the personal pronominal stems *yusmad* and *asmad* to which *-vat* applies denote a standard/benchmark, i.e., the qualitative version of a unit of measurement, used to establish a quality instead of a quantity:

*tvatsadrśasya matsadrśasyeti*

It means “of the one who is similar to you/to me.”

More generally, if we examine the Vedic usages of the pronominal stem *etāvat-*, for example, we realize that, in the following occurrences, its sense is definitely quantitative only in [b], be it used as an adjective (when it is not independent, but agrees with an explicit noun) or as a pronoun:<sup>46</sup>

[a] RV 10.132.4: [...] *tvám víśveṣāṃ varuṇāsi rájā | mūrdhā ráthasya cākan naítāvataínasāntakadhruk*

[...] you, Lord Varuṇa, are (now) King of all. As head (of all), you take pleasure in the chariot.

It is not by such a transgression (*enas-*) that (a man) is (called) “oath-breaker.”

[b] RV 5.79.10a: *etāvad véd uṣas tvám bhūyo vā dātum arhasi*

So much you ought to give, O Dawn, or more.

[c] RV 10.125.8 (= AVŚ 4.30.8): *ahám [...] pará ená prthivyaitāvatī mahinā sám babhūva*

Beyond this earth here—of such size in my greatness have I (Goddess Vāc) come into being.

45. We owe the correction of this translation to the anonymous reviewer.

46. It is noteworthy that a concurrent genuinely pronominal stem conveying a perspicuous qualitative sense, instead of the pronouns ending in *-vat* or *-at* taught in A 5.2.39–40, was actually unavailable. Indeed, *tādrś-*, *yādrś-*, *tyādrś-*, and *tādrśa-*, *yādrśa-*, *tyādrśa-* “such a one as that, like that, like that which” are deverbal derivative stems (A 3.2.60)—the literal sense being “which looks like this, etc.”—and *sadrś-*, *sadrśa-* are taught in A 2.1.31 as the second constituent of tatpuruṣa compounds such as *māṭṛsadrś-* “resembling the mother,” where *sa-* is a substitute for *samāna-* ‘equal’ (A 6.3.89).

[d] RV 7.100.1 (= TB 2.4.3.5): *nū márto* [...] *yó viṣṇava urugāyāya dāśat* | [...] *etāvantaṃ nāryam āvīvāsāt*

Now the mortal [...], if he does pious service to wide-ranging Viṣṇu, [...] will seek to attract here such a one, favorable to men.<sup>47</sup>

(tr. Jamison and Brereton 2014)

Therefore, one could postulate that A 5.2.39 also governs qualitative usages of the pronouns (such as *etāvat-*) taught by this rule. Nonetheless, the technical term *saṃkhyā-* assigned in A 1.1.23 to the nominal bases precisely ending with the taddhita-affix *-vat* taught in rule A 5.2.39 is an argument largely contra the qualitative interpretation of these formations in the A. The Vedic examples of *-vat* focused on here may instead have played a role in Kātyāyana's and Patañjali's interpretation of *parimāṇa-* in A 5.2.39 and in their choice of excluding a purely quantitative sense for *parimāṇa-* (the only one actually recognized by Pāṇini).

Moreover, Patañjali's conception of *parimāṇa-* is far from the strict sense of 'quantity' (used by Pāṇini) when he comments on Vt 2 *ad* A 1.3.1 (M 1.254 l. 10: *parimāṇagrahaṇam ca*), which is a proposal for integrating "a specific mention of the extent of each unit to be called *dhātu*" (Ogawa 2005: 83). Patañjali's commentary proposes *avadhi-* 'limit' as a sort of synonym for *parimāṇa-*,<sup>48</sup> so that we wonder whether this eccentric usage of *parimāṇa-* and the previous one, emerging in the context of A 5.2.39, are purely innovative (with respect to Pāṇini's lexicon) or already traceable in earlier sources. This is why we will have a look at the Śrautasūtra occurrences of *parimāṇa-* in the next paragraph, persuaded by Cardona (1999: 215–16) that there is a similarity between Pāṇinian language and that of the Śrautasūtras.<sup>49</sup>

#### 2.4.5 *parimāṇa* in Vedic Sources

Indeed, the two earliest occurrences of *parimāṇa*, in the *Lāṭyāyana-Śrautasūtra*, are perfectly consistent with Pāṇini's use of the term.

LŚS 1.4.23: *kaunḍapāyinatāpaścītatayor dvādaśāhe sutyeti viditvā parimāṇāhvānaṃ dhānañjayayā*  
In the Kaunḍapāyina and Tāpaścīta [*sattras*], according to Dhānañjaya, the invocation [should be] measured (i.e., "assigned a numerical value") after knowing that the Sutyā [pressing is going to be carried out] on the twelfth day.<sup>50</sup>

LŚS 7.9.6: *prastāvapratiḥāraṇidhanānām akṣara-parimāṇam sarvatra yathāyoni cikīrṣed vaicchandaseṣy anādeśe*

As far as the Vaicchandanda [*sāmans*] are concerned, in the absence of any rule one should measure (i.e., "should establish the quantity of") the syllables of the Prastāva, Pratiḥāra, and Nidhana according to the matrix (i.e., the basic verse) in every case.

In the later *Kātyāyana-Śrautasūtra*, *parimāṇa-* denotes a generic 'measure'/'measurement':

KŚS 1.3.13: *arthāt parimāṇam*

47. The concept of assessment conveyed by *yāvat-* (A 5.2.39) and *kīyat-* also seems to be qualitatively shaded in some Vedic contexts, such as AVŚ 8.7.12–13 (where the phrase *yāvatīḥ kīyatīḥ* [...] *ōṣadhīḥ* concludes a list of qualitatively different herbs) and AVŚ 7.31.1a (*yāvachreṣṭhābhīḥ* to be compared with *yācchreṣṭhābhīḥ* in RV 3.53.21a).

48. M 1.254 l. 11 *ad* Vt 2 *ad* A 1.3.1.

49. For a short *status quaestionis* about the chronological relationship between *Śrautasūtras* and Pāṇinian grammar, see Freschi and Pontillo 2013: 7–9, 67 n. 4, and bibliography quoted there.

50. Cf. Ranade's translation (1998: 39): "[...] should be uttered with the reference to the number (obtained by the enumeration) of the days on the understanding that the 'sutyā' pressing is going to be carried out on the twelfth day."

The amount [of any substance, when not prescribed expressly, should be decided] according to the requirement.

KŚS 4.3.8: *vidhiviśeṣaḥ karmaṇy eka-dvi-śabdaparimāṇa-dravya-devatā-guṇa-sāmānyebhyaḥ* (In the modificatory rites) the details of the rites are to be taken from the normal paradigm on the basis of the similarity of (the number, e.g.,) oneness, of twoness, similarity of number of syllables, similarity of oblation-substance, similarity of the deity, and similarity of attributes.

KŚS 22.1.16: *parimāṇe sarvam aviśeṣāt*

As regards the measurement, it is all, because no specification [is made].  
(tr. Thite 2006)

The less quantitatively oriented occurrence is KŚS 1.2.23:

*dr̥ṣṭe tatparimāṇam*

As regards what is seen [it is only for indicating that the other things are mystically] of equal importance with that [of the original]. (tr. Thite 2006)

Therefore, it seems undisputable that *parimāṇa-* basically denotes a ‘measure’ in the sense of a ‘quantity’, as is found later in the A—i.e., that there is a lexical continuum from these technical Vedic occurrences up to Patañjali’s interpretation of *parimāṇa-* in A 2.3.46, passing through all the A occurrences of the term (surveyed in § 2.4.2.).

However, in the quoted *Śrautasūtras*, explicit attention is also paid to the preliminary action (preceding every expression of a quantity) consisting in mapping something onto something else. This is demonstrated by the following meta-verse, where a verbal form of *pari-mā-* is employed in order to explain how the hymn itself was composed starting from Indra, the God to whom the hymn is devoted (ṚV 8.76.12):

*vācam aṣṭāpadīm ahām návasraktim ṛtaspr̥ṣam |  
indrāt pári tanvām mame ||*

An eight-footed nine-cornered speech that touches the truth—I have measured out its body because of Indra. (tr. Jamison and Brereton 2014)

There is a lack of any true systematic reference to a conventional unit of measurement like the one found in Pāṇini’s rules, but we do have an almost fuzzy involvement of a sort of benchmark/standard (e.g., Indra) on which a quantity is mostly established. As a consequence, we assume that such a use of the words linked to the verb *pari-mā-* in Vedic sources might partially explain why Patañjali was able, for example, to accept Kātyāyana’s proposal for extending the use of the taddhita affix *-vat* (applying to the pronominal stems *yad-*, *tad-* and *etad-*, provided that they denote a *parimāṇa-*) beyond Pāṇini’s rules, namely, by admitting a *parimāṇa-* constraint interpreted in a sense that is not strictly quantitative.

The use of the past passive participle *párimita-* meaning ‘limited’ in some Yajurvedic sources such as TS 7.3.1.4 proves most useful in justifying the otherwise completely idiosyncratic meaning of *avadhi-* ‘limit’ for *parimāṇa-* in Patañjali:

*átha bráhma vadanti párimitā vā ṛcaḥ párimitāni sāmāni párimitāni yájūṃṣy áthaitásyaivánto  
nāsti yád bráhma*

Then they repeat the Brahman. The Ṛc verses are limited, the Sāmans are limited, and the Yajuses are limited, but there is no end to the Brahman.<sup>51</sup>

51. *párimita* even seems to have become a technical entry in ŚBM 6.5.3.6: [...] *párimitā etā bhavānty áparimitā itarāḥ* “[...] these [formulas] are limited, the others unlimited.”

## 3. WHAT KIND OF NŌMINATIVES DOES A 2.3.46 REALLY TEACH?

On the basis of the present segmentation and analysis of the precise wording of A 2.3.46, our translation of the rule is as follows:

*prātipadikārtha-liṅga-parimāṇa-vacana-mātre prathamā*

A nominative triplet [applies to a nominal stem] when nothing more than the meaning, the gender, and the grammatical number of the nominal stem is to be conveyed.

Accordingly, the nominative case-ending applies to a nominal base X when just those three features of X are to be signified that are signified whenever any other case-ending applies to X (i.e., the meaning [*artha-*], gender [*liṅga-*], and grammatical number [*parimāṇa-vacana-*] of X).<sup>52</sup> When something more is to be conveyed (e.g., when the *karṭṛ* or the *karman* is to be signified), then the nominative cannot apply to X: for example, in the case in which the *karṭṛ* (which has not already been signified [*abhihita*] by the verbal ending or by a primary derivative affix) has to be expressed, the nominal base X will be marked by the instrumental case; if instead the *karman* (which—again—has not already been signified by the verbal ending or a primary derivative affix) has to be expressed, X will be inflected in the accusative case.

Thus, the noun inflected in the nominative never conveys the sense of the *karṭṛ* or of the *karman* in Pāṇini's system, nor is it defined as "the subject of a sentence."<sup>53</sup> Consistently, Pāṇini's nominative ending has been considered as the case to which "aucune valeur syntaxique n'est réservée" by Rocher (1964: 48), the "merkmallos" case by Gonda (1956: 296–97),<sup>54</sup> "the unmarked case" by Kiparsky and Staal (1969: 96), "the zero-case" by Cardona (1974: 244), a "residual" case by Deshpande (1980: 60), and again a "residual or default case" by Deshpande (1987: 72; 1991: 36). In this respect, we must be careful not to confuse the modern scholars' definition of the nominative as a "residual" case (acceptable insofar as we consider a *pada* inflected in the nominative as denoting the "zero level" of the *prātipadika*'s signification, to which the *kāra*kas triggering the other *vibhaktis* can then be added) with Pāṇini's definition of the genitive.

52. Cf. Faddegon 1936: 22: "the nominative expresses only that which is common to all the declinational *vibhaktis*."

53. Kiparsky and Staal (1969: 96) assume that "the subject is not explicitly stated by Pāṇini, but must be inferred from the rule which defines the Nominative as the unmarked case." On the basis of the comparison between, e.g., *devadattaḥ kusūlaṃ bhinatti* "D. is breaking the grain pot" and *devadattena kusūlo bhidyate* "the grain pot is being broken by D." (the two examples are proposed by Cardona 1974: 244–45), one could recognize the subject as the noun that is inflected in the nominative case as a rule, independently of the role of agent or patient it respectively plays. Nonetheless, Cardona (1974: 244–45) notices that there are Sanskrit usages that could not be explained in this manner, such as the opposition between *devadattena bhinnāḥ kusūlaḥ* "The grain pot was broken by D." and *kusūlena bhinnam* "The grain pot broke," where the agent is absent, so that the patient should be subject, but Sanskrit requires the instrumental instead of the nominative case. Indeed, no grammatical category actually corresponds to the concept "subject" in Pāṇini's grammar. See also Thieme 1956: 1; Al-George 1958: 46; Cardona 1976b; Deshpande 1987: 72–73; cf. Raster 2015: § 4.3.2.

54. A 2.3.46 was precisely what persuaded Gonda (1956: 297) to maintain that "a nominative of this character belonged already to the prehistoric stage of the I.E. family of languages," and that it was merely employed to mention the objects denoted by a nominal base, as "nothing else but an indication of a nominal idea" (p. 295). This perspective was also assumed by Jakobson (1936: 250).

In fact, Pāṇini teaches in A 2.3.50 that the genitive case-ending is deputed to convey a “residual signification,”<sup>55</sup> i.e., a kind of signification that is not taught anywhere in section A 2.3:

*ṣaṣṭhī śeṣe*

A sixth nominal ending (a genitive ending) applies after a nominal base when a residual [relation] is to be expressed.

His commentators consequently assert that in a phrase made up of a qualifier + a qualificand (inflected nouns), such as *rājñāḥ puruṣaḥ* (lit. “king’s man,” hence “royal servant”), there may be a risk of the “residual” genitive case applying to *puruṣa-*,<sup>56</sup> because the latter does not convey the pure *prātipadikārtha* but an additional sense (namely, the sense of a qualificand) and therefore should not be governed by rule A 2.3.46. Indeed, its specific sense of qualificand strictly depends on the modifier, i.e., on the genitive *rājñāḥ*.<sup>57</sup> While *rājñāḥ* alone conveys the sense of qualifier even in cases where its qualificand is absent, *puruṣaḥ* only conveys the sense of a qualificand when it occurs along with its qualifier.

We can thus capitalize on the fact that *puruṣaḥ* (unlike *rājñāḥ*), when it occurs in isolation, does not signify a meaning exceeding that of the *prātipadika puruṣa-* (more specifically, it does not signify the meaning of being a qualificand), to show how the affixation of the nominative ending to *puruṣa-* in *rājñāḥ puruṣaḥ* does not violate the requirement imposed by the segment *prātipadikārtha-mātre* of A 2.3.46. Our reasoning proceeds as follows.

First, we explicitly specify that what has to convey solely the meaning (*artha*), the gender (*liṅga*), and the grammatical number (*parimāṇa-vacana-*) of the *prātipadika puruṣa-* in order for the nominative ending *-s* to apply to *puruṣa-* is the merger of *puruṣa-* and *-s* (i.e., the pada *puruṣaḥ*). Second, we note that the sense of qualificand is not signified by the merger of *puruṣa-* and *-s* in the phrase *rājñāḥ puruṣaḥ*; rather, this sense is conveyed by the merger of the pada *puruṣaḥ* and the pada *rājñāḥ* (i.e., by the whole phrase *rājñāḥ puruṣaḥ*). Therefore, the merger of the *prātipadika puruṣa-* and the nominative case-ending *-s* in *rājñāḥ puruṣaḥ* only signifies the meaning (and the gender and the number) of *puruṣa-*. Last, we conclude that the affixation of the nominative ending to *puruṣa-* in *rājñāḥ puruṣaḥ* complies with (our interpretation of) A 2.3.46.

However, we still have to understand how A 2.3.46 can generate the nominative endings attached to the subject and predicate of a nominal sentence. These nominatives do not co-occur with a verbal ending, and are therefore used when no *kāraka* has already been signified (*abhihita*).

### 3.1. Nominatives That Are Not Co-Referential with *abhihita-kāraḥ*

The fact that seven out of eight of Kātyāyana’s Vārttikas on A 2.3.46 seem to point to an assumed nominal sentence meaning demonstrates that, at least at the historical Vārttika-level (third century BCE), the need to single out the co-referential noun–noun relation was then felt. Indeed, Kātyāyana first advances an additional statement aimed at including the purpose of signifying “the co-referentiality of inflected nouns” (*pada-sāmānadhikarāṇye*) into the wording of A 2.3.46 (M 1.461 ll. 23–24 Vt 1 *ad* A 2.3.46),<sup>58</sup> because this relationship of co-referentiality exceeds the pure *prātipadikārtha*. And the sole example Patañjali proposes in

55. Or, to use Cardona’s (1974: 247) words, “a relation in general.” Cf. on this point Dash (1994: 150).

56. In particular, Vt 3 *ad* A 2.3.50 is a proposal to add a prohibition of the genitive for the qualificand.

57. According to the commentators, the additional meaning of *puruṣaḥ* depends on the *vākyaṛtha* “sentence meaning,” namely, on the relation between *puruṣaḥ* and *rājñāḥ* here. See § 3.1.

58. *prātipadikārthaliṅgaparimāṇavacanāmātre prathamālākṣaṇe padasāmānadhikarāṇya upasaṃkhyānam*

his comment on this Vt is precisely a predicative structure, namely, *vīraḥ puruṣaḥ* (M 1.461 l. 26–462 l. 2 *ad* Vt 1 *ad* A 2.3.46). As Thieme (1956: 3) clearly explains, in such a structure “we have conveyed not only two notions (*vīra-* and *puruṣa-*) and their gender and number (by the ending *-s*), but also an additional idea, the idea of identification: we understand that the *puruṣa-* has the characteristics of a *vīra-*.”

M 1.461 l. 26–462 l. 2 *ad* Vt 1 *ad* A 2.3.46: *vīraḥ puruṣaḥ. kiṃ punaḥ kāraṇaṃ na sidhyati. adhikavāt. vyatiriktaḥ prātipadikārtha iti kṛtvā prathamā na prāpnoti. kathaṃ vyatiriktaḥ puruṣe vīratvam*

- “*vīraḥ puruṣaḥ.*”

- And what is the reason why this is not well established (i.e., there is the risk of not obtaining a nominative ending)?

- Because it (i.e., this meaning) is additional. After realizing that “the base meaning” (*prātipadikārtha-*) is exceeded,<sup>59</sup> the nominative ending could not obtain (*vīraḥ puruṣaḥ*).

- How has it (i.e., “the base meaning”) been exceeded?

- The ‘property of being brave’ [has been superimposed] on a ‘man’.

Later, Kātyāyana (M 1.462 l. 3 Vt 2 *ad* A 2.3.46: *na vā vākyarthavāt*) waives the proposed additional statement concerning the co-reference signification, explaining that the problem represented by the presence of co-referentiality can be dealt with by appealing to the notion of “sentence meaning” (*vākyārtha-*), and that there is therefore no need to tamper with the original wording of A 2.3.46. Vt 3 (M 1.462 l. 7 *ad* A 2.3.46) advances and rejects a new wording for the rule, basically because it is not fit for a sentence that does not include a lexical verb:

*abhihitlakṣaṇāyām anabhihite prathamāvidhiḥ*

If the rule were *abhihite* [*prathamā*] (i.e., the nominative ending applies when a *kāraka* has already been signified), [another] rule should teach *anabhihite prathamā* (i.e., the nominative ending applies when a *kāraka* has not already been signified).

But Vt 4 (*uktaṃ vā*) objects that, with regard to this, a statement has already been made, and Vt 5 (*abhihitānabhihite prathamābhāvaḥ*) explains that both when a *kāraka* has already been signified and when it has not already been signified, the nominative ending would obtain. Finally, Vt 6 proposes a new alternative wording for A 2.3.46:

*tīṃsamānādhikaraṇa iti cet tīṃ 'prayoge prathamāvidhiḥ*

If the rule were *tīṃsamānādhikaraṇe* (i.e., if the nominative ending should apply when it refers to the same entity that is denoted by a verbal ending), [another] rule should teach *tīṃ 'prayoge prathamā* (i.e., the nominative ending applies when a verbal ending is not used).

The proposal is eventually rejected once again, because, with regard to this, a statement has already been made by a previous Vt (*uktaṃ pūrveṇa*). Of course, we wonder what had already been stated—and where. The answer comes from Patañjali, who quotes the same example used for Vt 4 *ad* A 2.3.1 (*abhihite prathamābhāvaḥ*), also in his comment on Vt 4 *ad* A 2.3.46, i.e., *vṛkṣaḥ plakṣaḥ*: “Plakṣa (is) a tree.” Since Patañjali maintains that *asti* is understood in *vṛkṣaḥ plakṣaḥ*, he ends up claiming that the agent is already signified by the verbal ending *-ti* in *asti*, as explicitly stated in Vt 11 *ad* A 2.3.1.

*avakāśo 'karakam iti cen nāstir bhavanti paraḥ prathamapurūṣo 'prayujyamāno 'py asti*

*adhikavāt* “Since the rule of the nominative case is taught to convey *prātipadikārthalingaparimāṇavacanamātra*, the co-referentiality of inflected words should be added, because this is an additional meaning.”

59. See also Joshi and Roodbergen’s (1981: 35) translation: “the nominal stem meaning has become different.”

If (one says) it (i.e., the nominative ending) has scope because it lacks (i.e., does not express) a *kāraka*, (we say) no (because) the verb *as-* ‘to be’ followed by the present third person singular is understood even when it is not used.<sup>60</sup>

This is consistent with Kātyāyana’s innovative definition of a sentence (*vākyaṃ*) as *ekatiṅ* (M 1.367 l. 16 Vt 10 *ad* A 2.1.1), i.e., something “which has at least one and no more than one verbal form” (Deshpande 1987: 65). Therefore, Kātyāyana needs to adjust the nominal sentence to the pattern of his standard sentence, which compulsorily includes an (expressed or at least understood) verbal form. As a consequence, he teaches that the verb *as-* ‘to be’ has to be understood in these cases (M 1.443 ll. 5–6 Vt 11 *ad* A 2.3.1), but we should remember that the sentence as a linguistic unit “endowed with one verbal form” is not Pāṇini’s basic syntactic unit (see Deshpande 1987, 1991; Hugo 2017). By contrast, as Deshpande (1987: 75) already explains,

While it is possible to derive a purely nominal sentence without a finite verb, no finite verb can be derived in Pāṇini’s system without assuming its co-reference with at least an understood nominal.<sup>61</sup>

In fact, “Verbless sentences still have the logical form: Subject Predicate” (Deshpande 1987: 83).

Thus, bearing in mind that the copula *as-* is not involved in Pāṇini’s analysis of nominal sentences, we can now address the above-mentioned issue of the assignment of the nominative ending in (nominal) sentences such as [4], where no *kāraka* has already been signified (*abhihita*):

[4] *vīraḥ puruṣaḥ*  
The man is brave.

In accordance with A 2.3.46, the nominative applies both to the subject *puruṣaḥ* and to the predicate *vīraḥ*, when the meaning, the gender, and the number of the respective nominal stems are to be expressed.

Now, the traditional analysis of [4] maintains that the nominative ending should not apply to the stems *puruṣa-* and *vīra-* because the meaning of both these stems has been exceeded in this sentence. More precisely, the meaning of the prātipadika *puruṣa-* is deemed to be “exceeded” in [4] in that, while the meaning of *puruṣa-* is ‘man’, the meaning of *puruṣaḥ* would be ‘man qualified as brave’ (or ‘man on whom the property of being brave is superimposed’) in *vīraḥ puruṣaḥ*.<sup>62</sup> In the same way, the meaning of the prātipadika *vīra-* is considered as being exceeded in [4] in that, while the meaning of *vīra-* is ‘hero’, the meaning of *vīraḥ* in *vīraḥ puruṣaḥ* would be ‘hero qualifying a man’ (or also ‘hero from whom the property of being brave is transferred to a man’).<sup>63</sup>

However, it is the syntactic relation between the two padas that determines the assumedly additional meanings of *puruṣa-* and *vīra-*,<sup>64</sup> and this relation does not depend on either the

60. We owe the correction of this translation to the anonymous reviewer.

61. See above n. 43.

62. Cf. Joshi and Roodbergen’s note (1981: 36) about Vt 1 *ad* A 2.3.46: “‘brave’ appears as an extra feature in the man.”

63. We would like to point out that Kātyāyana’s Vt 1 does not specify whether the nominal stem meaning that has been exceeded is the meaning of the qualificand constituent (e.g., *puruṣaḥ* in the phrase *vīraḥ puruṣaḥ*), that of the qualifier (e.g., *vīraḥ* in the phrase *vīraḥ puruṣaḥ*), or that of both. On the contrary, Patañjali explicitly considers the qualificand as the only constituent whose nominal stem meaning has been exceeded.

64. Cf. Cardona 1974: 287: “this additional meaning is understood from the utterance, not from the bases them-

nominative ending or on A 2.3.46, as clearly emerges from Kaiyaṭa's commentary *ad M ad Vt 1 ad A 2.3.46 (Pradīpa 3.305 ll. 14–17)*:

*avadhāraṇārthān mātragrahaṇāt sambhodhane ceti jñāpakād vā 'dhikārthapratītau prathamayā na bhāvyaṃ. asti ca 'vīraḥ puruṣa' ityādau sāmānādhikaranyād viśeṣaṇaviśeṣyabhāvasya 'dhikasya pratītiḥ. na ca samāsavidhānam prathamotpattiliṅgaṃ, dvitīyādyantānam api vīraṃ puruṣam ānaye 'tyādau samāsadbhāvāt.*

Due to the mention of the word *mātra* in the sense of a restrictive determination, or due to the indication made by the rule *sambhodane ca*, when there is a perception of an additional meaning the first (i.e., nominative) case should not occur. And in [phrases] such as *vīraḥ puruṣaḥ* ("a brave man") the clear understanding of the additional condition of being qualifier and qualificand depends on their co-referentiality, and this compounding rule (A 2.1.57)<sup>65</sup> is not exclusively determined by the nominative ending, because of the existence of compounds of words ending in second (i.e., accusative) case, etc., as in "Bring the heroic man" (*vīraṃ puruṣam*), etc.<sup>66</sup>

As Joshi and Roodbergen (1981: 36) have already hinted, rules such as A 2.1.57 can be considered as an indirect piece of evidence that prevents us from adding special rules to teach "a meaning other than the *prātipadikārtha*" (which would thus violate the crucial restriction taught in A 2.3.46—see above § 2.1). In actual fact, A 2.1.57 implies that a relation between qualifier and qualificand holds within certain compounds; but owing to the overall optionality between compounds and their meaning-equivalent strings,<sup>67</sup> this relation must also hold outside compounding, provided that the two *padas* are co-referential, in accordance with the general requirement stipulated for *karmadhārayas* in A 2.1.49. Therefore, resting on the fact that "if the nominative endings are not permitted to convey this qualifier-qualified relation, which is an additional meaning, A 2.1.57 would be useless," we can conclude that "these endings are permitted to convey this relation" (*ibid.*).

Nonetheless, the "additional meaning" mentioned by Joshi and Roodbergen clearly cannot depend on the rule teaching the assignment of the nominative case, i.e., A 2.3.46, as this additional meaning is not exclusively conveyed by a pair of *padas* inflected in the nominative case. Indeed, it emerges each and every time two nominal co-referential *padas* are juxtaposed, irrespective of whether they are inflected in the nominative or in any other case-ending. We therefore expect the assignment of the nominative ending to the constituents of a nominal sentence such as *vīraḥ puruṣaḥ* ([4]), where the additional meaning in question (i.e., the relation between a qualifier and a qualificand) is actually present, to be compatible with A 2.3.46. The remainder of this section is dedicated to illustrating that, under our interpretation of the rule, this expectation is borne out. Our argument extends the commentarial explanation of *rājñāḥ puruṣaḥ* (see above § 3) to *vīraḥ puruṣaḥ*—given that in both these constructions the nominative *puruṣaḥ* is said to be "qualified" by the other constituent<sup>68</sup>—and is organized as follows.

First, we explicitly specify that, in A 2.3.46, what must express nothing more than the meaning (*artha-*), the gender (*liṅga-*), and the grammatical number (*parimāṇa-vacana-*) of a *prātipadika* X, in order for the nominative ending to apply to X, is the merger of the

selves"; Cardona 1999: 191: "the additional meaning in question is a meaning of the utterance, not of the nominal base."

65. A 2.1.57 *viśeṣaṇam viśeṣyeṇa bahulam* "A qualifier [inflected word] combines under various conditions with a qualificand [inflected word]."

66. Cf. Joshi and Roodbergen 1981: 35. We owe the correction of this translation to the anonymous reviewer.

67. See § 2.4.3.

68. The difference between being qualified by a *pada* inflected in the genitive case (as in *rājñāḥ puruṣaḥ*) and being qualified by a co-referential *pada* inflected in the nominative (as in *vīraḥ puruṣaḥ*) can be disregarded here.

prātipadika X with the nominative ending. In other words, we are interpreting A 2.3.46 as requiring that the merger of a prātipadika X (e.g., *puruṣa-*) with a nominative ending Y (e.g., *-s*)—and not the merger of two padas such as *vīraḥ* and *puruṣaḥ* in [4]—signifies nothing more than the meaning, the gender, and the grammatical number of the prātipadika X itself.

Second, we realize that *puruṣaḥ* only denotes a ‘man qualified as brave’ when it is co-referential with *vīraḥ*, and never when it occurs on its own. Likewise, *vīraḥ* only denotes a ‘hero qualifying a man’ when it is co-referential with the co-occurring pada *puruṣaḥ*, and never when it appears in isolation. More explicitly, in the nominal sentence *vīraḥ puruṣaḥ* (“the man is brave”), the merger of the nominative case-ending *-s* with the prātipadika *vīra-* (i.e., the pada *vīraḥ*) only signifies the meaning (i.e., ‘hero’ or ‘brave’), the gender (masculine), and the grammatical number (singular) of the prātipadika *vīra-*. Similarly, the merger of the nominative case *-s* with the prātipadika *puruṣa-* (i.e., the pada *puruṣaḥ*) only conveys the meaning (namely, ‘man’), the gender (masculine), and the grammatical number (singular) of the prātipadika *puruṣa-*. The crucial point here is that the merger of *-s* with *vīra-* (i.e., *vīraḥ*) expresses the meaning of ‘hero’, and not that of ‘hero qualifying a man’; by the same token, the merger of *-s* with *puruṣa-* (i.e., *puruṣaḥ*) conveys the meaning of ‘man’, and not that of ‘man qualified as brave’. By contrast, it is the merger of the padas *vīraḥ* and *puruṣaḥ* (i.e., what would be referred to as a “sentence” in other grammatical systems) that conveys the meanings ‘man qualified as brave’ and ‘hero qualifying a man’.

Third, we conclude that neither the merger of the nominative case affix with the prātipadika of the nominal sentence subject (e.g., *puruṣa-* in [4]) nor the merger of the nominative with the prātipadika of the nominal sentence predicate (e.g., *vīra-* in [4]) violates A 2.3.46, in our interpretation. We have indeed seen that there is no such additional meaning conveyed by *puruṣaḥ* alone (something like ‘man qualified as brave’) or by *vīraḥ* alone (e.g., ‘hero qualifying a man’) in a nominal sentence such as [4] (*vīraḥ puruṣaḥ*).

In short, let X be the prātipadika of the nominal sentence subject (e.g., *puruṣa-*), let Y be the nominative ending to be applied to X, let P be the prātipadika of the nominal sentence predicate (e.g., *vīra-*), and let Q be the nominative ending to be applied to P. We can then say that A 2.3.46 checks for the absence of an additional meaning in the merger of X and Y on the one hand and in the merger of P and Q on the other. By contrast, the additional meaning that purportedly features in nominal sentences according to tradition (e.g., ‘man co-referential with a hero’ in *vīraḥ puruṣaḥ*, [4]) is a property of the whole nominal sentence, namely, of the merger of X+Y+P+Q (e.g., *vīraḥ puruṣaḥ*, “the man is brave”). But A 2.3.46 never checks for the absence of an additional meaning in the whole block X+Y+P+Q. Therefore, this rule is insensitive to the additional meaning conveyed by X+Y+P+Q. To put it another way, A 2.3.46 can only detect such an additional meaning if it is present in X+Y alone (i.e., the merger of the nominal sentence subject’s prātipadika with the nominative ending), or in P+Q alone (i.e., the merger of the nominal sentence predicate’s prātipadika with the nominative ending), but not if it is present in X+Y+P+Q (i.e., the whole nominal sentence made up of a subject and a predicate).

#### 4. CONCLUSIONS

First, this paper has verified the interpretation of each segment of the wording of A 2.3.46 with the help of Pāṇini’s *usus scribendi*, without depending on the later commentarial readings. Second, it has tried to retrace the several steps in the historical interpretation of rule A 2.3.46. Finally, it has attempted to show how this rule, if interpreted along the lines suggested above, does not by any means hamper the formation of nominal sentences: accordingly, no

unreasonable indifference on the part of Pāṇini for this kind of syntactic structure needs to be postulated.

The two essential points that have emerged from the resulting revision of the rule are the following:

- the reading of the segment *prātipadikārthaliṅgaparimāṇavacana-* as a tatpuruṣa made up of a first genitive constituent (*prātipadikasya*) combining with the *dvandva arthaliṅga-parimāṇavacana-*;
- the fact that the nominative is not bound to express the pure *abhihita-kāraka* (as traditionally maintained), but can also be used when no *kāraka* is involved, as happens in nominal sentences.

## APPENDIX

	Rule	KV Examples	Denotation =
1.	A 3.2.33: <i>parimāṇe pacāḥ</i> [ <i>karmaṇi</i> 3.2.1 <i>khaś</i> 3.2.28] [Affix <i>KHaś</i> ] applies to the verbal base <i>pac-</i> ‘to cook’ when the verbal base co-occurs with a nominal pada ( <i>upapada</i> 3.1.92) which denotes a <i>parimāṇa</i> [as a <i>karman</i> ].	<i>prastha-m-pacā</i> ( <i>sthāli</i> ) “(a pot) that is big enough for cooking food equal in weight to one <i>prastha</i> ”; <i>drona-m-pacāḥ</i> “a frying-pan that is big enough for cooking food equal in capacity to one bucket/ <i>drona</i> (= unit of capacity).”	INPUT (unit of measurement or quantity)
2.	A 3.3.20: <i>parimāṇākyāyām sarvebhyah</i> [ <i>ghañ</i> 3.3.16 <i>bhāve</i> 3.3.18 <i>akartari</i> 3.3.19] [Affix <i>Ghañ</i> ] applies to all verbal bases [to denote an action noun and a <i>kāraka</i> other than <i>karṭr</i> ], provided that the deverbal derivative stem is a name for a <i>parimāṇa</i> .	<i>ekas taṇḍulanīcāyah</i> “one heap of rice/one heaped measure of rice”; <i>dvau śūrpaniṣpāvau</i> “two winnowing basketfuls of winnowed corn.”	OUTPUT (standard quantity or unit of measurement)
3.	A 3.3.66: <i>nityam paṇaḥ parimāṇe</i> [ <i>bhāve</i> 3.3.18 <i>akartari</i> 3.3.19] Affix <i>aP</i> (= <i>-a</i> ) obligatorily applies to the verbal base <i>paṇ-</i> ‘to barter, to trade’ [to denote an action noun and a <i>kāraka</i> other than <i>karṭr</i> ], provided that the deverbal derivative stem denotes a <i>parimāṇa</i> .	<i>mūlaka-paṇa-</i> “a handful of radishes,” <i>śāka-paṇa-</i> “a handful of pot-herbs” (as specific quantities for sale); counter-example: <i>pāṇaḥ</i> ‘trade’ or ‘hand’.	OUTPUT (standard quantity or unit of measurement)
4.	A 4.1.22: <i>aparimāṇabistācitakambalyebhyo na taddhitaluki</i> [ <i>ñiP</i> 4.1.5 <i>dvigoḥ</i> 4.1.21] [Affix <i>ñiP</i> ] does not apply [to a nominal stem consisting of a <i>dvigu</i> ] not ending in a word denoting a <i>parimāṇa</i> or ending in <i>-bista-</i> or <i>-ācita-</i> and <i>-kambalya-</i> when there is a zero-LUK-replacement of a <i>taddhita</i> -affix to derive a feminine <i>taddhita</i> stem.	<i>pañcāśvā</i> “purchased (f.) for five horses” ( <i>pañcabhir aśvaiḥ kṛitā</i> > <i>pañca-</i> + <i>aśva-</i> + $\emptyset$ <i>ṬhaK</i> + <i>ṬāP</i> - <i>ñiP</i> is prohibited because the nominal stem <i>aśva-</i> is not a <i>parimāṇa</i> ); cf. <i>dvyāḍhakī</i> “she who cooks something equal to two <i>āḍhakas</i> ”—where the nominal stem <i>āḍhaka</i> is a <i>parimāṇa</i> .	(PROHIBITION) INPUT (unit of measurement)

	Rule	KV Examples	Denotation =
5.	A 4.3.153: <i>jātarūpebhyah parimāṇe</i> [tasya vikārah 4.3.134 ān 4.3.152] [The taddhita affix <i>áN</i> (= <i>á</i> )] applies to the nominal stems that denote ‘gold’ to derive a taddhita stem [in the sense of “this is a transformation of that”] provided that it denotes a <i>parimāṇa</i> .	<i>hāṭakah</i> “a fixed weight of gold”; counter-example: <i>yaṣṭir iyaṃ hāṭakamayī</i> “a stick made of gold.”	OUTPUT (unit of measurement)
6.	A 4.3.156: <i>kṛitavat parimāṇāt</i> [tasya vikārah 4.3.134 avayave ca 4.3.135] A taddhita affix applies to a nominal stem denoting a <i>parimāṇa</i> [to derive a taddhita stem in the sense of “this is a transformation of that” and to denote a part] as if it were a taddhita affix used in the sense of ‘purchased for it’ ( <i>tena kṛitam</i> 5.1.37).	<i>naiṣkikah, śaitikah</i> “the transformation of a <i>niṣka</i> /of a hundred”; cf. <i>naiṣkikaṃ, śaitikaṃ</i> “something that is purchased for a <i>niṣka</i> /for a hundred.”	INPUT (unit of measurement or quantity)
7.	A 5.1.19: <i>ārḥād agopucchasamkhyā-parimāṇāt ṭhak</i> The taddhita affix <i>ṭhaK</i> (= <i>-ika</i> ) does not apply to <i>gopuccha-</i> “cow’s tail,” to numerals and nominal stems denoting a <i>parimāṇa</i> , to derive taddhitas in the sense of the affixes taught from here up to A 5.1.63 (= <i>tad arhati</i> “it deserves/needs this”).	<i>prāsthikam, kauḍavikam</i> , formed by applying the taddhita affix <i>ṭhaÑ</i> - see A 5.1.57 (the affix <i>ṭhaK</i> is instead prohibited after the nominal stems <i>prastha-</i> and <i>kuḍava-</i> , because both denote a <i>parimāṇa</i> ).	(PROHIBITION) INPUT (unit of measurement)
8.	A 5.1.39: <i>godvyaco ’samkhyāparimāṇāśvāder yat</i> [tasya nimittam sam-yogotpattau 5.1.38] The taddhita affix <i>yàT</i> applies to the nominal stem <i>go-</i> ‘cow, bull’ and disyllabic words, <u>excluding</u> numerals, nominal stems denoting a <i>parimāṇa</i> , and the nominal stems included in the list beginning with <i>aśva-</i> ‘horse’ to derive a taddhita stem [in the sense of cause, provided that this taddhita stem is also a connection or an omen].	counter-examples: <i>prāsthikam</i> (see A 5.1.57), formed by applying the taddhita affixes <i>ṭhaÑ</i> and <i>ṭhaK</i> respectively (the affix <i>yàT</i> is instead prohibited after the nominal stem <i>prastha-</i> , because it denotes a <i>parimāṇa</i> ); cf. <i>svargyam</i> “omen for presaging the attainment of heaven.”	(PROHIBITION) INPUT (unit of measurement)
9.	A 5.1.57: <i>tad asya parimāṇam</i> A taddhita affix among those taught by rules A 5.1.18-63 applies to a nominal stem denoting a <i>parimāṇa</i> and being inflected in the nominative case in the vighra of the taddhita to be formed, to derive a taddhita stem in the sense of genitive, i.e., to derive a taddhita stem in the sense of “this (namely, that which is denoted by the original nominal base) is his/her/its <i>parimāṇa</i> .”	<i>prāsthiko rāśiḥ</i> “a heap equal in weight to one <i>prastha</i> ”; <i>kauḍavikah</i> “a heap equal in weight to one <i>kuḍava</i> ”; <i>vārṣaśatikah</i> “a [sacrifice] whose quantity is one hundred years.”	INPUT (unit of measurement or quantity)

	Rule	KV Examples	Denotation =
10.	A 5.2.39: <i>yadtadetebyahḥ parimāne vatup</i> [ <i>tad asya</i> 5.2.36] The taddhita affix <i>-vat</i> applies to [the (pro)nominal stems] <i>yad-</i> , <i>tad-</i> , and <i>etad-</i> [which are inflected in the nominative case in the <i>vīgraha</i> of the taddhita to be formed], provided that they denote a <i>parimāna</i> , to derive a taddhita stem [in the sense of “this (namely, that which is denoted by the original nominal base) is his/her/its <i>parimāna</i> .”]	<i>yāvat-</i> ‘(the one)/(the thing) whose quantity is that which ( <i>yad</i> )’/‘(the one who/that is) as great as/as large as/as much as/as old as, etc.’; <i>tāvat-</i> ‘(the one) whose quantity is this/that ( <i>tad</i> )’/‘(the one who/that is) so great’/‘(the one)/(the thing) great’/‘(the one)/(the thing) large’; <i>etāvat-</i> ‘(the one) whose quantity is this here ( <i>etad</i> )’.	INPUT (quantity)
11.	A 5.2.40: <i>kimidambhyām vo ghaḥ</i> [ <i>tad asya</i> 5.2.36 <i>parimāne</i> 5.2.39] <i>gh</i> in the place of <i>v</i> [i.e., of <i>-vat</i> ] applies to [the (pro)nominal stems] <i>kim-</i> and <i>idam-</i> which are inflected in the nominative case in the <i>vīgraha</i> of the taddhita to be formed, [provided that they denote a <i>parimāna</i> , to derive a taddhita stem in the sense of “this (namely, that which is denoted by the original nominal base) is his/her/its <i>parimāna</i> .”]	<i>kiyat</i> ‘of what quantity is it/what is its quantity?’; ‘how large is it?’/‘of what extent is it?’; <i>iyat</i> ‘(the one) whose quantity is such’.	INPUT (quantity)
12.	A 5.2.41: <i>kimaḥ saṃkhyāparimāne ḍati ca</i> [ <i>tad asya</i> 5.2.36] The taddhita affix <i>Ḍati</i> also [applies to the (pro)nominal stem] <i>kim-</i> [which is inflected in the nominative case in the <i>vīgraha</i> of the taddhita to be formed], provided that it denotes a numeric <i>parimāna</i> [to derive a taddhita stem in the sense of “this (namely, that which is denoted by the original nominal base) is his/her/its <i>parimāna</i> .”]	<i>kā saṃkhyāparimānam eṣāṃ brāhmaṇāṃ kati brāhmaṇāḥ. kiyanto brāhmaṇāḥ</i> “how many are the <i>brāhmaṇas</i> ?” (“how many units do these <i>brāhmaṇas</i> consist of?”).	INPUT (numeric quantity)
13.	A 6.2.55: <i>hiraṇyaparimāne dhane</i> [ <i>prakṛtyā pūrvapadam</i> 6.2.1 <i>anyatarasyām</i> 6.2.54] [The first constituent] denoting a <i>parimāna</i> of gold [optionally retains its original pitch] when it combines with <i>dhana-</i> ‘wealth’.	<i>dvisuvarṇa-dhanām</i> or <i>dvisuvarṇā-dhanam</i> “wealth consisting of two units of measurement of gold”; <i>dvisuvarṇa-dhanāḥ</i> or <i>dvisuvarṇā-dhanaḥ</i> “owner of wealth consisting of two units of measurement of gold.”	INPUT (quantity, i.e., multiple of a unit of measurement)

	Rule	KV Examples	Denotation =
14.	<p>A 7.3.17: <i>parimāñtasyāsañjñā śāṇayoḥ</i> [aṅgasya 6.4.1 <i>vṛddhiḥ</i> 7.2.114 <i>ñṇiti</i> 7.2.115 <i>acām ādeḥ</i> 7.2.117 <i>kiti ca</i> 7.2.118 <i>saṃkhyāyāḥ</i> 7.3.15]</p> <p>[A <i>vṛddhi</i> vowel replaces the first vowel] of the final constituent [of a pre-affixal stem] which denotes a <i>parimāṇa</i> [and co-occurs with a number word as a first constituent before a taddhita affix with <i>Ñ</i> or <i>Ṇ</i> or <i>K</i> as its marker] except when a proper name is formed or when <i>śāṇa</i> ‘whetstone’ is the second constituent.</p>	<p><i>dvinaṣkikām</i> (affix <i>ṬhaK</i>) “bought for two <i>niṣkas</i>”; <i>dvikaṣṭavikaḥ</i> “containing two <i>kuḍavas</i> [of grain].”</p>	<p>INPUT (standard quantity/unit of measure)</p>
15.	<p>A 7.3.26: <i>ardhāt parimāṇasya pūrvasya tu vā</i> [aṅgasya 6.4.1 <i>vṛddhiḥ</i> 7.2.114 <i>ñṇiti</i> 7.2.115 <i>acām ādeḥ</i> 7.2.117 <i>kiti ca</i> 7.2.118]</p> <p>After <i>ardha</i> [a <i>vṛddhi</i> vowel] replaces the first vowel [of the final constituent of a pre-affixal stem]—a pre-affixal stem which denotes a <i>parimāṇa</i>—but preferably [a <i>vṛddhi</i> vowel replaces the first vowel before a taddhita affix with <i>Ñ</i> or <i>Ṇ</i> or <i>K</i> as its marker].</p>	<p><i>ardhadroṇena kṛitam ardhadrauṇikam</i> “bought for half a <i>droṇa</i>”; <i>ardhakaṣṭavikam</i> “containing half a <i>kuḍava</i>.”</p>	<p>INPUT (unit of measurement or quantity)</p>
16.	<p>A 2.2.5: <i>kālāḥ parimāṇinā</i> [<i>sup</i> 2.1.2 <i>saha supā</i> 2.1.4 <i>vā</i> 2.1.18 <i>tatpuruṣaḥ</i> 2.1.22]</p> <p>[Nominal <i>padas</i>] denoting (an extent of) time [preferably combine with nominal <i>padas</i>] denoting <i>parimāṇa</i>-holders [to form a <i>tatpuruṣa</i> compound].</p>	<p><i>māso jātasya, māsajataḥ</i> “The baby is one month old, <i>māsajataḥ</i>”; <i>saṃvatsarajātaḥ</i> “born one year ago”; <i>dvyahajātaḥ</i> “born two days ago.”</p>	<p>INPUT (unit of measurement or quantity) (<i>parimāṇin-</i>)</p>

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*Uddyota*            *Nāgojibhaṭṭa's Uddyota*. See *Pradīpa*.  
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