

Principle of Suspension (*asiddhatva*) in *Aṣṭādhyāyī*:

A Critical Study

विद्या वाचस्पति की
उपाधि की अपेक्षाओं की आंशिक पूर्ति में प्रस्तुत शोध प्रबंध

A thesis submitted in partial fulfillment of the requirements of the degree of
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द्वारा / By
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भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान पुणे
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येनाक्षरसमाम्नायमधिगम्य महेश्वरात् । कृत्स्नं व्याकरणं प्रोक्तं तस्मै पाणिनये नमः ॥
येन धौता गिरः पुंसां विमलैः शब्दवारिभिः । तमश्चाज्ञानजं भिन्नं तस्मै पाणिनये नमः ॥
अज्ञानान्धस्य लोकस्य ज्ञानाञ्जनशलाकया । चक्षुरुन्मीलितं येन तस्मै पाणिनये नमः ॥
वाक्यकारं वररुचिं भाष्यकारं पतञ्जलिम् । पाणिनिं सूत्रकारं च प्रणतोऽस्मि मुनित्रयम् ॥

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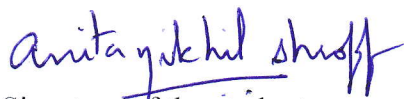
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CONTENTS

Prayer	i
Declaration	ii
Certificate	iii
Acknowledgements	iv-v
Contents	vi- vii
List of tables	viii
List of figures	ix
Abstract	x
1 Introduction	1- 42
1.1 Antiquity of the <i>Vedas</i>	1
1.2 Preservation of the <i>Vedas</i>	3
1.3 <i>Vyākaraṇam</i> (grammar)	6
1.4 Sanskrit commentaries on the <i>Aṣṭādhyāyī</i>	9
1.5 <i>Pāṇini</i> 's derivational system	12
1.6 Definition of a rule	14
1.7 Structure of the <i>Aṣṭādhyāyī</i>	16
1.8 Ordering principles of rules	19
1.9 The <i>tripādī</i>	20
1.10 The <i>asiddhavat</i> section	22
1.11 The rule 6.1.86 षत्वतुकोरसिद्धः (<i>ṣatvatukorasiddhaḥ</i>)	23
1.12 Literature review	24
1.13 Research gap	36
1.14 Methodology	37
1.15 General organization of the dissertation	42
2 Critical analysis of <i>tripādī</i> rules	43-138
2.1 Purpose of <i>tripādī</i> section and analysis of its contents	43
2.2 Ordering of rules	60
2.3 Intonation rules in <i>tripādī</i> - justification of their placement and positioning	118

3	Critical study of the principle of <i>asiddhatva</i>	139- 226
	3.1 A broad perspective of the principle of <i>asiddhatva</i> – an extension of the general principle of inheritance	139
	3.2 Critical study of selected <i>prakaranas</i> of <i>tripādī</i>	146
	3.3 <i>Asiddhatva</i> in the <i>Ābhīya</i> section	171
	3.4 <i>Sthānivadbhāva</i> and <i>asiddhatva</i>	185
	3.5 <i>Āśrayāt siddhatvam</i> : an alternative interpretation	209
	3.6 Graphical representation of the rules of the <i>tripādī</i> using Directed Acyclic graphs and implementation of topological sorting algorithm	219
4	Case studies	227- 283
	Case study 1: Augments (<i>āgamas</i>) and their end-tags and <i>pratyayas</i>	228
	Case study 2: Role of <i>saṃjñās</i> in application of rules	244
	Case study 3: Relevance of words used in the rules of the <i>Aṣṭādhyāyī</i>	256
	Case study 4: <i>Gaṇas</i> of roots	264
	Case study 5: <i>Nipātana</i> as a tool in application of rules.....	270
	Case study 6: <i>Vārttikas</i>	278
5	Conclusion	284- 290
	Appendix	291 - 353
	Bibliography	354 - 362

List of Tables

Table 1.1	Sample of examples collated in a table given in appendix	40
Table 2.1	Different <i>prakaraṇas</i> of the second <i>pāda</i>	51
Table 2.2	<i>ādeśalakṣaṇapraṭiṣedhārthaṃ</i> for <i>nalopa</i>	52
Table 2.3	Different <i>prakaraṇas</i> of the third <i>pāda</i>	56
Table 2.4	Different <i>prakaraṇas</i> of the fourth <i>pāda</i>	58
Table 3.1	<i>jaśtva</i>	150
Table 3.2	<i>niṣṭhānatva</i> forms	152
Table 3.3	Examples of cross-referencing of 7.4.62 कुहोश्चुः (<i>kuhoścuḥ</i>)	169
Table 3.4	Comparison of <i>tripādī</i> and <i>ābhīya</i> sections	184

List of figures

Figure 1.1	<i>Vedāṅgas</i>	4
Figure 1.2	Technical classification of the <i>Aṣṭādhyāyī</i>	8
Figure 1.3	<i>Sanskrit</i> commentaries on the <i>Aṣṭādhyāyī</i>	11
Figure 1.4	Word formation	12
Figure 1.5	<i>Prakriyā</i>	13
Figure 1.6	Flowchart for <i>prakriyā</i>	13
Figure 1.7	Structure of the <i>Aṣṭādhyāyī</i>	17
Figure 1.8	Traditional ordering principles of rules	19
Figure 1.9	<i>Asiddhatva</i> in the <i>Aṣṭādhyāyī</i>	22
Figure 1.10	Google Books Ngram Viewer graph for <i>asiddhatva</i>	27
Figure 1.11	Screenshot of word search on webpage https://ashtadhyayi.com ...	38
Figure 2.1	Purposes of the <i>tripādī</i> section	44
Figure 2.2	Three main factors of ordering of rules	61
Figure 2.3	<i>Svara</i> rules in <i>tripādī</i>	121
Figure 2.4	Placement of <i>svara</i> rules in <i>tripādī</i>	121
Figure 3.1	Principle of inheritance at various levels of word formation	145
Figure 3.2	<i>mūrdhanyādeśa</i>	164
Figure 3.3	<i>ṇatva</i>	165
Figure 3.4	<i>ścutva</i>	167
Figure 3.5	<i>ṣtutva</i>	171
Figure 3.6	Overview of the operations in the <i>ābhīya</i> section	172

Abstract

Pāṇini's Aṣṭādhyāyī is a rule book that employs many techniques to derive the *Sanskrit* language. One such technique is the principle of suspension (*asiddhatva*). This principle is predominantly used in the last three quarters of this text, known as *tripādī*. This study attempts to deconstruct this technique and investigate critically its role in the entire working of the *Aṣṭādhyāyī*. In addition to the traditional interpretation of avoidance of rules and application of rules, the *tripādī* section can be used as a tool to resolve conflicts and to derive particular words. The types of operations covered in this section, its domain and the roles of *sthānivadbhāva* and *vipratishedha* are analysed. The three main reasons that may determine the ordering of rules in *tripādī* are: the derivational process of a word, continuation of word or words from the earlier rule and logic. The placement of the rules of the *ābhīya* section are justified as per traditional interpretation, domain of *aṅga* and *sthānivadbhāva*. A comparative analysis of the *tripādī* and *ābhīya* sections has been conducted. One conceptual underpinning of the *Aṣṭādhyāyī* appears to be the inheritance principle. This “latency” of properties of objects or “implicit presence” of objects seems to be working at different levels of the language. At the *varṇa* level, *Pāṇini* has created the *itsamjñā*. At the *pratyaya* level, the characteristics of *pratyayalakṣaṇa* come into play even when the *pratyaya* is elided. At the *ādeśa* level, *sthānivadbhāva* takes over this principle of inheritance. At the *sūtra* or *vidhi* level, *asiddhatva* applies. An attempt has been made to give an alternative interpretation to the concept of *āśrayāt siddhatvam*. This study also sets out to establish a link between negation of *sthānivadbhāva*, the *ābhīya* section and the *tripādī* section. Directed Acyclic graphs are used to represent the linear ordering of the *tripādī* rules and any topological sorting algorithm can be implemented to re-create the linear ordering of the *tripādī* section. Case study 1 highlights the significance of the *anubandhas* of the augments. Case study 2 is a study on role of *saṃjñās* in the application of rules. The significance of usage of specific words in the rules of the *Aṣṭādhyāyī* is the subject matter of Case study 3. A study of the roots mentioned in *tripādī* rules comprises Case study 4. Case study 5 considers *nipātana* as a tool in the application of rules. The *vārttikas* that were located during the cross-referencing of the *tripādī* rules in the *sapādasaptādhyāyī* are discussed in Case study 6. The appendix consists of a table of examples located during cross-referencing of *tripādī* rules.

Chapter I: Introduction

The most ancient texts in the *Sanskrit* language available to us are the *Vedas*. The term “*Veda*” is derived from the root “*vid*, to know”, thus, *Veda* means knowledge. This liturgical body of texts consists of hymns that were chanted during sacrifices and rituals in ancient times. These hymns praised a pantheon of Gods, some of whom personified natural and cosmic phenomena. This corpus of literature can be divided into four based on the contents of these hymns. They are:

- *R̥gveda* – it is considered as the oldest *Veda* and it contains hymns known as “*r̥k*, praise” in praise of Gods chanted during rituals,
- *Yajurveda* – this *Veda* focusses on the hymns containing the sacrificial formulas known as “*yajus*, sacrificial *mantra*”,
- *Sāmaveda* – this is a collection of melodies known as “*sāman*, a melody set to verse and the
- *Atharvaveda* – this *Veda* contains the magic formulas known as “*atharvan*”.

Each of the *Vedas*, in turn, consists of the *saṃhitās*, *brāhmaṇās*, *āraṇyakas* and the *upaniṣads*. The *saṃhitās* contain the *mantras*, “the hymns and prayers made for different ritual purposes”,¹ the *brāhmaṇās* “explain the mutual relation of the sacred text and the ceremonial, as well as their symbolical meaning with reference to each other”,² the *āraṇyakas* are “of theosophic character, and meant to be imparted or studied in the solitude of forest”³ and the *upaniṣads* are “the philosophical books which belong to the later part of *brāhmaṇā* literature”.⁴ This entire corpus of literature is termed as “*Vedic* literature”.

1.1 Antiquity of the *Vedas*

The antiquity of these texts and their dating present a significant challenge as the texts do not contain the date of their composition as well as the place of composition.

¹ Arthur A. Macdonell, *A History of Sanskrit Literature* (New York: D. Appleton and Company, 1900), 29.

² Macdonell, *A History of Sanskrit Literature*, 32.

³ Macdonell, *A History of Sanskrit Literature*, 34.

⁴ Macdonell, *A History of Sanskrit Literature*, 34.

Internal evidence states that the *Vedas* are as old as creation itself. This can be seen in the following verse:

तस्माद्यज्ञात्सर्वहुत ऋचः सामानि जज्ञिरे ।
छन्दांसि जज्ञिरे तस्माद्यजुस्तस्मादजायत ॥⁵

tasmādyajñātsārvahuta ṛcaḥ sāmāni jajñire |
chandāṃsi jajñire tasmādyajustasmādayāyata ||

The *ṛcas*, *sāmans*, *chandas* and *yajus* were born from the great sacrifice.

Modern scholars date the *Vedas* from 6500 BCE to 1500 BCE. This thought process of dating the *Vedas* began with the Western scholars, especially the Germans. Max Müller predicts the date of the *Vedas* before the advent of Buddhism, i.e. before 1200 BCE. His justification was that “Buddhism is nothing but a reaction against Brahminism and it presupposes the existence of the whole *Veda*”.⁶ Jan Gonda also agrees with Max Müller and places the *Vedas* “before the rise of Buddhism in the second half of the 6th century BC and before the spread of the *Aryan* culture and the establishment”.⁷ Weber accepts the fact that the exact date of the *Vedas* cannot be determined but it is possible to date them before 1500 BCE based on geographical evidence and internal evidence.⁸ Based on astronomical evidence, Hermann Jacobi dates the *Vedas* to 4500 BCE and is in agreement with B.G. Tilak.⁹ B.G. Tilak dates the *Vedas* between 6000 BCE and 4000 BCE based on vernal equinox.¹⁰ Arthur A. Macdonell divides *Sanskrit* literature into two main periods: *Vedic* period and the *Sanskrit* period. He dates the *Vedic* period “beginning perhaps as early as 1500 B.C., extends in its latest phase to about 200 B.C”.¹¹ C.V. Vaidya dates the *Vedic* period

⁵ *Rgveda* 10.90.9 – For reference, see Friedrich Max Müller, ed., *Rig-Veda-Samhita: the sacred hymns of the Brahmans together with the commentary of Sayanakarya*, Second Edition, Volume IV, Mandala X (London: Oxford University Press Warehouse, 1892), 290.

⁶ Friedrich Max Müller, *A history of Ancient Sanskrit literature* (London: Williams and Norgate, 1860), 35, 572.

⁷ Jan Gonda, ed., *A History of Indian Literature Vedic literature* Volume 1 Fasc. 1 (Wiesbaden: Harrassowitz, 1975), 20.

⁸ Albrecht Weber, *A history of Indian literature*, Third edition (London: Trübner & Co., 1892), 3-7.

⁹ This is an article by Hermann Jacobi in the felicitation volume of Rudolf von Roth titled “Über das Alter des *Rgveda*” – For reference, see *Festgruss an Rudolf von Roth zum Doktor-Jubiläum* (Stuttgart: W.Kohlhammer, 1893), 68-74.

¹⁰ Bal Gangadhar Tilak, *The Orion or Researches into the Antiquity of the Vedas* (Bombay: Rādhābāi Ātmārām Sagoon, 1893), 206-9.

¹¹ Macdonell, *A history of Sanskrit literature*, 8-9.

from circa 4000 BC to 800 BC.¹² Winternitz sums up the antiquity of the *Vedas* perfectly. He states that “[a]stronomical facts are not dependable for dating the *Vedas* as the *Vedic* texts are subject to different interpretations; historical facts such as mention of *Vedic* gods in the cuneiform inscriptions and the relationship of *Vedic* antiquity to the *Aryan* and Indo-European period, gave rise to contradictory conclusions; the linguistic facts with *Avesta* and language of the *Vedas* do not yield positive results. Thus, we need to rely on evidence such as advent of Buddhism and date about 200 or 2500 BC to 750 and 500 BC”.¹³

1.2 Preservation of the *Vedas*

These texts, known as *saṃhitāpāṭha*, were recited as running texts in the manner in which they were composed. As these texts were passed on from one generation to another through oral tradition, the preservation of these texts without ‘corruption’ was of primary importance to ensure the efficacy of these hymns during rituals. Many mnemonic techniques of recitation were used such as ‘*padapāṭha*’ (reciting each word separately), ‘*kramapāṭha*’ (reciting groups of words with repetition) and ‘*vikṛtipāṭha*’ (variations of how words are repeated) to preserve these texts in their original form. *Vikṛtipāṭha* are of eight types, namely *jaṭāpāṭha*, *mālāpāṭha*, *śikhāpāṭha*, *rekhāpāṭha*, *dhvajapāṭha*, *daṇḍapāṭha*, *rathapāṭha* and *ghanapāṭha*. This classification of *vikṛtipāṭha* is based on the words of the *saṃhitāpāṭha* that are repeated, along with the frequency and style of repetition. One can reconstruct the original text of the hymn from these recitation techniques. In this manner, the original form of the composition of the *Vedas*, namely the *saṃhitāpāṭha*, was not lost.

In addition to these mnemonic techniques, ancillary disciplines were developed over a period of time in order to understand and preserve this corpus of literature. These ancillary branches of study, six in number, are called *Vedāṅgas* (limbs of the *Vedas*). They are *chandas* (prosody), *kalpa* (ritual instructions), *jyotiṣa* (astronomy),

¹² Chintaman Vinayak Vaidya, *History of Sanskrit Literature* Volume 1: *Sruti (Vedic) Period* (Thane: Vidya Prasarak Mandal, 1930), 1.

¹³ Maurice Winternitz, *A History of Indian Literature* Volume 1 (Calcutta: University of Calcutta, 1927), 309-10.

nirukta (etymology), *śikṣā* (phonetics) and *vyākaraṇam* (grammar).¹⁴ At first, these auxiliary disciplines of the *Vedas* did not have any independent identities but were taught to understand the *Vedic* texts. This thought process of the *vedāṅgas* already started in the *Brāhmaṇās* and the *Āraṇyakas* where in addition to the explanations of sacrificial rituals, phonetic,¹⁵ etymological,¹⁶ metrical¹⁷ and astronomical¹⁸ discussions are also recorded. These six auxiliary branches evolved over a long period of time in order to preserve the *Vedas*, and this, in turn, provided a structure to their development and growth.

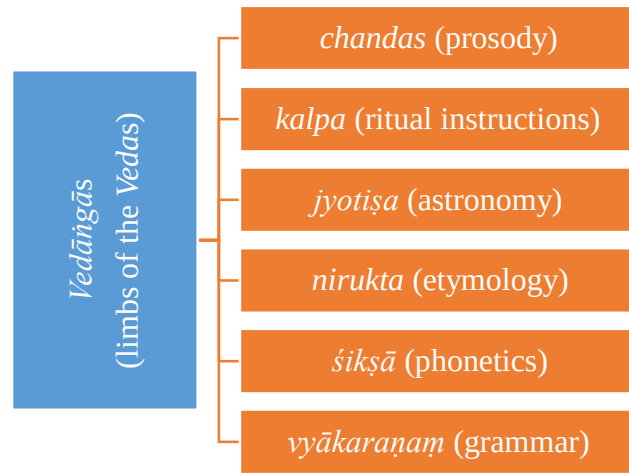


Figure 1.1: *Vedāṅgās*

Each of these branches has an important role to play in preserving the *Vedas*:

¹⁴ शिक्षा कल्पो व्याकरणं निरुक्तं छन्दसां चयः। ज्योतिषामयनं चैव वेदाङ्गानि षडेव तु॥ (*śikṣā kalpo vyākaraṇam niruktaṁ chandasām cayaḥ | jyotiṣāmayanaṁ caiva vedāṅgāni ṣaḍeva tu ||*) – This seems to be a floating maxim.

¹⁵ Mishra writes that, “The *brāhmaṇās* of the *Vedic* literature have also dealt with several phonetic treatments” – For reference, see Vidhata Mishra, *A critical study of Sanskrit phonetics* (Varanasi: The Chaukhamba Sanskrit Series Office, 1972), 8.

¹⁶ The etymology of *agniḥ* is given in the *Śatapathabrāhmaṇa* II.2.4.2 – For reference, see Nargis Verma, *The Etymologies in the Śatapatha Brāhmaṇa* (Delhi: Nag Publishers, 1991), 92; *śatapathabrāhmaṇa* 14.6.11.2 derives *indra* from *indha*; *Taittirīyabrāhmaṇa* 2.2.104 derives *indra* from *indriya* – For reference, see Dipak Bhattacharya, *Indian Etymologists and Their Etymologies* (Kolkata: School of Vedic Studies, Rabindra Bharati University, 2002), 5; A thesis submitted by Mohammed Ali gives a detailed list of etymologies – For reference, see Mohammed Ali, “Etymologies in the *Brāhmaṇas* - a linguistic study,” (PhD thesis, Aligarh Muslim University, 1969).

¹⁷ *Gopathabrāhmaṇa* 1.31 expounds on the *gāyatrī* (*sāvitrī*) metre– For reference, see Rājendralāla Mitra and Harachandra Vidyābhūṣaṇa, eds., “*The Gopatha Brāhmaṇa of the Atharva veda: in the original Sanskrit*” (Calcutta: Asiatic Society of Bengal, 1872), 17.

¹⁸ *Taittirīyabrāhmaṇa* 3.1.2.1 mentions the constellation of *anurādhā* – For reference, see Shivaram Shankar Apte and Ananta Janārdana Karandikara, *Vedic astronomy and mythology* (Pune: Gokul Masik Prakashan, 1978), 127.

Śikṣā (phonetics): The correct pronunciation and intonation of the *mantras* is taught in this branch. Each of the *Vedas* had its own *Prātiśākhya* and *Śikṣā* texts. These texts were manuals for precise and consistent pronunciation of the hymns. Depending on the *Veda*, each of them reflects variations in the pronunciation of that particular *saṃhitā*. Some of the *Prātiśākhya* texts handed down to us are the *R̥gvedaprātiśākhya* of the *R̥gveda*, *Taittirīyaprātiśākhya* of the *Yajurveda*, *Ṛktantra* of *Sāmaveda* and *Śaunakīya caturādhyāyikā* of the *Atharvaveda*. Some of the important *Śikṣā* texts are *Pāṇinīya Śikṣā* of *R̥gveda*, *Nārādīya Śikṣā* of *Sāmaveda* and *Yājñavalkya Śikṣā* of *Yajurveda*.

Kalpa (ritual instructions): This discipline instructs the way the sacrifices are to be performed. It is further divided into the *Śrautasūtras*¹⁹ and *Gṛhyasūtras*²⁰ which give instructions about the *śrauta* sacrifices and the domestic sacrifices respectively.

Vyākaraṇam (grammar): To preserve the *Vedas* and understand them correctly, it is necessary to understand word formations. This branch helps in achieving that goal. The long linguistic grammatical tradition culminated in the text known as the *Aṣṭādhyāyī*. This text becomes significantly important because it is the only one available to us in its entirety. It has been written by *Pāṇini* around 600 BCE²¹.

Nirukta (etymology): The etymology of *Vedic* words is discussed in this branch of study. Just as the *Aṣṭādhyāyī* is the only surviving grammatical text, *Nirukta* ascribed to *Yāska* is the only surviving specimen of etymology. This text is a commentary on *Nighaṇṭu* which is a compilation of *Vedic* words.

Chandas (prosody): The *mantras* are metrical, i.e. poetic metres are used in *Vedic* literature. This branch highlights the *Vedic* metres and the representative text of this discipline is the *Chandaḥsūtram* of *Piṅgala*. Some examples of *Vedic* metres are *gāyatrī*, *uṣṇik*, *anuṣṭup*, *br̥hatī*, *paṃktiḥ*, *triṣṭup* and *jagatī*.

Jyotiṣa (astronomy): This branch focusses on the auspicious times to perform the sacrifices and also discusses under which constellations they have to be performed. The texts of this branch that are available to us are *Ārcajyotiṣa* and *Yājusjyotiṣa*.

¹⁹ The complicated *śrauta* rites are carried out- on the invitation, at the expense and for the benefit of the patron or ‘sacrificer’ (*yajamāna*), a well-to-do member of the higher classes- by specialized officiants (up to sixteen in number) and need three sacred fires, the formulas being taken from the *saṃhitās*. – For reference, see Jan Gonda, *The ritual sūtras (A history of Indian literature, Volume 1, Fasc. 2)*, (Wiesbaden: Harrassowitz, 1977), 10.

²⁰ The domestic rites require one fire (the domestic (*gr̥hya* fire) and are as a rule performed by the householder himself using a formulary taken from a special collection. – For reference, see Gonda, *The ritual sūtras*, 10.

²¹ The references for this dating have been given under Section 1.3 below.

The importance of these auxiliary disciplines is shown in a verse in the *Pāṇinīya śikṣā*; the authorship of this phonetic text has been attributed to *Pāṇini*. In this verse, the *vedāṅgas* are personified as the limbs of the *vedapurusa*; *Veda* as human being.

छन्दः पादौ तु वेदस्य हस्तौ कल्पोऽथ पठ्यते।
ज्योतिषामयनं चक्षुर्निरुक्तं श्रोत्रमुच्यते॥
शिक्षा घ्राणं तु वेदस्य मुखं व्याकरणं स्मृतम्।
तस्मात् साङ्गमधीत्यैव ब्रह्मलोके महीयते॥ (पाणिनीय शिक्षा 41, 42)²²

chandaḥ pādau tu vedasya hastau kalpo 'tha paṭhyate|
jyotiṣāmayanaṁ cakṣurniruktaṁ śrotramucyate||
śikṣā ghrāṇaṁ tu vedasya mukhaṁ vyākaraṇaṁ smatṛm|
tasmāt sāṅgamadhītyaiva brahmaloke mahīyate|| (*Pāṇinīya Śikṣā* 41, 42)

The feet of the *Vedas* are the prosody, the hands ritual instructions, the eyes are astronomy and the ears are etymology, phonetics is the nose of the *Vedas* and the mouth of the *Vedas* is grammar.

The field of grammar and the text, *Aṣṭādhyāyī*, is the subject matter of this study.

1.3 Vyākaraṇaṁ (grammar)

Patañjali in his *Mahābhāṣyam*²³ defines the term ‘*vyākaraṇaṁ*’ as *vyākriyante śabdāḥ anena iti vyākaraṇam*²⁴ (explanation by analysis). He also stresses the importance of grammar – *rakṣārthaṁ vedānām adhyeyaṁ vyākaraṇam*²⁵ (it is necessary to study grammar to protect the *Vedas*).

As already mentioned, *Aṣṭādhyāyī* authored by *Pāṇini* is the only text of grammar available to us in its entirety. There has been a long linguistic grammatical tradition prior to *Pāṇini*. *Yudhiṣṭhira Mīmāṃsaka* lists out names of grammarians not mentioned in the *Aṣṭādhyāyī* such as *Śiva Maheśvara*, *Bṛhaspati*, *Indra*, *Vāyu*, *Bharadvāja*, *Bhāguri*, *Pauṣkarasādi*, *Cārāyaṇa*, *Kāśakṛtsna*, *Śantanu*, *Vaiyāghrapadya*, *Mādhyandini*, *Raudhi*, *Śaunaki*, *Gautama* and *Vyāḍi*.²⁶ These

²² Satyaprakash Dubey, ed., *Pāṇinīya śikṣā* (Jodhpur: Rajasthani Granthagaar, 2004), 133.

²³ *Mahābhāṣyam* is a commentary on the text *Aṣṭādhyāyī*.

²⁴ For reference Vasudeo Shastri Abhyankar, trans. *Vyākaraṇamahābhāṣyam*, Text and Marathi Translation Part 1 Chapter 1 *pāda* 1, 2 (Pune: Deccan Education Society, 1938), 25.

²⁵ *Patañjali's Mahābhāṣyam* in *Paspaśāhnikam* – Abhyankar, *Vyākaraṇamahābhāṣyam* Part 1 Chapter 1 *pāda* 1, 2, 2.

²⁶ *Yudhiṣṭhira Mīmāṃsaka, Saṁskṛta vyākaraṇa-śāstra kā itihāsa pratham bhāg dvitīyāvāra* (Ajmer: Vaidika yantrālaya, 1964), 73-132.

grammarians are predecessors of *Pāṇini*. *Pāṇini* himself mentions the names of ten grammarians such as *Āpiśali*, *Kāśyapa*, *Gārgya*, *Gālava*, *Cākravarmaṇa*, *Bharadvāja*, *Śakaṭāyana*, *Śākalya*, *Senaka* and *Sphoṭāyana* in his treatise. These grammarians could either be contemporaries of *Pāṇini* or they could be his predecessors. Saroja Bhate sums up: “The earlier works have contributed the raw materials from which P. built up the edifice of the A. His grammar is still considered as the first and the best model of description”.²⁷

Pāṇini, the grammarian

Hartmut Scharfe gives a detailed account of *Pāṇini*’s birthplace and his lineage. “He is said to be born in *Śālātura* in ancient *Gāndhāra*. His parents were *Paṇi* and *Dākṣī*. His date can be fixed as 5th or maybe 6th century BC based on his proximity to the Vedic language as found in the *upaniṣads* and Vedic *sūtras*”.²⁸ His other names, *Pāṇina*, *Dākṣīputra*, *Śālāṅki*, *Śālātūrīya* and *Āhika* have been mentioned in *Trikāṇḍaśeṣakośa*.²⁹ Other than the *Aṣṭādhyāyī*, the authorship of *Pāṇinīya Śikṣā* of *R̥gveda*, *Jāmbavatī vijaya* and *Dvirūpakōśa* has been ascribed to *Pāṇini*.³⁰

The text, *Aṣṭādhyāyī*

Pāṇini’s *Aṣṭādhyāyī* is acclaimed as “one of the greatest monuments of human intelligence. It describes with the minutest detail, every inflection, derivation, and composition and every syntactic usage of its author’s speech. No other language, to this day, has been so perfectly described”.³¹ This manually composed grammatical treatise, containing about 4000³² rules, is a derivational system to describe the *Sanskrit* language, *Vedic* as well as classical. It is a linguistic and grammatical text to help

²⁷ Saroja Bhate, “Pre*Pāṇinian* grammatical elements in *Pāṇini*’s *Aṣṭādhyāyī*,” (PhD thesis, University of Poona, 1970), xxxv.

²⁸ Hartmut Scharfe, *A History of Indian Literature Grammatical literature* Volume V Fasc. 2 (Wiesbaden: Otto Harrassowitz Verlag, 1977), 88-9.

²⁹ पाणिनिस्त्वाहिको दाक्षीपुत्रः शालङ्किपाणिनौ। शालोत्तुरीयोऽथ व्याडिर्विन्ध्यस्थो नन्दिनीसुतः॥ द्वितीयकाण्डः ब्रह्मवर्गः 24 (*pāṇinistvāhiko dākṣīputraḥ śālāṅkipāṇināu| śālotturīyo 'tha vyāḍirvindhyaṣtho nandinīsutaḥ*)|| *dviṭīyakāṇḍaḥ brahmavargah* 24) – For reference, see C.A. Seelakkhndha Maha Thera, *The Trikāṇḍaśeṣakośa* by Sri Purushottama Deva (King of Kalinga, India) with Sarartha Candrika (Bombay: Khemaraja Shrikrishnadasa, 1916), 60.

³⁰ Mīmāṃsaka, *Samśkrta vyākaraṇa-śāstra kā itihāsa pratham bhāg dviṭīyāvāra*, 225-31.

³¹ Leonard Bloomfield, *Language* (London: Ruskin House, 1923), 11.

³² George Cardona, *Pāṇini: His Work and Its Traditions*, Volume 1 Background and Introduction (New Delhi: Motilal Banarsidass, 1988), 3.

derive words such as nouns, verbs, adjectives, and indeclinables amongst others. As the name suggests, it consists of eight chapters; each chapter contains four quarter sections. A chapter is called an *adhyāya* and a quarter is called a *pāda*. In total, there are thirty two quarters. Each quarter section has varying number of rules called *sūtras*. Some quarter sections are short, containing maybe about sixty rules while some others are long, containing more than 200 rules. The rules are referred to in the following manner: Rule 7.3.4 means the 4th rule in the third quarter of the seventh chapter. As this text consists of *sūtras*, it is also known as the *sūtrapāṭha*. Traditionally, there is another technical classification of this text which is done based on the way rules are applied. In this classification, the text is divided into two parts:

- the first seven chapters along with the first quarter section of the eighth chapter known as the *sapādasaptādhyāyī* and
- the last three quarter sections of the eighth chapter known as the *tripādī*.

The significance of this type of classification is discussed later.

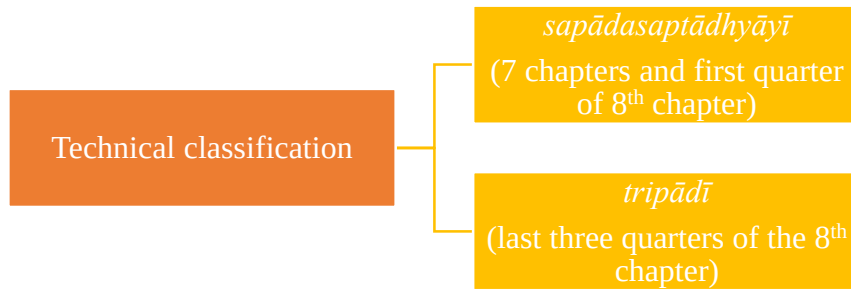


Figure 1.2: Technical classification of the *Aṣṭādhyāyī*

There are other related texts that are closely associated with this *sūtrapāṭha*. They are:

1. *Māheśvarasūtras*/ *śivasūtras*: These are a set of fourteen aphorisms that represent the arrangement of sounds of the *Sanskrit* language. These aphorisms aid in making acronyms known as *pratyāhāras*. These acronyms are extensively used in the *Aṣṭādhyāyī*.
2. *Dhātupāṭha*: This text consists of about 2000 roots which are divided into ten major groups. This grouping is done on the basis of the formation of the verbs. Each group is named after the first in the list and each group has a characteristic *vikaraṇapratyaya* which is a suffix that is added to each member of a particular group.

3. *Gaṇapāṭha*: In this text, a group of words are put together forming a *gaṇa*. This *gaṇa* is named after the first member of that group. The rules of the *Aṣṭādhyāyī* refer to the *gaṇa* for which some specific operation has to be undertaken.
4. *Uṇāḍipāṭha*: In case of certain word formations, the rules of the *Aṣṭādhyāyī* do not suffice. Some additional rules are required to derive them. Such additional rules that are not part of the *sūtrapāṭha* are put together in this text. This text precedes the text of the *Aṣṭādhyāyī*.
5. *Liṅgānuśāsanam*: This text helps in determining the gender of words.

The texts, namely *māheśvarasūtras*, *sūtrapāṭha*, *dhātupāṭha*, *gaṇapāṭha*, *uṇāḍipāṭha* and *liṅgānuśāsanam* are an integral part of word formation of the Sanskrit language and they work in tandem.

1.4 Sanskrit commentaries on the *Aṣṭādhyāyī*

Over centuries, a number of commentaries have been written on this text, *Aṣṭādhyāyī*. *Patañjali*'s *Mahābhāṣyam* is considered as one of the earliest available commentaries on the *Aṣṭādhyāyī*. *Patañjali* must have lived about 150 BCE based on the phrases and terms used in the *Mahābhāṣyam*, especially the references to the Greeks.³³ Other than the discussion of the rules of the *Aṣṭādhyāyī*, *Patañjali* has commented on the *vārttikas* that are usually attributed to *Kātyāyana*. *Kātyāyana* is also known as *Vararuci*.³⁴ A *vārttika* is “a statement which is as much authoritative as the original statement to which it is given as an addition for purposes of correction, completion or explanation”.³⁵ A floating maxim given below defines a *vārttika*:

उक्तानुक्तदुरुक्तानां चिन्ता यत्र प्रवर्तते।
तं ग्रन्थं वार्तिकं प्राहुर्वार्तिकज्ञा मनीषिणः॥

uktānuktaduruktānām cintā yatra pravartate|
taṁ granthaṁ vārttikaṁ prāhurvārttikajñā manīṣiṇaḥ||

If there is thought process on that which has been said, unsaid and repeated, such a text is called *vārttika* by experts.

³³ Paraphrased – For reference, see Malgorzata Sulich-Cowley, *The principle of suspension (asiddhatva) in Pāṇinian grammar* (New Delhi: Motilal Banarsidass Publications, 2022), 9.

³⁴ *Trikāṇḍaśeṣakośa*, *dvitīyakāṇḍaḥ brahmavargaḥ* 25 – For reference, see Thera, *Trikāṇḍaśeṣakośa* by Sri Purushottama Deva, 60.

³⁵ Kashinath Vasudev Abhyankar, *A Dictionary of Sanskrit Grammar* Gaekwad's Oriental Series, No. 134, (Baroda: Oriental Institute, 1961), 323.

The *vārttikas* that are available to us are only those embedded in the *Mahābhāṣyaṃ*. The actual text written by *Kātyāyana* is not available to us. However, references of other *vārttika* texts are recorded in the *Mahābhāṣyaṃ* and the names of the authors have been mentioned³⁶ in the form of *śloka-vārttikas*.³⁷ The three grammarians, namely *Pāṇini*, *Kātyāyana* and *Patañjali* are together known as “*trimuni*” and their grammar is known as *trimuni-vyākaraṇam*.³⁸

Some of the other commentaries are *Kāśikāvṛtti*³⁹ by *Jayāditya*⁴⁰ and *Vāmana*⁴¹ written around 700 CE.⁴² *Kāśikāvṛtti* is a commentary that follows the ordering of the rules as given in the *Aṣṭādhyāyī*. This is traditionally known as *Prakaraṇānusārī*. “Its pedagogical approach has made it one of the most popular grammatical works, but its simplicity is often deceptive, and the full meaning of its remarks becomes apparent only against the background of earlier discussions, notably in the *Mahābhāṣyaṃ*”.⁴³

Later grammarians took a more student-friendly approach to the *Aṣṭādhyāyī*. They rearranged the rules of the *Aṣṭādhyāyī* so as to ease learning and understanding of the text. The pioneer in this type of rearrangement of rules was *Dharmakīrti* who wrote the *Rūpāvatāra* around 10th century CE (?).⁴⁴ This was followed by *Rūpamālā* of *Vimalasarasvatī* written around 14th century CE and *Prakriyākaumudī* of *Rāmacandra* written around 14th or 15th century CE and the *Siddhāntakaumudī* was written by *Bhaṭṭojidīkṣita* around early 17th century CE.⁴⁵

Siddhāntakaumudī, written by *Bhaṭṭojidīkṣita* around 1600 CE⁴⁶ is another popular commentary that compiled rules of the *Aṣṭādhyāyī* as per the derivation,

³⁶ The names of these *vārttikakāras* are *Bhāradvāja*, *Sunāga*, *Kroṣṭā* and *Bāḍava* – For reference, see Mīmāṃsaka, *Samśkrta vyākaraṇa-śāstra kā itihāsa pratham bhāg dvitīyāvāra*, 296-9; *Vyāghrabhūti* and *Bhāradvāja* are mentioned by Hartmut Scharfe – For reference, see Scharfe, *Grammatical literature*, 149.

³⁷ A *śloka-vārttika* “contains (part of) a grammatical discussion in *śloka* form provided with a *bhāṣyaṃ* by *Patañjali*”. – For reference, see J.A.F. Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology* (Pune: Bhandarkar Oriental Research Institute, 2008), 425.

³⁸ *Kāśikāvṛtti* and *Siddhāntakaumudī* on rule 2.1.19

³⁹ Ishwar Chandra Pandit, trans. *Kāśikāvṛtti A commentary on Pāṇini's Aṣṭādhyāyī of Vāmana and Jayāditya with 'Somalekha' Hindi commentary and other valuable explanations and various indices* Part 1, 2 and 3 (Delhi: Chaukhamba Sanskrit Pratishtan, 2010).

⁴⁰ He has commented on the first five chapters of the *Aṣṭādhyāyī*.

⁴¹ He has commented on the last three chapters of the *Aṣṭādhyāyī*.

⁴² Mīmāṃsaka, *Samśkrta vyākaraṇa-śāstra kā itihāsa pratham bhāg dvitīyāvāra*, 423; Scharfe accords a time period of as early 7th century CE – For reference, see Scharfe, *Grammatical literature*, 174.

⁴³ Scharfe, *Grammatical literature*, 174.

⁴⁴ Scharfe, *Grammatical literature*, 174.

⁴⁵ Scharfe, *Grammatical literature*, 174.

⁴⁶ Mīmāṃsaka, *Samśkrta vyākaraṇa-śāstra kā itihāsa pratham bhāg dvitīyāvāra*, 446.

known as *prakriyā*⁴⁷ of a word. This grammatical tradition is known as *prakriyānusārī*. This will be explained in detail later.

There have been commentaries written on these commentaries as well. *Pradīpa* of Kaiyaṭa around 1100 CE is a commentary on the *Mahābhāṣyam*; *Nyāsa* or *Kāśikāvivaranaṇapañjikā* of Jinendrabuddhi and *Padamañjarī* of Haradattamiśra are the commentaries on *Kāśikāvṛtti*. They have been written around 725 CE⁴⁸ and 1115 CE⁴⁹ respectively. *Praḍhamanoramā* is a commentary on *Siddhāntakaumudī* written by Bhaṭṭojidīkṣita himself and *Tatvabodhini* of Jñānendrasarasvatī (1550-1600 CE)⁵⁰ and *Bālamānoramā* of Vāsudevādīkṣita (1740-1800 CE)⁵¹ are other commentaries on *Siddhāntakaumudī*. A brief overview of some important commentaries is given below:

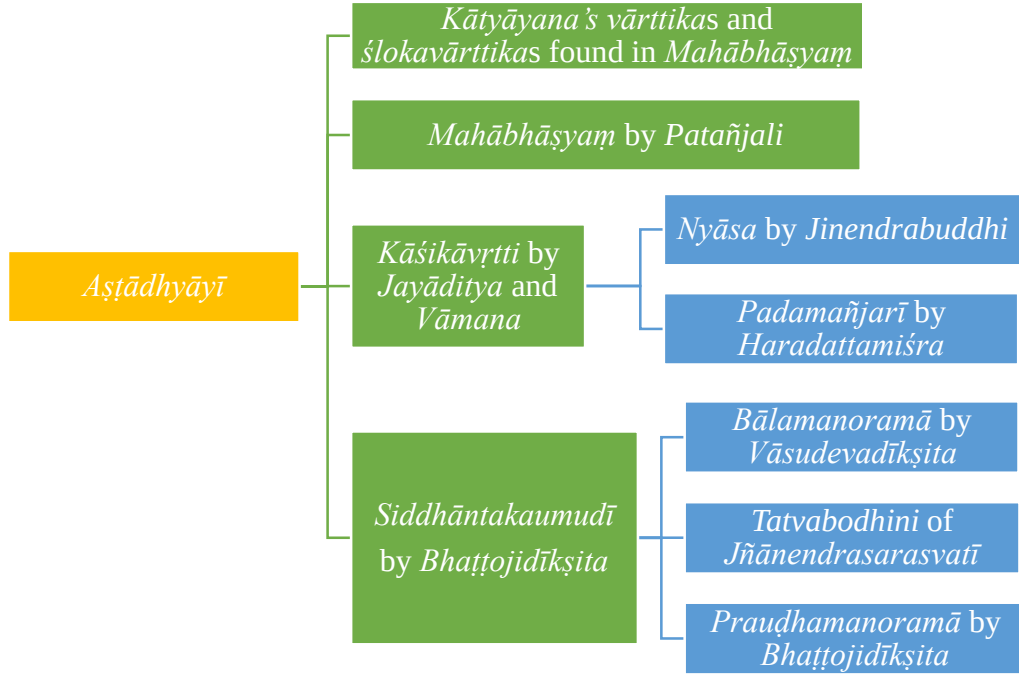


Figure 1.3: Sanskrit commentaries on the *Aṣṭādhyāyī*

Thus, this grammatical tradition spawned numerous interpretations and discussions on the rules of the *Aṣṭādhyāyī*.

⁴⁷ *Prakriyā* is defined as “vyākaraṇarītyā śabdasaadhanam (the processing of words according to grammar)”. – For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 289.

⁴⁸ Mīmāṃsaka, *Samskṛta vyākaraṇa-śāstra kā itihāsa pratham bhāg dvitīyāvāra*, 465; According to Scharfe, it is 8th or 9th century CE– For reference, see Scharfe, *Grammatical literature*, 174.

⁴⁹ Mīmāṃsaka, *Samskṛta vyākaraṇa-śāstra kā itihāsa pratham bhāg dvitīyāvāra*, 472; According to Scharfe, maybe 13th century CE? – For reference, see Scharfe, *Grammatical literature*, 174.

⁵⁰ Mīmāṃsaka, *Samskṛta vyākaraṇa-śāstra kā itihāsa pratham bhāg dvitīyāvāra*, 490.

⁵¹ Mīmāṃsaka, *Samskṛta vyākaraṇa-śāstra kā itihāsa pratham bhāg dvitīyāvāra*, 492.

1.5 Pāṇini's derivational system

Pāṇini describes Sanskrit utterances and their constituents by means of a derivational system, the units of which are: bases, presuffixal base elements or stems (*aṅga*: A.1.4.13), affixes (*pratyaya*: A 3.1.1), syntactic words (*pada*: 1.4.14), and utterances (*vākya*). [A]n utterance which is or could be found in actual usage () is derived, by operations stated in the *Aṣṭādhyāyī*, from a string that cannot be found in actual communication () but is posited, in order to describe a real utterance, as a sequence of syntactically and semantically related words gotten by introducing affixed to items as provided for in the grammar.⁵²

The derivational process of a word is known as *prakriyā*. This involves a step-by-step application of rules to achieve the desired form of the *pada*. A base known as *prakṛti* is taken. This base could be a nominal form (*prātipadika*) or a root (*dhātu*). To this base, various operations are carried out by applying those rules applicable at that point of time of the derivation. Some of the operations are listed below:

- Affixes (prefixes and suffixes) known as *pratyayas* are added to this base.
- Substitutions known as *ādeśas* and elisions (*lopa*) may be undertaken.
- There can be augments (*āgamas*) that are inserted during word formation.

Thus, the basic principle of word formation in this text is to add, insert or delete *pratyayas* or *āgamas* to the base, *prakṛti*.

Prefix (es) + Base + suffix (es) = word

Pratyaya (s) + *prakṛti* + *pratyaya* (s) = *pada*

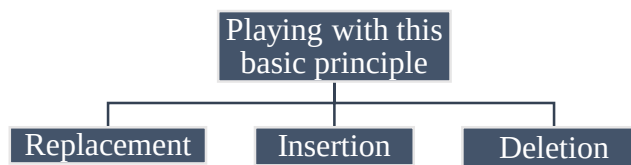


Figure 1.4: Word formation

During this derivational process, rules are applied at various stages of the process. As already mentioned, it is a step-by-step process of application of rules. It is similar to an algorithm of programming. In computer terminology, an algorithm is a set of well-defined instructions to solve a particular problem. In this case, the steps are as follows:

⁵² Cardona, *Pāṇini: His Work and Its Traditions*, Volume 1, 159.

1. Input base and affix.
2. Check if any rule of the *Aṣṭādhyāyī* meets with the conditions at that derivational stage.
3. If the conditions are met, apply that rule. The output of this rule becomes the input of the next rule to be applied.
4. Go back to step 2.
5. If no more rule is applicable, output the desired word.
6. End the process.

This is the algorithm of *prakriyā*.

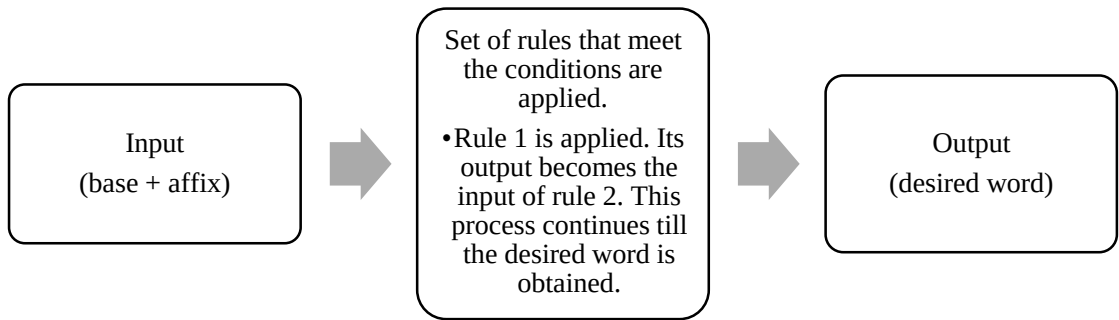


Figure 1.5: *Prakriyā*

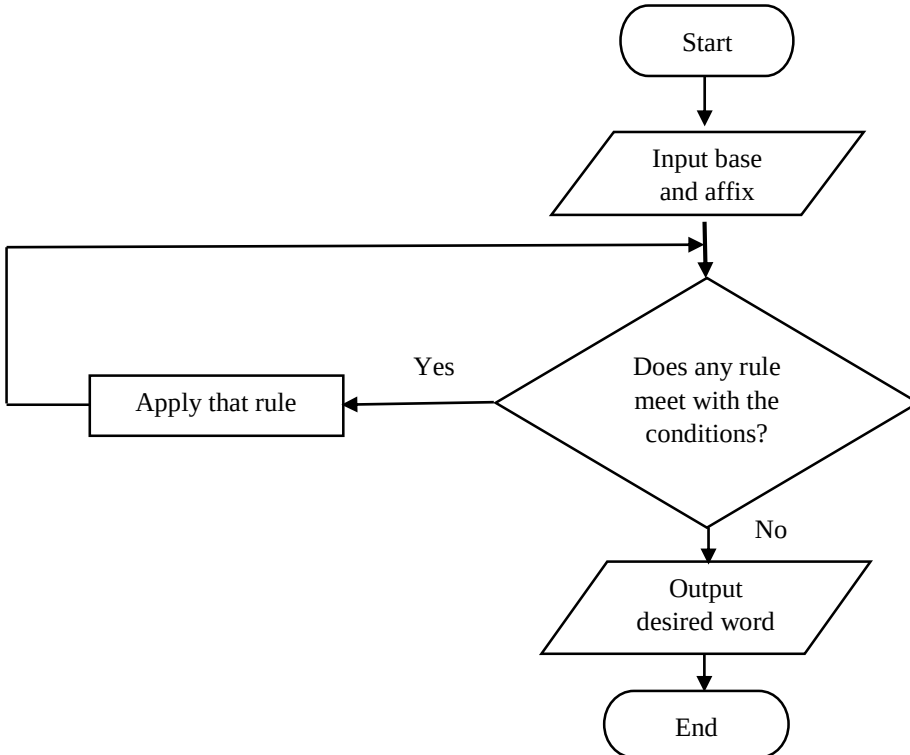


Figure 1.6: Flowchart for *prakriyā*

This process is to derive words governed by the rules of the *Aṣṭādhyāyī* written by *Pāṇini*. As this text consists of rules and the derivational process of a word is achieved by applying rules, it is necessary to define a rule and discuss the traditional classification of a rule.

1.6 Definition of a rule

There is a maxim that defines the characteristics of a rule:

अल्पाक्षरम् असन्दिग्धं सारवत् विश्वतोमुखम् ।
अस्तोभम् अनवद्यं च सूत्रं सूत्रविदो विदुः ॥

alpākṣaram asandigdham sāravat viśvatomukham |
*astobham anavadyam ca sūtram sūtravido vidu: ||*⁵³

A rule is defined as a statement which is short, clear, broadly applicable, unambiguous, precise and error-free.

Durgādāsa quotes a *kārikā* ⁵⁴ in his commentary on *Mugdhabodh* that comments on the parts of a rule.⁵⁵

कार्यं कार्यं निमित्तश्च त्रिभिः सूत्रमुदाहृतम् ।
कदाचित् कार्यकार्याभ्यां क्वचित् कार्यनिमित्ततः ॥
यस्य निर्दिश्यते कार्यं स कार्यो गदितो बुधैः ।
क्रियते यत्तु तत्कार्यमादेशप्रत्ययागमम् ॥

kāryī kāryam nimittaśca tribhiḥ sūtramudāhṛtam |
kadācit kāryikāryābhyāṃ kvacit kāryanimittataḥ ||
yasya nirdiśyate kāryam sa kāryī gadito budhaiḥ |
kriyate yattu tatkāryamādeśapratyayāgamam ||

A rule is composed of three parts: *kāryī*, *kāryam* and *nimitta*. *Kāryī* is the operand, *kāryam* is the operation itself and *nimitta* is the conditions that need to be met for the operation to be carried out. Sometimes, it consists of the *kāryī* and *kāryam* and sometimes, of the *kāryam* and *nimitta*. That for which some grammatical operation is prescribed is known as *kāryī* and the thing prescribed is known as *kāryam* which may be a substituent (*ādeśa*), suffix (*pratyaya*) or augment (*āgama*).

⁵³ This is quoted in *Viṣṇudharmottarapurāṇam tṛtīyakhaṇḍaḥ pañcamodhyāyāḥ śloka* 1 as given by Śaṣibhūṣaṇamiśra— For reference, see Śaṣibhūṣaṇamiśra, “*Pāṇinīyaparamparāyām sūtram tadvibhājanam ca*,” *National Journal of Hindi and Sanskrit Research* 2021; 1(37): 66-70.

⁵⁴ A *kārikā* is defined “as a brief summary of a grammatical discussion in metrical form, for easy memorization”. — For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 140.

⁵⁵ Kshitish Chandra Chatterji, *Technical terms and technique of Sanskrit grammar* Part 1 (Calcutta, Visvanath Chatterji, 1948), 258.

Traditional classification of rules

The types of rules used in the *Aṣṭādhyāyī* is summarized in this maxim:

संज्ञा च परिभाषा च विधिर्नियम एव च ।

अतिदेशोऽधिकारश्च षड्विधं सूत्रमुच्यते ॥⁵⁶

saṃjñā ca paribhāṣā ca vidhirniyama eva ca |
atideśo 'dhikāraśca ṣaḍ-vidhaṃ sūtramucyate ||

The six different types of rules are *saṃjñā* rules, *paribhāṣā* rules, *vidhi* rules, *niyama* rules, *atideśa* rules and *adhikāra* rules.

There are six types of rules. They are:

- *Samjñāsūtras* (Definition rules): These rules define technical terms. One such example is 1.1.1 वृद्धिरादैच् (*vṛddhirādaic*). This rule defines the technical term *vṛddhiḥ*. It includes the letters *ā*, *ai* and *au*.
- *Paribhāṣāsūtras* (Metarules): These are rules of interpretation akin to an interpreter of a programming language. An example of a metarule is 1.1.49 षष्ठी स्थानेयोगा (*ṣaṣṭhī sthāneyogā*). It states that if a term in a rule is in the genitive case, then it is considered to indicate the *sthānī* (operand).
- *Vidhisūtras* (Operational rules): These rules undertake operations such as insertion/deletion/replacement/coalescence. An example for such a type of rule is 6.1.77 इको यणचि (*iko yaṇaci*). *Ikaḥ* stands for the letters *i*, *u*, *r* and *l* and it is in the genitive case. Therefore, it becomes the operand. *Yaṇ* stands for the letters *y*, *v*, *r* and *l*, it is in the nominative case and it is a *ādeśa* (substituend). *Ac* stands for all the vowels and *aci* is in the seventh case. It gives the condition for the rule. This operation prescribes substitution of *ik* letters with *yaṇ* letters when followed by vowels.

⁵⁶ Another variation: *adhikāro vidhiḥ saṃjñā niṣedho niyamastathā | paribhāṣā ca śāstrasya lakṣaṇaṃ ṣaḍvidhaṃ viduḥ||* – For reference, see Śaṣibhūṣaṇamīśra, *Pāṇinīyaparamparāyāṃ sūtraṃ tadviḥbhājanam ca*, NJHSR 2021; 1(37): 66-70.

- *Niyamasūtras* (Restrictive rules): These rules restrict the application of some other rules. To elaborate: Let a *saṃjñāsūtra* 1.4.7 शेषो घ्यसखि (*śeṣo ghyasakhi*) be considered. It defines the *saṃjñā ghi*. All masculine words ending in *ikāra* except the word *sakhi* are termed *ghi*. Rule 1.4.8 पतिः समास एव (*patiḥ samāsa eva*) is a *niyamasūtra* to 1.4.7. The word *pati* would have been termed *ghi* by 1.4.7 as it ends in *ikāra*. But, 1.4.8 restricts this definition and states that *pati* can be termed *ghi* only if it is used in a *samāsa* like *bhūpati*, *gajapati* etc. This term is not applied when it is a stand-alone *pati*. Thus, 1.4.7 is restricted by 1.4.8 and 1.4.8 is classified as a restrictive rule.
- *Atideśasūtras* (Extension rules): These rules superimpose characteristics of one entity on to another by which some other rules can be applied. An example for such an extension rule is 7.1.95 तृज्वत् क्रोष्टुः (*trjvat kroṣṭuḥ*). The word, *kroṣṭuḥ* is a masculine word ending in *ukāra*. In reality, it should behave like the word *sādhū*. However, 7.1.95 superimposes the property of a masculine word ending in *ṛkāra* on the word *kroṣṭu*. Due to this rule, this word loses the property of being a masculine word ending in *ukāra*. Thus, 7.1.95 is classified as an extension rule.
- *Adhikārasūtras* (Governing rules): These rules define the scope of a particular domain or concept which is akin to a subroutine/function in a programming language. An example of such a rule is 3.1.1 प्रत्ययः (*pratyayaḥ*). It is a governing rule whose scope extends up to the end of the fifth chapter. All rules of these three chapters fall under the domain of *pratyayas*.

In order to gain a better understanding of the placement of these kinds of rules, a broad overview of the structure of the *Aṣṭādhyāyī* is undertaken at this juncture.

1.7 Structure of the *Aṣṭādhyāyī*

- The first two chapters highlight the *saṃjñāsūtras* and *paribhāṣāsūtras*.
- The third chapter focusses on the *pratyayas* of roots and the fourth and fifth chapters highlight the affixes of the nominal bases (*prātipadika*).

- The sixth and the seventh chapters explain the actual principle of word formation such as replacement, insertion, deletion of affixes to the bases, thereby containing the operational rules.
- The eighth chapter includes rules for the last stages of the derivational process in order to complete the word.

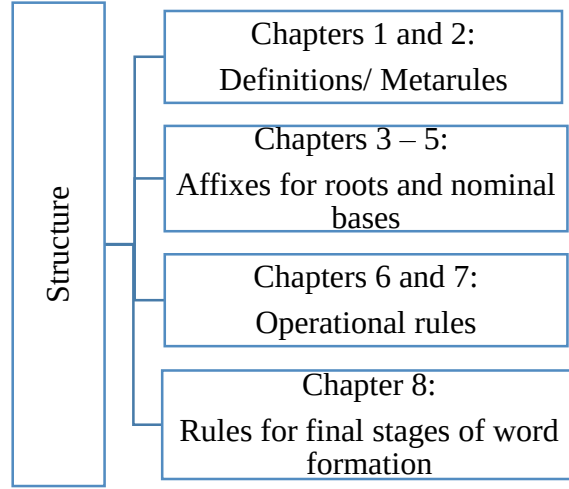


Figure 1.7: Structure of the *Aṣṭādhyāyī*

Thus, the basic framework of this treatise is very structured and logical in keeping with the principle of word formation. In addition to this structured framework, *Pāṇini* has employed many novel techniques such as *pratyāhāras* (acronyms) of *śivasūtras*, *anubandhas* (initial-tags and end-tags), concept-wise blocks known as *prakaraṇas*, continuation (*anuvṛtti*) of a word or words from one rule to the next, transference of properties (*sthānivadbhāva*), suspension of rules (*asiddhatva*), transference of properties of an affix (*pratyayalakṣaṇa*) among others. Each one of them is discussed below:

Pratyāhāras are acronyms that are obtained from the fourteen *śivasūtras*. The *śivasūtras* are:

अइउण्। ऋलक्। एओङ्। ऐऔच्। हयवरट्। लण्। जमङणनम्। झभञ्। घढधष्। जबगडदश्।
खफछठथचटतव्। कपय्। शषसर्। हल्।

aiuṇ | *ṛ!k* | *eoṇ* | *aiauc* | *hayavaraṭ* | *laṇ* | *ñamaṇaṇanam* | *jhabhañ* | *ghaḍhadhaṣ* |
jabagaḍadaś | *khaphachaṭhathacaṭataṭ* | *kapay* | *śaṣasar* | *hal* |

The last letter of each of these aphorisms is elided. In *aiuṇ*, the letters are *a*, *i* and *u* while the last letter *ṇ* is elided. *Ac* is an acronym that is used to indicate all vowels. It contains the letters अइउण्। ऋलक्। एओङ्। ऐऔच्। (*aiuṇ* | *ṛ!k* | *eoṇ* | *aiauc*) *ṇ*,

k, *ñ*, and *c* are the end-tags that are elided in this *pratyāhāra ac*. These tags are termed *itsamjñās*.

The rules of the *Aṣṭādhyāyī* that belong to the same concept are put together into blocks known as *prakaraṇas*. This is defined as *ekārthavicchinnaḥ sūtrasamudāyaḥ*.⁵⁷ Abhyankar defines it as a “topic; context; a section wherein a particular subject is treated”.⁵⁸ Its significance will be elaborated later. An example of a *prakaraṇa* is: Rules 8.2.42 – 8.2.61 deal with the concept of *niṣṭhātakāra* substituted by *nakāra*. This block of rules constitutes a *prakaraṇa*.

The continuation (*anuvṛtti*) of a word or words from one rule to the next is another notable feature employed by *Pāṇini*. As a result, the rules are concise. In fact, brevity is considered as one of the hallmarks of this text. This is possible since rules are put together into *prakaraṇas*. As rules pertaining to one particular topic are put together, the same thread of thought can be continued in the subsequent rules. Taking the same example of *niṣṭhātakāra*, there is continuation of the term *niṣṭhātakāra* in rules 8.2.43- 8.2.61, thereby eliminating the repetition of that term. Therefore, a *prakaraṇa* and *anuvṛtti* share a symbiotic relationship.

Continuing with the same idea, *Pāṇini* has categorised rules and put them under various headings or domains (*adhikāra*) in the *Aṣṭādhyāyī*. This has a broader scope of application in that the domain can even span across chapters. This has already been elucidated with an example under *adhikārasūtra*.

Sthānivadbhāva is a technique by which properties of the substituend (*sthānin*) are transferred to the substitute (*ādeśa*) i.e., the substitute behaves like the substituend. To elaborate: The root *as* gets a *ādeśa bhū* by the rule 2.4.52 अस्तेर्भूः (*asterbhūḥ*). Now, *as* is a root and *bhū* is a *ādeśa*. Now, on account of *sthānivadbhāva*, *bhū* also gets the designation of a root. This is the general way in which *sthānivadbhāva* works. There are exceptions to this general principle especially pertaining to vowels.⁵⁹

This general principle of *sthānivadbhāva* is applicable even to affixes. Sometimes, affixes are elided but the properties of the affix are still ‘virtually’ retained by which operations can be undertaken. It is as if the affixes still exist. This is stated in rule 1.1.62 प्रत्ययलोपे प्रत्ययलक्षणं (*pratyayalope pratyayalakṣaṇam*).

⁵⁷ For reference, see R.S. Bhattacharya, *Aṣṭādhyāyī ke prakaraṇa-kramom kī samgati* in his *Pāṇiniya vyākaraṇa ka anuśīlana* (Varanasi: Indological Book House, 1966), 1.

⁵⁸ Abhyankar, *A Dictionary of Sanskrit Grammar*, 240.

⁵⁹ 1.1.58 न पदान्तद्विर्वचनवरेयलोपस्वरसवर्णानुस्वारदीर्घजश्चर्विधिषु (*na padāntadvirvacanavareyalopasvara-savarṇānusvāradīrghajaścarvidhiṣu*)

The principle of suspension (*asiddhatva*) is the case in which the rule/operation is suspended.⁶⁰ The focus of this research is on this principle of suspension. This principle is predominantly applied by the rules of the *tripādī* and is elaborated below.

1.8 Ordering principles of rules

The application of rules during word formation is mostly predictable because *Pāṇini* has introduced caveats in order to be able to apply them perfectly. There is a परिभाषा⁶¹ पर्जन्यवल्लक्षणप्रवृत्तिः (*paribhāṣā parjanyaavallakṣaṇapravṛttiḥ*)⁶² that states that rules may become applicable at any stage in the word formation similar to rain. Wherever there is scope for the application of a rule during the *prakriyā*, then, that rule is applied. However, there are times when two rules can apply simultaneously at a particular stage of word derivation that leads to a conflict. In case of such a conflict, the grammatical tradition has given the general ordering principle in this परिभाषा पूर्व-पर-नित्य-अन्तरङ्ग-अपवादानाम् उत्तरोत्तरं बलीयः। (*paribhāṣā pūrva- para- nitya- antaraṅga- apavādānām uttarottaram bālīyaḥ*).

The exception rule is the strongest, followed by the rule of an *antaraṅga*⁶³ operation, followed by the compulsory rule, then, by the rule that is latter in the order given in the *Aṣṭādhyāyī* and the least strong is that rule which occurs earlier in the order of the *Aṣṭādhyāyī*. This principle, according to tradition, is maintained whenever there is a conflict of application of rules.



Figure 1.8: Traditional ordering principles of rules

⁶⁰ Traditionally, there are two schools of thought for this principle: Is the result suspended (*kāryāsiddhatva*) or is the rule suspended (*śāstrāsiddhatva*)? Sanskrit commentaries like *Nyāsa* make a mention of this under 6.4.22 असिद्धवदत्राभात् (*asiddhavadrābhāt*).

⁶¹ A *paribhāṣā* is defined “as an authoritative statement or dictum, helping (1) the correct interpretation of the rules (*sūtras*) of grammar, or (2) the removal of conflict between two rules which occur simultaneously in the process of the formation of words, (*padasiddhi*) or (3) the formation of correct words”. – For reference, see Abhyankar, *A Dictionary of Sanskrit Grammar*, 223.

⁶² *Paribhāṣā* 120 in *Paribhāṣenduśekhara*– For reference, see Narayan Dajiba Wadegaonkar trans., *Paribhāṣenduśekhara of Nāgoji Bhaṭṭa*, Marathi translation (Nagpur: Shriram Printing press, 1936), 515.

⁶³ अन्तः अङ्गानि निमित्तानि यस्य (*antaḥ aṅgāni nimittāni yasya*) – A rule or operation which has got the causes of its application within those of another rule or operation which consequently is termed *bahiraṅga* – For reference, see Abhyankar, *A Dictionary of Sanskrit Grammar*, 27.

Pataskar questions this traditional principle “because they have many counter examples”.⁶⁴ She suggests “some broad order predictive principles” embedded in the *Aṣṭādhyāyī*. “The most general principles which determine the order of application of rules are *siddha* - *asiddha* ‘affected / unaffected’ and *utsarga*- *apavāda* ‘general and special rules’. [T]he other simple convention not directly stated in the body of grammar but certainly assumed by *Pāṇini* is that the special rule (*apavāda*) prevails over the general rule”.⁶⁵

Another important aspect of application of rules is that the rules of the *sapādasaptādhyāyī* are applied randomly, i.e., a rule can be applied from the seventh chapter and the next rule could be from the third chapter. However, this random application of rules does not hold true in the *tripādī*. In the *tripādī*, the rules are applied sequentially.

1.9 The *tripādī*

The *tripādī*, consisting of the last three *pādas* of the *Aṣṭādhyāyī*, is also known as the *asiddhādhikāra* section. This section deals with the principle of *asiddhatva*. It starts with rule 8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*) and ends with 8.4.68 अ अ (*a a*). The second *pāda* of the eighth chapter has 108 rules, the third *pāda* has 119 rules and the last one has 68 rules. In all, there are 295 rules in *tripādī*.

The words in the rule 8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*) are: *pūrvatra* and *asiddham*. *Pūrvatra* means “in the preceding part”. *Asiddham* means “not accomplished”. *Asiddham* is derived from the root *sidh* means “to achieve”/ “to accomplish”. Abhyankar defines this term as “invalid”. He further elaborates: “[r]ules that have applied or operations that have taken place, which are, in certain cases, made invalid or invisible as far as their effect is concerned and other rules are applied or other operations are allowed to take place which ordinarily have been prevented by those rules which are made invalid had they not been invalidated”.⁶⁶ Roodbergen defines *asiddha* as “regarded as not having taken effect, regarded as inoperative”.⁶⁷

⁶⁴ Bhagyalata Pataskar, *Utsargāpavāda relation in the Aṣṭādhyāyī* (Dharwad: Karnataka Historical Research Society®, 2017), 1.

⁶⁵ Pataskar, *Utsargāpavāda relation in the Aṣṭādhyāyī*, 2.

⁶⁶ Abhyankar, *A Dictionary of Sanskrit Grammar*, 46.

⁶⁷ Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 68.

In a nutshell:

The principle of *asiddhatva* is based on these important factors:

- Suppose a rule from the *tripādī* is applied, it is as if not effected. This means: whatever operation that has been done due to a rule from the *tripādī* will not be visible to the rule of the *sapādasaptādhyāyī*. The rules of the *tripādī*, are, so to say, ‘suspended’ for other rules.
- And within the *tripādī* itself, the latter rule is not visible to the earlier rule.

अधिकारोऽयम्। तेन सपादसप्ताध्यायीं प्रति त्रिपाद्यसिद्धा त्रिपाद्यामपि पूर्व प्रति परं शास्त्रमसिद्धं स्यात्।⁶⁸

(*adhikāro 'yam | tena sapādasaptādhyāyīm prati tripādyasiddhā tripādyāmapī pūrvam prati param śāstramasiddham syāt*)

On account of this fact, rules from this section are automatically applied in sequential order. Thus, the sequential ordering and application of rules in the sequential order of the *tripādī* section become an inherent property.

A few examples are discussed below to understand this principle better:

Example 1: *rājabhiḥ*

This is an example in which a *tripādī* rule is suspended for a rule from *sapādasaptādhyāyī*. At the stage of *rājan + bhis*, 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopah prātipadikāntasya*) is applicable by which *n* gets elided and *rāja + bhis* is obtained. Now, 7.1.9 अतो भिस् ऐस् (*ato bhis ais*) states that for a base ending in short *a*, suffix *bhis* is replaced by *ais*. At this stage, 7.1.9 should have been applicable. But, the elision of *n* is not visible to 7.1.9; it is ‘suspended’ for 7.1.9 since 8.2.7 is a *tripādī* rule. It is still visible as *rājan + bhis* for 7.1.9. Therefore, there is no scope to apply 7.1.9 resulting in the desired form *rājabhiḥ*.

As against this example, *rāmaiḥ* is an example in which 7.1.9 is applicable. At the stage of *rāma bhis*, 7.1.9 is applicable as the conditions are met. *rāma bhis* → *rāma ais* (7.1.9) → *rāmaiḥ*.

⁶⁸ This statement is given in SK under 8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*). – For reference, see Srisa Chandra Vasu, *The Siddhānta kaumudī of Bhaṭṭoji Dīkṣita* Vol. I (First published by Pāṇini Office, Allahabad, 1906 and reprinted at Delhi: Motilal Banarsidass), 11.

Example 2: *praśān*

This is an example when a prior rule of the *tripādī* is not visible to the latter rule of the *tripādī*. At the stage of *praśām*, 8.2.64 मो नो धातोः (*mo no dhātoḥ*) is applied giving *praśān*. 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopah prātipadikāntasya*) should have been applicable to *praśān*. But, 8.2.7 is prior to 8.2.64 in the ordering of rules and therefore, not visible to 8.2.64 resulting in the non-application of 8.2.7. This example also highlights the fact that the positioning of the rules in *tripādī* play a crucial role in application of rules.

The principle of *asiddhatva* is not restricted only to *tripādī*. There are two sub-sections that relate to this concept even in the *sapādasaptādhyāyī*. They are:

- *asiddhavat* section (6.4.22 - 6.4.175) and
- 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*).

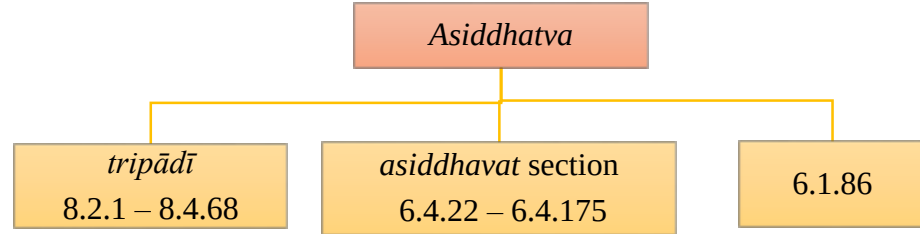


Figure 1.9: *Asiddhatva* in the *Aṣṭādhyāyī*

1.10 The *asiddhavat* section

The *asiddhavat* section is also termed as the *ābhīya* section. The rules covered in this section are from 6.4.22 असिद्धवदत्राभात् (*asiddhavadatrābhāt*) to the end of the *pāda* (6.4.175 ऋत्य-वास्त्य-वास्त्व-माधी-हिरण्ययानि च्छन्दसि (*ṛtvya-vāstvyā-vāstva-mādhvī-hiraṇyayāni cchandasī*)). The scope of this *asiddhatva* is extended up to the end of the fourth *pāda* as per tradition.⁶⁹ In this section, the *asiddhatva* principle differs slightly from that of the *tripādī*. The rules are applied randomly as against the sequential application of the *tripādī* and the rules are said to be *asiddha* to each other **only** if they share the same linguistic environment (*samānāśraya*). The term *atra* in the rule 6.4.22 असिद्धवदत्राभात् (*asiddhavadatrābhāt*) is explained as *samānāśraya* as per grammatical

⁶⁹ KK makes this statement: यदित ऊर्ध्वमनुक्रमिष्याम आ अध्यायपरिसमाप्तेस्तद् असिद्धवद् भवतीत्येवं वेदितव्यम्। (*yadita ūrdhvamānukramiṣyāma ā adhyāyaparisamāptestad asiddhavad bhavātītyevaṃ veditavyam*) For reference, see Ishwar Chandra Pandit: *Kāśīkāvṛtti*: Part 2, 683.

tradition. If the causes (*nimittas*) for the application of rules are the same, then they are said to be *samānāśraya*. The term ‘*samānāśraya*’ is elucidated with an example.

The form *edhi* is derived from the root *as*. 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*) and 6.4.119 घ्वसोरेद्धावभ्यासलोपश्च (*ghvasoreddhāvabhyāsalopaśca*) are both applicable simultaneously because the causes for both the rules are the same. At the stage of *as* + *hi*, 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*) prescribes the elision of *akāra* for the root *as* when followed by the affix *hi*. 6.4.119 घ्वसोरेद्धावभ्यास-लोपश्च (*ghvasoreddhāvabhyāsalopaśca*) prescribes *e* as *antyādeśa* for the root *as* when followed by the affix *hi*. Both have the same causes namely, *as* and *hi*. Thus, 6.4.111 and 6.4.119 share the same linguistic environment; they are said to be *samānāśraya* and are thus *asiddha* to each other. Considering the same example, the working of the principle of suspension in the *ābhīya* section is explained below.

The derivational process of *edhi* is as follows: At the stage of *as* + *hi*, *s* is replaced by *e* by 6.4.119 घ्वसोः एत् हौ अभ्यासलोपश्च (*ghvasoḥ et hau abhyāsalopaśca*) resulting in *ae* + *hi*. At this stage, *a* is to be deleted for the verbal root *as* by 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*). 6.4.111 and 6.4.119 share the same linguistic elements, i.e. these rules are *asiddha* to each other. Thus, it is still *as* and not *ae* to 6.4.111. 6.4.111 becomes applicable giving *e hi* (*a* gets deleted). 6.4.101 हुज्जल्भ्यो हेर्धिः (*hujhalbhyo herdhiḥ*) is applied by which *hi* is replaced by *dhi* giving the desired result, *edhi*. As can be observed from this example, the order is not maintained while applying the rules from this section. Moreover, the rules are ‘suspended’ to each other only if they share the same linguistic environment.

1.11 The rule 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*)

6.1.86 states that *ekādeśa* is *asiddha* for *ṣatva* and *tugāgama*. 6.1.86 comes under the domain of *saṃhitā*⁷⁰ (6.1.72 संहितायाम् (*saṃhitāyām*)) and *ekādeśa* (6.1.84 एकः पूर्वपरयोः (*ekah pūrvaparayoh*)). Two examples are considered below:

⁷⁰ There is a definition rule 1.4.109 परः सन्निकर्षः संहिता (*paraḥ sannikarṣaḥ saṃhitā*) meaning extreme proximity of letters is termed as संहिता (*saṃhitā*).

Example 1: *ko'sya*

At the stage of *ko + asya*, 6.1.109 एङः पदान्तादति (*eṅaḥ padāntādati*) is applicable. The coalescence takes the earlier form (*pūrvārūpa*). Thus, *o* of *ko* is retained giving the form *ko'sya*. *Ṣatva* by 8.3.59 आदेशप्रत्ययोः (*ādeśapratyayoh*) does not take place because of 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*).

Example 2: *adhītya*

At the stage of *adhi + i + lyap*, 6.1.101 अकः सवर्णे दीर्घः (*akaḥ savarṇe dīrghaḥ*) is applied. 6.1.71 ह्रस्वस्य पिति कृति तुक् (*hrasvasya piti kṛti tuk*) prescribes *tugāgama* for a short letter when followed by a *kṛt* suffix that is *pit*. The coalescence done by 6.1.101 causes lengthening which is not visible to 6.1.71 as it is still *i* and not *ī*. 6.1.71 finds scope to be applied. Thus, the form *adhītya* is derived.

From the above discussion, it can be observed that there are four types of *asiddhatva* - *ekādeśa asiddhatva*, *ābhīya asiddhatva*, *tripādīya asiddhatva* with respect to *sapādasaptādhyāyī* and *tripādīya asiddhatva* within *tripādī*. Thus, all the sections that use the concept of *asiddhatva* in the *Aṣṭādhyāyī* have been discussed.

1.12 Literature review

The principle of suspension (*asiddhatva*) has been the subject of extensive discussion in grammatical tradition and among contemporary academics. The review of the work done so far is discussed as follows - the principle of *asiddhatva* in general, the *ābhīya* section and ordering principles. The traditional interpretation as given in the *Sanskrit* commentaries and the views of modern scholars have been taken into consideration in this review.

Literature review on *asiddhatva*

The traditional interpretation emphasises and repeats *Kātyāyana's vārttikas* while modern scholars take a more linguistic approach. Both the interpretations are elucidated below.

Traditional interpretation of principle of suspension

Patañjali's Mahābhāṣya quotes *Kātyāyana's vārttikas* for explaining the principle of *asiddhatva*. *Vārttika* 1 of 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*) is आदेशलक्षणप्रतिषेधार्थमुत्सर्गलक्षणभावार्थ च। (*ādeśalakṣaṇapratishedhārtham-utsarga-lakṣaṇabhāvārtham ca*). This *vārttika* is a *sūtraprayojanavārttikam* meaning that the purpose of the rule is stated in this *vārttika*. Two purposes of this rule are: *ādeśalakṣaṇapratishedhārtham* and *utsargalakṣaṇabhāvārtham*.

Ādeśalakṣaṇapratishedhārtham

An operation is prohibited because it is conditioned by a *ādeśa*. This is termed as *ādeśalakṣaṇapratishedhārtham*. *ko'sya*, explained earlier, is an example of this type of prohibition of operation. This is an example for *ekādeśa asiddhatva* i.e. 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*). An example of *ābhīya asiddhatva* is the derivation of *jahi*. *Jahi* is derived from the root *han*. At the stage of *han + hi*, 6.4.36 हन्तेर्जः (*hanterjah*) is applicable resulting in *ja + hi*. Now, 6.4.105 अतो हेः (*ato heḥ*) can be applied to *ja + hi*. But, *ja ādeśa* prescribed by 6.4.36 is suspended to 6.4.105 as they share the same linguistic environment thereby prohibiting the application of 6.4.105. An example for *tripādīya asiddhatva* with respect to *sapādasaptādhyāyī* is *rājabhiḥ* (explained earlier) and an example for *asiddhatva* within *tripādī* is *praśān* (also explained earlier).

Utsargalakṣaṇabhāvārtham

Utsargalakṣaṇabhāvārtham means “giving scope to an operation applicable to the original (*sthānin*)”.⁷¹ *Utsarga* stands for *sthānin*. *Adhītya*, explained earlier, is an example of this type of prohibition of operation of the *ekādeśa asiddhatva* type (6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*)). An example of *ābhīya asiddhatva* is the derivation of *edhi* explained earlier. An example for *tripādīya asiddhatva* with respect to *sapādasaptādhyāyī* is *amuṣmai*. At the stage of *ada + e*, 7.1.14 सर्वनाम्नः स्मै (*sarvanāmnah smai*) and 8.2.80 अदसोऽसेर्दादु दो मः (*adaso'serdādu do mah*) are both applicable. However, 8.2.80 is a rule from *tripādī* and is *asiddha* to 7.1.14. 7.1.14 is applied resulting in *ada + smai*. 8.2.80 is also applied giving the form *amu + smai*.

⁷¹ Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 103.

Ṣatvam takes place by 8.3.59 आदेशप्रत्यययोः (*ādeśapratyayayoḥ*) resulting in *amuṣmai*. Thus, *asiddhatva* allows the application of 7.1.14.

Summarizing, as per grammatical tradition, the principle of *asiddhatva* centres around two factors: the avoidance of application of rules which is conditioned by a substitute, *ādeśa*, known as *ādeśalakṣaṇapraṭiṣedhārthaṃ* and application of rules conditioned by a substituend, *utsarga*, known as *utsargalakṣaṇabhāvārthaṃ*. This thought process of *Kātyāyana* is continued by the succeeding grammarians such as *Patañjali* in his *Mahābhāṣyaṃ*, *Jayāditya* and *Vāmana* in *Kāśikāvṛtti*, *Jinendrabuddhi* in *Nyāsa*, *Haradatta* in *Padamañjarī* and *Bhaṭṭojidīkṣit* in *Siddhāntakaumudī*.

Modern scholars

Numerous studies have been undertaken on the principle of *asiddhatva*, especially in the 1930s – 40s and 1980s- 2020. This can be verified with the search on Google Books Ngram Viewer. It gives the following graph.

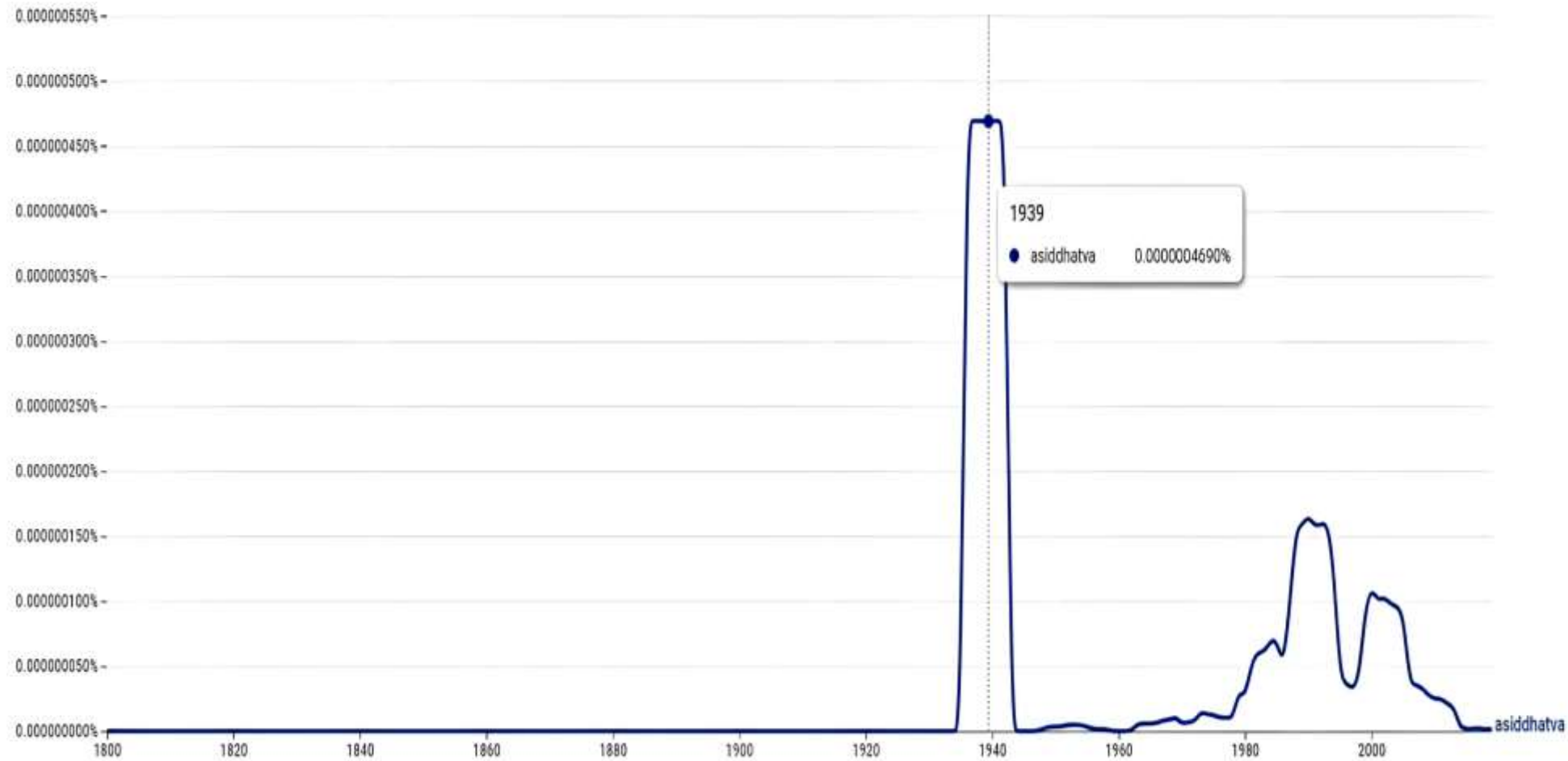


Figure 1.10: Google Books *Ngram* Viewer graph for *asiddhatva*

In addition to the traditional interpretation, these modern scholars adopted a more linguistic approach. The earliest work on *tripādī* was undertaken by H.E. Buiskool in the year 1939.⁷² The general approach of this work is of “an analytical-synthetical inquiry into the system of the last three chapters of *Pāṇini*’s *Aṣṭādhyāyī*”. This is a recast of his PhD dissertation which was in Dutch. Chapter I outlines the form and content of the *Aṣṭādhyāyī*. The form focusses on roots, affixes, accents, place and auxiliaries. The emphasis is particularly on morphology, reduplication, apophony, decerebralization, syncope, epenthesis and prosthesis. Chapter II pinpoints the relation of *paribhāṣās* and *adhikāras* to that of *tripādī* and the *vārttika pūrvatrāsiddhe ca* is examined along with the *adhikāra* of *pada*. Chapter III outlines the logical principle of the *tripādī*. This comprises the “restoration of vowels and consonants” and dividing the *tripādī* into a “system of groups”. Formation-groups focus on rules (8.2.1 – 8.2.107), position groups with *sandhi* “Auslaut” processes (8.2.108 – 8.3.54), “inlaut” processes (8.3.55 – 8.4.39) and general *sandhi* processes (8.4.40 – 8.4.68) and thematical groups bring together the *sūtras* into thematical groups. Chapter IV lists out two types of *asiddhatva*- primary *asiddhatva* and secondary *asiddhatva*. By primary *asiddhatva*, he means one rule is *asiddha* to another as in the case of *rājabhiḥ*. Secondary *asiddhatva* means when the latter rule is not visible to the prior one in the *tripādī* by which undesired forms are avoided. The examples given are:

1. Sūtra VIII 317 had to follow on VIII 2 66 (which itself is placed in the *Tripādī* on account of its relation to *e.g.* VII 1 9 (*bhisah!*)) and, thus, became secondarily *asiddha*, as in the case of inversion of both sūtras (by which VIII 2 66 would automatically become *asiddha* with regard to VIII 3 17) none of the *rus* of 66 would become *y* etc. 2. VIII 2 76 had to follow on 66 in order that the long *ī* of *āśīḥ* might be accounted for (*s* > *R*; *i* before *r* (*R*) > (*ī*).⁷³

Under “formation groups”, he illustrates rules 8.2.1 – 8.2.107, examples being *rājā*, *bhavān*, *alāvīt*, *guḍaliṇmān*, *adugdha*, *jighṛkṣati*, *praśān*, *sīrṇa*, etc. “Position-group A (*Auslaut*)” discusses 8.2.108 – 8.3.54, the examples being *marutvaḥ*, *mahān*, *niṭṭsu*, etc. “Position- group B (*Inlaut*)” caters to 8.3.55 – 8.4.39, the examples being *cyoṣṭḍhvam*, *varṇa*, *tisṛṇām* etc. “Position-group C” discusses examples *vṛkṣaśśete*,

⁷² The summary of his work is given above. For reference, see Herman Eildert Buiskool, *The Tripādī: Being an abridged English recast of Pūrvatrāsiddham [Ausz. Engl.]* (An analyt.-synthet. inquiry into the system of the last 3 chapters of Pāṇini’s *Aṣṭādhyāyī*), (Leiden: E. J. Brill, 1939).

⁷³ Buiskool, *The Tripādī*, 66.

ṣaṇṇām, *mumugdhi*, *vāk*, *śvaliṭchete*, *śvaliṭṣete* under the rules 8.4.40- 8.4.68. Chapter V discusses the parallelism of the logical and the *asiddhatva* principle. A few examples and observations have been mentioned:

Examples - Sūtra VIII 2 66, for instance, must (for *sandhi* -processes) be followed by VIII 3 15, this sūtra by 3 34 seqq. etc.⁷⁴

Example. - In the *matup*-group (I (3)) VIII 2 16 is *asiddha* in regard to 9, owing to which *asiddhatva akṣamat* (VIII 2 7) becomes (not **akṣa-vmat* (VIII 2 9, cf. I 1 54), but) *> *akṣa-vat* according to the first- mentioned sūtras.

Example – Thus group VIII 3 55- end of the *pāda* (cerebralization of *s*) should precede group VIII 4 1-39 (cerebralization of *n*) on account of *e.g.* the relation between VIII 3 59 and VIII 4 1 (the *ṣ* arising from the first sūtra has to produce effect in the second), but *e.g.*, VIII 3 59 has nothing to do with *e.g.* VIII 4 14.⁷⁵

Chapter VI discusses the systematical upbuilding of the *tripādī*. While discussing the contents of the *tripādī*, Buiskool says: “The vowel- sandhi could almost entirely be achieved in I-VIII 1 and so the remaining cases occupy a subordinate place in the *Tripādī*. [T]he consonant-sandhi, therefore, was for the greater part reserved for the *Tripādī*, and these “consonant-sūtras prevail in it.”⁷⁶ He further divides the formation group into

1. Ac- division 1 (8.2.4 8.2.6),

2. *Hal* division

a. *yam* groups (8.2.7- 8.2.22)

b. *jhal* groups (8.2.23 – 8.2.75),

3. Ac- division 2 (8.2.76- 8.2.107)

A brief description of what the rules prescribe follows. He further discusses the various processes in terms of place of articulation and the effort required for articulation. As can be observed, there are scanty references to why a rule has been placed in *tripādī* and the ordering of rules.

Banerjee,⁷⁷ in his introductory chapter, explains the three sections of *asiddhatva* in *Aṣṭādhyāyī* with examples given in the *Sanskrit* commentaries. The *vārtikas pūrvatrāsiddhe na sthānivat* and *pūrvatrāsiddham advitve* are discussed. The

⁷⁴ Buiskool, *The Tripādī*, 104.

⁷⁵ Buiskool, *The Tripādī*, 107.

⁷⁶ Buiskool, *The Tripādī*, 111.

⁷⁷ Rabi Shankar Banerjee, *Concept of Asiddhatva in Pāṇini: Along with a connected history of grammatical studies in Ancient India* (Calcutta: Sanskrit Pustak Bhandar, 1984).

concepts of *kāryāsiddhatva* and *śāstrāsiddhatva* are differentiated. The *ābhīya* section is elaborated with the stock examples such as *śādhi*, *jahi* and *edhi*. Moreover, the *anityatva* of this *asiddhatva* is justified with the example of *debhatuḥ*. 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*) is also discussed with the examples of *ko'sicat* and *adhītya* and the exception, *brahmahūṣu*, is explained in case of *saṃprasāraṇa*.⁷⁸ The latter part of the book elaborates on the grammatical studies in ancient India.

Rubel Das⁷⁹ discusses the principle of *asiddhatva* under the rules 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*), 6.4.22 असिद्धवदत्राभात् (*asiddhavadatrābhāt*) and 8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*). The examples given in the Sanskrit commentaries under these rules have been quoted and the *paribhāṣā asiddham bahiraṅgamantarāṅge*⁸⁰ is also discussed.

Malgorzata Sulich-Cowley⁸¹ has translated the *Mahābhāṣyaṃ* of the *tripādī* into English. Chapter I highlights the Sanskrit grammatical tradition before *Patañjali* while chapter II discusses the *Mahābhāṣyaṃ* tradition. Chapter III summarizes the sources and the structure of the work. Chapter IV gives a broad overview of the *asiddha* principle, the relation between the *tripādī* and the *sapādasaptādhyāyī*, *yathoddeśapakṣa*⁸² and *kāryakālapakṣa*⁸³ of the *paribhāṣā* rules, *kāryāsiddhatva* and *śāstrāsiddhatva*, *sthānivadbhāva* and the *siddha* principle. The English translation and analysis of 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*) and the *tripādī* section are provided in Chapter V. Chapter VI discusses the arguments put forth by *Patañjali* on *asiddhatva*.

⁷⁸ Replacement of a semivowel (y, v, r, l) by the corresponding vowel— For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 445.

⁷⁹ Rubel Das, “Pāṇinīyanaye ‘siddhāvavimarśaḥ,” *International Journal of Sanskrit Research* 2018: 4(2): 62-67.

⁸⁰ A grammatical operation which is dependent on a cause which lies outside (a given morphemic sequence) is (regarded as) not having taken effect when (the question is of applying an operation) which is dependent on a cause which lies within (that sequence)’ – For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 70.

⁸¹ Sulich-Cowley, *The principle of suspension (asiddhatva) in Pāṇinian grammar*, 2022.

⁸² यथोद्देशं संज्ञापरिभाषम् (*yathoddeśaṃ saṃjñāparibhāṣam*) - *paribhāṣā* 2 in *Paribhāṣenduśekhara* – For reference, see Wadegaonkar trans., *Paribhashendushekhara of Nagoji Bhatta*, 3. “The pbh. says (that *saṃjñās* and *pbhs* are grammatical operations in their own right) as taught (by the rule that introduces or states them). They can be applied independently of particular operations conditioned by them. That is, do not shift their place to the *sūtra* which requires their application”. – For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 343.

⁸³ कार्यकालं संज्ञापरिभाषम् (*kāryakālaṃ saṃjñāparibhāṣam*) *paribhāṣā* 3 in *paribhāṣenduśekhara*– For reference, see Wadegaonkar trans., *Paribhashendushekhara of Nagoji Bhatta*, 3. “‘alternative of the time of the operation’, i.e., *saṃjñās* and *paribhāṣās* present themselves at the moment at which the operation concerned is prescribed. That is to say, a *saṃjñā* rule and a *pbh.* are to be interpreted together with the *vidhi* concerned”. – For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 141.

In contrast to the principle of *asiddhatva*, a theory was proposed by Paul Kiparsky known as the *siddha* theory. Later, S.D. Joshi and J.A.F. Roodbergen concurred with this theory of Kiparsky. This review of *siddha* theory is based on the articles written by Paul Kiparsky, S.D. Joshi and J.A.F. Roodbergen.

The *siddha* theory as proposed by Paul Kiparsky and then followed by S.D. Joshi and J.A.F. Roodbergen

Paul Kiparsky⁸⁴ introduces the *siddha* theory in his lecture series at Bhandarkar Oriental Research Institute, Pune. Lecture III is titled “The function of *siddha* and *asiddha* in the *Aṣṭādhyāyī*”. In that lecture, he elaborates “[t]he ordering of rules in *Pāṇini*’s grammar is governed by the principle that all rules are *siddha* with respect to all rules, unless a specific statement to the contrary is contained in the grammar.” He further claims that *asiddha* and other devices are restrictions on a general *paribhāṣā... sarvatra siddham*. He defines the *siddha* principle in contrast to the traditional interpretation of *asiddhatva*, as *ādeśalakṣaṇabhāva* and *utsargalakṣaṇapratishedha*. Paul Kiparsky’s views are shared by S.D. Joshi and J.A.F. Roodbergen.

S.D. Joshi⁸⁵ states that “*Pāṇini*’s derivative system is based on two broad principles, namely, the principle of *siddhatva/ asiddhatva* and the principle of *sthānivadbhāva*.” He also claims that *sthānivadbhāva* does not block operations. If so, many rules of the *ābhīya* section would be superfluous. S.D. Joshi and J.A.F. Roodbergen⁸⁶ define the *siddha* principle as *pūrvatra ca uttaratra ca siddham*|. They also assert that the *siddha*⁸⁷ principle is said to be inherent in the rules of the *Aṣṭādhyāyī*.

The main points of this theory are:

1. If rule A destroys the *nimitta* (cause) of rule B, then rule A has to be applied i.e. to say environment-changing rules are to be applied first.

⁸⁴ Paul Kiparsky, *Some theoretical problems in Pāṇini’s grammar* (Pune: Bhandarkar Oriental Research Institute, 1982).

⁸⁵ S.D. Joshi, "The functions of *asiddhatva* and *sthānivadbhāva* in *Pāṇini*’s *Aṣṭādhyāyī*," *CASS Studies* 6 (1981): 153-68.

⁸⁶ S.D. Joshi and J.A.F. Roodbergen, “On *Siddha*, *Asiddha* and *Sthānivat*,” *Annals of the Bhandarkar Oriental Research Institute* 68, 1/4, Ramakrishna Gopal Bhandarkar 150th Birth anniversary Volume (1987): 541-9.

⁸⁷ S.D. Joshi and J.A.F. Roodbergen, “The *Siddha*- principle as presupposed by some *Pāṇinisūtras*,” *Annals of the Bhandarkar Oriental Research Institute* 72/73, 1/4, Amrtamahotsava (1917- 1992) Volume (1991-1992): 47-58.

2. *Nitya* rules are applied first as the *siddha* principle covers *utsargalakṣaṇapratiṣedha*.
3. *Sthānivadbhāva* and *pratyayalakṣaṇatā* are used as devices which counter the effect of the *siddha* principle.

Bronkhorst⁸⁸ challenges the *siddha* principle of Paul Kiparsky and requests explanation for words like *vakti*. S.D. Joshi and Paul Kiparsky⁸⁹ explain the way to maximize the *siddha* principle. The two possible ways are: the restricted *siddha* principle and the extended *siddha* principle. The restricted one is a local condition which prioritizes rule application and the extended principle is a global “lookahead” condition on derivations.

Literature review of the *ābhīya* section

The grammatical tradition does not differentiate between the terms *asiddha* and *asiddhavat*. This has been discussed by Bronkhorst and Sulich-Cowley amongst others. Bronkhorst’s article⁹⁰ points out that “there is a difference between *asiddha* and *asiddhavat*. [s]o the Sanskrit grammatical tradition was mistaken”. Sulich-Cowley states “According to traditional commentators such as *Patañjali*, both terms are used in the same meaning, which is more than disputable as *Pāṇini* did not tend to employ various terms to denote one thing; if the terms are only slightly different they are meant to mean something different”.⁹¹

Yagi Toru⁹² elaborates on the viewpoint of *Kaiyaṭa*’s traditional interpretation. He points out that the traditional commentators and modern scholars agree that the rule is *asiddha* and the result of the rule is not *asiddha*. He mentions that Cardona differentiates between the *asiddhatva* of 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*), the *ābhīya* section and the *tripādī*. According to Cardona, 6.1.86 and the *tripādī* focus on rule suspension while the *ābhīya* section centres on the suspension of the result. He

⁸⁸ Johannes Bronkhorst, “What is *Asiddha*,” *Annals of the Bhandarkar Oriental Research Institute* 70, 1/4, (1989): 309-11.

⁸⁹ S.D. Joshi and Paul Kiparsky, “The extended *Siddha* principle,” *Annals of the Bhandarkar Oriental Research Institute* 86 (2005): 1-26.

⁹⁰ Johannes Bronkhorst, “*Asiddha* in the *Aṣṭādhyāyī*: A misunderstanding among the traditional commentators?” *Journal of Indian Philosophy* (1980): 69-85.

⁹¹ Sulich-Cowley, *The principle of suspension (asiddhatva) in Pāṇinian grammar*, 42.

⁹² Yagi Toru, “The *asiddha/asiddhavat* reconsidered,” *Wiener Zeitschrift für die Kunde Südasiens und Archiv für Indische Philosophie*, 36 *Vienna Journal of South Asian Studies*, 36 (1993): 49-58.

also quotes Bronkhorst's opinion that the application order of rules in the *ābhīya* section is of free choice.

Cardona,⁹³ while discussing the suspension of rules and their effects, discusses the effect of suspending a rule.

Letting a rule (*śāstra*) R_1 be suspended (*asiddha*) with respect to another rule R_2 can have two effects: (a) Although R_1 may have to apply before R_2 , the latter does not apply to the results thus obtained, even if the conditions be met for it to take effect. (b) A general principle may dictate that R_1 take precedence over R_2 , but the rule suspension results in letting R_2 apply first. As far as type (a) is concerned, suspending the result (*kārya* 'what is to be done, brought about') of applying R_1 has the same effect as suspending a rule. On the other hand, (b) does not hold under this type of suspension. Instead, R_1 does indeed take precedence, but the effect of this is then treated as though it had not come about (*asiddhavat*), although it is allowed to stand.

He gives examples of *ko'siñcat*, *adhītya*, *amuṣmai*, *pakva*, *rājabhyām*, *rājabhiḥ*, *śādhi* and *edhi*. He justifies the placement of rules in the two different sections of *ābhīya* and *tripādī*.

Nor is it reasonable to insist that all the rules in question be assigned to one of two sections, under the possible headings noted. For this would upset a more important organization, according to operands and the contexts for operations.

His conclusion is that *śāstrāsiddhatva* holds true for *tripādī* while *kāryāsiddhatva* is true for *ābhīya* section.

Sulich-Cowley⁹⁴ makes a comparison of *asiddha* and *asiddhavat* as given in the *Mahābhāṣya* and justifies that *asiddha* is not equivalent to *asiddhavat*. She distinguishes between the sections with respect to the application of rules, the principle of *asiddhatva* and the role of *sthānivadbhāva*. She mentions that rules in the *ābhīya* section are applied randomly while in the *tripādī*, they are applied sequentially. Suspension of rules in the *ābhīya* section is applicable only when two rules share the same linguistic environment while this is not true for the *tripādī*. There is no *sthānivadbhāva* in *tripādī* while there is *sthānivadbhāva* in the *ābhīya* section.

⁹³ Cardona, *Pāṇini: His Work and Its Traditions*, Volume 1, 490-6.

⁹⁴ Malgorzata Sulich-Cowley, "Asiddha and asiddhavat in *Mahābhāṣya*," Ciotti, Giovanni, Alastair Gornall, and Paolo Visigalli, eds. *Puspika: Tracing Ancient India through Texts and Traditions* (2014): 171-90.

Taking a traditional approach, Sanhita Joshi⁹⁵, in her doctoral dissertation on *ābhīya* section, considers fourteen examples. She points out that in this section, there is suspension only after the rule is applied while this is not true for *tripādī*. The *sthānins* are different when *asiddhatva* comes into play in this section. Adhering to the *siddha* principle proposed by Kiparsky, she quotes the example of *dadhre* and emphasises that environment-changing rule is applied first. She refutes the theory of Bronkhorst that the *vat*-suffixation underlines the absence of order in the rule application in the *ābhīya* section.

As already mentioned, the rules of the *tripādī* are applied in sequential order. This necessitates a review of literature on the ordering principles of the *Aṣṭādhyāyī*.

Literature review on ordering principles

Bhattacharya⁹⁶ refutes the objections raised by modern scholars regarding the order of topics and the division of the *Adhyāya*, *pāda* etc. of the *Aṣṭādhyāyī*. He justifies the ordering of the *Aṣṭādhyāyī* with examples and states that “the *Aṣṭādhyāyī* is based on a strict logical order and no topic can be replaced from its present situation to another place”.

Fowler’s article⁹⁷ makes a comparison of rule ordering in the *Aṣṭādhyāyī* and the *Siddhāntakaumudī*. His perspective is to analyse the ordering in the *Aṣṭādhyāyī* from the point of view of programming on the computer.

S.D. Joshi⁹⁸ discusses the *utsarga- apavāda* principle, the *asiddhatva* of the *tripādī* that follows sequential application and the *ābhīya* section, and the *para- nitya- antaraṅga- apavāda -pūrva paribhāṣā*. He further highlights the strict ordering of rules as suggested by A.M. Ghatage based on the *vārttika* on 1.4.32. He refutes this suggestion and concludes “*Pāṇini* [d]oes not give a general principle for the ordering

⁹⁵ Sanhita Joshi, "A study of *asiddha* principle in the *ābhīya* section of the *Aṣṭādhyāyī*," (PhD thesis, Deccan College Post Graduate and Research Institute, Pune, 2023).

⁹⁶ Ram Shankar Bhattacharya, "Some objections on the textual order of the *Aṣṭādhyāyī* and their refutation," *Journal of the Ganganatha Jha Research Institute* 13 (1956): 119-29.

⁹⁷ Murray Fowler, "How ordered are *Pāṇini*'s rules?" *Journal of the American Oriental Society* 85, no. 1 (1965): 44-7.

⁹⁸ S.D. Joshi, "The ordering of the rules in *Pāṇini*'s grammar," *Annals of the Bhandarkar Oriental Research Institute: Diamond Jubilee Volume* (1977): 667-74.

of the rules. [W]e cannot take it for granted that the traditional interpretation is nearly infallible. Our task should be to re-examine the rules of *Pāṇini* in a critical way”.⁹⁹

J.A.F. Roodbergen suggests that the *taddhita* and *samāsa* sections “should be lifted from their present position and placed after the *asiddha* section”.¹⁰⁰

K.R. Tripathi discusses the arrangement of rules in the *Aṣṭādhyāyī*.¹⁰¹ Chapter I sketches some general principles of arrangement of rules such as *utsarga- apavāda* principle, *paratva* as per 1.4.2 विप्रतिषेधे परं कार्यम् (*vipratishedhe paraṁ kāryam*), the *para- nitya- antaraṅga- apavāda –pūrva paribhāṣā*. Modern thoughts as given by Fowler and S.D. Joshi are also included. Chapter II gives an insight into the impact of *anuvṛtti* and *adhikāra* on the arrangement of rules. The latter part of the thesis focusses on the arrangement of the *taddhita* rules.

The rule suspension is extensively covered by Cardona.¹⁰² Referring to 8.2.2 नलोपः सुप्स्वरसंज्ञातुग्विधिषु कृति (*nalopaḥ supsvarasamjñātugvidhiṣu kṛti*), he discusses the manner in which suspension is restricted in respect of particular rules with examples for each of the restrictions such as *sup*, *svara*, *samjñā* and *tuk vidhi*. Quoting 8.2.3 न मु ने (*na mu ne*), Cardona expands on negating a suspension with respect to prior rules giving examples of *amuṣmai*, *amuṣmāt*, *amuṣyai*, *amuṣyām* amongst others. The next topic of discussion is “Implied nonsuspension of rules in *tripādī*” wherein 8.2.32 दादेर्धातोर्घः (*dāderdhātorghaḥ*) is considered as an exception to 8.2.31 हो ढः (*ho ḍhaḥ*). Similarly, 8.2.29 स्कोः संयोगाद्योरन्ते च (*skoḥ saṁyogādyorante ca*) is considered as an exception to 8.2.23 संयोगान्तस्य लोपः (*saṁyogāntasya lopaḥ*). Rules that are within a domain are not suspended to each other. Explaining the concept of *āśrayāt siddham*, Cardona gives the example of *līḍha* in which case 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopaḥ*) is not suspended for 6.3.111 द्रलोपे पूर्वस्य दीर्घोऽणः (*ḍhralope pūrvasya dīrgho 'ṇaḥ*). He also considers changing the position of another rule 6.1.113 अतो रोरप्लुतादप्लुते (*ato roraplutādaplute*) after 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*). The problems arising out of these reorderings are elaborated. He concludes “In sum, the available evidence and the

⁹⁹ S.D. Joshi, “The ordering of the rules in *Pāṇini*’s grammar,” *ABORI*, 674.

¹⁰⁰ J.A.F. Roodbergen, “Time for a little something,” *Pāṇinian Studies: Professor SD Joshi Felicitation Volume 37* (1991): 293-314.

¹⁰¹ Kripa Ram Tripathi, “Arrangement of the rules in *Pāṇini*’s *Aṣṭādhyāyī*” (New Delhi: Parimal Publications, 1991).

¹⁰² George Cardona, “*pūrvatrāsiddham* and *āśrayāt siddham*” (paper presented at the 14th World Sanskrit Conference, Kyoto, 1st - 5th September 2009).

rules of the *Aṣṭādhyāyī* as traditionally arranged accord with the known *Vedic* materials and the later *Sanskrit* developments”.

Bhagyalata Pataskar¹⁰³ gives an overview of the ordering principles with emphasis on the *utsarga* and *apavāda* relation. The traditional interpretation of ordering principles as given by the *paribhāṣā pūrva-para-nitya- antaraṅga-apavādānām uttarottaram balīyaḥ* is discussed. The device of *apavāda* according to *Kātyāyana* and *Patañjali* and the *paribhāṣās* on *apavāda* are elaborated with examples. While discussing the concept of *vipratishedha*, she claims that the *para* principle can be dispensed with *utsargāpavādanyāya*. “[a] number of cases of *vipratishedha* can be governed by the *utsargāpavādanyāya*”. According to her, an asymmetrical ordering is when rule A blocks B but B does not block A. [t]he *siddha* principle can take care of asymmetrical ordering relation. Categorising the rules as interpretative, word-building and phonological, she states that word-building rules prevail over phonological rules. The last topic of discussion in her book is the *antaraṅga/ bahirāṅga* relation. This principle does not hold word-internally and it does not hold between a word-building rule and a phonological rule. Her conclusion is that there is no hierarchy among these (ordering) principles because they operate in different domains which stand in a complementary relationship.

This concludes the literature review of *asiddhatva* principle and the rule ordering in the *Aṣṭādhyāyī*.

1.13 Research gap

As evidenced by the literature review, the principle of *asiddhatva* has been elucidated with the examples given in the *Sanskrit* commentaries of the *Aṣṭādhyāyī*. Buiskool cites a few *prakaraṇas* that have to follow some others based on logic. Banerjee’s book discusses the rules 6.1.86 षत्वतुकोरसिद्धः (*ṣatvatukorasiddhaḥ*), 6.4.22 असिद्धवदत्राभात् (*asiddhavadatrābhāt*) and 8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*) by giving examples. Sulich-Cowley has basically translated the *Mahābhāṣyam* of the *tripādī* into English. The aforementioned literature review makes clear that the principle of suspension (*asiddhatva*) has not been the subject of critical investigation. There has been no systematic topic-wise (*prakaraṇas*) analysis of the *tripādī*. There have been no new

¹⁰³ Pataskar, *Utsargāpavāda relation in the Aṣṭādhyāyī*, 2017.

inputs other than the traditional interpretation of this principle. The rationale behind placing these rules in *tripādī* has not been studied. The ordering of the *prakaraṇas* within *tripādī* has not been justified.

In addition, it is necessary to undertake a comparative analysis of the *ābhīya* section and the *tripādī* and to investigate the rationale behind creating two separate sections. Moreover, the relationships of the rules of the *ābhīya* section and the *tripādī* with respect to the other rules in the *śaṭṭadhyāyī* need to be analysed. This study will attempt to conduct a critical analysis of the principle of *asiddhatva*.

1.14 Methodology

The principle of *asiddhatva* has not been critically examined as pointed out in the research gap. In order to achieve this goal, each of the rules of the *tripādī* has been studied systematically. *Sanskrit* commentaries such as *Kāśikāvṛtti* and *Siddhāntakaumudī* have been used as basic texts to understand the working of each of the rules of the *tripādī*. The examples quoted in these commentaries are derived in a systematic manner with the complete *prakriyā*. Thus, each one of the rules of the *tripādī* is understood clearly.

The next step during this study involved searching for the occurrence of the rule of the *tripādī* in *Sanskrit* commentaries. This objective is attained using the search engine <https://ashtadhyayi.com>.¹⁰⁴ This website has been developed and maintained by Neelesh Bodas. He has also commented on the rules in simple *Sanskrit*.

On this website, there is a drop-down menu under which there are many options such as *sūtrapāṭhaḥ*, *dhātupāṭhaḥ*, *gaṇapāṭhaḥ*, *uṇāḍipāṭhaḥ*, *sūtrapāṭhavyākhyānāni* and so on. *Sūtrapāṭhavyākhyānāni* lists out a number of *Sanskrit* commentaries on the *Aṣṭādhyāyī* such as *Kāśikā*, *Nyāsa*, *Padamañjarī*, *Siddhāntakaumudī*, *Bālaṃānoraṃā*, *Tatvabodhinī*, *Praṇḍhamaṃoraṃā* and *Mahābhāṣyaṃ* along with the *Sanskrit* commentary of Neelesh Bodas amongst others.

Another option on this website is the *Aṣṭādhyāyīvyākhyānānveṣaṇam*. This option allows one to search for words in the commentaries. One can select the commentaries in which the word search is desired. Commentaries included in the

¹⁰⁴ “Ashtadhyayi,” n.d., <https://ashtadhyayi.com/>.

search engine for this study are *Kāśikā* (KK), *Nyāsa* (NY), *Padamañjarī* (PM), *Siddhāntakaumudī* (SK), *Bālaṃanoramā* (BM), *Tatvabodhinī* (TB), *Prauḍhamanoramā* (PraudaM), *Mahābhāṣyaṃ* (MB) and Neelesh Bodas's commentary (N). The abbreviations given in brackets for each of the commentaries is used in the subsequent chapters.

Considering an example, say 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*): Firstly, the full rule is searched in the commentaries. A partial screenshot of the first two results is shown below:

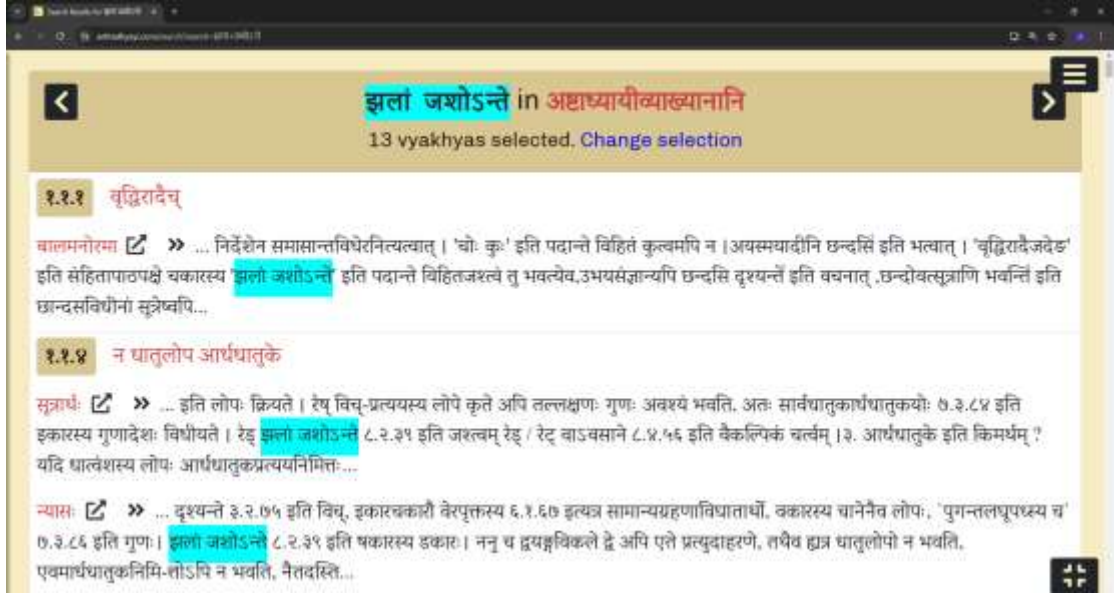


Figure 1.11: Screenshot of word search on webpage <https://ashtadhyayi.com>

Explanation for the first two results of this search

1.1.1 वृद्धिरादैच्

बालमनोरमा निर्देशेन समासान्तविधेरनित्यत्वात् । चोः कुः इति पदान्ते विहितं कुत्वमपि न । अयस्मयादीनि छन्दसि इति भत्वात् । वृद्धिरादैजदेङ् इति संहितापाठपक्षे चकारस्य झलां जशोऽन्ते इति पदान्ते विहितजश्त्वं तु भवत्येव, उभयसंज्ञान्यपि छन्दसि दृश्यन्ते इति वचनात्, छन्दोवत्सूत्राणि भवन्ति इति छान्दसविधीनां सूत्रेष्वपि...

The first result shows that 8.2.39 is mentioned in the commentary *Bālaṃanoramā* under 1.1.1 वृद्धिरादैच् (*vṛddhirādaic*). This reference states that *jaśva* is not applied to *ādaic* as it is said that rules of the *Aṣṭādhyāyī* are similar to words in Vedic literature which do not follow the rules given in the *Aṣṭādhyāyī* - छन्दोवत्सूत्राणि भवन्ति। (*chandovatsūtrāṇi bhavanti*).

The second result is:

1.1.4 न धातुलोप आर्धधातुके

सूत्रार्थः ... इति लोपः क्रियते । रेष् विच्-प्रत्ययस्य लोपे कृते अपि तल्लक्षणः गुणः अवश्यं भवति, अतः सार्वधातुकार्धधातुकयोः ७.३.८४ इति इकारस्य गुणादेशः विधीयते । रेड् **झलां जशोऽन्ते** ८.२.३९ इति जश्त्वम् रेड् । रेट् वाऽवसाने ८.४.५६ इति वैकल्पिकं चर्त्वम् ।३. आर्धधातुके इति किमर्थम्? यदि धात्वंशस्य लोपः आर्धधातुकप्रत्ययनिमित्तः...

न्यासः ... दृश्यन्ते ३.२.७५ इति विच्, इकारचकारौ वेरपृक्तस्य ६.१.६७ इत्यत्र सामान्यग्रहणाविघातार्थो, वकारस्य चानेनैव लोपः, 'पुगन्तलघूपधस्य च' ७.३.८६ इति गुणः । **झलां जशोऽन्ते ८.२.३९** इति षकारस्य डकारः । ननु च द्वयङ्गविकले द्वे अपि एते प्रत्युदाहरणे, तथैव ह्यत्र धातुलोपो न भवति, एवमार्धधातुकनिमित्तोऽपि न भवति, नैतदस्ति...

This result shows that Bodas and *Nyāsa* mention 8.2.39 under 1.1.4 न धातुलोप आर्धधातुके (*na dhātulopa ārdhadhātuke*). In this reference, the derivation of *reḍ* is given when 8.2.39 is mentioned.

The search for the full rule of 8.2.39 threw up 98 results. This means that the rule 8.2.39 has been mentioned 98 times in the selected commentaries. Let this search be termed as “**cross-referencing of a tripādī rule in the sapādasaptādhyāyī**”.

After searching for the full rule itself, a search is undertaken for parts of the rule since some commentaries do not spell out the full rule. An example for such an instance is 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः (*vraścabhrasjasrjamṛja-yajarāja-bhrājacchaśāṃ ṣaḥ*). This rule is mentioned in a short form as व्रश्चादिना (*vraścādinā*) in some commentaries.

Additionally, concept-wise search is done to ensure that no references are overlooked. For example: *jaśtva*, *mutva*, *bhaṣ*. In this manner, an attempt is made to maximize the number of references of the *tripādī* rule in the *sapādasaptādhyāyī*.

The number of references for each rule varies. Some *tripādī* rules have as many as 200 references, some only a few while some have none, just the rule itself. In all, across *tripādī*, there are about 2500 such references. These references become the “**archive**” for this study.

It is to be noted that some references quote examples, some others mention *vārttikas* while others discuss certain significant points. The following method has been used to collate this data:

1. All the examples that have been mentioned in the references are derived completely in a systematic manner. A ready-reference table of these examples

is given in Appendix. They have been tabulated according to the sequential ordering of the rules of the *Aṣṭādhyāyī*. A sample of this table is shown below:

Reference	<i>tripādī</i> rule	Source	Example
1.1.1 वृद्धिरादैच् (<i>vṛddhirādaic</i>)	8.2.40	NY	<i>vṛddhiḥ</i>
	8.4.53	N	
1.1.3 इको गुणवृद्धी (<i>iko guṇavṛddhī</i>)	8.3.13	MB	<i>avoḍhām</i>

Table 1.1: Sample of examples collated in a table given in appendix

To elaborate:

The derivation of the word *vṛddhiḥ* has been mentioned in *nyāsa* under 1.1.1 while quoting 8.2.40 झषस्तथोर्धोऽधः (*jhaṣastathordho'dhaḥ*) and Neelesh Bodas derives it under 1.1.1 while quoting 8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*). *Avoḍhām* is the example given in MB under 1.1.3 while quoting 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopah*). In this manner, the examples of different rules of the *tripādī* recorded in the “cross-referencing” have been consolidated in the appendix.

The derivations of the examples located in the references helped in determining the ordering of rules within *tripādī*. An example is considered to understand better: The derivation of अव्राक्षीत् (*avrākṣīt*) is as follows:

अव्राश् + सीत्	
अव्राच्+सीत्	8.2.29 स्कोः संयोगाद्योरन्ते च
अव्राष्+सीत्	8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः
अव्राक्+सीत्	8.2.41 षढोः कः सि
अव्राक्+षीत्	8.3.59 आदेशप्रत्यययोः
अव्राक्षीत्	
<i>avrāśc + sīt</i>	
<i>avrāc+sīt</i>	8.2.29 <i>skoḥ saṃyogādyorante ca</i>
<i>avrāṣ+sīt</i>	8.2.36 <i>vraścabhrasjasṛjamṛjayajarāja-bhrājacchaśām ṣaḥ</i>
<i>avrāk+sīt</i>	8.2.41 <i>ṣadhoḥ kaḥ si</i>
<i>avrāk+ṣīt</i>	8.3.59 <i>ādeśapratyayayoḥ</i>
<i>avrākṣīt</i>	

This example shows the order in which the rules are applied from *tripādī*. This, in turn, aids in defending the chronological ordering of the rules.

2. A few references address important aspects of the rules of the *tripādī*. One such example is 8.2.27 ह्रस्वादङ्गात् (*hrasvādaṅgāt*): Under 3.1.79 तनादिकृञ्भ्य उः (*tanādikṛñbhya uḥ*), PM discusses the derivation of *akṛta*. *Sic* could have become *luk* because of 2.4.79 तनादिभ्यः तथासोः (*tanādibhyaḥ tathāsoḥ*) in which *kr* is included in the *gaṇa*. But, then, it would have been optional. In this case, 8.2.27 is a *nitya* rule thus taking precedence.
3. Sometimes, the references also throw up some *kārikās*. One such example is a *kārikā* given in KK under 6.1.68 for the rule 8.2.23 is:

संयोगान्तस्य लोपे हि नलोपादिर्न सिद्ध्यति ।
रात्तु ते नैव लोपः स्याद् हलस्तस्माद्विधीयते ।

saṁyogāntasya lope hi nalopādirna siddhyati |
rāttu te naiva lopah syād halastasmādvīdhīyate|

4. SK discusses two types of the root *bhrāj*, namely *bhrājṛm dīptau* and *ṭubhrājṛm dīptau* under 6.4.125 फणां च सप्तानाम् (*phaṇām ca saptānām*). The root *phaṇa* along with six others are mentioned in 6.4.125 - *phaṇa, rājṛ dīptau, ṭubhrājṛ ṭubhrāśṛ ṭubhlāśṛ dīptau, syamu svana*. The root *ṭubhrājṛm* is mentioned in 6.4.125 so that this rule can be applicable to it. The root *bhrājṛm dīptau* is not included in this list of roots. The *j* of this *bhrāj* (*bhrājṛm dīptau*) is not changed to *ṣ* but the *j* of *ṭubhrājṛm* is changed to *ṣ*. Moreover, in 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः (*vraścabhraśjasṛjamṛja-yajarājabhrājacchaśām ṣaḥ*), the root *bhrāj* is read along with *rāj* and so it indicates that the *phaṇādi bhrāj* is subject to this rule.

As already mentioned, the examples recorded during “cross-referencing” are tabulated in Appendix. The other references have been compiled and categorized under six case studies.

Case study 1 discusses the augments and *pratyayas* that have been recorded in these references. The main emphasis in the *Sanskrit* commentaries seems to be the significance of the *anubandhas* of these *pratyayas*.

Case study 2 shows the role of *saṁjñās* in the application of rules.

Case study 3 emphasizes the relevance of words in the rules of *Aṣṭādhyāyī*. Some commentators have suggested reframing of certain rules while some have elucidated on the relevance of words used in the rules. This case study analyses such instances.

Case study 4 discusses the *gaṇas* of roots. Some of the *tripādī* rules mention roots. Such cases have been analysed in this case study.

Case study 5 explores *nipātana* as a tool either to avoid application of rules or to apply rules.

The last case study is a compilation of *vārttikas* that are recorded during the “cross-referencing” process. In this study, those examples that concern *tripādī* operations alone are taken into consideration.

1.15 General organization of the dissertation

This dissertation is divided into five chapters: Introduction, purpose and ordering of *tripādī* rules, critical study of the principle of *asiddhatva*, case studies and conclusion. As already evidenced, Chapter I justifies the necessity of the development of grammar and introduces the principle of *asiddhatva*. Chapter II enlists the purposes of the *tripādī* rules and the ordering within *tripādī* is justified logically. Chapter III undertakes a critical study of the principle of *asiddhatva*. Selected *prakaraṇas* have been studied in a detailed manner. An attempt is made to propose an alternative interpretation for the traditional concept of *āśrayāt siddhatvam*. The role of *sthānivadbhāva* in the *ābhīya* section and in *tripādī* has been studied. Directed acyclic graphs have been used to represent a few rules of *tripādī*. Chapter IV comprises case studies as elucidated above and Chapter V summarises the findings and highlights the conclusions of this study.

Chapter II: Critical analysis of *tripādī* rules

Introduction

Traditional and modern scholars have been intrigued by the principle of *asiddhatva* for centuries. Declaring a rule *asiddha* with respect to another, is one of the many techniques adopted by *Pāṇini* in his broad scheme of application of rules. This chapter is an attempt to analyse the *tripādī* section and to provide a rational analysis of the ordering of *prakaraṇas* within the *tripādī* section. The “cross-referencing” of *tripādī* rules plays a significant role in this attempt. The derivations of the words obtained during this referencing process help in justifying the ordering of the rules in *tripādī*.

This chapter includes the following:

1. Purpose of *tripādī* section and analysis of its contents
2. Analysis of the ordering of the *prakaraṇas* within the *tripādī*
3. *Svara* rules in *tripādī*

2.1 Purpose of *tripādī* section and analysis of its contents

Grammatical tradition has highlighted the purpose of the principle of *asiddhatva* supporting it with the help of statements and examples as seen in the different commentaries of the *Aṣṭādhyāyī*. The traditional interpretation, outlined in the previous chapter, is given by the *prayojanavārttikam* - *ādeśalakṣaṇapraṭiṣedhārtham-utsargalakṣaṇabhāvārtham ca*. Other than this traditional interpretation, there can be other purposes for the creation of the *tripādī* section such as to derive particular words and can be used as a technique to resolve conflicts.

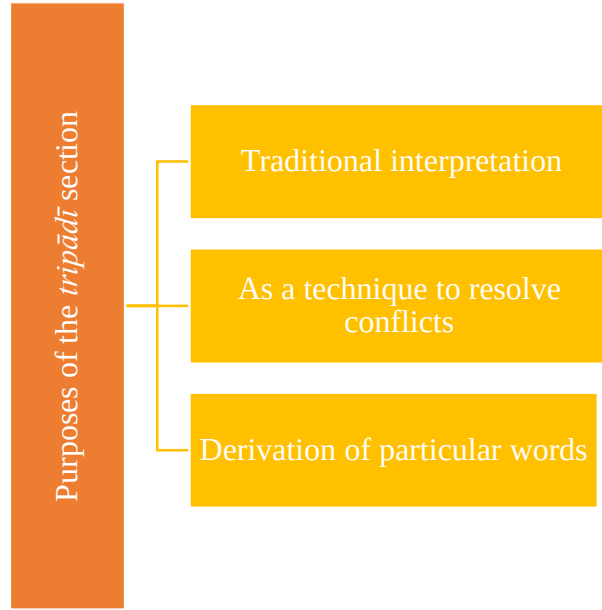


Figure 2.1: Purposes of the *tripādī* section

Traditional interpretation

The traditional interpretation for the principle of suspension has already been discussed in Chapter I. A few more examples are considered below:

Examples of *ādeśalakṣanapratiśedhārtham*

Example 1: *sadhi*

In the derivation of *sadhi*, at the stage of *sas+dhi*, 6.4.101 हुज्जल्भ्यो हेर्धिः (*hujhalbhyo herdhiḥ*) is applied. *s* gets deleted by 8.2.25 धि च (*dhi ca*). 6.4.105 अतो हेः (*ato heḥ*) requires the deletion of *hi* as it follows after a root ending in *a*. But, this does not hold because the elision of *s* is undertaken by a *tripādī* rule and therefore, *asiddha* for *sapādasaptādhyāyī* resulting in the non-applicability of 6.4.105. Hence, the desired form is obtained.

Example 2: *cañcūryate*

In the example of *cañcūryate*, lengthening takes place because of 8.2.77 हलि च (*hali ca*) which is in *tripādī*. This lengthening is *asiddha* thereby preventing application of 7.3.86 पुगन्तलघूपधस्य च (*pugantalaghūpadhasya ca*).

Example 3: *asmā uddhara, dvā atra, dvā ānaya, asā ādityaḥ*

In the examples of *asmā uddhara, dvā atra, dvā ānaya, asā ādityaḥ*, the elisions of *v* and *y* by 8.3.19 लोपः शाकल्यस्य (*lopaḥ śākalyasya*) are considered *asiddha* for rules 6.1.87 आद्गुणः (*ādguṇaḥ*) and 6.1.101 अकः सवर्णे दीर्घः (*akaḥ savarṇe dīrghaḥ*) and thus, *sandhi* does not take place.

Example 4: *arjuna uvāca*

In the example of *arjuna uvāca*, 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*), 8.3.17 भोभगोअघोअपूर्वस्य योऽशि (*bhobhagoaghoapūrvasya yo 'śi*) and 8.3.19 लोपः शाकल्यस्य (*lopaḥ śākalyasya*) are suspended for 6.1.87 आद्गुणः (*ādguṇaḥ*). 6.1.87 perceives it as *arjuna s uvāca*. Therefore, 6.1.87 is not applicable.

Examples of utsargalakṣanabhāvārtham

Example 1: *lūnīḥ*

$lūñ \rightarrow lū + kta + kyac + kvip \rightarrow lū + t + ī + ya \rightarrow lū + t + ī$

At this stage, 8.2.44 ल्वादिभ्यः (*lvādibhyaḥ*) is applicable by which $lū + n + ī \rightarrow lūnīḥ$ is obtained. Now, when *nasim / nas* is added to it, it is still *lūnīḥ*. $lūnī + nasim | nas \rightarrow lūty as$. At this stage, 6.1.112 ख्यत्यात् परस्य (*khyatyāt parasya*) is applied as it perceives *lūty* and not *lūny*. Now, 8.2.44 ल्वादिभ्यः (*lvādibhyaḥ*) is applied giving *lūnyuḥ*.

Example 2: *śuṣkajaṅghā*

6.3.37 न कोपधायाः (*na kopadhāyāḥ*) negates *pumvadbhāva* for all feminine words. 8.2.51 शुषः कः (*śuṣaḥ kaḥ*) is in *tripādī* and is *asiddha* to 6.3.37. Thus, there is no negation of *pumvadbhāva* resulting in *śuṣkajaṅghā*.

As a technique to resolve conflicts

Conflict resolution can be considered as another *prayojana* of *asiddhatva*. There can be cases when a rule from the *sapādasaptādhyāyī* and a rule from the *tripādī* find scope to be applied simultaneously. In those cases, the rule of the *sapādasaptādhyāyī* takes precedence. This is because, technically, there is no conflict as the *sapādasaptādhyāyī*

rules cannot “see” the *tripādī* rules on account of this principle of *asiddhatva*. But, from a grammarian’s point of view, there is still conflict. This fact could be utilised to resolve conflicts and it is made clearer with a few examples.

Example 1: *manoratha*

मनरुँ + रथ 8.2.66 ससजुषो रुँः
(*manarum* + *ratha* 8.2.66 *sasajuṣo rumḥ*)

At this stage, 6.1.114 हशि च (*haśi ca*) and 8.3.14 रो रि (*ro ri*) are applicable simultaneously. *Sapādasaptādhyāyī* rule prevails on account of *asiddhatva* as 6.1.114 does not “see” the *tripādī* rule 8.3.14. Thus, 6.1.114 is applied by which the desired form, *manoratha*, is derived.

Example 2: *dhurau*

धुर्व् + क्किप् + औ → धुर्व् + ० + औ
(*dhurv* + *kvip* + *au* → *dhurv* + 0 + *au*)

At this stage, 6.4.21 राल्लोपः (*rāllopaḥ*) and 8.2.77 हलि च (*hali ca*) are applicable simultaneously. But, then, *sapādasaptādhyāyī* rule cannot see the *tripādī* rule 8.2.77 by which 6.4.21 is applied.

Example 3: *visphoryam/ avagoryam*

These two examples are discussed in KK, NY and PM under 8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*). In the derivation of *visphoryam/ avagoryam*, the discussion is about 1.4.2 विप्रतिषेधे परं कार्यम् (*vipratishedhe paraṁ kāryam*)¹⁰⁵. Assuming the scope of this rule to extend throughout the *Aṣṭādhyāyī*, KK proceeds with the derivation of these words.

At the juncture of *visphūr ṇyat / avagur ṇyat*, 7.3.86 पुगन्तलघूपधस्य च (*pugantalaghūpadhasya ca*) and 8.2.77 हलि च (*hali ca*) are both simultaneously applicable. Technically, 8.2.77 should have been applicable on account of it being the latter rule (*paravartī*). But, 8.2.77 is *asiddha* to 7.3.86. Therefore, *guṇa* is carried out.

¹⁰⁵ Tradition and modern scholars give varied opinions about the scope of this rule. The two schools of thought are: the scope of this rule is limited to the *ekasaṃjñādhikāra* or the scope is applicable throughout the *Aṣṭādhyāyī*.

Derivation of particular words

In order to derive certain words such as *guḍaliṇmān* and *aujaḍhat*, certain rules had to be placed in *tripādī*. The *kārikā* given in KK under 8.2.1 reaffirms this statement:

शुष्किका शुष्कजङ्घा च क्षामिमानौजढत्तथा।
मतोर्वत्त्वे झलां जश्त्वे गुडलिण्मान् निदर्शनम्।

śuṣkikā śuṣkajaṅghā ca kṣāmimānaujaḍhattathā|
matorvattve jhalāṃ jaśtve guḍaliṇmān nidarśanam|

In case of *śuṣkikā*, 7.3.46 उदीचामातः स्थाने यकपूर्वयाः (*udīcāmātaḥ sthāne yakapūrvāyāḥ*) is not applicable since 8.2.51 शुषः कः (*śuṣaḥ kaḥ*) is suspended by which optional *itva* is not possible.

Śuṣkajaṅghā is an example of *utsargalakṣaṇabhāvārthaṃ* that has already been elucidated earlier.

In case of *kṣāmimān*, *vatva* cannot be undertaken as 8.2.9 मादुपधायाश्च मतोर्वोऽयवादिभ्यः (*mādupadhāyāśca matorvo- 'yavādibhyaḥ*) is *asiddha* to 8.2.53 क्षायो मः (*kṣāyo maḥ*).

aujaḍhat is an example that truly reflects the principle of *asiddhatva*. In order to derive *aujaḍhat*, *ūḍha* needs to be derived at first. The derivation is as follows:

वह + त	
उह + त	6.1.15 वचिस्वपियजादीनां किति
उढ + त	8.2.31 हो ढः
उढ + ध	8.2.40 झषस्तथोर्धोऽधः
उढ + ढ	8.4.41 ष्टुना ष्टुः
उ + ढ	8.3.13 ढो ढे लोपः
ऊढ	6.3.111 ढ्रलोपे पूर्वस्य दीर्घोऽणः
<i>vah + ta</i>	
<i>uh + ta</i>	6.1.15 vacisvapiyajādīnām kiti
<i>uḍh + ta</i>	8.2.31 ho ḍhaḥ
<i>uḍh + dha</i>	8.2.40 jhaṣastathordho 'dhaḥ
<i>uḍh + ḍha</i>	8.4.41 ṣṭunā ṣṭuḥ
<i>u + ḍha</i>	8.3.13 ḍho ḍhe lopah
<i>ūḍha</i>	6.3.111 ḍhralope pūrvasya dīrgho 'ṇaḥ

aujaḍhat is derived as follows:

ऊढ + णिच्	3.1.26 हेतुमति च
ऊढ + णिच् + लुङ्	3.2.110 लुङ्
ऊढ + णिच् + च्लि	3.1.43 च्लि लुङि
ऊढ+णिच्+चङ्	3.1.48 णिश्रिद्रुसुभ्यः कर्तरि चङ्
ऊढ + णिच् + अ	
ऊढ + अ	6.4.155 टेः
ऊहृढ + चङ् + त्	6.1.11 चङि
ऊहृढत्	7.4.60 हलादिः शेषः
ऊझढत्	7.4.62 कुहोश्चुः
ऊजढत्	8.4.54 खरि च
अ ऊजढत्	6.4.71 लुङ्लङ्लृङ्क्ष्वडुदात्तः
औजढत्	
<i>ūḍha + ṇic</i>	3.1.26 <i>hetumati ca</i>
<i>ūḍha + ṇic + luṅ</i>	3.2.110 <i>luṅ</i>
<i>ūḍha + ṇic + cli</i>	3.1.43 <i>cli luṅi</i>
<i>ūḍha+ṇic+caṅ</i>	3.1.48 <i>ṇisridrusrubhyaḥ kartari caṅ</i>
<i>ūḍha + ṇic + a</i>	
<i>ūḍha + a</i>	6.4.155 <i>ṭeḥ</i>
<i>ūhtaḍha + caṅ + t</i>	6.1.11 <i>caṅi</i>
<i>ūhaḍhat</i>	7.4.60 <i>halādiḥ śeṣaḥ</i>
<i>ūjhaḍhat</i>	7.4.62 <i>kuhoścuḥ</i>
<i>ūjaḍhat</i>	8.4.54 <i>khari ca</i>
<i>a ūjaḍhat</i>	6.4.71 <i>luṅlaṅlṛṅkṣvaḍudāttah</i>
<i>aujaḍhat</i>	

In reduplicating, all the rules that went before in forming ऊढ are considered *asiddha*; viz. the rule by which ह् was changed to ढ (as वह् + त = उह् + त = उढ् + त 8.2.31), the rule by which त was changed to ध (उढ् + त = उढ् + ध 8.2.40), the rule by which ध was changed to ढ (8.4.41), and the rule by which the first ढ was elided (8.3.13 as उढ् + ढ = उ + ढ = ऊढ 6.3.111). The elision of टि before णि being considered *sthanivat*, we reduplicate हृत्; as ऊहृढ + चङ् + त् = ऊहृढत् (7.4.60) = ऊझढत् (7.4.62) = ऊजढत् (8.4.54). There is no ई added by 7.4.79, because of the prohibition of अनग्लोपे of 7.4.93. With the augment, it becomes औजढत्.¹⁰⁶

In case of *guḍaliṇmān*, the derivational process is as follows:

गुडं लेढि	
गुडलिह् + क्णिप्	
गुडलिहोऽस्य सन्ति	
गुडलिह् + मतुप्	
गुडलिद् + मतुप्	8.2.31 हो ढः
गुडलिङ् + मतुप्	8.2.39 झलां जशोऽन्ते

¹⁰⁶ Vasu, *The Aṣṭādhyāyī of Pāṇini* Book VIII, 1533-34.

गुडलिष्मान्	8.4.45 यरोऽनुनासिकेऽनुनासिको वा
<i>guḍaṃ leḍhi</i>	
<i>guḍalih + kvip</i>	
<i>guḍaliho'sy santi</i>	
<i>guḍalih + matup</i>	
<i>guḍaliḍh + matup</i>	8.2.31 ho ḍhaḥ
<i>guḍaliḍ + matup</i>	8.2.39 jhalām jaśo'nte
<i>guḍaliṇmān</i>	8.4.45 yaro 'nunāsike 'nunāsiko vā

Dhatva and *padānta jaśtva* are both *asiddha*. 8.2.10 झयः (*jhayaḥ*) perceives *guḍalih* and not *guḍaliḍh*. *h* is not *jhay*. There is *asiddhatva* between the *prakaraṇas* of *tripādī*. Therefore, *vatva* cannot take place.

Analysis of the contents of *tripādī* section

This sub-section provides a bird's eye view of the contents of the *tripādī* rules. The types of operations covered in this section, its domain and the roles of *sthānivadbhāva* and *vipratīṣedha* are discussed here.

*Halādeśa*¹⁰⁷

Pāṇini has arranged the rules in such a manner that all *halsandhi* rules are placed in *tripādī*. All the rules of the *tripādī* deal only with *halādeśa* except *upadhābhūta ik-varṇa dīrghādeśa* (8.2.76 वोरुपधाया दीर्घ इकः (*rvorupadhāyā dīrgha ikaḥ*)) to 8.2.79 न भकुर्चुराम् (*na bhakurchurām*). The rationale behind placing only this *ajādeśa* (*dīrghādeśa*) will be explained later.

Adhikāra

As already elucidated, the *Aṣṭādhyāyī* is an extremely structured and organized grammatical treatise.¹⁰⁸ It follows a logical sequence in which the *sūtras* are placed according to certain domains, also known as *adhikāras*. *Pāṇini* has assigned rules under certain domains such as *dhātoḥ*, *aṅgasya*, *bhasya*, *padasya* amongst others. The

¹⁰⁷ असिद्धकाण्डे तावद्व्यञ्जनविकारा एवोच्यन्ते। (*asiddhakāṇḍe tāvadvyañjanavikārā evocyante*) – *Laghupāṇiniyam* clearly states that consonant conversions are given in *asiddhakāṇḍa*. – For reference, see Rajaraja Varma AR, *Laghupāṇiniyam* (Trivandrum: B.V. Book Depot, 1911), 29.

¹⁰⁸ Chapter I Introduction 1.7 of this dissertation

tripādī comes under the domain of *pada* and *saṃhitā*. 8.1.16 पदस्य (*padasya*) is a domain whose scope extends till 8.3.55 अपदान्तस्य मूर्धन्यः (*apadāntasya mūrdhanyaḥ*).¹⁰⁹ The *adhikāra* of *saṃhitā* starts from 8.2.108 तयोर्वावचि संहितायाम् (*tayoryvāvaci saṃhitāyām*) and extends up to the end of the *Aṣṭādhyāyī*. It is said that the *adhikāra* of *pada* “has not ceased, though latent”¹¹⁰ till the end of the book. The significance of the domain of *pada* is especially highlighted by the rule 8.2.64 मो नो धातोः (*mo no dhātoḥ*) in which the base has to be both *pada* and *dhātu*. Such is also the case with 8.2.76 वोरुपधाया दीर्घ इकः (*rvorupadhāyā dīrgha ikaḥ*).

Sthānīvadbhāva in tripādī

A careful observation of the *halādeśas* in *tripādī* reveal them to be *alvidhi*. There is *sthānīvadbhāva* for an *ādeśa* when it is *analvidhi* according to 1.1.56 स्थानिवदादेशोऽनल्विधौ (*sthānivadādeśo ’nalvidhau*). In this manner, *sthānīvadbhāva* gets automatically eliminated in *tripādī*. This is also confirmed by the वार्तिक पूर्वत्रासिद्धे च । तस्य दोषः संयोगादिलोपलत्वणत्वेषु ।¹¹¹ (*vārttika pūrvatrāsiddhe ca | tasya doṣaḥ saṃyogādilopa-latvaṇatveṣu* |). This is covered in detail in a later section.

Vipratīṣedha in tripādī

There is no *vipratīṣedha* in the *asiddhatva* section as the latter rule in this section is *asiddha* to the earlier rule.

Prakaraṇa-wise study of the tripādī rules

This section provides a methodical explanation for each of the *prakaraṇas* of all three *pādas* of *tripādī*. The different *prakaraṇas* of the second *pāda* of the *tripādī* are tabulated for easy referencing.

¹⁰⁹ KK states that the domain of *pada* ceases – पदाधिकारो निवृत्तः । (*padādhikāro nivṛttaḥ* |) under 8.3.55.

¹¹⁰ Srisa Chandra Vasu trans., *The Aṣṭādhyāyī of Pāṇini (translated into English)*, Book VIII Parts XXIX - XXXII (First published by Pāṇini Office, Allahabad, 1898 and reprinted at Delhi: Motilal Banarsidass), 1581.

¹¹¹ *Vārttika* 3 under 1.1.58 – For further reference, see Abhyankar, *Vyākaraṇamahābhāṣyaṃ* Part 1 Chapter 1 *pāda* 1, 2, 381.

8.2

Rules	<i>prakaraṇa</i>
8.2.1 – 8.2.3	<i>asiddhatva</i>
8.2.4 – 8.2.6	<i>svara on yaṇādeśa and ekādeśa</i>
8.2.7– 8.2.8	<i>nalopa</i>
8.2.9 – 8.2.17	<i>vatva</i>
8.2.18 – 8.2.22	<i>latva</i>
8.2.23 – 8.2.29	<i>saṃyogānta lopa/ sakāra lopa/ sakāarakakāra lopa</i>
8.2.30	<i>kutva</i>
8.2.31 – 8.2.35	<i>ḍhatva (h takes ḍhatva/ ghatva/ dhatva /thatva)</i>
8.2.36	<i>ṣatva</i>
8.2.37 – 8.2.38	<i>bhaṣbhāva</i>
8.2.39	<i>padānta jaśtva</i>
8.2.40	<i>dhakārādeśa</i>
8.2.41	<i>kakārādeśa</i>
8.2.42 – 8.2.61	<i>niṣṭhānakāra/ kakāra/ vakāra/ makāra</i>
8.2.62 – 8.2.63	<i>kvinkutva</i>
8.2.64 – 8.2.65	<i>nakārādeśa for makāra-ending padas /roots</i>
8.2.66 – 8.2.71	<i>rutva (ruḥ)</i>
8.2.72 – 8.2.75	<i>s of vas takes datva / rutva (ruḥ)</i>
8.2.76 – 8.2.79	<i>upadhābhūta ik-varṇa dīrghādeśa</i>
8.2.80 – 8.2.81	<i>mutva for adas</i>
8.2.82 – 8.2.108	<i>Pluta</i>

Table 2.1: Different *prakaraṇas* of the second *pāda*

Asiddhatva prakaraṇa (8.2.1 – 8.2.3)

8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*) introduces the principle of *asiddhatva* and the domain of *asiddhatva* begins and this is valid up to the end of the *Aṣṭādhyāyī*. 8.2.2 नलोपः सुप्स्वरसंज्ञातुविधिषु कृति (*nalopaḥ supsvarasaṃjñātugvidhiṣu kṛti*) suspends the elision of *nakāra* only for particular operations. 8.2.3 न मु ने (*na mu ne*)¹¹² negates the suspension for *mu ādeśa* after doing *nā ādeśa*. In this manner, *Pāṇini* has introduced the topic of *asiddhatva* and also laid down its restrictions.

¹¹² Malgorzata Sulich-Cowley, “Alternative solutions to the problem of A. 8.2.3 *na mu ne*” (paper presented at the sixteenth World Sanskrit conference, Bangkok, (28 June to 2 July 2015). In this paper, she suggests discarding the rule and use *jñāpaka* to arrive at the correct result.

Svara rules (8.2.4 – 8.2.6/ 8.4.66 – 8.4.67)

The rules 8.2.4 – 8.2.6 and the rules 8.4.66 and 8.4.67 are considered in a later section of this chapter titled “Svara rules in *tripādī*”.

Nalopa prakaraṇa (8.2.2 along with 8.2.7– 8.2.8)

8.2.2 नलोपः सुप्स्वरसंज्ञातुग्विधिषु कृति (*nalopah supsvarasamjñātugvidhiṣu kṛti*) must be taken into account along with 8.2.7 and 8.2.8. This *prakaraṇa* falls under the category of *ādeśalakṣaṇapraṭiśedhārthaṃ*. A few examples are tabulated below:

Vidhi	Example	Avoidance of rule
supvidhi	<i>rājabyām</i>	In case of <i>rājabyām</i> , lengthening by 7.3.102 सुपि च (<i>supi ca</i>) is blocked.
	<i>rājasu</i>	In case of <i>rājasu</i> , <i>etvam</i> is prevented due to 7.3.103 बहुवचने झल्येत् (<i>bahuvacane jhalyet</i>).
svaraavidhi	<i>rājāvatī</i>	<i>Antodāttatvam</i> is not assigned by 6.1.220 अन्तोऽवत्याः (<i>anto 'vatyāḥ</i>).
	<i>pañcārmam,</i> <i>dāśārmam</i>	<i>Pūrvapada ādyudāttatvaṃ</i> is not prescribed by 6.2.90 अर्मे चावर्ण द्व्यच् (<i>arme cāvarṇam dvyactryac</i>).
	<i>pañcādaṇḍī</i>	There is no <i>pūrvapadaprakṛtisvara</i> due to 6.2.29 इगन्तकालकपालभगालशरावेषु द्विगौ (<i>igantakālakapālabhagālaśarāveṣu dvigau</i>).
<i>saṃjñā vidhi</i>	<i>pañca</i> <i>brāhmaṇyaḥ</i>	In case of <i>pañcan</i> , after dropping <i>nalopa</i> , it is not <i>nānta</i> anymore. The designation <i>ṣaṭ</i> as prescribed by 1.1.24 षान्ता षट् (<i>ṣāntā ṣaṭ</i>) disappears. But, since it is <i>asiddha</i> to <i>saṃjñā vidhi</i> , it retains the <i>saṃjñā ṣaṭ</i> . There is prohibition of <i>ṭāp</i> due to <i>ṣaṭsaṃjñā</i> by 4.1.10 न षट्स्वस्रादिभ्यः (<i>na ṣaṭsvasrādibhyaḥ</i>).
<i>kṛnnimittakaḥ</i> <i>tugvidhiḥ</i>	<i>vṛtrahabyām</i>	<i>Tugāgamaḥ</i> does not take place due to 6.1.71 ह्रस्वस्य पिति कृति तुक् (<i>hrasvasya piti kṛti tuk</i>).

Table 2.2: *ādeśalakṣaṇapraṭiśedhārthaṃ* for *nalopa*

Vatva prakaraṇa (8.2.9 – 8.2.17)

In this *prakaraṇa*, there is *asiddhatva* with respect to the latter rules of *tripādī* as seen in the example of *guḍaliṇmān*. In MB, *vārttika* 6 तत्राऽयथेष्टप्रसङ्गः

(*tatrā 'yatheṣṭaprasaṅgaḥ*)¹¹³ under 8.2.1 states that if the *adhikāra* of *asiddhatva* is not considered, then forms such as *guḍaliṇmān* cannot be derived. In case of *kṣāmimān* (already discussed), there is *asiddhatva* between 8.2.9 मादुपधायाश्च मतोर्वोऽयवादिभ्यः (*mādupadhāyāśca matorvo- 'yavādibhyaḥ*) and 8.2.53 क्षायो मः (*kṣāyo mah*). Words of Vedic literature are discussed under this *prakaraṇa*. Moreover, all *matups* do not undergo *vatva*. Thus, *Pāṇini* could achieve variations in *ādeśas* by placing this *prakaraṇa* in *tripādī*. Moreover, *bhasaṃjñā* also needs to be considered for this *prakaraṇa*. 1.4.19 तसौ मत्वर्थे (*tasau matvarthe*) prescribes *bhasaṃjñā* to the base that ends in *takāra* or a *sakāra* when a *matup pratyaya* follows. KK gives the examples of *udaśvītvān* and *yaśasvī* under 1.4.19. NY elaborates that *bhasaṃjñā* prevents the substitution of *d* for the stem-final *t* as given by 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*). In the example of *yaśasvī*, *bhasaṃjñā* prevents the application of *rutva* by 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*).

Latva prakarana (8.2.18 – 8.2.22)

The discussion in MB under the *śivasūtra ṛḷk* is about the inclusion of *ḷ* in this *śivasūtra*. Even though *ḷ* is used very rarely, it is used for the root *kḷpū samarthe*. This root actually contains *ṛ* that undergoes *latva*. The root is *kṛpū*. This *ṛ* undergoes *latva* by 8.2.18 कृपो रो लः (*kṛpo ro laḥ*). Therefore, any *ackārya* cannot be undertaken for *ḷ* as *latva* is *asiddha*. This also ensures that *ackārya* can be undertaken only for *ṛ* and not *ḷ*.

8.2.19 उपसर्गस्यायतौ (*upasargasyāyatau*) prescribes *latva* if there is a *repha* in the *upasarga* followed by *aya*. The *upasarga*, *nis* and *dus* do not contain *repha* due to which *latva* does not take place. They become *nir* and *dur* as prescribed by 8.2.66. But, this *repha* is not seen by 8.2.19 as it is *asiddha* resulting in the desired forms of *nirayate/ durayate*.

samyogāntalopa/ sakāralopa/ sakārakakāralopa 8.2.23 – 8.2.29

The *prakaraṇa* of *samyogāntalopa/ sakāralopa/ sakāra-kakāralopa* (8.2.23 – 8.2.29) comes under the *adhikāra* of *pada* and the operations are *halādeśa*. Considering the example of *paumsna*, at the stage of *pums + sna*, the *aṅga* gets *padasaṃjñā* due to

¹¹³ For further reference, see Vasudeo Shastri Abhyankar trans. *Vyākaraṇamahābhāṣyaṃ*, Text and Marathi Translation Part 6 Chapters VII and VIII, (Pune: Deccan Education Society, 1951), 312.

1.4.17 स्वादिष्वसर्वनामस्थाने (*svādiṣvasarvanāmasthāne*). This facilitates in the application of 8.2.23 संयोगान्तस्य लोपः (*saṃyogāntasya lopah*). MB discusses the rationale behind singling out the consonant *s* even though it is included in 8.2.23. This is to prevent *rutva* as in *payah śirah*.

8.2.30 – 8.2.41

Kutva (8.2.30), *ḍhatva* (8.2.31–8.2.35), *ṣatva* (8.2.36), *bhaṣbhāva* (8.2.37– 8.2.38), *padānta jaṣṭva* (8.2.39), *dhakārādeśa* (8.2.40) and *kakārādeśa* (8.2.41) come under the *adhikāra* of *pada* and are *halādeśas*. Moreover, certain other *tripādī* operations precede these *prakaraṇas* as will be discussed in the next section.

Niṣṭhānakāra/ kakāra/ vakāra/ makāra (8.2.42 – 8.2.61)

The principle of *asiddhatva* is necessary as seen in the example of *śuṣkajaṅghā* in which *utsargalakṣaṇabhāvārtham* comes into play (that has already been elucidated earlier). It also comes under the *adhikāra* of *pada* and are *halādeśas*. Moreover, all *niṣṭhātakāras* do not undergo *nakāra*. Thus, *Pāṇini* could achieve variations in *ādeśas* by placing this *prakaraṇa* in *tripādī*.

Kvinkutva (8.2.62 – 8.2.63)

The domain of *pada* determines the placing of this *prakaraṇa* in *tripādī*. In the example of *ghṛtasprṛgbhyām*, some other *tripādī* rules need to be applied earlier. Forms such as *naṣṭa* which is the *niṣṭhā* of *naś* cannot be derived if 8.2.63 नशेर्वा (*naśervā*) was in *sapādasaptādhyāyī*. This is because *naś* undergoes *ṣatva* by 8.2.36 व्रश्चभ्रस्जसृज-मृजयजराजभ्राजच्छशा षः (*vraścabhrasjasṛjamṛjayajarājabhrājacchaśām ṣah*) but does not undergo *kutva* as per 8.2.63. As 8.2.63 is optional, forms such as *naṣṭa* can be derived.

The ensuing *prakaraṇas* need the earlier *prakaraṇas* as will be shown in the next section. Thus, *asiddhatva* plays a role in their placement in the *tripādī* section.

Nakārādeśa for makāra-ending padas (roots) 8.2.64 – 8.2.65

This *prakaraṇa* displays the role of *saṃjñās* in the derivation of words. This *prakaraṇa* requires the base to be a *pada* and a root. If the word *dhātoḥ* was not continued into

the rule from 8.2.64 मो नो धातोः (*mo no dhātoḥ*), then, this rule would apply even for *avyaya* or *sarvanāma*. If this *prakaraṇa* was not placed under the *adhikāra* of *pada*, then, all *makārānta* roots would have undergone *nakārādeśa*. Therefore, the base has to be both a *pada* and a root.

Rutva (*ruh*) (8.2.66 – 8.2.71) / s of *vas* takes *datva* / *rutva* (*ruh*) (8.2.72 – 8.2.75)

Rutva (*ruh*) falls under the *adhikāra* of *pada* and is *halādeśa* operation.

Upadhābhūta *ik-varṇa* *dīrghādeśa* (8.2.76 – 8.2.79)

Even though this is an *ajādeśa*, it has been placed in *tripādī* because *Pāṇini* did not wish *sthānivadbhāva* in case of this lengthening. Moreover, *Pāṇini* desired both the designations, namely *pada* and root. There is continuation of root from 8.2.74 सिपि धातो रूर्वा (*sipi dhāto rurvā*).

Mutva for *adas* (8.2.80 – 8.2.81)

8.2.3 न मु ने (*na mu ne*) has to be considered in combination with this *prakaraṇa* in case of derivation of *amunā*. In this case, *mutva* is *siddha* to *nā ādeśa* as per 8.2.3 न मु ने (*na mu ne*) facilitating the application of 7.3.120 आङो नाऽस्त्रियाम् (*āṇo nā'striyaṃ*). Thus, *amunā* can be derived. Undesired *dīrghatva* due to 7.3.102 सुपि च (*supi ca*) is thus blocked. In case of *amuṣmai*, *ādeśalakṣaṇapraṭiṣedhārthaṃ* comes into play. If 8.2.80 अदसोऽसेर्दादु दो मः (*adaso'serdādu do maḥ*) was undertaken prior to 7.1.14 सर्वनाम्नः स्मै (*sarvanāmnah smai*), then, there would be no scope to apply 7.1.14 as it is not an *adanta aṅga*. If 8.2.80 was placed in *sapādasaptādhyāyī*, then it would have been applied by which there would have been no scope for 7.1.14. Therefore, 7.1.14 सर्वनाम्नः स्मै (*sarvanāmnah smai*) does not recognize any competition and thus proceeds to show its effect.

The designation of *pragrhya* is given to *adas* which ends in *mī*, *mū* or *me* by 1.1.12 अदसो मात् (*adaso māt*). This is intended for *prakṛtibhāva* as per 6.1.125 प्लुतप्रगृह्या अचि नित्यम् (*plutapragrhyā aci nityam*). In the example of *amī āsāte*, *yaṇādeśa* cannot be carried out because *mutva* for *adas* is *asiddha* bringing into play *ādeśalakṣaṇapraṭiṣedhārthaṃ*.

Pluta prakaraṇa (8.2.82 – 8.2.108)

MB¹¹⁴ discusses the continuation of *adhikāra* of *pada* even when the term ‘*vākyasya*’ has been inserted in 8.2.82 वाक्यस्य टेः प्लुत उदात्तः (*vākyasya ṭeḥ pluta udāttaḥ*). The conclusion is that the term *padasya* is still continued even if there is *adhikāra* of *vākyasya* and it is used for the last word in a sentence. Otherwise, all words in a sentence will be assigned *pluta saṃjñā*. This *prakaraṇa* is placed in *tripādī* as it needs the continuation of *pada*.

6.1.113 अतो रोरप्लुतादप्लुते (*ato roraplutādaplute*) or 6.1.114 हशि च (*haśi ca*) cannot be applied since *pluta* rules are placed in *tripādī*. In the sentence such as तिष्ठतु पय-रुँ अग्निदत्त (*tiṣṭhatu paya-ruṁ aṣṇidatta*), the *akāra* of *aṣṇidatta* gets *plutādeśa* because of 8.2.86 गुरोरनृतोऽनन्त्यस्याप्येकैकस्य प्राचाम् (*guroranṛto ’nantyasyāpyekaikasya prācām*). But, 8.2.86 is *asiddha* to 6.1.113 as this rule perceives it as तिष्ठतु पय-रुँ अग्निदत्त (*tiṣṭhatu paya-ruṁ agnidatta*). Otherwise, *utvam* would have been applicable as per 6.1.113. Therefore, in order to avoid this, the term *aplute* is used in the rule.

The different *prakaraṇas* of the third *pāda* of the *tripādī* are tabulated for easy referencing.

8.3

Rules	<i>prakaraṇa</i>
8.3.1 – 8.3.12	<i>matup</i> [<i>vas</i> takes <i>ru</i> / penultimate <i>varṇa</i> takes <i>anunāsika/anusvāra</i>]
8.3.13 – 8.3.14	<i>ḍhalopa/ ralopa</i>
8.3.15 – 8.3.22	<i>visarjanīya</i> [<i>rutva</i> (<i>ruḥ</i>) takes <i>visarjanīya</i> / <i>ya</i> or <i>va</i> or is <i>laghuprayatna</i> or gets elided]
8.3.23 – 8.3.27	<i>makāra</i> takes <i>anusvāra</i>
8.3.28 – 8.3.33	<i>kuk/ ṭuk/ dhuṭ/ tuk /ṇamuṭ āgamas</i>
8.3.34 – 8.3.54	<i>visarjanīya</i> takes <i>sakārādeśa</i> or <i>jihvāmūlīya</i> or <i>upadhmānīya</i> or <i>ṣakārādeśa</i>
8.3.55 – 8.3.119	<i>mūrdhanyādeśa</i>

Table 2.3: Different *prakaraṇas* of the third *pāda*

¹¹⁴ For further reference, see Abhyankar, *Vyākaraṇamahābhāṣyaṃ*, Part 6 Chapters VII and VIII, 384-5.

Matup prakaraṇa [vas takes ru/ penultimate varṇa takes *anunāsika* / *anusvāra*] (8.3.1–8.3.12)

This *prakaraṇa* falls under the *adhikāra* of *pada* and *saṃhitā* and is basically for Vedic literature.

Dhalopa/ ralopa prakaraṇa (8.3.13 – 8.3.14)

In case of *ḍhalopa*, the *adhikāra* is only that of *saṃhitā* as it is only for *apadānta*.¹¹⁵

In case of *ralopa*, the *adhikāra* of *pada* and *saṃhitā* prevail.

Visarjanīya prakaraṇa [rutva (*ruh*) takes *visarjanīya/yakāra* or *vakāra* or is *laghuprayatna* or gets elided] (8.3.15 – 8.3.22)

This *prakaraṇa* falls under the *adhikāra* of *pada*. By placing this *prakaraṇa* in *tripādī*, *guṇa* is prevented as in the case of *vana iti* bringing *ādeśalakṣaṇapraṭiṣedhārthaṃ* into play.

Makāra takes anusvāra (8.3.23 – 8.3.27)

This *prakaraṇa* falls under the *adhikāra* of *pada* and *saṃhitā*. In case of 8.3.24 नश्चापदान्तस्य झलि (*naścāpadāntasya jhali*), the term *apadānta* is used in the rule itself.

Kuk/ tuk/ dhut/ tuk /namut āgamas (8.3.28 – 8.3.33)

This *prakaraṇa* falls under the *adhikāra* of *pada* and *saṃhitā*. Optionals forms are obtained as seen in many examples such as *prāṅk śete/ prāṅ śete, śvaliṭtsāye/ śvaliṭ sāye, bhavāntsāye/ bhavān sāye, bhavāñcchete, kurvannāste, tadvasya paretah/ tadu asya paretah* amongst others.

Visarjanīya takes sakārādeśa or jihvāmūlīya or upadhmānīya or śakārādeśa (8.3.34 – 8.3.54)

This *prakaraṇa* falls under the *adhikāra* of *pada*. Moreover, earlier rules of the *tripādī* are to be applied.

¹¹⁵ KK under 8.3.13 – सत्यपि पदाधिकारे तस्य असम्भवादपदान्तस्य ढकारस्य अयं लोपो विज्ञायते। (*satyapi padādhikāre tasya asambhavādapadāntasya ḍhakārasya ayaṃ lopo vijñāyate*) – For reference, see Ishwar Chandra Pandit: *Kāśikāvṛtti*: Part 3, 417. MB also states *ḍhalope 'padāntagrahaṇam*|| – For further reference, see Abhyankar, *Vyākaraṇamahābhāṣyaṃ*, Part 6 Chapters VII and VIII, 406.

Mūrdhanyādeśa (8.3.55 – 8.3.119)

This *prakaraṇa* falls under the *adhikāra* of *saṃhitā* and *apadānta* as stated in the rule itself. This also discontinues the *adhikāra* of *pada*. The *mūrdhanyādeśa* changes of *s* to *ṣ* or *dh* to *ḍh* are *halādeśa*.

The different *prakaraṇas* of the fourth *pāda* of the *tripādī* are tabulated for easy referencing.

8.4

Rules	<i>prakaraṇa</i>
8.4.1 – 8.4.39	<i>ṇatva</i>
8.4.40	<i>ścutva</i>
8.4.41 – 8.4.44	<i>ṣṭutva</i>
8.4.45	<i>yar anunāsika</i>
8.4.46 – 8.4.52	<i>dvitva</i>
8.4.53	<i>apadānta jaśtva</i>
8.4.54	<i>abhyāsa jaśtva / cartva</i>
8.4.55 – 8.4.56	<i>cartva</i>
8.4.57	<i>aṇ anunāsika</i>
8.4.58 – 8.4.62	<i>parasavarṇa</i>
8.4.63	<i>chakārādeśa</i>
8.4.64	<i>yamlopa</i>
8.4.65	<i>savarṇalopa</i>
8.4.66 – 8.4.67	<i>svarita svara</i>
8.4.68	<i>hrasva akāra saṃvṛta</i>

Table 2.4: Different *prakaraṇas* of the fourth *pāda*

8.4.1 – 8.4.44

8.4.1 – 8.4.39 *ṇatva*, 8.4.40 *ścutva* and 8.4.41 – 8.4.44 *ṣṭutva* come under the *adhikāra* of *saṃhitā* and are *hal* to *hal* substitutions.

Yar anunāsika (8.4.45)

This comes under the *adhikāra* of *pada*. There is continuation of *pada* from 8.4.42 न पदान्ताद्वोरनाम्. This can be concluded from examples as this rule is not applicable for *apadānta*.

Dvīṭva (8.4.46 – 8.4.52) / 8.4.53 apadānta jaśṭva

Both these *prakaraṇas* come under the *adhikāra* of *saṃhitā* and there is no *sthānivadbhāva* as given in 1.1.58 न पदान्तद्विर्वचन-वरेयलोप-स्वरसवर्णानुस्वार-दीर्घजश्चर्विधिषु (*na padānta-dvirvacana-vare-yalopa-svara-savarṇānusvāra-dīrgha-jaś-carvidhiṣu*).

8.4.54 – 8.4.65

8.4.54 *abhyāsa jastva* or *cartva*, 8.4.55 – 8.4.56 *cartva*, 8.4.57 *aṇ anunāsika*, 8.4.58 – 8.4.62 *parasavarṇa*, 8.4.63 *chakārādeśa*, 8.4.64 *yamlopa* and 8.4.65 *savarṇalopa* come under the *adhikāra* of *saṃhitā* and there is no *sthānivadbhāva* for *cartva* and *parasavarṇa* as given in 1.1.58 न पदान्तद्विर्वचन-वरेयलोप-स्वरसवर्णानुस्वार-दीर्घजश्चर्विधिषु (*na padānta-dvirvacana-vare-yalopa-svara-savarṇānusvāra-dīrgha-jaś-carvidhiṣu*).

Hrasvah akārah samvrtah (8.4.68)

In the discipline of phonetics, all phones are classified according to the effort of pronunciation. In case of the letter *akāra*, the external effort is *saṃvṛta*, while all other vowels are *vivṛta*. But, if it is considered so during the derivation of words, then, *akāra-ākāra* will not be considered as *savarṇa* because of the difference in their external effort and rules such as 6.1.101 अकः सवर्णे दीर्घः (*akaḥ savarṇe dīrghaḥ*) that causes *akāra-ākāra* to get *savarṇadīrgha* *ākāra* will not become applicable. Therefore, during derivational process, *akāra* is considered *vivṛta* only. However, such a statement is against the principle of phonetics. At the end of the derivation, *vivṛta-akāra* must get *saṃvṛtādeśa*. This is the rationale behind this rule.

Summarizing,

1. The *tripādī* operation comes under the *adhikāra* of *pada* and *saṃhitā*. Dual designations of *pada* and root are required for some rules.
2. Predominantly, a consonant is replaced by another consonant.
3. Avoidance of rules and application of rules are achieved through this principle.
4. *Sthānivadbhāva* is not applicable in *tripādī*.

2.2 Ordering of rules

The *tripādī* is a linearly ordered sequence of rules. The ordering of rules in *tripādī* plays a significant role in the derivation of words. The justification of this ordering can be attributed to three main factors:

1. Derivational process of the word

In order to derive the desired form of the word (*iṣṭarūpasiddhiḥ*), it is necessary to perform certain operations before certain others. Since the rules in the *tripādī* section can be applied only in the order specified, the ordering of the rules has a huge impact. Moreover, the latter rule cannot ‘see’ the earlier rule as per 8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*). This principle of *asiddhatva* also contributes towards the ordering of rules.

2. *Anuvṛtti* (continuation)

Anuvṛtti allows brevity in the *Aṣṭādhyāyī* which is the hallmark of this text. In order to save letters/words, *Pāṇini* continued words from the earlier rules. It is said that grammarians rejoice even if half a *mātrā* is saved as if a son is born.

अर्धमात्रा लाघवेन पुत्रोत्सवं मन्यन्ते वैयाकरणाः ॥ परिभाषा 133¹¹⁶

ardhamātrā lāghavena putrotsavaṃ manyante vaiyākaraṇāḥ || paribhāṣā 133

This is especially true of this text. It is shown below (wherever applicable) that in certain instances, *anuvṛtti* determines the ordering of rules.

3. Logic

The ordering of rules can be justified even through **logic**. To illustrate, *kakārādeśa* (8.2.41) can be done only after doing *ḍhatva* (8.2.31) and *ṣatva* (8.2.36). Therefore, *kakārādeśa* has to be placed only after *ḍhatva* and *ṣatva*.

¹¹⁶ *Paribhāṣā 133* in *paribhāṣenduśekhara* – For reference, see Wadegaonkar trans., *Paribhashendushekhara of Nagoji Bhatta*, 555.

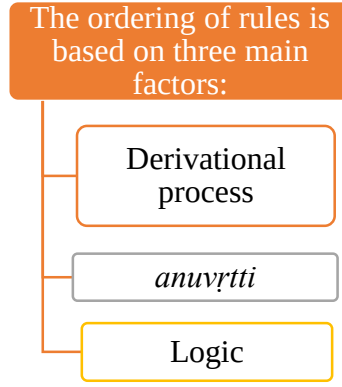


Figure 2.2: Three main factors of ordering of rules

Each of the *prakaraṇas* of the *tripādī* are considered and the ordering of them are justified based on these three factors.

It is to be noted that the *prakriyās* of the words given in the subsequent discussion do not mention the rules of the *sapādasaptādhyāyī* that are applicable but only those of the *tripādī* section are mentioned.

8.2

Asiddhatva prakaraṇa 8.2.1 – 8.2.3

In this case, the topic of *asiddhatva* has been introduced and its restrictions have been mentioned. *Anuvṛtti* is needed only of *asiddhatva* in 8.2.2 and 8.2.3.

Anuvṛtti

Asiddham from 8.2.1 पूर्वत्रासिद्धम् (*pūrvatrāsiddham*) is continued in 8.2.2 – 8.2.3.

Svara on yanādeśa and ekādeśa prakaraṇa 8.2.4 – 8.2.6

Anuvṛtti

For this *prakaraṇa*, *anuvṛtti* is needed only of *asiddhatva* and *padānta*. So, it is placed right at the beginning. *Asiddham/padānta* are continued in 8.2.4 – 8.2.6.

Nalopa prakaraṇa 8.2.7– 8.2.8

Anuvṛtti

For this *prakaraṇa*, *anuvṛtti* is needed only of *asiddhatva* and *padānta*. *Asiddham/padānta* are continued in 8.2.7 – 8.2.8.

This *prakaraṇa* has to be **before** the following:

<i>saṃyogānta lopa prakaraṇa (8.2.23 – 8.2.29)</i>	to derive words such as <i>anaḍvān/ rājā</i> ; otherwise there would have been <i>nalopa</i> for <i>anaḍvān</i> .	अनडुह् + सुँ अनडु आम् ह् + स् अनडु आ नुम् ह् + स् अनड्वान् ह् स् अनड्वान् ह् अनड्वान् 8.2.23 संयोगान्तस्य लोपः	<i>anaḍuh + sum</i> <i>anaḍu ām h + s</i> <i>anaḍu ā num h + s</i> <i>anaḍvān h s</i> <i>anaḍvān h</i> <i>anaḍvān 8.2.23 saṃyogāntasya lopaḥ</i>

<i>nakārādeśa for makāra- ending padas (roots) prakaraṇa (8.2.64 – 8.2.65)</i>	to derive words such as <i>praśān</i> , <i>pradān</i> , <i>pratān</i> . Otherwise, there would have been <i>nalopa</i> .

Vatva prakaraṇa 8.2.9 – 8.2.17

Anuvṛtti

Asiddham/ padānta are continued into 8.2.9 – 8.2.17. *Chandasī* from 8.2.15 छन्दसीरः (*chandasīrah*) is continued in 8.2.16 – 8.2.17.

This *prakaraṇa* has to be **after** the following:

<i>nalopa prakaraṇa (8.2.7 – 8.2.8)</i>	The derivation of अक्षण्वन्तः (<i>akṣaṇvantah</i>) is as follows. This word is from Vedic literature.	अक्ष् + अनङ् अक्षन् मतुप् 8.2.7 नलोपः प्रातिपदिकान्तस्य अक्ष वत् 8.2.9 मादुपधायाश्च मतोर्वोऽयवादिभ्यः अक्ष नुट् वत् 8.2.16 अनो नुट् अक्षण्वत् 8.4.2 अट्कुप्वाङ्नुम्वयायेऽपि <i>Pāṇini</i> , at first, elided <i>nakāra</i> and then again added it.	<i>akṣ</i> + <i>anañ</i> <i>akṣan matup</i> 8.2.7 <i>nalopaḥ prātipadikāntasya</i> <i>akṣa vat</i> 8.2.9 <i>mādupadhāyāśca matorvo 'yavādibhyaḥ</i> <i>akṣa nuṭ vat</i> 8.2.16 <i>ano nuṭ</i> <i>akṣaṇvat</i> 8.4.2 <i>aṭkupvāṇnumvyavāye 'pi</i>

Latva prakaraṇa 8.2.18 – 8.2.22

Anuvṛtti

Asiddham/ padānta are continued into 8.2.18 – 8.2.22.

This *prakaraṇa* has to be **before** the following:

<i>rutva ruḥ</i> (8.2.66)	as seen in the examples of <i>nirayate/ durayate</i> .	8.2.19 उपसर्गस्यायतौ (<i>upasargasyāyatau</i>) prescribes <i>latva</i> if there is a <i>repha</i> in the <i>upasarga</i> followed by <i>aya</i> . The <i>upasargas</i> , <i>nis</i> and <i>dus</i> do not contain <i>repha</i> due to which <i>latva</i> does not take place. They become <i>nir</i> and <i>dur</i> as prescribed by 8.2.66. But, this <i>repha</i> is not seen by 8.2.19 as it is <i>asiddha</i> resulting in the desired forms of <i>nirayate/ durayate</i> .

Samyogānta lopa/ sakāra lopa/ sakāarakakāra lopa prakaraṇa 8.2.23 – 8.2.29

Anuvṛtti

Asiddham/ padānta are continued into 8.2.23 – 8.2.29.

This *prakaraṇa* has to be **after**

- ***nalopa prakaraṇa*** for cases such as *anaḍvān* as seen earlier.

This *prakaraṇa* has to be **before**

<i>kutva</i> (8.2.30)	for cases such as <i>magnaḥ/</i> <i>mañktā/</i> <i>lagnaḥ/</i> <i>asikta</i> .	म स् ज् त म ज् त म ग् त म ग्नः	8.2.29 स्कोः संयोगाद्योरन्ते च 8.2.30 चोः कुः 8.2.45 ओदितश्च	<i>ma s j ta</i> <i>ma j ta</i> <i>mag ta</i> <i>magnaḥ</i>	8.2.29 <i>skoḥ samyogādyorante ca</i> 8.2.30 <i>coḥ kuḥ</i> 8.2.45 <i>oditaśca</i>

ṣatva (8.2.36)	for cases such as <i>avrākṣīt</i>	अत्राश्च + सीत् अत्राच्+सीत् 8.2.29 स्कोः संयोगाद्योरन्ते च अत्राष्+सीत् 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः अत्राक्+सीत् 8.2.41 षढोः कः सि अत्राक्+षीत् 8.3.59 आदेशप्रत्यययोः अत्राक्षीत्	<i>avrāśc + sīt</i> <i>avrāc+sīt</i> 8.2.29 <i>skoḥ saṃyogādyorante ca</i> <i>avrāṣ+sīt</i> 8.2.36 <i>vraścabhrasjasrja-</i> <i>mṛjayajarājabhrājacchaśām ṣaḥ</i> <i>avrāk+sīt</i> 8.2.41 <i>ṣaḍhoḥ kaḥ si</i> <i>avrāk+ṣīt</i> 8.3.59 <i>ādeśapratyayayoḥ</i> <i>avrākṣīt</i>
dhakārādeśa (8.2.40)	for cases such as <i>gdhiḥ</i>	अद् क्तिन् घस् ति घ् स् ति घ् ति 8.2.26 झलो झलि घ् धि 8.2.40 झषस्तथोर्धोऽधः ग्धिः 8.4.53 झलां जश् झशि	<i>ad ktin</i> <i>ghas ti</i> <i>gh s ti</i> <i>gh ti</i> 8.2.26 <i>jhalo jhali</i> <i>gh dhi</i> 8.2.40 <i>jhaṣastathordho 'dhaḥ</i> <i>gdhiḥ</i> 8.4.53 <i>jhalām jaś jhaśi</i>

Kutva 8.2.30

Anuvṛtti

Asiddham/ padānta/ jhali from 8.2.26 झलो झलि (*jhalo jhali*) are continued into 8.2.30.

This rule has to be **before**

padānta jaṣṭva (8.2.39)	for cases such as <i>vāggmin/ prāg</i>	वाच् + ग्मिनि वाच् + ग्मिन् वाक् + ग्मिन् 8.2.30 चोः कुः वाग् + ग्मिन् 8.2.39 झलां जशोऽन्ते वाग्मिन्	<i>vāc + gmini</i> <i>vāc + gmin</i> <i>vāk + gmin</i> 8.2.30 <i>coḥ kuḥ</i> <i>vāg + gmin</i> 8.2.39 <i>jhalām jaśo 'nte</i> <i>vāggmin</i>
niṣṭhāvakāra (8.2.52)	for cases such as <i>pakva</i>	पच् + क्त पक् + त 8.2.30 चोः कुः	<i>pac + kta</i> <i>pak + ta</i> 8.2.30 <i>coḥ kuḥ</i>

		पक् + व पक्	8.2.52 पचो वः	<i>pak + va</i> <i>pakva</i>	8.2.52 <i>paco vaḥ</i>

Dhatva (h takes dhatva/ ghatva/ dhatva /thatva) prakaraṇa 8.2.31– 8.2.35

Anuvṛtti

Asiddham/ padānta/ jhali from 8.2.26 झलो झलि (*jhalo jhali*) are continued into 8.2.31– 8.2.35.

This *prakaraṇa* has to be **before**

<i>bhaṣbhāva</i> (8.2.37)	for cases such as <i>dhuk/</i> <i>adhok/</i> <i>drugdha/</i> <i>dogdhum /</i> <i>dogdhi/</i> <i>dugdhām/</i> <i>adugdha</i>	अदुह्+त् अदोह्+त् अदोह्+ 0 अदोघ्+त् अधोघ् अधोग् अधोग्, अधोक्	8.2.32 दादेर्धातोर्घः 8.2.37 एकाचो बशो भष् झषन्तस्य स्त्वोः 8.2.39 झलां जशोऽन्ते 8.4.56 वाऽवसाने	<i>aduh+t</i> <i>adoh+t</i> <i>adoh + 0</i> <i>adogh+t</i> <i>adhogh</i> <i>adhog</i> <i>adhog, adhok</i>	<i>8.2.32 dāderdhātorghaḥ</i> <i>8.2.37 ekāco baśo bhaṣ jhaṣantasya sdhvoḥ</i> <i>8.2.39 jhalām jaśo 'nte</i> <i>8.4.56 vā 'vasāne</i>
<i>padānta</i> <i>jaśva</i> (8.2.39)	The example is <i>ṛtīṣaṭ</i> .	ऋति सहते इति ऋतीषट् ऋति सह क्विप् ऋतीसह ऋतीसद् ऋतीसड् ऋतीषट्	8.2.31 हो ढः 8.2.39 झलां जशोऽन्ते 8.3.98 सुषामादिषु च/ 8.4.56 वाऽवसाने	<i>ṛti sahate iti ṛtīṣaṭ</i> <i>ṛti sah kvip</i> <i>ṛtīśah</i> <i>ṛtīśaḍh</i> <i>ṛtīśaḍ</i> <i>ṛtīṣaṭ</i>	<i>8.2.31 ho ḍhaḥ</i> <i>8.2.39 jhalām jaśo 'nte</i> <i>8.3.98 suṣāmādiṣu ca/8.4.56 vā 'vasāne</i>

<i>dhakārādeśa</i> (8.2.40)	for cases such as <i>dogdhi</i> / <i>adugdha</i> / <i>āttha</i> / <i>alīdhāḥ</i>	The derivation of <i>dogdhi</i> is as follows: दुह+लँट् दोह+ति दोघ+ति 8.2.32 दादेर्धातोर्घः दोघ+धि 8.2.40 झषस्तथोर्धोऽधः दोग्धि 8.4.53 झलां जश् झशि The derivation of <i>alīdhāḥ</i> is as follows: लिह् + लङ् अट् लिह् लङ् अ + लिह् थास् अ लिह् शप् थास् अ लिह् थास् अ लिङ् थास् 8.2.31 हो ढः अ लिङ् धास् 8.2.40 झषस्तथोर्धोऽधः अ लिङ् धारुँ 8.2.66 ससजुषो रूँः अ लिङ् धाः 8.3.15 खरवसानयोर्विसर्जनीयः अ लिङ् ढाः 8.4.41 ष्टुना ष्टुः अ लिङ् ढाः 8.3.13 ढो ढे लोपः अ लीङ् ढाः 6.3.111 ढ्रलोपे पूर्वस्य दीर्घोऽणः अलीङ् ढाः	<i>duh+laṁṭ</i> <i>doh+ti</i> <i>dogh+ti</i> 8.2.32 <i>dāderdhātorghaḥ</i> <i>dogh+dhī</i> 8.2.40 <i>jhaṣastathordho'dhaḥ</i> <i>dogdhi</i> 8.4.53 <i>jhalām jaś jhaśi</i> <i>lih + laṅ</i> <i>aṭ liḥ laṅ</i> <i>a + liḥ thās</i> <i>a liḥ śap thās</i> <i>a liḥ thās</i> <i>a liḍh thās</i> 8.2.31 <i>ho ḍhaḥ</i> <i>a liḍh dhās</i> 8.2.40 <i>jhaṣastathordho'dhaḥ</i> <i>a liḍh dhārum</i> 8.2.66 <i>sasajuṣo rumḥ</i> <i>a liḍh dhāḥ</i> 8.3.15 <i>kharavasānāyorvisarjanīyaḥ</i> <i>a liḍh ḍhāḥ</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i> <i>a liḍhāḥ</i> 8.3.13 <i>ḍho ḍhe lopah</i> <i>a līḍhāḥ</i> 6.3.111 <i>ḍhralope pūrvasya dīrgho'ṇaḥ</i> <i>alīḍhāḥ</i>
		Interestingly, the traditional commentaries such as SK, BM and TB clearly give the sequence of operations as ढत्वधत्वष्टुत्वढलोपाः (<i>ḍhatvadhatvaṣṭutvaḍhalopāḥ</i>).	

In the derivation of āttha , there is no scope to apply 8.2.40 due to <i>ādeśāntarakaraṇam</i> . This means that there is a difference in the substitute. 8.2.35 आहस्थः (<i>āhasthaḥ</i>) states that for <i>āh</i> , <i>h</i> is replaced by a different substitute, namely <i>th</i> . After that, there is no scope to apply 8.2.40 झषस्तथोर्धोऽधः (<i>jhaṣastathordho 'dhaḥ</i>). This also implies that 8.2.35 has to precede 8.2.40.	
In case of anaḍvān अनडुह सु अनडु आम् ह सु अनडु आ नुम् ह स् अनडु आ न् ह स् अनडु आ न् ह अनड्वान् ह अनड्वान् ह 8.2.23 संयोगान्तस्य लोपः अनड्वान्	<i>anaḍuh su</i> <i>anaḍu ām h su</i> <i>anaḍu ā num h s</i> <i>anaḍu ā n h s</i> <i>anaḍu ā n h</i> <i>anaḍvān h</i> <i>anaḍvān h</i> 8.2.23 <i>saṃyogāntasya lopah</i> <i>anaḍvān</i>
There is no scope to apply 8.2.31 हो ढः (<i>ho ḍhaḥ</i>) as there is no <i>h</i> . This also implies that 8.2.31 should precede 8.2.72 वसुसंसुध्वस्वनडुहां दः (<i>vasusraṃsudhvamsvanaḍuhām daḥ</i>).	

Satva 8.2.36

Anuvṛtti

Asiddham/ padānta/ jhali from 8.2.26 झलो झलि (*jhalo jhali*) are continued into 8.2.36.

This rule has to be **before**

padānta jaṣṭva (8.2.39)	as in the case of <i>upayaḍbhiḥ</i>	उप यज् विच् उप यष् भिः 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः उप यङ् भिः 8.2.39 झलां जशोऽन्ते	<i>upa yaj vic</i> <i>upa yaṣ bhiḥ</i> 8.2.36 <i>vraścabhrasjasṛjamṛjayaja-</i> <i>rājabhrājacchaśām ṣaḥ</i> <i>upa yaḍ bhiḥ</i> 8.2.39 <i>jhalām jaśo 'nte</i>
kakārādeśa (8.2.41)	as in the case of <i>avrākṣīt</i> seen earlier.		

In case of 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः (*vraścabhrasjasrjamrjayajarājabhrājacchaśāṃ ṣaḥ*), it states that *chakārānta* words undergo *ṣatva* even though they belong to the *cavarga* and the same is true for *śakārānta* words. In this case, as stated in *icuyasānām tālu*, *śakāra* belongs to the same place of articulation as *cavarga*. The roots *vraśca-bhrasja-srja-mṛja-yaja-rāja-bhrāja*, even though they end in *cavarga* undergo *ṣatva*. They should have undergone *kutva* by 8.2.30. This substitution is justified on the basis of effort of articulation. *ś*, *ch* and *ṣ* belong to the same categories of *bāhyaprayatna* namely *vivāra*, *śvāsa* and *aghoṣa*. The *pratyāhāra khar* consists of *khaphachaṭhathacaṭatav kapay śaśasar* as given in *kharo vivārāḥ śvāsā aghoṣāśca*. This substitution seems appropriate given the effort of articulation. 8.2.36 can also be considered as an exception to 8.2.30.

The next point to be considered is the placement of 8.2.36. If 8.2.36 is considered as an exception to 8.2.30, then it should have been placed immediately after 8.2.30. This is not the case.

Anuvṛtti of *jhali* from 8.2.26 is needed even for 8.2.36 as with 8.2.30 and 8.2.31. Thus, it is not a matter of *anuvṛtti*.

One possible reason to have placed 8.2.36 after *ḍhatva prakarana* (8.2.31 – 8.2.35) could be for memorization. Our tradition was basically an oral tradition. It is easier to memorize two short rules namely 8.2.30 चोः कुः (*coḥ kuḥ*) followed by 8.2.31 हो ढः (*ho ḍhaḥ*). *Anuvṛtti* of *h* was required till 8.2.35 to complete the *ḍhatva prakaraṇa*. Thus, *Pāṇini* completed it. Moreover, two long rules namely 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः (*vraścabhrasjasrjamrjayajarājabhrājacchaśāṃ ṣaḥ*) and 8.2.37 एकाचो बशो भष् झषन्तस्य स्ध्वोः (*ekāco baśo bhaṣ jhaṣantasya sdhvoh*) are placed immediately after one another. This way, it might have been easier to memorize.

Bhaṣbhāva prakaraṇa 8.2.37 – 8.2.38

Anuvṛtti

Asiddham/ padānta/ jhali from 8.2.26 झलो झलि (*jhalo jhali*)/ *dhātoḥ* from 8.2.32 दादेर्धातोर्घः (*dāderdhātorghaḥ*) are continued into 8.2.37 – 8.2.38.

This *prakaraṇa* has to be **before**

<i>padānta</i> <i>jaśva</i> (8.2.39)	as in the cases of <i>adhog</i>, <i>adhok</i>/ <i>ajarghāḥ</i>	गृध् यङ् सिप् गृध् ० सिप् गृध् गृध् सिप् गर्ध् गृध् सि ग गृध् सि गर् गृध् सि गर् गृध् सि गर् गर्ध सि गर् गर्ध गर् घर्ध् 8.2.37 एकाचो बशो भष् झषन्तस्य स्ध्वोः गर् घर्ध् 8.2.39 झलां जशोऽन्ते गर् घर् 8.2.75 दश्च गर् घर् 8.3.14 रो रि अ जर् घर् 8.4.54 अभ्यासे चर्च अ जर् घाः 6.3.111 ढ्रलोपे पूर्वस्य दीर्घोऽणः अजर्घाः	<i>grdh yañ sip</i> <i>grdh 0 sip</i> <i>grdh grdh sip</i> <i>gardh grdh si</i> <i>ga grdh si</i> <i>gar grdh si</i> <i>gar grdh si</i> <i>gar gardha si</i> <i>gar gardha</i> <i>gar ghardh</i> 8.2.37 <i>ekāco baśo bhaṣ jhaṣantasya sdhvoḥ</i> <i>gar ghard</i> 8.2.39 <i>jhalām jaśo 'nte</i> <i>gar ghar r</i> 8.2.75 <i>daśca</i> <i>gar ghar</i> 8.3.14 <i>ro ri</i> <i>a jar ghar</i> 8.4.54 <i>abhyāse carca</i> <i>a jar ghāḥ</i> 6.3.111 <i>ḍhralope pūrvasya dīrgho 'ṇaḥ</i> <i>ajarghāḥ</i>
Anomaly in the ordering of application of rules: In the example of <i>dhattaḥ</i>, 8.4.54 अभ्यासे चर्च (<i>abhyāse carcca</i>) is applied before 8.2.38 दधस्तथोश्च (<i>dadhastathosca</i>). The derivation is as follows:			

धा + लट्		<i>dhā + lamṭ</i>	
धा + तस्		<i>dhā + tas</i>	
धा + शप् + तस्		<i>dhā + śap + tas</i>	
धा + तस्		<i>dhā + tas</i>	
धा + धा + तस्		<i>dhā + dhā + tas</i>	
ध + धा + तस्		<i>dha + dhā + tas</i>	
द + धा + तस्	8.4.54 अभ्यासे चर्च्	<i>da + dhā + tas</i>	8.4.54 <i>abhyāse carcca</i>
धध् + तस्	8.2.38 दधस्तथोश्च	<i>dhadh + tas</i>	8.2.38 <i>dadhastathośca</i>
धध् + तर्	8.2.66 ससजुषो रुः	<i>dhadh + taruṃ</i>	8.2.66 <i>sasajuṣo ruḥ</i>
धध् + तः	8.3.15 खरवसानयोर्विसर्जनीयः	<i>dhadh + taḥ</i>	8.3.15 <i>kharavasānayorvisarjanīyaḥ</i>
धत्तः	8.4.55 खरि च	<i>dhattaḥ</i>	8.4.55 <i>khari ca</i>
Even though 8.4.54 अभ्यासे चर्च् (<i>abhyāse carcca</i>) has to be applied before 8.2.38 दधस्तथोश्च (<i>dadhastathośca</i>), <i>Pāṇini</i> placed 8.2.38 immediately after 8.2.37 for continuing <i>bhaṣbhāva</i> . It is stated as <i>dadhaḥ</i> in the rule which is an indication. It can be thus surmised that 8.4.54 is not <i>asiddha</i> to 8.2.38. Moreover, this is just one specific case of one root <i>dhā</i> .			

Padānta jaṣṭva 8.2.39

Anuvṛtti

There is discontinuation of *jhalī* from 8.2.26 झलो झलि (*jhalo jhalī*) as indicated by the term *ante* in 8.2.39 (NY).¹¹⁷ *Asiddham/padānta* are continued in 8.2.39.

¹¹⁷ अन्तग्रहणमित्यादि। तद्ध्यन्तग्रहणं झलीत्यनेन सम्बद्धम्, अतस्तदनुवृत्तौ झलीत्येतदप्यनुवर्तते, तस्मादेतन्निवृत्त्यर्थमन्यदेवान्तग्रहणं क्रियते (*antagrahaṇamityādi | taddhyantagrahaṇam jhalītyanena sambaddham, atastadanuvṛttau jhalītyetadapyanuvartteta, tasmādetannivṛttyarth-amanyadevāntagrahaṇam kriyate*) — For reference, see Jayaśaṅkara Lāl Tripāṭhī, ed. & tr. *Kāśikā (a commentary of Pāṇini's grammar) of Vāmana & Jayāditya with Nyāsa or Kāśikā-vivaraṇapañjikā of Jinendrabuddhi and Padamañjarī of Haradatta Miśra with Bhāvabodhinī Hindi exposition by Prof. Jayaśaṅkara Lāl Tripāṭhī*, Volume X (Varanasi: Tara Book Agency, 2000), 189.

Logical analysis from the above discussion:

- ❖ *Samyogānta lopa/ sakāra lopa/ sakāarakakāra lopa prakaraṇa* (8.2.23 – 8.2.29) has to be **before** *kutva* (8.2.30) for cases such as *magnaḥ/ maṅktā/ lagnaḥ/ asikta*.
- ❖ *Kutva prakaraṇa* (8.2.30) has to be **before** *padānta jaśtva* (8.2.39) for cases such as *vāggmin/ prāg*.
- ❖ *Ḍhatva* (h takes *ḍhatva/ ghatva/ dhatva /thatva*) *prakaraṇa* (8.2.31 – 8.2.35) has to be **before**
 - *bhaṣbhāva* (8.2.37) for cases such as *dhuk/ adhok/ drugdha/ dogdhum / dogdhi/dugdhām/ adugdha*.
 - *padānta jaśtva* (8.2.39), the example is *ṛtīṣaṭ*.
- ❖ *Ṣatva prakaraṇa* (8.2.36) has to be **before** *padānta jaśtva* 8.2.39 as in the case of *upayaḍbhiḥ*.
- ❖ *Bhaṣbhāva prakaraṇa* 8.2.37 – 8.2.38 has to be before *padānta jaśtva* 8.2.39 as in the cases of *adhog, adhok/ ajarghāḥ*.

From the above examples, the following can be deduced:

- *kutva* (8.2.30) before *padānta jaśtva* (8.2.39)
- *ḍhatva* (8.2.31 – 8.2.35) before *bhaṣbhāva* (8.2.37) and *padānta jaśtva* (8.2.39)
- *ṣatva* (8.2.36) before *padānta jaśtva* (8.2.39)
- *bhaṣbhāva* (8.2.37) before *padānta jaśtva* (8.2.39)

This implies that *kutva*, *ḍhatva*, *ṣatva* and *bhaṣbhāva* have to be before *padānta jaśtva* and *ḍhatva* has to be before *bhaṣbhāva*.

Dhakārādeśa 8.2.40

Anuvṛtti

Asiddham/ padānta/ ante from 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*) are continued into 8.2.40.

Jhali from 8.2.26 झलो झलि (*jhalo jhali*) is not needed in 8.2.40. Hence, it has been placed after 8.2.39. It is also about *jhaṣ* and not *jhal*.

This rule (*dhakārādeśa* 8.2.40) has to be **after**

<i>saṃyogānta lopa/ sakāra lopa/ sakārakakāra lopa prakaraṇa</i> (8.2.23 – 8.2.29)	as seen earlier in <i>gdhiḥ</i>
<i>ḍhatva</i> (8.2.31)	as seen earlier in the case of <i>alīḍhāḥ</i>
<i>ḍhatva</i> (8.2.32)	as seen in <i>dogdhi</i>

The reason for placing *padānta jaśtva* before *dhakārādeśa* is very evident from the example of *dogdhi*. *Jaśtva* is still needed but that of *padānta*. This point is emphasized as there is another *jaśtva* which is *apadānta* (8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*)). Examples similar to *dogdhi* are: *vṛddhiḥ*, *ruṇaddhi*, *labdha*, *abuddha*, *jagdha*, *babdhām*, *dugdhām*, *raddhā*, *naddhrī*, *degdhā*, *dogdhā*, *kṣubdhah*.

Kakārādeśa 8.2.41

Anuvṛtti

Asiddham/ padānta/ ante from 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*) are continued into 8.2.41. The logical reasoning for this ordering is that without doing *ḍhatva* (8.2.31) or *ṣatva* (8.2.36), *kakārādeśa* cannot take place.

This rule (*kakārādeśa* 8.2.41) has to be **after**

<i>ḍhatva</i> (8.2.31)	for cases such as <i>jighṛkṣati</i>	ग्रह् सन् गृह् स् गृह् गृह् स् गृ गृह् स् गर् गृह् स् ग गृह् स् ज गृह् स्	<i>grah san</i> <i>gr̥h s</i> <i>gr̥h gr̥h s</i> <i>gr̥ gr̥h s</i> <i>gar gr̥h s</i> <i>ga gr̥h s</i> <i>ja gr̥h s</i> <i>ji gr̥h s</i>

		जि गृह स् जि गृद स् 8.2.31 हो ढः जि घृद स् 8.2.37 एकाचो बशो भष् झषन्तस्य स्ध्वोः जि घृक् स् 8.2.41 षढोः कः सि जि घृक् ष 8.3.59 आदेशप्रत्यययोः जिघृक्षति	<i>ji gr̥dh s</i> 8.2.31 <i>ho ḍhaḥ</i> <i>ji ghr̥dh s</i> 8.2.37 <i>ekāco baśo bhaṣ jhaṣantasya sdhvoḥ</i> <i>ji ghr̥k s</i> 8.2.41 <i>ṣaḍhoḥ kaḥ si</i> <i>ji ghr̥k ṣ</i> 8.3.59 <i>ādeśapratyayayoḥ</i> <i>jighṛkṣati</i>
ṣatva (8.2.36)		for cases such as <i>avrākṣīt</i> seen earlier	
bhaṣbhāva (8.2.37)		as in <i>jighṛkṣati</i>	

The reason for not placing 8.2.41 immediately after 8.2.36 is because

- *anuvṛtti* of *ho* needed till 8.2.35,
- *anuvṛtti* of *jhaḥ* needed till 8.2.36 and
- *anuvṛtti* of *dhātoḥ* till 8.2.38.

Niṣṭhānakāra/ kakāra/ vakāra/ makāra prakaraṇa 8.2.42 – 8.2.61

Anuvṛtti

Asiddham/ padānta/ ante from 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*) are continued into 8.2.42 – 8.2.61.

niṣṭhāto naḥ (8.2.42) is continued into the following rules:

- 8.2.43 संयोगादेरातो धातोर्यण्वतः (*saṃyogāderāto dhātoryaṇvataḥ*), 8.2.44 ल्वादिभ्यः (*lvādibhyah*), 8.2.45 ओदितश्च (*oditaśca*), 8.2.46 क्षियो दीर्घात् (*kṣiyo dīrghāt*), 8.2.47 श्योऽस्पर्शे (*śyo 'sparśe*) and 8.2.48 अञ्चोऽनपादाने (*añco 'napādāne*).
- 8.2.50 निर्वाणोऽवाते (*nirvāṇo 'vāte*) is a *nipātana* rule.

Niṣṭhāto (8.2.42) is continued into the following rules: 8.2.51 शुषः कः (*śuṣaḥ kaḥ*), 8.2.52 पचो वः (*paco vaḥ*), 8.2.53 क्षायो मः (*kṣāyo maḥ*) and 8.2.54 प्रस्त्योऽन्यतरस्याम् (*prastyo 'nyatarasyām*). These are special cases.

8.2.55 अनुपसर्गात् फुल्लक्षीबकृशोल्लाघाः (*anupasargāt phullakṣībakṛśollāghāḥ*) is a *nipātana* rule.

Niṣṭhāto naḥ (8.2.42) is continued into the following rules: 8.2.56 नुदविदोन्द्राग्राहीभ्योऽन्यतरस्याम् (*nudavidondatrāghrāhrībhyo 'nyatarasyām*) and 8.2.57 न ध्याख्यापृमूर्छिमदाम् (*na dhyākhyāpṛmūrchimadām*).

8.2.56 is placed after so many other rules although the continuation is of 8.2.42. After this rule, negation begins. Therefore, Pāṇini wanted to complete prescribing optionality with this rule.

This *prakaraṇa* (*niṣṭhānakāra/ kakāra/ vakāra/ makāra prakaraṇa* 8.2.42 – 8.2.61) has to be **after** the following:

vatva prakaraṇa (8.2.9 – 8.2.17)	to obtain forms such as <i>kṣāmimān</i> as 8.2.53 क्षायो मः (<i>kṣāyo maḥ</i>) is not seen by 8.2.9.		
	Another example is <i>guḍaliṇmān</i> .	गुडं लेढि गुडलिह् + क्विप् गुडलिहोऽस्य सन्ति गुडलिह् + मतुप् गुडलिद् + मतुप् 8.2.31 हो ढः गुडलिङ् + मतुप् 8.2.39 झलां जशोऽन्ते गुडलिण्मान् 8.4.45 यरोऽनुनासिकेऽनुनासिको वा	<i>guḍaṃ leḍhi</i> <i>guḍalih + kvip</i> <i>guḍaliho 'sy santi</i> <i>guḍalih + matup</i> <i>guḍaliḍh + matup</i> 8.2.31 <i>ho ḍhaḥ</i> <i>guḍaliḍ + matup</i> 8.2.39 <i>jhalām jaśo 'nte</i> <i>guḍaliṇmān</i> 8.4.45 <i>yaro 'nunāsike 'nunāsiko vā</i>
	Dhatva and padānta jaṣṭva are both <i>asiddha</i> . 8.2.10 झयः (<i>jhayah</i>) still perceives it <i>guḍalih</i> and not <i>guḍaliḍh</i> . <i>h</i> is not <i>jhay</i> . Therefore, <i>vatva</i> cannot take place.		

<i>saṃyogānta lopa/ sakāra lopa/ sakāarakakāra lopa prakaraṇa</i> (8.2.23 – 8.2.29) as seen earlier in <i>magnaḥ</i> .
<i>kutva</i> 8.2.30 as seen earlier in <i>magnaḥ</i> .

This *prakaraṇa* (*niṣṭhānakāra/ kakāra/ vakāra/ makāra prakaraṇa* 8.2.42 – 8.2.61) has to be **before** the following:

<i>upadhābhūta</i> <i>ik-varṇa</i> <i>dīrghādeśa</i> (8.2.77)	as in <i>āstīrṇaṃ/</i> <i>śīrṇa</i>	स्तृ क्त स्तिर् त स्तिर् न 8.2.42 रदाभ्यां निष्ठातो नः पूर्वस्य च दः स्तीर् न 8.2.77 हलि च आ स्तीर् न आस्तीर्ण 8.4.1 रषाभ्यां नो णः समानपदे	<i>stī kta</i> <i>stir ta</i> <i>stir na 8.2.42 radābhyāṃ niṣṭhāto naḥ pūrvasya ca daḥ</i> <i>stīr na 8.2.77 hali ca</i> <i>ā stīr na</i> <i>āstīrṇaṃ 8.4.1 raṣābhyāṃ no ṇaḥ samānapade</i>
<i>ṇatva</i> (8.4.1)	as seen in <i>āstīrṇaṃ</i> .		

There is a *vārttika* निष्ठादेशः षत्वस्वरप्रत्ययेडिवधिषु सिद्धो वक्तव्यः (*niṣṭhādeśaḥ ṣatvasvarapratyayeḍivadhiṣu siddho vaktavyaḥ*) under 8.2.3 न मु ने (*na mu ne*): Consider *pūrvatrāsiddham* to be non-operative when it comes to *niṣṭhānatva* and *ṣatva*. There is a possibility of avoiding this *vārttika* by placing *niṣṭhānatva* before *ṣatva*. However, this could not have been done as it would have caused problems with the derivation of words like *vṛkṇaḥ*.

और्वस्चूँ व्रस्च + क्त वृअस्च + त वृस्च + त वृच् + त 8.2.29 स्कोः संयोगाद्योरन्ते च वृक् + त 8.2.30 चोः कुः	<i>omvrascūṃ</i> <i>vrasc + kta</i> <i>vṛasc + ta</i> <i>vṛsc + ta</i> <i>vṛc + ta 8.2.29 skoḥ saṃyogādyorante ca</i> <i>vṛk + ta 8.2.30 coḥ kuḥ</i>

At this stage, 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः (*vraścabhraśjasrjamṛjayajarājabhrājacchaśāṃ ṣaḥ*) becomes applicable by which *ṣatva* should have taken place. But, this *vārttika* prevents that. Thus, *ṣatva* is prevented and *niṣṭhānatva* takes place even though it is said the earlier rules of *tripādī* are not visible to the latter ones.

वृक् + न 8.2.45 ओदितश्च	<i>vṛk + na 8.2.45 oditaśca</i>
वृक्णः 8.4.2 अट्कुप्वाङ्नुम्व्यवायेऽपि [ऋवर्णान्नस्य णत्वं वाच्यम्]	<i>vṛkṇaḥ 8.4.2 aṭkupvāṅnumvyavāye 'pi [ṛvarṇānnasya ṇatvaṃ vācyam]</i>

***Niṣṭhānatva* cannot be shifted and placed before *ṣatva* because continuation of *jhali* is needed even in 8.2.36**

व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः (*vraścabhraśjasrjamṛjayajarājabhrājacchaśāṃ ṣaḥ*). Therefore, *niṣṭhānatva* could not have been placed before 8.2.36.

Kvinkutva prakaraṇa 8.2.62 – 8.2.63

Anuvṛtti

Asiddham/ padānta are continued in 8.2.62 – 8.2.63.

This *prakaraṇa* has to be **after**

<i>saṃyogānta</i> <i>lopa</i> (8.2.23)	as seen in <i>prāṇ</i>	प्र अञ्च प्र अ नुम् च् प्रान् च् स् प्रान् च् प्राङ्	8.2.23 संयोगान्तस्य लोपः 8.2.62 किन्प्रत्ययस्य कुः	<i>pra añc</i> <i>pra a num c</i> <i>prāṇ c s</i> <i>prāṇ c</i> <i>prāṇ</i>	<i>8.2.23 saṃyogāntasya lopah</i> <i>8.2.62 kvinpratyayasya kuḥ</i>

<i>ṣatva</i> (8.2.36)	as in <i>ghṛtasprgbhyām</i>	घृतस्पृश् + किन्		<i>ghṛtasprś + kvin</i>	
		घृतस्पृष् + भ्याम्	8.2.36 व्रश्चभ्रस्जसृजमृज- यजराजभ्राजच्छशां षः	<i>ghṛtasprṣ + bhyām</i>	8.2.36 <i>vraścabhrasjasrjamrja-</i> <i>yajarājabhrājacchaśām ṣaḥ</i>
		घृतस्पृङ् + भ्याम्	8.2.39 झलां जशोऽन्ते	<i>ghṛtasprḍ + bhyām</i>	8.2.39 <i>jhalām jaśo 'nte</i>
		घृतस्पृग्भ्याम्	8.2.62 किन्प्रत्ययस्य कुः	<i>ghṛtasprgbhyām</i>	8.2.62 <i>kvinpratyayasya kuḥ</i>
		This sequence of operations is called षडङ्गकाः (<i>ṣaḍaṅgakāḥ</i>) in SK, PraudaM, BM.			
<i>padānta jaśtva</i> (8.2.39)		as in <i>ghṛtasprgbhyām</i>			

This *prakaraṇa* (*kvinkutva prakaraṇa* 8.2.62- 8.2.63) has to be **before**

cartva (8.4.56)	as in the example of <i>asrāk</i> ¹¹⁸	सृज् लुङ् अट् सृज् च्लि अ सृज् सिच् अ सृ (अम्) ज् तिप् अ स्रज्+ ति अस्राज् ति अस्राज् अस्राग् 8.2.62 किन्प्रत्ययस्य कुः अस्राक् 8.4.56 वाऽवसाने	<i>srj luṅ</i> <i>aṭ srj cli</i> <i>a srj sic</i> <i>a sṛ (am) j tip</i> <i>a sraj+ ti</i> <i>asrāj ti</i> <i>asrāj</i> <i>asrāg</i> 8.2.62 <i>kvinpratyayasya kuḥ</i> <i>asrāk</i> 8.4.56 <i>vā 'vasāne</i>

The question that comes to mind is that 8.2.62 could have been placed immediately after *kutva* 8.2.30. The continuation of *kutva* could have been maintained in this *prakaraṇa* too. However, this *prakaraṇa* could not have been placed immediately after 8.2.30 चोः कुः (*coḥ*

¹¹⁸ *R̥gveda* 4.53.4 – For reference, see Friedrich Max Müller, ed. *Rig-Veda-Samhita: the sacred hymns of the Brahmans together with the commentary of Sayanakarya, Second Edition*, Volume II, Mandalas II - VI (London: Oxford University Press Warehouse, 1890), 481.

kuḥ) because *jhali* is needed as *anuvṛtti* in the next few rules. Moreover, other *tripādī* rules need to be undertaken before 8.2.62 as seen in the example of *ghṛtaspr̥gbhyām*.

Nakārādeśa for makāra-ending padas (roots) prakaraṇa 8.2.64 – 8.2.65

Anuvṛtti

Asiddham/ padānta are continued in 8.2.64 – 8.2.65.

This *prakaraṇa* has to be **after**

<i>nalopa</i> (8.2.7)	as in cases of <i>praśān</i> , <i>pradān</i> , <i>pratān</i> ; otherwise, there would be elision of <i>nakāra</i> by 8.2.7.

This *prakaraṇa* could have been placed anywhere after the *nalopa prakaraṇa* 8.2.7 within the *adhikāra* of *pada* since it needs continuation of only *asiddham/ padānta*. Moreover, there are no other prior operations of the *tripādī* required as observed in the examples obtained from the references. None of the words of these rules are continued in any of the subsequent rules. In both these cases, the *prakriyā* enters *tripādī* only with this *prakaraṇa*.

Example 1: <i>praśān</i> प्र+शम् + क्तिप् प्रशाम् प्रशाम् + सुँ प्रशान् 8.2.64 मो नो धातोः	<i>pra+śam + kṭip</i> <i>praśām</i> <i>praśām + suṁ</i> <i>praśān</i> 8.2.64 <i>mo no dhātoḥ</i>
Example 2: <i>aṅgan</i> गम् यङ् गम् गम् यङ् ज गम् यङ्	<i>gam yaṅ</i> <i>gam gam yaṅ</i> <i>ja gam yaṅ</i>

जन् गम् जन् गम् अजङ्गन्	8.2.65 म्वोश्च	ja n gam jan gam ajaṅgan	8.2.65 mvośca

Rutva (ruh) prakaraṇa 8.2.66 – 8.2.71

Anuvṛtti

Asiddham/ padānta are continued in 8.2.66 – 8.2.71.

This *prakaraṇa* has to be **before**

<i>upadhābhūta ik-varṇa dīrghādeśa (8.2.76- 8.2.79)</i>	as in the cases of <i>sajūḥ/ āśīḥ</i>	आङ् + शास् + क्तिप् आ + शास् + ० आ + शिस् + ० आ + शिस् + सुँ आ + शिस् + ० आ + शि रँ 8.2.66 ससजुषो रुः आशीर् 8.2.76 वोरुपधाया दीर्घ इकः आशीः 8.3.15 खरवसानयोर्विसर्जनीयः	<i>āṅ + śās + kvip ā + śās + 0 ā + śis + 0 ā + śis + sum ā + śis + 0 ā + śi rum 8.2.66 sasajuṣo ruh āśīr 8.2.76 rvorupadhāyā dīrgha ikah āśīḥ 8.3.15 kharavasānayorvisarjanīyaḥ</i>
<i>visarjanīya (8.3.15)</i>	as in the case of <i>āśīḥ</i>		

This *prakaraṇa* is an exception to 8.2.39. *Sakāra* should have undergone *padānta jaśtva* by 8.2.39 but 8.2.66 is an *apavāda* rule to 8.2.39.¹¹⁹ Therefore, 8.2.66 has higher precedence even though it is placed after 8.2.39.

¹¹⁹ योगश्चायं जश्त्वापवादः॥ (*yogaścāyaṃ jaśtvāpavādaḥ*) – NY under 8.2.66– For reference, see Jayaśaṅkara Lāl Tripāṭhī, ed. & tr. *Kāśikā*, Volume X, 215.

S of vas takes datva / rutva (ruh) prakaraṇa 8.2.72 – 8.2.75

Anuvṛtti

Asiddham/ padānta / saḥ from 8.2.66 ससजुषो रुः *sasajuṣo ruḥ* are continued into 8.2.72 – 8.2.75.

This *prakaraṇa* has to be **after**

<i>saṃyogānta lopa (8.2.23)</i>	as in the case of <i>vidvān</i>	विद् वस् सु विद् व न् स् स् विद् व न् स् 8.2.23 संयोगान्तस्य लोपः विद् व न् विद्वान्	<i>vid vas su</i> <i>vid va n s s</i> <i>vid va n s</i> 8.2.23 <i>saṃyogāntasya lopaḥ</i> <i>vid va n</i> <i>vidvān</i>
<i>sakāarakakāra lopa (8.2.29)</i>	as in the cases of <i>asaḥ, asad, asat</i>	सस्+लङ् सस्+सिप् सस्+शप्+सिप् सस्+सिप् सस् 8.2.29 स्कोः संयोगाद्योरन्ते च असस् असरुँ, असद् 8.2.74 सिपि धातो रुर्वा असः, असद् 8.3.15 खरवसानयोर्विसर्जनीयः असः, असद्, असत् 8.4.56 वाऽवसाने	<i>sas+lamñ</i> <i>sas+sip</i> <i>sas+śap+sip</i> <i>sas+sip</i> <i>sas</i> 8.2.29 <i>skoḥ saṃyogādyorante ca</i> <i>asas</i> <i>asarum, asad</i> 8.2.74 <i>sipi dhāto rurvā</i> <i>asaḥ, asad</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i> <i>asaḥ, asad, asat</i> 8.4.56 <i>vā 'vasāne</i>
<i>bhaṣbhāva (8.2.37)</i>	in case of <i>ajarghāḥ</i> as seen earlier		
<i>padānta jaśṭva (8.2.39)</i>	in case of <i>ajarghāḥ</i>		

This section is an exception to 8.2.66. Therefore, the placement is justified. The replacement of *sakāra* is still being discussed here. Only in this case, the replacement is that of *dakāra* for *vas* and certain roots.

Upadhābhūta ik-varṇa dīrghādeśa prakaraṇa 8.2.76 – 8.2.79

Anuvṛtti

Asiddham/ padānta / dhāto from 8.2.74 सिपि धातो रूर्वा (*sipi dhāto rurvā*) are continued into 8.2.76 – 8.2.79.

This *prakaraṇa* has to be **after**

<i>rutva (ruḥ)</i> (8.2.66/ 8.2.74)	Logically, unless there is a <i>repha</i> , this <i>prakaraṇa</i> cannot be applied. The <i>repha</i> could be part of the root itself or could have been obtained due to the replacement of <i>sakāra</i> either by 8.2.66 or 8.2.74. Therefore, wherever there is scope for a <i>sakāra</i> to be changed to <i>rutva (ruḥ)</i> , it is undertaken first. This necessarily means that this <i>prakaraṇa</i> should follow <i>rutva (ruḥ) prakaraṇa</i> .

This *prakaraṇa* (*upadhābhūta ik-varṇa dīrghādeśa prakaraṇa* 8.2.76 – 8.2.79) has to be **before** the following:

<i>visarjanīya</i> (8.3.15)	as in <i>āśīḥ</i> seen earlier		
<i>mūrdhanyādeśa</i> (8.3.57)	as in <i>cikīrṣati</i>	कृ सन् कृ कृ स ति कर् कृ स ति क कृ स ति क कृ स् ति क किर् स ति च किर् स ति चि किर् स ति चि कीर् स ति चि कीर् ष ति चिकीर्षति	8.2.77 हलि च 8.3.59 आदेशप्रत्यययोः
		<i>kṛ san</i> <i>kṛ kṛ sa ti</i> <i>kar kṛ sa ti</i> <i>ka kṛ sa ti</i> <i>ka kṛ s ti</i> <i>ka kir sa ti</i> <i>ca kir sa ti</i> <i>ci kir sa ti</i> <i>ci kīr sa ti</i> <i>ci kīr ṣa ti</i> <i>cikīrṣati</i>	8.2.77 hali ca 8.3.59 ādeśapratyayayoḥ

Adas prakaraṇa 8.2.80 – 8.2.81

Anuvṛtti

Asiddham/padānta are continued into 8.2.80 – 8.2.81.

The positioning of this *prakaraṇa* is noteworthy. It needs continuation only of *asiddhatva* and *padānta*. Therefore, it is placed just before the *pluta* section. This section needs to be considered along with 8.2.3 न मु ने (*na mu ne*). The logical approach is to place this section immediately after 8.2.3. But, *Pāṇini* placed the *svara* rules just after 8.2.3 and also ended the *tripādī* with the *svara* rules. The last rule of the *pluta* section contains the term *saṃhitāyām* (8.2.108 तयोर्वावचि संहितायाम् (*tayoryvāvaci saṃhitāyām*)). He did not want this term (*adhikāra*) for 8.2.80 – 8.2.81. Hence, he placed them just before the *pluta* section. Another possibility is that 8.2.3 न मु ने (*na mu ne*) could have been placed after this section. This ordering would have caused problems because the negation in 8.2.3 न मु ने (*na mu ne*) is of *asiddhatva*. The rules 8.2.1 – 8.2.3 constitute a *prakaraṇa* addressing the principle of *asiddhatva*. Another point to be noted is that within a *prakaraṇa*, the rules are *siddha* to each other.

Pluta prakaraṇa 8.2.82 – 8.2.108

Anuvṛtti

Asiddham/ padānta are continued into 8.2.82 – 8.2.108.

8.2.108 तयोर्वावचि संहितायाम् (*tayoryvāvaci saṃhitāyām*) is the last rule of the second *pāda*. It introduces the *adhikāra* of *saṃhitā*. But, this was not needed in the second *pāda*. Only the third and fourth *pādas* need the domain of *saṃhitā*. So, *Pāṇini* placed the *pluta* section in the last part of the second *pāda*.

8.3

The third *pāda* of the eighth chapter of the *Aṣṭādhyāyī* begins with the *prakaraṇa* of *rutva* (*ruṇaḥ*). A new *pāda* has started because *Pāṇini* wanted the *adhikāra* of *saṃhitā* till the end of the fourth *pāda* as seen in the last rule of the second *pāda* (8.2.108 तयोर्वावचि संहितायाम् (*tayoryvāvaci saṃhitāyām*)). The different *prakaraṇas* of the third *pāda* are now considered for their ordering.

Matup / vas rutva (runah) prakaraṇa 8.3.1 – 8.3.12

Anuvṛtti

Asiddham / padānta / saṃhitā are continued into 8.3.1– 8.3.12. This section is restricted to words from *Vedic* literature.

This *prakaraṇa* (*matup/ vas rutva (ruṇaḥ) prakaraṇa* 8.3.1– 8.3.12) has to be **after**

vatva (8.2.10)	as seen in the case of <i>marutvaḥ</i>	मरुत् + मतुप् + सुँ मरुत्मत् + स् मरुत्मन् त् + स् मरुत्मन् त् मरुत्वन् त् मरुत्वन् मरुत्वर् मरुत्वः	8.2.10 झयः 8.2.23 संयोगान्तस्य लोपः 8.3.1 मतुवसो रु सम्बुद्धौ छन्दसि 8.3.15 खरवसानयोर्विसर्जनीयः	<i>marut + matup + suṃ</i> <i>marutmat + s</i> <i>marutman t + s</i> <i>marutman t</i> <i>marutvan t</i> <i>marutvan</i> <i>marutvarum</i> <i>marutvaḥ</i>	8.2.10 <i>jhayah</i> 8.2.23 <i>saṃyogāntasya lopah</i> 8.3.1 <i>matuvaso ru sambuddhau chandasi</i> 8.3.15 <i>kharavasānayorvisarjanīyah</i>
saṃyogānta lopa (8.2.23)		as in <i>marutvaḥ</i>			
उभयसंज्ञान्यपि च्छन्दांसि दृश्यन्ते । (<i>ubhayasaṃjñānyapi cchandāṃsi dṛśyante</i>) is a <i>vārttika</i> mentioned in MB for the first time under 1.1.1. वृद्धिरादैच् (<i>vṛddhirādaic</i>). Bases in Vedic literature selectively assign themselves either the <i>bhasaṃjñā</i> or the <i>padasaṃjñā</i> depending on the derivational process. One such example is <i>marutvaḥ</i> . In the whole derivation, the base takes <i>bhasaṃjñā</i> by 1.4.19 तसौ मत्वर्थे (<i>tasau matvarthe</i>) in order to avoid <i>padānta jaśtva</i> . In all other stages of derivation, the base takes <i>padasaṃjñā</i> .					

This *prakaraṇa* (*matup/ vas rutva (ruṇaḥ) prakaraṇa* 8.3.1 – 8.3.12) has to be **before**

visarjanīya (8.3.15)		as in the case of <i>marutvaḥ</i> seen earlier	
visarjanīya yakāra/ lopa (8.3.17/ 8.3.19)	as seen in the case of <i>mahām asi</i>	महान् असि महारुँ असि 8.3.9 दीर्घादटि समानपादे महारुँ असि 8.3.3 आतोऽटि नित्यम् महाँय असि 8.3.17 भोभगोअघोअपूर्वस्य योऽशि महाँ असि 8.3.19 लोपः शाकल्यस्य	<i>mahān asi</i> <i>mahāruṁ asi</i> 8.3.9 <i>dīrghādaṭi samānapāde</i> <i>mahāmruṁ asi</i> 8.3.3 <i>āto 'ṭi nityam</i> <i>mahāmy asi</i> 8.3.17 <i>bhobhagoaghoapūrvasya yo 'śi</i> <i>mahām asi</i> 8.3.19 <i>lopaḥ śākalyasya</i>
kuk/ tuk/ dhuṭ/ tuk āgamas (8.3.30)	as in the case of <i>bhavāntsundaraḥ</i>	भवान् सुन्दरः भवान् धुट् सुन्दरः 8.3.30 नश्च भवान् ध् सुन्दरः भवान् त् सुन्दरः 8.4.55 खरि च भवान्सुन्दरः	<i>bhavān sundaraḥ</i> <i>bhavān dhuṭ sundaraḥ</i> 8.3.30 <i>naśca</i> <i>bhavān dh sundaraḥ</i> <i>bhavān t sundaraḥ</i> 8.4.55 <i>khari ca</i> <i>bhavāntsundaraḥ</i>
In this case, 8.3.7 नश्छव्यप्रशान् (<i>naśchavyapraśān</i>) will not be applicable because of the ordering.			

The order of application of rules within this section is random. 8.3.2 अत्रानुनासिकः पूर्वस्य तु वा (*atrānunāsikaḥ pūrvasya tu vā*) and 8.3.3 आतोऽटि नित्यम् (*āto 'ṭi nityam*) appear to be the basic rules and these are applied once certain conditions are met with.

Dhalopa/ ralopa prakaraṇa 8.3.13 – 8.3.14

Anuvṛtti

Asiddham /padānta / saṃhitā are continued into 8.3.13 – 8.3.14. In case of 8.3.13, KK states clearly that even though this come under the *padādhikāra*, this elision is only for *apadānta dhakāra*.¹²⁰

¹²⁰ The reference has already been given under Chapter II Section 2.1.

This *prakarāṇa* (*ḍhalopa/ ralopa prakaraṇa* 8.3.13 – 8.3.14) has to be **after**

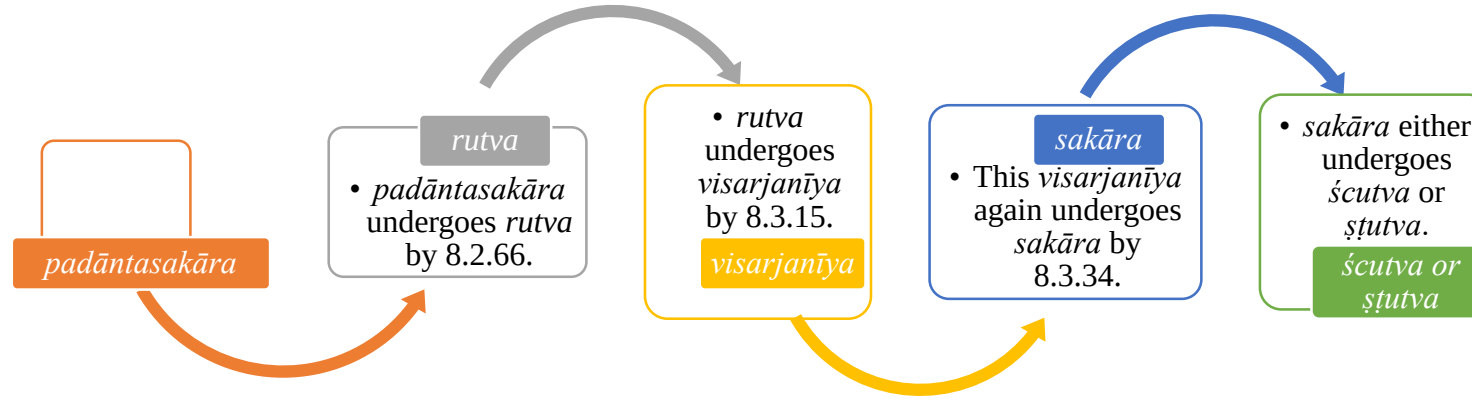
<i>ḍhatva</i> (8.2.31)	as seen in the example <i>alīḍhāḥ</i> earlier.
<i>dhakārādeśa</i> (8.2.40)	
<i>ṣṭutva</i> (8.4.41)	
<i>ḍhalopa</i> (8.3.13)	

Analysis:

In case of 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopah*), it is always used only after 8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*). The traditional commentaries such as SK, BM and TB clearly give the sequence of operations as ढत्वधत्वष्टुत्वढलोपाः (*ḍhatvadhatvaṣṭutvaḍhalopāḥ*) as already mentioned under *ḍhatva*. The rationale behind this ordering is given in *Laghupāṇinīyam* under 8.4.41.¹²¹

Padāntasakāra undergoes *rutva* (*ruḥ*) by 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*), which undergoes *visarjanīya* by 8.3.15 खरवसानयोर्विसर्जनीयः (*kharavasānayorvisarjanīyaḥ*). This *visarjanīya* again undergoes *sakāra* by 8.3.34 विसर्जनीयस्य सः (*visarjanīyasya saḥ*) which either undergoes *ścutva* 8.4.40 स्तोः श्चुना श्चुः (*stoḥ ścunā ścuḥ*) or *ṣṭutva* 8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*). Therefore, then *ścutva* or *ṣṭutva* will have to be placed only after 8.3.34.

¹²¹ Rajaraja Varma AR, *Laghupāṇinīyam*, 44.



Consider examples such as *payaśśītam* / *mahaṣṣaṇḍaḥ*. In these cases, *padāntasakāra* undergoes all those operations that have been listed above. Logically, *Pāṇini* had to list out both the *rumtvas* before he could do *visarjanīya*. So, *Pāṇini* must have thought it better to place 8.3.13/ 8.3.14 before 8.4.41.

In case of 8.3.14 रो रि (*ro ri*), i.e. *ralopa*, *Pāṇini* wanted *anuvṛtti* of *raḥ* from 8.3.14 रो रि (*ro ri*) into 8.3.15. So, he interspersed 8.3.13 and 8.3.14 between *rumtva* and *visarjanīya*. Moreover, after both the *rumtvas*, he wanted *ralopa* as seen in the example of *apāspāḥ*.

स्पर्ध् + यङ् स्पर्ध् + स्पर्ध् + यङ् प + स्पर्ध् + यङ् पा + स्पर्ध् + यङ् पा + स्पर्ध् पा + स्पर्ध् पा + स्पर्ध् + लङ् अट् + पा + स्पर्ध् + लङ् अ + पा + स्पर्ध् + सिप् अ + पा + स्पर्ध् + शप् + सि	धातुसंज्ञा	spardh + yañ spardh + spardh + yañ pa + spardh + yañ pā + spardh + yañ pā + spardh pā + spardh pā + spardh + lañ aṭ + pā + spardh + lañ a + pā + spardh + sip	dhātusaṃjñā

अ + पा + स्पर्ध + सि		<i>a + pā + spardh + śap + si</i>	
अ + पा + स्पर्ध + स्		<i>a + pā + spardh + si</i>	
अ + पा + स्पर्ध	पदसंज्ञा	<i>a + pā + spardh + s</i>	
अ + पा + स्पर्ध	8.2.39 झलां जशोऽन्ते	<i>a + pā + spardh</i>	<i>padasaṃjñā</i>
अ + पा + स्पर् रुँ	8.2.75 दश्च	<i>a + pā + spard</i>	<i>8.2.39 jhalām jaśo 'nte</i>
अ + पा + स्पर्	8.3.14 रो रि	<i>a + pā + spar rum</i>	<i>8.2.75 daśca</i>
अ + पा + स्पा र्	6.3.111 द्रलोपे पूर्वस्य दीर्घोऽणः	<i>a + pā + spa r</i>	<i>8.3.14 ro ri</i>
अ + पा + स्पाः	8.3.15 खरवसानयोर्विसर्जनीयः	<i>a + pā + spā r</i>	<i>6.3.111 dhralope pūrvasya dīrghoṇaḥ</i>
अपास्पाः		<i>a + pā + spāḥ</i>	<i>8.3.15 kharavasānayorvisarjanīyaḥ</i>
		<i>apāspāḥ</i>	

8.3.13 could have been placed after 8.4.41. This was not done. The rationale behind this is discussed in detail under the *ṣṭutva prakaraṇa*.

Visarjanīya / yakāra vakāra/ laghuprayatna /lopa prakarana 8.3.15 – 8.3.22

Anuvṛtti

Asiddham /padānta / saṃhitā / raḥ from 8.3.14 रो रि (*ro ri*) are continued into 8.3.15 – 8.3.22.

This *prakaraṇa* has to be **after** the following:

<i>rutva (ruḥ)</i> (8.2.66)	as in the case of <i>rāmaḥ</i>	राम + सुँ राम + स् राम + रुँ 8.2.66 ससजुषो रुँ रामः 8.3.15 खरवसानयोर्विसर्जनीयः	<i>rāma + sum</i> <i>rāma + s</i> <i>rāma + rum</i> 8.2.66 <i>sasajuṣo rum</i> <i>rāmaḥ</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i>
<i>rutva (ruḥ)</i> (8.2.75)	as in the case of <i>abhinaḥ</i>	भिद् + लङ् अट् + भिद् + लङ् अ + भिद् + सिप्	<i>bhid + laṅ</i> <i>aṭ + bhid + laṅ</i> <i>a + bhid + sip</i>

		अ + भि श्रम् द् + सि अ + भि न द् + स् अ + भि न द् अ + भि न रँ 8.2.75 दश्च अ + भि न र् अभि नः 8.3.15 खरवसानयोर्विसर्जनीयः	<i>a + bhi śnam d + si</i> <i>a + bhi na d + s</i> <i>a + bhi na d</i> <i>a + bhi na rum</i> 8.2.75 <i>daśca</i> <i>a + bhi na r</i> <i>abhinaḥ</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i>
upadhābhūta ik-varṇa dīrghādeśa (8.2.76)	as in the case of <i>gīḥ</i>	गृ + क्तिप् + सुँ गिर् + स् गिर् पदसंज्ञा गीर् 8.2.76 वोरुपधाया दीर्घ इकः गीः 8.3.15 खरवसानयोर्विसर्जनीयः	<i>gṛ + kvip + suṁ</i> <i>gir + s</i> <i>gir padasaṁjñā</i> <i>gīr</i> 8.2.76 <i>rvorupadhāyā dīrgha ikaḥ</i> <i>gīḥ</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i>
ruṇā (ru) (8.3.2/ 8.3.4 / 8.3.7)	as in the case of <i>vidvāmstapati /</i> <i>vidvāmstapati</i>	विद्वान् + तपति विद्वारँ + तपति 8.3.7 नश्छव्यप्रशान् विद्वारँ + तपति 8.3.2 अत्रानुनासिकः पूर्वस्य तु वा / विद्वारँ + तपति 8.3.4 अनुनासिकात् परोऽनुस्वारः विद्वारँ + तपति / 8.3.15 खरवसानयोर्विसर्जनीयः विद्वारँ + तपति विद्वारँस् + तपति / विद्वारँस् + तपति 8.3.34 विसर्जनीयस्य सः विद्वारँस्तपति/ विद्वारँस्तपति	<i>vidvān + tapati</i> <i>vidvārum + tapati</i> 8.3.7 <i>naśchavyapraśān</i> <i>vidvāmrum + tapati</i> 8.3.2 <i>atrānunāsikaḥ pūrvasya tu vā /</i> <i>vidvāmrum + tapati</i> 8.3.4 <i>anunāsikāt paro 'nusvāraḥ</i> <i>vidvāmḥ + tapati /</i> <i>vidvāmḥ + tapati</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i> <i>vidvāms + tapati /</i> <i>vidvāms + tapati</i> 8.3.34 <i>visarjanīyasya saḥ</i> <i>vidvāmstapati/ vidvāmstapati</i>

This *prakaraṇa* (*visarjanīya / yakāra vakāra* | *laghuprayatna /lopa prakaraṇa* 8.3.15 – 8.3.22) has to be **before**

<i>visarjanīya sakārādeśa</i> (8.3.34)	as in <i>vidvāmstapati / vidvāmstapati</i> as given above

Anusvāra prakaraṇa 8.3.23 – 8.3.27

Anuvṛtti

Asiddham /padānta / saṃhitā / hali from 8.3.22 हलि सर्वेषाम् (*halisarveṣām*) are continued into 8.3.23 – 8.3.27.

This *prakaraṇa* has to be **after**

<i>sakāraṇakāra lopa (8.2.29)</i>	as in <i>maṅktā</i>	मस्ज् + तृच् मस् नुम् ज् + तृ म न् ज् + तृ 8.2.29 स्कोः संयोगाद्योरन्ते च म न् ग् + तृ 8.2.30 चोः कुः मंग् तृ 8.3.24 नश्चापदान्तस्य झलि मंक् तृ 8.4.55 खरि च मङ्क्त् 8.4.58 अनुस्वारस्य ययि परसवर्णः मङ्क्ता	<i>masj + tṛc</i> <i>mas num j + tṛ</i> <i>ma n j + tṛ</i> 8.2.29 <i>skoḥ saṃyogādyorante ca</i> <i>ma n g + tṛ</i> 8.2.30 <i>coḥ kuḥ</i> <i>maṅg tṛ</i> 8.3.24 <i>naścāpadāntasya jhali</i> <i>maṅk tṛ</i> 8.4.55 <i>khari ca</i> <i>maṅktṛ</i> 8.4.58 <i>anusvārasya yayi parasavarṇaḥ</i> <i>maṅktā</i>
<i>kutva (8.2.30)</i>	as in <i>maṅktā</i> as seen above		
<i>ṣatva (8.2.36)</i>	in the case of <i>naṃṣṭavya</i>	णश् अदर्शने नश् नश् + तव्यत् नन् श् + तव्य नन् ष् + तव्य 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः नं ष् तव्य 8.3.24 नश्चापदान्तस्य झलि नं ष् टव्य 8.4.41 ष्टुना ष्टुः नंष्टव्य	<i>ṇaśaṃ adarśane</i> <i>naś</i> <i>naś + tavyat</i> <i>nan ś + tavya</i> <i>nan ṣ + tavya</i> 8.2.36 <i>vraścabhraśjasṛjamṛjayaja-</i> <i>rājabhrājacchaśāṃ ṣaḥ</i> <i>naṃ ṣ tavya</i> 8.3.24 <i>naścāpadāntasya jhali</i> <i>naṃ ṣ ṭavya</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i> <i>naṃṣṭavya</i>

This *prakaraṇa* (*anusvāra prakaraṇa* 8.3.23 – 8.3.27) has to be **before**

ṣṭutva (8.4.41)	as in <i>naṃṣṭavya</i> shown above		
cartva (8.4.55)	as in <i>maṅktā</i> shown above		
parasavarṇa (8.4.58)	in the case of <i>edhāñcakre</i>	एध् + लिट् एध् + आम् + ल् एध् + आम् एध् + आम् + चक्रे एधांचक्रे 8.3.23 मोऽनुस्वारः एधाञ्चक्रे 8.4.58 अनुस्वारस्य ययि परसवर्णः	edh + liṭ edh + ām + l edh + ām edh + ām + cakre edhāñcakre 8.3.23 mo 'nusvārah edhāñcakre 8.4.58 anusvārasya yayi parasavarṇah

Kuk/ tuk/ dhut/ tuk āgama prakaraṇa 8.3.28 – 8.3.31

Anuvṛtti

Asiddham /padānta / saṃhitā / vā from 8.3.26 हे मपरे वा (*he mapare vā*) are continued into 8.3.28 – 8.3.31.

This *prakaraṇa* has to be **after**

saṃyogānta lopa (8.2.23)	as in <i>bhavāñcśete</i>	भवान् शेते भवान् त् शेते 8.3.31 शि तुक् भवान् च शेते 8.4.40 स्तोः श्वना श्वुः भवाञ् च शेते 8.4.40 स्तोः श्वना श्वुः भवाञ्चशेते	bhavān śete bhavān t śete 8.3.31 śi tuk bhavān c śete 8.4.40 stoḥ ścunā ścuḥ bhavāñ c śete 8.4.40 stoḥ ścunā ścuḥ bhavāñcśete
		If 8.2.23 संयोगान्तस्य लोपः (<i>saṃyogāntasya lopaḥ</i>) would have been placed after 8.3.31 शि तुक् (<i>śi tuk</i>), then, there would have been elision. This also shows that 8.2.23 has to be placed before 8.3.31.	
ḍhatva (8.2.31)	as in the case of <i>liṭtsu</i>	लिह् + सुप् लिढ् + सु 8.2.31 हो ढः	lih + sup liḍh + su 8.2.31 ho ḍhaḥ

		लिङ् + सु जशोऽन्ते लिङ् + धुट् + सु लिङ् + त् + सु लिट् + त् + सु लिट्सु	8.2.39 झलां 8.3.29 डः सि धुट् 8.4.55 खरि च 8.4.55 खरि च	<i>liḍ + su</i> <i>liḍ + dhuṭ + su</i> <i>liḍ + t + su</i> <i>liṭ + t + su</i> <i>liṭsu</i>	8.2.39 <i>jhalām jaśo 'nte</i> 8.3.29 <i>ḍaḥ si dhuṭ</i> 8.4.55 <i>khari ca</i> 8.4.55 <i>khari ca</i>
<i>padānta jaśva</i> (8.2.39)		as in the case of <i>liṭsu</i>			

This *prakaraṇa* has to be **before**

<i>cartva</i> (8.4.55)	as in <i>liṭsu</i>

Namuṭ āgama prakaraṇa 8.3.32 – 8.3.33

Anuvṛtti

Asiddham /*padānta* / *saṃhitā* /*aci* from 8.3.32 डमो ह्रस्वादचि डमुणित्यम् (*ṇamo hrasvādaci ṇamuṇnityam*) are continued into 8.3.33.

8.3.32 डमो ह्रस्वादचि डमुणित्यम् (*ṇamo hrasvādaci ṇamuṇnityam*) cancels the optionality of *vā* by *nityam*.

This *prakaraṇa* (*namuṭ āgama prakaraṇa 8.3.32 – 8.3.33*) has to be **after**

<i>anusvāra prakaraṇa</i> (8.3.23 – 8.3.27)	as in <i>kim u uktam</i> → <i>kim v uktam</i> (8.3.33 मय उञो वो वा (<i>maya uñō vo vā</i>)) → <i>kimvuktam</i> - There is no <i>anusvārādeśa</i> because of 8.3.23 मोऽनुस्वारः (<i>mo 'nusvārah</i>) as it is placed before 8.3.33. Thus, the desired form is obtained. This also means that 8.3.23 must precede 8.3.33.

Visarjanīya sakārādeśa/ jihvāmūlīya/ upadhmānīya śakārādeśa/chandasi prakaraṇa 8.3.34 – 8.3.54

Anuvṛtti

Asiddham /padānta / saṃhitā /khar from 8.3.15 खरवसानयोर्विसर्जनीयः (*kharavasānayorvisarjanīyaḥ*) are continued into 8.3.34 – 8.3.54.

This *prakaraṇa* has to be **after**

sakāralopa (8.2.24)	as in the case of <i>catuḥ</i>	चतुर् + सुच् चतुर् स् 8.2.24 रात्सस्य चतुः 8.3.15 खरवसानयोर्विसर्जनीयः	<i>catur + suc</i> <i>catur s</i> 8.2.24 <i>rātsasya</i> <i>catuḥ</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i>
visarjanīya (8.3.15)	as in <i>catuḥ</i>		

8.3.34 विसर्जनीयस्य सः (*visarjanīyasya saḥ*) is not placed immediately after the *visarjanīya prakaraṇa* 8.3.15 – 8.3.22 because:

- *anuvṛtti* of *hali* from 8.3.22 हलि सर्वेषाम् (*hali sarveṣām*) needed in 8.3.23 मोऽनुस्वारः (*mo 'nusvārah*).
- *anuvṛtti* needed of *vā* from 8.3.26 हे मपरे वा (*he mapare vā*) in all the rules pertaining to *kuk/ ṭuk/ dhuṭ/ tuk āgamas* (8.3.28 – 8.3.31).

Mūrdhanyādeśa prakaraṇa 8.3.55 – 8.3.119

Anuvṛtti

Asiddham / saṃhitā are continued into 8.3.55 – 8.3.119.

This *prakaraṇa* (*mūrdhanyādeśa prakaraṇa* 8.3.55 – 8.3.119) has to be handled differently as there is continuation of different terms from different rules. Moreover, the justification of placement of specific rules is also discussed. All the instances are tabulated below:

The ordering of the first three rules of this section is as follows:
8.3.55 अपदान्तस्य मूर्धन्यः (*apadāntasya mūrdhanyaḥ*)
8.3.56 सहेः साडः सः (*saheḥ sādah saḥ*)
8.3.57 इण्कोः (*iṅkoḥ*)

8.3.56 is inserted between 8.3.55 and 8.3.57 because: - <i>ṣ</i> (<i>mūrdhanya</i>) is substituted for the <i>s</i> . - <i>tura/ jala</i> do not come under the <i>adhikāra</i> of <i>iṇ-varṇa</i> or <i>kavargīyavarṇa</i> as it is <i>a</i> and not <i>iṇ-varṇa</i> or <i>kavargīyavarṇa</i> . 8.3.56 is a special case pertaining to one particular root.
8.3.57 इण्कोः (<i>iṇkoh</i>) and 8.3.58 नुम्विसर्जनीयशर्ववायेऽपि (<i>numvisarjanīyaśarvyavāye 'pi</i>) are <i>adhikāra</i> rules.
8.3.59 आदेशप्रत्यययोः (<i>ādeśapratyayayoḥ</i>) 8.3.60 शासिवसिघसीनां च (<i>śāsivasighasīnām ca</i>) – This rule is an exception to 8.3.59 as it covers those conditions not covered by 8.3.59. 8.3.61 स्तौतिण्योरेव षण्यभ्यासात् (<i>stautiṇyoreva ṣaṇyabhyāsāt</i>) is a <i>niyama</i> to 8.3.59 and application of 8.3.59 is a pre-requisite.
8.3.62 सः स्वदिस्वदिसहीनां च (<i>saḥ svidisvadisahīnām ca</i>) is an <i>apavāda</i> to 8.3.61.
8.3.63 प्राक्सितादङ्ववायेऽपि (<i>prāksitādaṅvyavāye 'pi</i>) is again a <i>adhikāra</i> rule for roots <i>sunoti-suvati-syati-stauti-stobhati-sthā-senaya-sedha-sica-sañja-svañja-sad-stanbh-svan-seva-sita</i> even if separated by <i>aṭ</i> . <i>prāksitāt</i> and <i>vyavāye</i> from 8.3.63 are continued into 8.3.64 – 8.3.66.
8.3.64 is a <i>niyama</i> rule to 8.3.63 even if separated by <i>abhyāsa</i> , the <i>abhyāsa</i> also undergoes <i>mūrdhanyādeśa</i> and applicable only for roots <i>sthā-senaya-sedha-sica-sañja-svañja-sad-stanbh-svan-seva-sita</i> .
<i>upasargāt</i> from 8.3.65 उपसर्गात् सुनोति-सुवति-स्यति-स्तौति-स्तोभति-स्था-सेनय-सेध-सिच-सञ्ज-स्वञ्जाम् (<i>upasargāt sunoti-suvati-syati-stauti-stobhati-sthā-senaya-sedha-sica-sañja-svañjām</i>) is continued into 8.3.67 – 8.3.68.
<i>stambheḥ</i> from 8.3.67 स्तम्भेः (<i>stambheḥ</i>) is continued into 8.3.68.
<i>ava</i> from 8.3.68 अवाच्चालम्बनाविदूर्ययोः (<i>avāccālambanāvidūryayoḥ</i>) is continued into 8.3.69.
<i>upasargāt</i> from 8.3.65 उपसर्गात् सुनोति-सुवति-स्यति-स्तौति-स्तोभति-स्था-सेनय-सेध-सिच-सञ्ज-स्वञ्जाम् (<i>upasargāt sunoti-suvati-syati-stauti-stobhati-sthā-senaya-sedha-sica-sañja-svañjām</i>) is continued into 8.3.70. This is applicable only for the <i>upasargas</i> mentioned in 8.3.70 in combination with only those roots mentioned in 8.3.70.
<i>parinivibhyaḥ</i> from 8.3.70 परिनिविभ्यः सेवसितसयसिवुसहसुट्स्तुस्वञ्जाम् (<i>parinivibhyaḥ sevasitasayasivusahasuṭstusvañjām</i>) is continued into 8.3.71.
<i>vā</i> from 8.3.71 सिवादीनां वाऽङ्ववायेऽपि (<i>sivādīnām vā 'ḍvyavāye 'pi</i>) is continued into 8.3.72 – 8.3.76.
Optionality discontinued by the term <i>nityam</i> in 8.3.77 वेः स्कभ्नातेर्नित्यम् (<i>veḥ skabhñāternityam</i>).

The <i>mūrdhanyādeśa</i> of <i>s</i> to <i>ṣ</i> (8.3.59 आदेशप्रत्यययोः (<i>ādeśapratyayayoḥ</i>)) has to be before 8.3.78. Otherwise, the term <i>ṣīdhvam</i> in 8.3.78 इणः षीध्वंलुङ्लिटां धोऽङ्गात् (<i>iṇaḥ ṣīdhvaṃluṇṭiṭāṃ dho 'ngāt</i>) will be without scope. There is discontinuation of 8.3.57 इण्कोः (<i>iṇkoḥ</i>) in 8.3.78.
<i>mūrdhanyādeśa</i> of 8.3.55 अपदान्तस्य मूर्धन्यः (<i>apadāntasya mūrdhanyaḥ</i>) is continued into 8.3.78.
8.3.78 इणः षीध्वंलुङ्लिटां धोऽङ्गात् (<i>iṇaḥ ṣīdhvaṃluṇṭiṭāṃ dho 'ngāt</i>) (entire rule) is continued into 8.3.79.
<i>saḥ</i> from 8.3.62 सः स्विदिस्वदिसहीनां च (<i>saḥ svidisvadisahīnāṃ ca</i>) is continued into 8.3.80 – 8.3.85.
<i>anyatarasyām</i> from 8.3.85 मातुःपितुर्भ्यामन्यतरस्याम् (<i>mātuḥpiturbhyāmanyatarasyām</i>) is continued into 8.3.86. <i>Pāṇini</i> did not place these rules earlier when there was still <i>anuvṛtti</i> of <i>vā</i> from 8.3.71. The problem was that optionality was to be discontinued for 8.3.77 (विष्कभ्नाति) (<i>viṣkabhnāti</i>). Moreover, according to Paul Kiparsky, there are differences among the terms <i>vā</i> , <i>vibhāṣā</i> and <i>anyatarasyām</i> . ¹²² Therefore, in case of 8.3.85 and 8.3.86, <i>anyatarasyām</i> was needed.
<i>saḥ</i> from 8.3.62 सः स्विदिस्वदिसहीनां च (<i>saḥ svidisvadisahīnāṃ ca</i>) is continued into 8.3.88 – 8.3.89.
8.3.90 – 8.3.94 are <i>nipātana</i> rules.
8.3.99 एति संज्ञायामगात् (<i>eti saṃjñāyāmagāt</i>) (in its entirety) is continued into 8.3.100.
There is implicit <i>anuvṛtti</i> of <i>tādau</i> from 8.3.101 to 8.3.104.
8.3.103 युष्मत्तत्तक्षुःष्वन्तःपादम् (<i>yuṣmattattataḥṣṣvantaḥpādam</i>), in its entirety, is continued into 8.3.104.
<i>ekeṣām</i> from 8.3.104 यजुष्येकेषाम् (<i>yajuṣyekeṣām</i>) is continued into 8.3.105.
<i>ekeṣām</i> from 8.3.104 यजुष्येकेषाम् (<i>yajuṣyekeṣām</i>) and <i>chandasi</i> from 8.3.105 स्तुतस्तोमयोश्छन्दसि (<i>stutastomayośchandasī</i>) are continued into 8.3.106.
<i>Stutastoma</i> is mentioned again in 8.3.105 when it has already been mentioned in 8.3.82 अग्नेः स्तुतस्तोमसोमाः (<i>agneḥ stutstomasomāḥ</i>) and 8.3.83 ज्योतिरायुषः स्तोमः (<i>jyotirāyuṣaḥ stomah</i>). In cases of 8.3.82 and 8.3.83, they occur in a compound and with specific combinations. In case of 8.3.105, an element of optionality is required and difference of opinion is also required.
Negation rules begin from 8.3.110 न रपरसृपिसृजिसृशिसृहिसवनादीनाम् (<i>na raparasr̥pisr̥jisr̥śisr̥hisavanādīnām</i>). <i>Anuvṛtti</i> of <i>na</i> is required in all the subsequent rules (8.3.111 – 8.3.119).

¹²² *vā* means preferably, *vibhāṣā* means preferably not and *anyatarasyām* means that both possibilities are equally acceptable. For further reference, see Paul Kiparsky, *Pāṇini as a variationist* (Pune: Poona University Press, 1979).

The following rules had to be placed before 8.3.111 सात्पदाद्योः (*sātpadādyoḥ*) because 8.3.111 would have prohibited *mūrdhanyādeśa* *ṣatva*:

8.3.66 सदिरप्रतेः (*sadiraprateḥ*); 8.3.69 वेश्व स्वनो भोजने (*veśca svano bhojane*); 8.3.70 परिनिविभ्यः सेवसितसयसिवुसहसुट्स्तुस्वञ्जाम् (*parinivibhyaḥ sevasitasayasivusahasuṭstusvañjām*); 8.3.80 समासेऽङ्गुलेः सङ्गः (*samāse 'ṅguleḥ saṅgaḥ*); 8.3.82 अग्नेः स्तुस्तोमसोमाः (*agneḥ stutstomasomāḥ*); 8.3.88 सुविनिर्दुर्भ्यः सुपिसूतिसमाः (*suvinirdurbhyaḥ supisūtisamāḥ*); 8.3.95 गवियुधिभ्यां स्थिरः (*gaviyudhibhyāṃ sthiraḥ*); 8.3.96 विकुशमिपरिभ्यः स्थलम् (*vikuśamiparibhyaḥ sthalam*); 8.3.97 अम्बाम्ब गो भूमि सव्याप द्वित्रि कुशे कुशङ्कङ्गुमञ्जिपुञ्जिपरमेबर्हिर्दिव्यग्निभ्यः स्थः (*ambāmba go bhūmi savyāpa dvitri kuśe kuśaṅkvaṅgumañjipuñjiparamebarhirdivyagnibhyaḥ sthaḥ*); 8.3.98 सुषामादिषु च (*suṣāmādiṣu ca*); 8.3.99 एति संज्ञायामगात् (*eti sañjñāyāmagāt*); 8.3.101 ह्रस्वात् तादौ तद्धिते (*hrasvāt tādau taddhite*); 8.3.105 स्तुतस्तोमयोश्छन्दसि (*stutastomayośchandasi*).

This *prakaraṇa* (*mūrdhanyādeśa prakaraṇa* 8.3.55 – 8.3.119) has to be **after**

kutva (8.2.30)	as in the case of <i>pakṣīṣṭa</i>	पच् पच्+लिँङ् पच्+त पच्+सीय्+त पच्+सीय्+स्त पच्+सीस्त पक्+सीस्त पक्+षीष्ट पक्षीष्ट	8.2.30 चोः कुः 8.3.59 आदेशप्रत्यययोः 8.4.41 ष्टुना ष्टुः	<i>pac</i> <i>pac+liṁṇ</i> <i>pac+ta</i> <i>pac+sīy+ta</i> <i>pac+sīy+sta</i> <i>pac+sīsta</i> <i>pak+sīsta</i> <i>pak+ṣīṣṭa</i> <i>pakṣīṣṭa</i>	8.2.30 <i>coḥ kuḥ</i> 8.3.59 <i>ādeśapratyayayoḥ</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i>
ḍhatva (8.2.31)	as in the case of	तुरासाह् + सुँ तुरासाह् तुरासाद्	8.2.31 हो ढः	<i>turāsāh + sum</i> <i>turāsāh</i> <i>turāsāḍh</i>	8.2.31 <i>ho ḍhaḥ</i>

	<i>turāṣād,</i> <i>turāṣāt</i>	तुरासाड् 8.2.39 झलां जशोऽन्ते तुराषाड् 8.3.56 सहे साडः सः तुराषाड्, तुराषाट् 8.4.56 वाऽवसाने	<i>turāṣād</i> 8.2.39 <i>jhalām jaśo 'nte</i> <i>turāṣād</i> 8.3.56 <i>sahe sāḍaḥ saḥ</i> <i>turāṣād, turāṣāt</i> 8.4.56 <i>vā 'vasāne</i>
ṣatva (8.2.36)	as in <i>drakṣyate</i>	दृश् दृअश्+स्य द्रश्+स्य द्रष्+स्य 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः द्रक्+स्य 8.2.41 षढोः कः सि द्रक्+ष्य 8.3.59 आदेशप्रत्यययोः द्रक्ष्यते	<i>dṛś</i> <i>dṛaś+sya</i> <i>draś+sya</i> <i>draṣ+sya</i> 8.2.36 <i>vraścabhrasjasṛjamṛjayaja-</i> <i>rājabhrājacchaśāṃ ṣaḥ</i> <i>drak+sya</i> 8.2.41 <i>ṣaḍhoḥ kaḥ si</i> <i>drak+ṣya</i> 8.3.59 <i>ādeśapratyayayoḥ</i> <i>drakṣyate</i>
bhaṣbhāva (8.2.37)	as in <i>jighṛkṣati</i> as seen earlier		
padānta jaśtva (8.2.39)	as in <i>turāṣād, turāṣāt</i> seen earlier		
kakārādeśa (8.2.41)	as in <i>drakṣyate, jighṛkṣati</i> seen earlier		
rutva (ruḥ) (8.2.66)	as in the case of <i>sarpiṣṭaram</i>	सर्पिस् तरप् सर्पिर् तर 8.2.66 ससजुषो रुः सर्पिः तर 8.3.15 खरवसानयोर्विसर्जनीयः सर्पिस् तर 8.3.34 विसर्जनीयस्य सः सर्पिष् टर 8.3.100 एति संज्ञायामगात् / 8.4.41 ष्टुना ष्टुः सर्पिष्टरम्	<i>sarpis tarap</i> <i>sarpir tara</i> 8.2.66 <i>sasajuṣo ruḥ</i> <i>sarpiḥ tara</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i> <i>sarpis tara</i> 8.3.34 <i>visarjanīyasya sa:</i> <i>sarpiṣ tara</i> 8.3.100 <i>eti saṃjñāyāmagāt /</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i> <i>sarpiṣṭaram</i>
upadhābhūta ik-varṇa dīrghādeśa (8.2.77)	in the case of <i>cikīṛṣati</i> seen earlier		
visarjanīya (8.3.15)	in the case of <i>sarpiṣṭaram</i> seen earlier		
visarjanīya sakārādeśa (8.3.34)	in the case of <i>sarpiṣṭaram</i> seen earlier		

This *prakaraṇa* (*mūrdhanyādeśa prakaraṇa* 8.3.55 – 8.3.119) has to be **before**

ṣṭutva (8.4.41)	as in the case of <i>pakṣīṣṭa/ sarpiṣṭaram</i>
cartva (8.4.56)	as in the case of <i>turāṣāḍ, turāṣāṭ</i>

8.4

The fourth *pāda* of the eighth chapter begins with the *ṇatva* rules. Unless *rutva* (not for *padānta*) and *mūrdhanyādeśa ṣatva* are done, *ṇatva* cannot take place. Logically, *ṇatva* has to be placed after *rutva* and *mūrdhanyādeśa ṣatva*. Even though *ṇatva* is also a *mūrdhanyādeśa*, Pāṇini started a new *pāda* since the *adhikāra* of *iṅkoḥ* is not needed for *ṇatva*.¹²³ Therefore, Pāṇini started a new *pāda*.

Natva prakaraṇa 8.4.1 – 8.4.39

Anuvṛtti

Asiddham / saṃhitā are continued into 8.4.1 – 8.4.39.

Pūrvapadāt and *saṃjñāyām* from 8.4.3 पूर्वपदात् संज्ञायामगः (*pūrvapadāt saṃjñāyāmagah*) are continued into 8.4.13.

Vā from 8.4.10 वा भावकरणयोः (*vā bhāvakaraṇayoh*) is continued into 8.4.11.

8.4.11 प्रातिपदिकान्तनुम्बिभक्तिषु च (*prātipadikāntanumvibhaktiṣu ca*), in its entirety, is continued into 8.4.12 – 8.4.13.

In order to discontinue optionality, *ṇah* is repeated in 8.4.12 एकाजुत्तरपदे णः (*ekājuttarapade ṇah*).

Upasargāt from 8.4.14 उपसर्गादिसमासेऽपि णोपदेशस्य (*upasargādasamāse 'pi ṇopadeśasya*) is continued into 8.4.15 – 8.4.23.

¹²³ This question was posed by Dr. Malhar Kulkarni during the presentation of my paper in the World Sanskrit conference, Canberra 2023 (Online).

Anuvṛtti of *upasargāt* and 8.4.19 is in 8.4.20 अन्तः (*antaḥ*). Here, the end of a *pada* has to be considered. Even though there is prohibition by 8.4.37, this is an exception. This also means that negation rules had to be placed later.

Antar from 8.4.24 अन्तरदेशे (*antaradeśe*) is continued in 8.4.25.

The commentaries¹²⁴ state that there is *anuvṛtti* of *pūrvapadāt* in 8.4.26 छन्दस्यृदवग्रहात् (*chandasyṛdavagrahāt*).

In the rule 8.4.27 नश्च धातुस्थ-उरु-षुभ्यः (*naśca dhātustha-uru-ṣubhyaḥ*), *ṣu* stands for *suñ* that has undergone *mūrdhanyādeśa ṣatva* (8.3.107). This also shows that *mūrdhanyādeśa ṣatva* has to be before *ṇatva*.

Upasargāt from 8.4.28 उपसर्गाद् बहुलम् (*upasargād bahulam*) is continued in 8.4.29 – 8.4.30.

Halaḥ from 8.4.31 हलश्च इजुपधात् (*halaśca ijupadhāt*) is continued into 8.4.32.

Pāṇini did not continue *vibhāṣā* from 8.4.30 णेर्विभाषा (*ṇervibhāṣā*) in 8.4.33 वा निसनिक्षनिन्दाम् (*vā niṣsanikṣanindām*) but introduced *vā*. This also shows that there is difference between both the terms.

8.4.36 नशेः षान्तस्य (*naśeḥ śāntasya*) is an exception to 8.4.14 उपसर्गादसमासेऽपि णोपदेशस्य (*upasargādasamāse 'pi ṇopadeśasya*).

This *prakaraṇa* has to be **after**

<i>ṇamuṣ āgama</i> (8.3.32)	as in the example of <i>kurvanniti</i> to prevent undesired <i>ṇatva</i>
This <i>prakaraṇa</i> has to be between <i>anusvāra</i> (8.3.23 – 8.3.27) and <i>parasavarṇa</i> (8.4.58 – 8.4.62). This is to prevent undesired <i>ṇatva</i> as in the cases of <i>caranti/ prahanti</i>. This will be elaborated in the next chapter.	

¹²⁴ KK, NY and PM

Ścutva 8.4.40

Anuvṛtti

Asiddham / *saṃhitā* are continued into 8.4.40.

Certain operations such as *kutva* (8.2.30) and *padānta jaśtva* (8.2.39) have to precede *ścutva* so that undesired forms are not obtained.

But, again in certain derivations, *apadānta jaśtva* is required which is done by 8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*).

This rule has to be **after**

<i>anusvāra</i> (8.3.2 / 8.3.4)	as in <i>bhavāmścarati</i>	भवान् चरति भवा रु चरति 8.3.7 नश्छव्यप्रशान् भवां रु चरति 8.3.4 अनुनासिकात् परोऽनुस्वारः भवां चरति 8.3.15 खरवसानयोः विसर्जनीयः भवांस् चरति 8.3.34 विसर्जनीयस्य सः भवांश्चरति 8.4.40 स्तोः श्वना श्वः	<i>bhavān carati</i> <i>bhavā ru carati</i> 8.3.7 <i>naśchavyapraśān</i> <i>bhavām ru carati</i> 8.3.4 <i>anunāsikāt paro 'nusvārah</i> <i>bhavāmḥ carati</i> 8.3.15 <i>kharavasānayoḥ visarjanīyaḥ</i> <i>bhavāms carati</i> 8.3.34 <i>visarjanīyasya saḥ</i> <i>bhavāmścarati</i> 8.4.40 <i>stoḥ ścunā ścuḥ</i>
<i>visarjanīya</i> (8.3.15)	as in <i>bhavāmścarati</i>		
<i>visarjanīya sakārādeśa</i> (8.3.34)	as in <i>bhavāmścarati</i>		
<i>tuk āgama</i> (8.3.31)	as in <i>bhavāñcśete</i> seen earlier		

This *prakaraṇa* (*ścutva* 8.4.40) has to be **before**

<i>cartva</i> (8.4.55)	as in <i>suhṛcchete</i>	सुहृद् + शेते सुहृज् + शेते 8.4.40 स्तोः श्वना श्वः सुहृच् + शेते 8.4.55 खरि च सुहृच्छेते 8.4.63 शश्छोऽटि	<i>suhṛd + śete</i> <i>suhṛj + śete</i> 8.4.40 <i>stoḥ ścunā ścuḥ</i> <i>suhṛc + śete</i> 8.4.55 <i>khari ca</i> <i>suhṛcchete</i> 8.4.63 <i>śaścho 'ṭi</i>
<i>chakārādeśa</i> (8.4.63)	as in <i>suhṛcchete</i>		

Ṣṭutva prakaraṇa 8.4.41- 8.4.44

Certain operations such as *padānta jaṣṭva* (8.2.39), *kakārādeśa* (8.2.41), *rutva* (*ruḥ*) (8.2.66), *anusvāra* (8.3.24) have to precede *ṣṭutva* so that undesired forms are not obtained. Moreover, any type of *ṣatva*, say *ṣatva* by *ṣatva* (8.2.36) or *mūrdhanyādeśa ṣatva* (8.3.59) have to precede this rule.

Anuvṛtti

Asiddham / *saṃhitā* are continued into 8.4.41 – 8.4.44.

This *prakaraṇa* (*ṣṭutva prakaraṇa* 8.4.41 – 8.4.44) has to be **after**

<i>sakāraḥakāra lopa</i> (8.2.29)	as in <i>vavraṣṭha</i>	व्रश्+लिट् व्रश्+सिप् व्रश्+सिप् व्रश्+थल् व्रश्+थ व्रश्+थ व्रश्+व्रश्+थ वृश्+व्रश्+थ वृ+व्रश्+थ व+व्रश्+थ व+व्रश्+थ व + व्रच् थ 8.2.29 स्कोः संयोगाद्योरन्ते च व + व्रष् थ 8.2.36 व्रश्भ्रस्जसृजमृजयजराजभ्राजच्छशां षः व + व्रष्ठ 8.4.41 षुना षुः	<i>vraśc+liṃṭ</i> <i>vraśc+sip</i> <i>vraśc+sip</i> <i>vraśc+thal</i> <i>vraśc+tha</i> <i>vraśc+tha</i> <i>vraśc+vraśc+tha</i> <i>vṛśc+vraśc+tha</i> <i>vṛ+vraśc+tha</i> <i>va+vraśc+tha</i> <i>va+vraśc+tha</i> <i>va + vrac tha</i> 8.2.29 <i>skoḥ saṃyogādyorante ca</i> <i>va + vraṣ tha</i> 8.2.36 <i>vraścabhraśjaśrjamṛjayajarājabhrājacchaśāṃ ṣaḥ</i> <i>va + vraṣṭha</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i>
<i>ḍhatva</i> (8.2.31)	as in <i>roḍhā</i>	रुह्+तास्+ति रुह्+तास्+डा	<i>ruh+tās+ti</i> <i>ruh+tās+ḍā</i>

		रुह+ता रोह+ता रोढ+ता 8.2.31 हो ढः रोढ+धा 8.2.40 झषस्तथोर्धोऽधः रोढ्वा 8.4.41 ष्टुना ष्टुः रोढा 8.3.13 ढो ढे लोपः	<i>ruh+tā</i> <i>roh+tā</i> <i>roḍh+tā</i> 8.2.31 ho ḍhaḥ <i>roḍh+dhā</i> 8.2.40 jhaṣastathordho 'dhaḥ <i>roḍhḍhā</i> 8.4.41 ṣṭunā ṣṭuḥ <i>roḍhā</i> 8.3.13 ḍho ḍhe lopaḥ
ṣatva (8.2.36)	as in <i>vavraṣṭha</i> seen above and in <i>mṛṣṭaḥ</i>	मृज् + लट् मृज् + तस् मृज् + शप् + तस् मृज् + तस् मृष् + तस् 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः मृष् + तः 8.2.66 ससजुषो रूँः / 8.3.15 खरवसानयोर्विसर्जनीयः मृष्टः 8.4.41 ष्टुना ष्टुः	<i>mṛj + laṭ</i> <i>mṛj + tas</i> <i>mṛj + śap + tas</i> <i>mṛj + tas</i> <i>mṛṣ + tas</i> 8.2.36 <i>vraścabhraśjasṛjamṛja-</i> <i>yajarājabhrājacchaśām ṣaḥ</i> <i>mṛṣ + taḥ</i> 8.2.66 <i>sasajuṣo ruṁḥ/</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i> <i>mṛṣṭaḥ</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i>
dhakārādeśa (8.2.40)		as in <i>roḍhā</i>	
rutva (ruḥ) (8.2.66)	as in <i>kṛṣīṣṭhāḥ</i>	कृ+लिङ् कृ+थास् कृ+सीय्+थास् कृ+सीय्+स्थास् कृ+सीस्थास् कृ+सीस्थारूँ 8.2.66 ससजुषो रुः कृ+सीस्थाः 8.3.15 खरवसानयोर्विसर्जनीयः कृ+षीष्ठाः 8.3.59 आदेशप्रत्यययोः कृषीष्ठाः 8.4.41 ष्टुना ष्टुः	<i>kṛ+limṇ</i> <i>kṛ+thās</i> <i>kṛ+sīy+thās</i> <i>kṛ+sīy+sthās</i> <i>kṛ+sīsthās</i> <i>kṛ+sīsthārum</i> 8.2.66 <i>sasajuṣo ruḥ</i> <i>kṛ+sīsthāḥ</i> 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i> <i>kṛ+ṣīṣṭhāḥ</i> 8.3.59 <i>ādeśapratyayayoḥ</i> <i>kṛṣīṣṭhāḥ</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i>
visarjanīya (8.3.15)		as in <i>kṛṣīṣṭhāḥ</i>	

<i>anusvāra</i> (8.3.24)	as in <i>śiṇḍhi</i>	शिष् + लोट् शिष् + सिप् शिष् + हि शिष् + धि शि श्रम् ष् + धि शि न् ष् + धि शिं ष् + धि शिं ष् + ढि शिं ड् + ढि शिण्ड् + ढि शिण्ढि	8.3.24 नश्चापदान्तस्य झलि 8.4.41 ष्टुना ष्टुः 8.4.53 झलां जश् झशि 8.4.58 अनुस्वारस्य ययि परसवर्णः 8.4.65 झरो झरि सवर्णे	<i>śiṣ + loṭ</i> <i>śiṣ + sip</i> <i>śiṣ + hi</i> <i>śiṣ + dhi</i> <i>śi śnam ṣ + dhi</i> <i>śi n ṣ + dhi</i> <i>śim ṣ + dhi</i> <i>śim ṣ + dhi</i> <i>śim ḍ + dhi</i> <i>śiṇḍ + dhi</i> <i>śiṇḍhi</i>	

This *prakaraṇa* (*ṣṭutva prakaraṇa* 8.4.41 – 8.4.44) has to be **before**

<i>apadānta jaśtva</i> (8.4.53)	as in <i>śiṇḍhi</i>
<i>parasavarṇa</i> (8.4.58)	as in <i>śiṇḍhi</i>

Analysis of placement of 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopaḥ*) and 8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*)

8.3.13 is done after 8.4.41. This goes against the principle of *asiddhatva*. An attempt is made here to justify the placement of 8.3.13 after 8.4.41.

8.4.41 has to be after *anusvāra* and *mūrdhanyādeśa śatva*, Otherwise there will be undesired *ṣṭutva ṇatva*. Therefore, it has been placed after *ṇatva* as seen in the example of *śiṇḍhi*. This logic fixes the place for *ṣṭutva* (8.4.41).

The problem is with the placement of 8.3.13. Another possibility is to place 8.3.14 रो रि (ro ri) before the *visarjanīya prakaraṇa* and then place 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopah*) after *ṣṭutva* (8.4.41).

6.3.111 ढ्रलोपे पूर्वस्य दीर्घोऽणः (*ḍhralope pūrvasya dīrgho 'ṇaḥ*) combines both the types of elisions *ḍh* and *r*. Keeping that in mind, *Pāṇini* must have placed 8.3.13 and 8.3.14 together. In case of 8.3.14 रो रि (ro ri), after both the *rumtvas*, *ralopa* has to be undertaken as seen in the example *apāspāḥ*. Moreover, 8.3.14 रो रि (ro ri) needs the *adhikāra* of *pada*. Surprisingly, there is no discussion about the ordering in the commentaries and there is no *vārttika* to make it *siddha*. There are instances when no *dīrghatva* takes place after applying 8.3.13 as in *ṭṛḍha*, *gāḍhā*, *meḍhā*, *meḍhram*, *leḍhā* amongst others showing that 6.3.111 is not always applied after 8.3.13. Moreover, all consonant substitutions are placed in *tripādī*. The derivation of *ṭṛḍha* is as follows:

तृह् + क्त		<i>tṛh + kta</i>	
तृढ् + त	8.2.31 हो ढः	<i>tṛḍh + ta</i>	8.2.31 <i>ho ḍhaḥ</i>
तृढ् + ध	8.2.40 झषस्तथोर्धोऽधः	<i>tṛḍh + dha</i>	8.2.40 <i>jhaṣastathordho 'dhaḥ</i>
तृढ् + ढ	8.4.41 ष्टुना ष्टुः	<i>tṛḍh + ḍha</i>	8.4.41 <i>ṣṭunā ṣṭuḥ</i>
तृढ	8.3.13 ढो ढे लोपः	<i>tṛḍha</i>	8.3.13 <i>ḍho ḍhe lopah</i>

Yaranunāsika 8.4.45

Anuvṛtti

Asiddham / *saṃhitā* are continued into 8.4.45.

This rule has to be **after**

<i>padānta jaṣṭva</i> (8.2.39)	as in the examples of <i>ṣaṇmāya</i> /	षष् + आम् षष् + नुङ् आम् षड् नाम् 8.2.39 झलां जशोऽन्ते षड् णाम् 8.4.41 ष्टुन ष्टुः	<i>ṣaṣ + ām</i> <i>ṣaṣ + nuḍ ām</i> <i>ṣaḍ nām</i> 8.2.39 <i>jhalām jaṣo 'nte</i> <i>ṣaḍ nām</i> 8.4.41 <i>ṣṭuna ṣṭuḥ</i>

	<i>triṃśanmaya/</i> <i>ṣaṇṇām</i>	षण्णाम् वार्तिक – यरोऽनुनासिके प्रत्यये भाषायां नित्यवचनं कर्तव्यम् ¹²⁵	<i>ṣaṇṇām vārttika –yaro 'nunāsike pratyaye bhāṣāyām</i> <i>nityavacanam kartavyam</i>
s of vas takes datva (8.2.72)	as in <i>vidvanmanyah</i>	आत्मानं विद्वांसं मन्यते विद्वस् मन्य विद्वद् मन्य 8.2.72 वसुसंसुध्वंस्वनडुहां दः विद्वन्मन्यः 8.4.45 यरोऽनुनासिकेऽनुनासिको वा	<i>ātmānam vidvāṃsam manyate</i> <i>vidvas manya</i> <i>vidvad manya 8.2.72 vasusraṃsudhvaṃsvanaḍuhām</i> <i>daḥ</i> <i>vidvanmanyah 8.4.45 yaro 'nunāsike 'nunāsiko vā</i>
ṣṭutva (8.4.41)	as in <i>ṣaṇṇām</i> seen earlier.		

Dvitva prakarana 8.4.46 – 8.4.52

Anuvṛtti

Asiddham / saṃhitā are continued into 8.4.46 – 8.4.52.

yarah from 8.4.45 यरोऽनुनासिकेऽनुनासिको वा (*yaro 'nunāsike 'nunāsiko vā*) and *acah* and *dve* from 8.4.46 अचो रहाभ्यां द्वे (*aco rahābhyām dve*) are continued into 8.4.47.

dve from 8.4.46 अचो रहाभ्यां द्वे (*aco rahābhyām dve*) is continued into 8.4.48 – 8.4.52.

na from 8.4.48 नादिन्याक्रोशे पुत्रस्य (*nādinyākrośe putrasya*) is continued into 8.4.49 – 8.4.52.

¹²⁵ This *vārttika* is given under 8.4.45.

This *prakaraṇa* (*dvitva prakaraṇa* 8.4.46 – 8.4.52) has to be **after** the following:

<i>upadhābhūta ik-varṇa dīrghādeśa (8.2.77)</i>	as in <i>agīrḍhḍhvam</i>	अगिर् ध्वम् अगीर्ध्वम् 8.2.77 हलि च अगीर्द्वम् 8.3.78 इणः षीध्वंलुङ्लितां धोऽङ्गात् अगीर्द्वम् 8.4.46 अचो रहाभ्यां द्वे अगीर्द्वम् वार्तिक - यणो मयो द्वे भवतः (8.4.47 अनचि च) अगीर्द्वम्/अगीर्द्वम्	<i>agir dhvam</i> <i>agīrdhvam</i> 8.2.77 hali ca <i>agīrdhvam</i> 8.3.78 iṇaḥ ṣīdhvaṃluṅliṭāṃ dho 'ṅgāt <i>agīrḍhḍhvam</i> 8.4.46 aco rahābhyāṃ dve <i>agīrḍhḍhvam</i> vārttika-yaṇo mayo dve bhavataḥ (8.4.47 anaci ca) <i>agīrḍhḍhvam/ agīrdhvam</i>
<i>mūrdhanyādeśa dhatva (8.3.78)</i>	as in <i>agīrḍhḍhvam</i>		

This *prakaraṇa* (*dvitva prakaraṇa* 8.4.46 – 8.4.52) has to be **before**

<i>apadānta jaśṭva (8.4.53)</i>	as in <i>suddhyupāsya</i>	सुधीभिः उपास्यः सुधी उपास्य सुध्य उपास्य 6.1.77 इको यणचि सुध्युपास्यः सुध्युपास्यः 8.4.47 अनचि च सुद्ध्युपास्यः 8.4.53 झलां जश् झशि	<i>sudhībhiḥ upāsyah</i> <i>sudhī upāsya</i> <i>sudhy upāsya</i> 6.1.77 iko yaṇaci <i>sudhyupāsyah</i> <i>sudhdhyupāsyah</i> 8.4.47 anaci ca <i>suddhyupāsyah</i> 8.4.53 jhalāṃ jaś jhaśi

Apadānta jaśtva 8.4.53

Anuvṛtti

Asiddham / *saṃhitā* are continued into 8.4.53.

This rule has to be **after** the following:

<i>saṃyogānta lopa</i> (8.2.23)	as in <i>akṣan</i>	अद लुङ् घस् लुङ् झि अ घस् च्लि झि अ घस् झि अ घस् अन्ति अघस् अन्त अ घ स् अन्त अ घ स् अन् अ घ ष् अन् अ ग् ष् अन् अ क् ष् अन् अक्षन्	8.2.23 संयोगान्तस्य लोपः 8.3.60 शासिवसिघसीनां च 8.4.53 झलां जश् झशि 8.4.55 खरि च	<i>ada luṅ</i> <i>ghas luṅ jhi</i> <i>a ghas cli jhi</i> <i>a ghas jhi</i> <i>a ghas anti</i> <i>aghas ant</i> <i>a gh s ant</i> <i>a gh s an</i> <i>a gh ṣ an</i> <i>a g ṣ an</i> <i>a k ṣ an</i> <i>akṣan</i>	8.2.23 <i>saṃyogāntasya lopaḥ</i> 8.3.60 <i>śāsivasighasīnām ca</i> 8.4.53 <i>jhalām jaś jhaśi</i> 8.4.55 <i>khari ca</i>
<i>sakāra lopa</i> (8.2.25)	as in <i>abhuddhvam</i>	बुध् + लुङ् बुध् + च्लि + ल् बुध् + सिच् + ल् अट् + बुध् + स् + ल् अ + बुध् + स् + ध्वम् अट् + बुध् + ध्वम् अ + भुध् + ध्वम् अ + भुद् + ध्वम्	8.2.25 धि च 8.2.37 एकाचो बशो भष् झषन्तस्य स्त्वोः 8.4.53 झलां जश् झशि	<i>budh + luṅ</i> <i>budh + cli + l</i> <i>budh + sic + l</i> <i>aṭ + budh + s + l</i> <i>a + budh + s + dhvam</i> <i>aṭ + budh + dhvam</i> <i>a + bhudh + dhvam</i> <i>a + bhud + dhvam</i> <i>abhuddhvam</i>	8.2.25 <i>dhi ca</i> 8.2.37 <i>ekāco baśo bhaṣ</i> <i>jhaṣantasya sdhvoḥ</i> 8.4.53 <i>jhalām jaś jhaśi</i>

		अभुद्धम्	
sakāra lopa (8.2.26)	as in <i>abuddha</i>	बुध्+त बुध्+त्लि+त बुध्+त्लि+त बुध्+सिच्+त अबुध्+स्त अबुध्+त अबुध्+ध अबुद्ध अबुद्ध	<i>budh+ta</i> <i>budh+cli+ta</i> <i>budh+cli+ta</i> <i>budh+sic+ta</i> <i>abudh+sta</i> <i>abudh+ta</i> <i>abudh+dha</i> <i>abuddha</i> <i>abuddha</i>
		8.2.26 झलो झलि 8.2.40 झषस्तथोर्धोऽधः 8.4.53 झलां जश् झशि	8.2.26 <i>jhalo jhali</i> 8.2.40 <i>jhaṣastathordho 'dhaḥ</i> 8.4.53 <i>jhalām jaś jhaśi</i>
ḍhatva (8.2.31)	as in <i>dogdhum</i>	दुह् + तुमुन् दोह् + तुम् दोघ् + तुम् दोघ् + धुम् दोग् + धुम् दोग्धुम्	<i>duh + tumun</i> <i>doh + tum</i> <i>dogh + tum</i> <i>dogh + dhum</i> <i>dog + dhum</i> <i>dogdhum</i>
		8.2.32 दादेर्धातोर्घः 8.2.40 झषस्तथोर्धोऽधः 8.4.53 झलां जश् झशि	8.2.32 <i>dāderdhātorghaḥ</i> 8.2.40 <i>jhaṣastathordho 'dhaḥ</i> 8.4.53 <i>jhalām jaś jhaśi</i>
ṣatva (8.2.36)	as in <i>mṛḍḍhi</i>	मृज् मृज्+लोढ् मृज्+सिप् मृज्+शप्+सिप् मृज्+सिप् मृज्+हि मृज्+धि मृष्+धि मृष्टि मृद्धि	<i>mṛjūm</i> <i>mṛj+lomṭ</i> <i>mṛj+sip</i> <i>mṛj+śap+sip</i> <i>mṛj+sip</i> <i>mṛj+hi</i> <i>mṛj+dhi</i> <i>mṛṣ+dhi</i> <i>mṛṣḍhi</i> <i>mṛḍḍhi</i>
		8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः 8.4.41 ष्टुना ष्टुः 8.4.53 झलां जश् झशि	8.2.36 <i>vraścabhraśjaṣṛjamṛjayajarāja-bhrājacchaśām ṣaḥ</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i> 8.4.53 <i>jhalām jaś jhaśi</i>

Abhyāsa jaśtva 8.4.54

Anuvṛtti

Asiddham / *saṃhitā* are continued into 8.4.54.

This rule has to be **after**

<i>rutva (ruḥ)</i> (8.2.66)	as in <i>jakṣuḥ</i>	अदँ घस् + लिट् घस् + झि घस् + उस् घस् घस् + उस् घ घस् + उस् झ घस् + उस् झ घ् स् + उस् झ घ् स् + उः झ घ् ष् + उः ज घ् ष् + उः ज क् ष् + उः जक्षुः	8.2.66 ससजुषो रुः / 8.3.15 खरवसानयोर्विसर्जनीयः 8.3.60 शासिवसिघसीनां च 8.4.54 अभ्यासे चर्च 8.4.55 खरि च	<i>adam</i> <i>ghas + liṭ</i> <i>ghas + jhi</i> <i>ghas + us</i> <i>ghas ghas + us</i> <i>gha ghas + us</i> <i>jha ghas + us</i> <i>jha gh s + us</i> <i>jha gh s + uḥ</i> <i>jha gh ṣ + uḥ</i> <i>ja gh ṣ + uḥ</i> <i>ja k ṣ + uḥ</i> <i>jakṣuḥ</i>	8.2.66 <i>sasajuṣo ruḥ</i> / 8.3.15 <i>kharavasānayorvisarjanīyaḥ</i> 8.3.60 <i>śāsivasighasīnāṃ ca</i> 8.4.54 <i>abhyāse carca</i> 8.4.55 <i>khari ca</i>
<i>visarjanīya</i> (8.3.15)		as in <i>jakṣuḥ</i>			
<i>mūrdhanyādeśa śatva</i> (8.3.60)					

This rule (*abhyāsa jaśtva* 8.4.54) has to be **before**

<i>cartva</i> (8.4.55)	as in <i>jakṣuḥ</i>

Cartva prakaraṇa 8.4.55 – 8.4.56

Anuvṛtti

Asiddham / saṃhitā are continued into 8.4.55 – 8.4.56.

This prakaraṇa has to be **after**

saṃyogānta lopa (8.2.23)			as seen in <i>akṣan</i>
sakāraṇakāra lopa (8.2.29)			<i>āripsate/ mañktā</i> as seen earlier
ḍhatva (8.2.32)	as in <i>dhakṣyati</i>	दहँ भस्मीकरणे दह+लृट् दह+तिप् दह+स्यति दघ्+स्यति 8.2.32 दादेर्धातोर्घः धघ्+स्यति 8.2.37 एकाचो बशो भष् झषन्तस्य स्ध्वोः धघ्+ष्पति 8.3.59 आदेशप्रत्यययोः धक्ष्यति 8.4.55 खरि च धक्ष्यति	<i>daham bhasmīkaṇe</i> <i>dah+lṛmṭ</i> <i>dah+tip</i> <i>dah+syati</i> <i>dagh+syati</i> 8.2.32 <i>dāderdhātorghaḥ</i> <i>dhagh+syati</i> 8.2.37 <i>ekāco baśo bhaṣ jhaṣantasya</i> <i>sdhvoḥ</i> <i>dhagh+ṣyati</i> 8.3.59 <i>ādeśapratyayayoḥ</i> <i>dhakṣyati</i> 8.4.55 <i>khari ca</i> <i>dhakṣyati</i>
bhaṣbhāva (8.2.37)			as in <i>bubhutsate/ dhakṣyati</i>
bhaṣbhāva (8.2.38)	as in <i>dhatte</i>	धा धारणपोषणयोः डुधाञ् धा + लृट् धा + त धा + शप् + त धा + त धा + धा + त ध + धा + त द + धा + त 8.4.54 अभ्यासे चर्च्	<i>dhā dhāraṇapoṣaṇayoḥ</i> <i>ḍudhāñ</i> <i>dhā + lamṭ</i> <i>dhā + ta</i> <i>dhā + śap + ta</i> <i>dhā + ta</i> <i>dhā + dhā + ta</i> <i>dha + dhā + ta</i> <i>da + dhā + ta</i> 8.4.54 <i>abhyāse carcca</i> <i>dadhā + te</i>

		दधा + ते धध् + ते 8.2.38 दधस्तथोश्च धत्ते 8.4.55 खरि च धत्ते	<i>dhadh + te</i> <i>dhatte</i> <i>dhatte</i>	8.2.38 <i>dadhastathośca</i> 8.4.55 <i>khari ca</i>
		The rationale behind placing 8.2.38 दधस्तथोश्च (<i>dadhastathośca</i>) after 8.4.54 अभ्यासे चर्च (<i>abhyāse carcca</i>) has been mentioned under 8.2.38.		
		<i>rutva (ruḥ)</i> (8.2.66)	as in <i>jakṣuḥ</i> seen earlier	
		<i>visarjanīya</i> (8.3.15)	as in <i>jakṣuḥ</i> seen earlier	
		<i>mūrdhanyādeśa śatva</i> (8.3.60)	as in <i>jakṣuḥ/akṣan</i>	
		<i>anusvāra</i> (8.3.24)	as in <i>mañktā</i>	
		<i>apadānta jaśtva</i> (8.4.53)	as in <i>akṣan</i>	
		<i>abhyāsa jaśtva</i> (8.4.54)	as in <i>jakṣuḥ</i>	

This *prakaraṇa* has to be **before**

<i>parasavarṇa</i> (8.4.58)	as in <i>mañktā</i>

An anunāsika 8.4.57

Anuvṛtti

Asiddham / *saṃhitā* / 8.4.56 वाऽवसाने (*vā'vasāne*) are continued into 8.4.57.

This rule has to be **after**

8.3.5 समः सुटि	as in <i>saṃskartām</i>	सम् + सुट् + कर्त् सरुँ + सुट् + कर्त् 8.3.5 समः सुटि सरुँ / सरुँ + स् + कर्त् 8.3.2 अत्रानुनासिकः पूर्वस्य तु वा /	<i>sam + suṭ + karṭ</i> <i>saruṃ + suṭ + karṭ</i> 8.3.5 <i>samaḥ suṭi</i> <i>saṃrum / saṃrum + s + karṭ</i>

(samah suṭi)		8.3.4 अनुनासिकात् परोऽनुस्वारः सँःस्कृत् / संःस्कृत् 8.3.15 खरवसानयोर्विसर्जनीयः सँःस्कृत् / संःस्कृत् 8.3.36 वा शरि [सम्पुंकानां सो वक्तव्यः] सँःस्कृत् 8.4.57 अणोऽप्रगृह्यस्यानुनासिकः	8.3.2 atrānunāsikaḥ pūrvasya tu vā/ 8.3.4 anunāsikāt paro 'nusvāraḥ saṁḥskartṛ / saṁḥskartṛ 8.3.15 kharavasānāyorvisarjanīyaḥ saṁsskartṛ / saṁsskartṛ 8.3.36 vā śari [sampuṁkānāṁ so vaktavyaḥ] saṁskartām 8.4.57 aṇo 'pragṛhyasyānunāsikaḥ

Parasavarṇa prakaraṇa 8.4.58 – 8.4.62

Logic says that unless *anusvāra* takes place, there cannot be *parasavarṇa*.

Anuvṛtti

Asiddham / *saṁhitā* are continued in 8.4.58 – 8.4.62.

8.4.58 अनुस्वारस्य ययि परसवर्णः (*anusvārasya yayi parasavarṇaḥ*), in its entirety, is continued in 8.4.59.

Parasavarṇaḥ from 8.4.58 अनुस्वारस्य ययि परसवर्णः (*anusvārasya yayi parasavarṇaḥ*) is continued in 8.4.60.

Savarṇaḥ from 8.4.58 अनुस्वारस्य ययि परसवर्णः (*anusvārasya yayi parasavarṇaḥ*) is continued in 8.4.61.

Savarṇaḥ and *pūrvasya* from 8.4.61 उदः स्थास्तम्भोः पूर्वस्य (*udaḥ sthāstambhoḥ pūrvasya*) are continued into 8.4.62.

This *prakaraṇa* (*parasavarṇa prakaraṇa* 8.4.58 – 8.4.62) has to be **after**

sakāṛakākāra lopa (8.2.29)			as in <i>maṅktā</i>
kutva (8.2.30)			as in <i>maṅktā</i>
ḍhatva (8.2.31)	as in <i>trṇḍhaḥ</i>	तृह+लँट् तृह+तस् तृनह+तस्	<trḥ+laṁṭ </trḥ+laṁṭ trḥ+tas trṇah+tas

		तृन्ह+तस् तृन्ह+तस् तृन्ह+धस् तृन्ह+धरु तृन्ह+धः तृन्ह+धः तृन्ह+धः तृन्ह+धः तृन्ह+धः तृन्ह+धः	8.2.31 हो ढः 8.2.40 झषस्तथोर्धोऽधः 8.2.66 ससजुषो रुः 8.3.15 खरवसानयोर्विसर्जनीयः 8.3.24 नश्चापदान्तस्य झलि 8.4.41 ष्टुना ष्टुः 8.3.13 ढो ढे लोपः 8.4.58 अनुस्वारस्य ययि परसवर्णः	<i>tṛnh+tas</i> <i>tṛṇḍh+tas</i> <i>tṛṇḍh+thas</i> <i>tṛṇḍh+dharuṃ</i> <i>tṛṇḍh+dhah</i> <i>tṛṇḍh+dhah</i> <i>tṛṇḍh+dhah</i> <i>tṛṇḍh+dhah</i> <i>tṛṇḍh+dhah</i> <i>tṛṇḍh+dhah</i>	8.2.31 <i>ho ḍhah</i> 8.2.40 <i>jhaṣastathordho 'dhah</i> 8.2.66 <i>sasajuṣo ruḥ</i> 8.3.15 <i>kharavasānayorvisarjanīyah</i> 8.3.24 <i>naścāpadāntasya jhali</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i> 8.3.13 <i>ḍho ḍhe lopah</i> 8.4.58 <i>anusvārasya yayi parasavarṇah</i>
dhakārādeśa (8.2.40)				as in <i>tṛṇḍhah</i>	
rutva (ruḥ) (8.2.66)				as in <i>tṛṇḍhah</i>	
visarjanīya (8.3.15)				as in <i>tṛṇḍhah</i>	
anusvāra (8.3.24)				as in <i>muñcati /mañktā/ tṛṇḍhah</i>	
ṣṭutva (8.4.41)				as in <i>tṛṇḍhah</i>	
ḍhalopah (8.3.13)				as in <i>tṛṇḍhah</i>	
cartva (8.4.55)				as in <i>mañktā</i>	

Chakārādeśa 8.4.63

Anuvṛtti

Asiddham / saṃhitā / jhayo and anyatarasyām from 8.4.62 झयो होऽन्यतरस्याम् (*jhayo ho 'nyatarasyām*) are continued into 8.4.63.

This rule has to be **after**

kutva (8.2.30)	as in <i>vākchuddhi</i>	वाक् + शुद्धि वाक् + शुद्धि वाग् + शुद्धि	8.2.30 चोः कुः 8.2.39 झलां जशोऽन्ते	<i>vāc + śuddhi</i> <i>vāk + śuddhi</i> <i>vāg + śuddhi</i>	8.2.30 <i>coḥ kuḥ</i> 8.2.39 <i>jhalām jaśo 'nte</i>

		वाक् + शुद्धि वाक्छुद्धि	8.4.55 खरि च 8.4.63 शश्छोऽति	<i>vāk + śuddhi</i> <i>vākchuddhi</i>	8.4.55 khari ca 8.4.63 śaścho 'ṭi
<i>ḍhatva</i> (8.2.31)	as in <i>madhuliṭchete</i>	मधुलिह् + सुँ + शेते मधुलिह् + शेते मधुलिद् + शेते मधुलिङ् + शेते मधुलिट् + शेते मधुलिट्छेते	8.2.31 हो ढः 8.2.39 झलां जशोऽन्ते 8.4.55 खरि च 8.4.63 शश्छोऽति	<i>madhulih + sum + śete</i> <i>madhulih + śete</i> <i>madhuliḍh + śete</i> <i>madhuliḍ + śete</i> <i>madhuliṭ + śete</i> <i>madhuliṭchete</i>	8.2.31 ho ḍhaḥ 8.2.39 jhalām jaśo 'nte 8.4.55 khari ca 8.4.63 śaścho 'ṭi
<i>padānta jaśva</i> (8.2.39)				as in <i>vākchuddhi/ madhuliṭchete</i>	
<i>ścutva</i> (8.4.40)	as in <i>suhṛcchete</i>	सुहृद् + शेते सुहृज् + शेते सुहृच् + शेते सुहृच्छेते	8.4.40 स्तोः श्रुना श्रुः 8.4.55 खरि च 8.4.63 शश्छोऽति	<i>suhṛd + śete</i> <i>suhṛj + śete</i> <i>suhṛc + śete</i> <i>suhṛcchete</i>	8.4.40 stoḥ ścunā ścuḥ 8.4.55 khari ca 8.4.63 śaścho 'ṭi
<i>cartva</i> (8.4.55)	as in <i>vākchuddhi/ suhṛcchete/ madhuliṭchete</i>				

This rule (*chakārādeśa* 8.4.63) has to be **before**

<i>savarṇa</i> <i>lopa</i> (8.4.65)	as in <i>bhavāñchete</i>	भवान् शेते भवान् तुक् शेते भवान् च शेते भवाञ् च शेते भवाञ् च शेते / भवाञ् च्छेते भवाञ्छेते / भवाञ्छेते / भवाञ्छेते सवर्णे	8.3.30 शि तुक् 8.4.40 स्तोः श्रुना श्रुः 8.4.40 स्तोः श्रुना श्रुः 8.4.63 शश्छोऽति 8.4.65 झरो झरि	<i>bhavān śete</i> <i>bhavān tuk śete</i> <i>bhavān c śete</i> <i>bhavāñ c śete</i> <i>bhavāñ c śete / bhavāñ c chete</i> <i>bhavāñcśete/ bhavāñcchete/ bhavāñchete</i>	8.3.30 śi tuk 8.4.40 stoḥ ścunā ścuḥ 8.4.40 stoḥ ścunā ścuḥ 8.4.63 śaścho 'ṭi 8.4.65 jharo jhari

Yam lopa 8.4.64

Anuvṛtti

Asiddham / saṃhitā / anyatarasyām from 8.4.62 झयो होऽन्यतरस्याम् (*jhayo ho 'nyatarasyām*) are continued into 8.4.64.

This rule has to be **after**

sakāarakakāra lopa (8.2.29)	as in <i>mavyāt</i>	मव्+लिङ् मव्+तिप् मव्+यासुट्+ति मव्+यास्+स्ति मव्+या+त् मव्यात्, मव्यात्	8.2.29 स्कोः संयोगाद्योरन्ते च 8.4.64 हलो यमां यमि लोपः	<i>mavy+liṃṇ</i> <i>mavy+tip</i> <i>mavy+yāsuṭ+ti</i> <i>mavy+yās+sti</i> <i>mavy+yā+t</i> <i>mavyyāt, mavyāt</i>	8.2.29 <i>skoḥ saṃyogādyorante ca</i> 8.4.64 <i>halo yamām yami lopaḥ</i>
dvitva (8.4.47)	as in <i>śayyā</i>	शय्या शय्या शय्या	8.4.47 अनचि च 8.4.64 हलो यमां यमि लोपः	<i>śayyā</i> <i>śayyyā</i> <i>śayyā</i>	8.4.47 <i>anaci ca</i> 8.4.64 <i>halo yamām yami lopaḥ</i>

Savarna lopa 8.4.65

Anuvṛtti

Asiddham / saṃhitā / anyatarasyām from 8.4.62 झयो होऽन्यतरस्याम् (*jhayo ho 'nyatarasyām*) are continued into 8.4.65.

This rule has to be **after**

dhakārādeśa (8.2.40)	as in <i>jagdha</i>	अद् क्त जग्ध् त जग्ध् ध जग्ध् ध जग्ध् ध	8.2.40 झषस्तथोर्धोऽधः 8.4.53 झलां जश् झशि 8.4.65 झरो झरि सवर्णे	<i>ad kta</i> <i>jagdh ta</i> <i>jagdh dha</i> <i>jagd dha</i> <i>jag dha</i>	8.2.40 <i>jhaṣastathordho 'dhaḥ</i> 8.4.53 <i>jhalām jaś jhaśi</i> 8.4.65 <i>jharo jhari savarṇe</i>

		जग्ध	<i>jagdha</i>
<i>anusvāra</i> (8.3.24)	as in <i>piṇḍhi</i>	पिष् + लोट् पिष् + सिप् पिष् + हि पिष् + धि पि श्रम् ष् + धि पि न् ष् + धि पिं ष् + धि 8.3.24 नश्चापदान्तस्य झलि पिं ष् + ढि 8.4.41 ष्टुना ष्टुः पिं ड् + ढि 8.4.53 झलां जश् झशि पिण्ड् + ढि 8.4.58 अनुस्वारस्य ययि परसवर्णः पिण्ढि 8.4.65 झरो झरि सवर्णे	<i>piṣ + loṭ</i> <i>piṣ + sip</i> <i>piṣ + hi</i> <i>piṣ + dhi</i> <i>pi śnam ṣ + dhi</i> <i>pi n ṣ + dhi</i> <i>piṁ ṣ + dhi</i> 8.3.24 <i>naścāpadāntasya jhali</i> <i>piṁ ṣ + dhi</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i> <i>piṁ ḍ + dhi</i> 8.4.53 <i>jhalām jaś jhaśi</i> <i>piṇḍ + dhi</i> 8.4.58 <i>anusvārasya yayi parasavarṇaḥ</i> <i>piṇḍhi</i> 8.4.65 <i>jharo jhari savarṇe</i>
<i>ṣṭutva</i> (8.4.41)		as in <i>piṇḍhi</i>	
<i>dvitva</i> (8.4.47)	as in <i>svacchāyā</i>	स्वज् + छाया 8.4.47 अनचि च स्वज्छाया 8.4.55 खरि च स्वच्छाया 8.4.65 झरो झरि सवर्णे	<i>svaj + chāyā</i> 8.4.47 <i>anaci ca</i> <i>svajjchāyā</i> 8.4.55 <i>khari ca</i> <i>svacchāyā</i> 8.4.65 <i>jharo jhari savarṇe</i>
<i>apadānta jaśtva</i> (8.4.53)			as in <i>piṇḍhi/ jagdha</i>
<i>cartva</i> (8.4.55)			as in <i>svacchāyā</i>
<i>parasavarṇa</i> (8.4.58)			as in <i>piṇḍhi</i>

Svarita svara 8.4.66- 8.4.67

The *svara* rules are discussed in the next section of this chapter.

Hrasva akāra samvṛta 8.4.68

This is the last rule of the *tripādī*.

Conclusion

As can be observed from the above discussion, it is not always possible to justify the placement of one *prakaraṇa* before another using the derivation of words. Other factors need to be taken into consideration for this ordering. This line of thinking aids in explaining the gaps observed during the derivational process of the words. Some examples of such cases are:

1. *Latva prakaraṇa* (8.2.18- 8.2.22) is placed between *vatva prakaraṇa* (8.2.9- 8.2.17) and *saṃyogāntalopa prakaraṇa* (8.2.23- 8.2.29). As per the derivational process, *latva* has to be before only *rutva* (*ruḥ*) (8.2.66), the examples being *nirayate/ durayate*. *Anuvṛtti* is needed only of *asiddham* and *padānta*. But *Pāṇini* did not need *anuvṛtti* of *jhali* of 8.2.26 in *latva prakaraṇa*. Therefore, he placed this *prakaraṇa* before 8.2.23.
2. *Ṇatva prakaraṇa* (8.4.1- 8.4.39) – This *prakaraṇa* has to be between *anusvāra* (8.3.23 – 8.3.27) and *parasavarṇa*. This is to prevent undesired *ṇatva* as in the cases of *caranti/ prahanti*.

2.3 Intonation rules in *tripādī* – justification of their placement and positioning¹²⁶

Introduction

Vedic texts are chanted “in syllabic style – a type of heightened speech with one syllable to a tone. Three levels of pitch are employed..”.¹²⁷ Chanting *Vedic mantras* is not just a matter of producing speech sounds. The pitch used while chanting plays an important role in conveying the meaning of the *mantras*. This pitch is termed as *svara* in *Sanskrit* language. *Yaska* in his text, *Nirukta*, states अर्थम् अप्रतियतो नाऽत्यन्तं स्वर संस्कारोद्देशः। (*artham apratiyato nā'tyantam svarasaṃskāroddeśaḥ*) 1.25.¹²⁸ This means that in order to understand the meaning of words, knowledge of *svara* and *saṃskāra* (grammar) are required. The *svara* of a word implicitly conveys the meaning

¹²⁶ This section has been submitted to the *Annals of Bhandarkar Oriental Research Institute*.

¹²⁷ The Editors of *Encyclopaedia Britannica*, “Vedic Chant | Hinduism, Sanskrit, Mantras,”

Encyclopedia Britannica, July 20, 1998, <https://www.britannica.com/art/Vedic-chant>.

¹²⁸ For reference, see *Amaranātha Śāstrī, Vaidika svara samīkṣā* (Hoshiarpur: VVRI, 1964), 4.

too. The significance of this fact is brought about in the example of यथेन्द्रशत्रुः स्वरतोऽपराधात् । पाणिनीय शिक्षा 52 (*yathendraśatruḥ svarato 'parādhāt | Pāṇinīya śikṣā* 52).¹²⁹ This example is quoted in many texts such as *Śatapathabrāhmaṇa* 1.6.3.10 and *Taittirīyasamhitā* 2.4.12.1.¹³⁰ The context is that *Tvaṣṭā* had a son named *Viśvarūpa* who was killed by *Indra*. Angered about this, *Tvaṣṭā* conducted a *somayajña* excluding *Indra*. While calling out to *agni*, *Tvaṣṭā* wanted *agni* to take the form of the killer of *Indra*. But, due to a mistake in *svara* in the word *indraśatru* while chanting *indraśatruṣṭurvardhasva*, *indrasya śatruḥ* as a *tatpuruṣa samāsa* gets changed into *indrah śatruḥ śātayitā yasya* as a *bahuvrīhi samāsa*. Such is the import of *svara*.

Most modern scholars¹³¹ use the term “accents” to denote *svaras*. However, modern linguists clearly differentiate between the terms “intonation” and “accents”. The term “intonation” has been used to denote the rise and fall of voice while speaking. This term seems more appropriate to *Vedic mantras* as they are chanted in low or high pitch. Accent is defined as the “cumulative auditory effect of those features of pronunciation which identify where a person is from, regionally or socially”¹³² while intonation is “referred to the distinctive use of patterns of pitch or melody.”¹³³

Svaras are only associated with vowels and not with consonants. There are basically three tones in *Vedic Sanskrit* – *udātta* (acute), *anudātta* (grave) and *svarita* (circumflex). The rules defining these *svaras* are given in the *Aṣṭādhyāyī*. They are: 1.2.29 उच्चैरुदात्तः (*uccairudāttaḥ*) – “high pitch” or acute, 1.2.30 नीचैरनुदात्तः (*nīcairanudāttaḥ*) – “low pitch” or grave and 1.2.31 समाहारः स्वरितः (*samāhāraḥ svaritaḥ*) – “high falling pitch” or circumflex. This is stated concisely in *Yājñavalkya śikṣā*¹³⁴ as follows:

स्वर उच्चः स्वरो नीचः स्वरः स्वरित एव च ।
स्वरप्रधानं त्रैस्वर्यं व्यञ्जनं तेन सस्वरम्॥

¹²⁹ Satyaprakash Dubey, ed. *Pāṇinīya śikṣā*, 146.

¹³⁰ These references are given in Śāstrī, *Vaidika svara samīkṣā*, 4-7.

¹³¹ Kashinath V. Abhyankar, “Accent in Sanskrit”, *Annals of the Bhandarkar Oriental Research Institute*, Vol. 50, No. 1/4, (1969): 41; Paul Kiparsky *Some theoretical problems in Pāṇini's grammar*: Bhandarkar Oriental Research Institute, Pune, 1982; Srisa Chandra Vasu, *The Siddhānta kaumudī of Bhaṭṭoji Dīkṣita* Vol. II (First published by Pāṇini Office, Allahabad, 1906 and reprinted at Delhi: Motilal Banarsidass); J A F Roodbergen, "Time for a little something." *Pāṇinian Studies: Professor SD Joshi Felicitation Volume* 37 (1991): 293.

¹³² David Crystal, *A dictionary of linguistics and phonetics Sixth edition* (Malden, USA: Blackwell Publishing, 2008), 3.

¹³³ Crystal, *Dictionary of linguistics*, 252.

¹³⁴ Refer to Vāmadeva Miśra, *Svaraprakriyāprakāśa* (Varanasi: Gītā Saṃskṛta Prakāśan, 1975), 1.

svara uccaḥ svarō nīcaḥ svaraḥ svarita eva ca |
svarapradhānaṃ traisvaryyaṃ vyañjanaṃ tena sasvaram||

A vowel alone can have three *svaras*; a vowel is more important than a consonant and a consonant is always associated with a vowel.

The general *svara* rules are as follows:¹³⁵

1. Most often, only one syllable in a word is intonated (*udātta*), all the rest are not intonated (*anudātta*) (6.1.158 अनुदात्तं पदमेकवर्जम् (*anudāttaṃ padam-ekavarjam*)).
2. In a word, the general ordering of *svaras* is *anudātta*, *udātta* and *svarita*.
3. If there are only two *svaras* in a word, namely *udātta* and *svarita*, then, the ordering is *udātta* followed by *svarita*.

Svara rules in Aṣṭādhyāyī

There are about 375 *svara* rules in *Aṣṭādhyāyī* that can be broadly classified as follows:¹³⁶

1. *dhātusvarāḥ* (*svaras* on roots)
2. *pratyayasvarāḥ* (*svaras* on affixes)
3. *samāśasvarāḥ* (*svaras* on compounds) and
4. *ākhyātasvarāḥ* (*svaras* on verbs).

These *svara* rules are predominantly placed in the first and the second *pādas* of the sixth chapter. A few are scattered in the first *pāda* of the eighth chapter. The *tripādī* contains five rules on *svaras*.

Svara rules in tripādī

The *tripādī* has five rules that focus on *svaras*. They are 8.2.4 – 8.2.6 and 8.4.66 and 8.4.67. 8.2.4 highlights the *svara* on *yañ sandhi* and 8.2.5 – 8.2.6 involve *ekādeśa sandhi*. *Sannidhija svarita* is brought out in rules 8.4.66 – 8.4.67.

¹³⁵ Translated from Hindi book: Vrajabihārī Caube, *Vaidika-svara-bodha* (Hoshiarpur: Vaidika Sāhitya Sadana, 1972), 22-3.

¹³⁶ *Svara prakaraṇa* as given in *Siddhāntakaumudī* – For more details, refer to Srisa Chandra Vasu, *The Siddhānta kaumudī of Bhaṭṭoji Dīkṣita* Vol. III (First published by Pāṇini Office, Allahabad, 1906 and reprinted at Delhi: Motilal Banarsidass), 90-220.

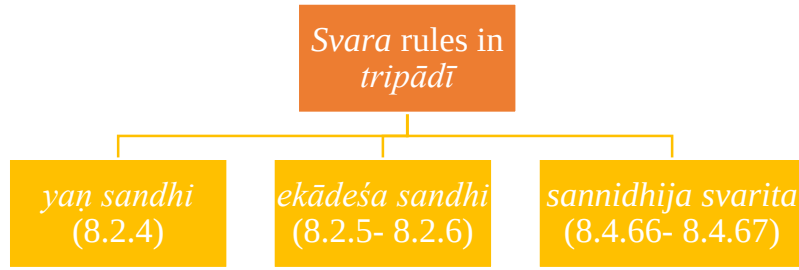


Figure 2.3: *Svara* rules in *tripādī*

This study is an attempt to justify the placement and positioning of these five *svara* rules in *tripādī*. The rationale behind placing only these particular rules in the *asiddhatva* section is discussed below.

Methodology

The methodology adopted for these rules is the same as that of the other *tripādī* rules.

General placement of the *svara* rules in *tripādī*

Pāṇini has sandwiched all the other rules of the *tripādī* between *svara* rules. He begins the *tripādī* section with introduction of *asiddhatva* concept and its restrictions. After that, the next three rules prescribe *svaras*. They are: 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*), 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttaḥ*) and 8.2.6 स्वरितो वाऽनुदात्ते पदादौ (*svarito vā 'nudātte padādau*). He ends the *tripādī* section with *svara* rules 8.4.66 उदात्तादनुदात्तस्य स्वरितः (*udāttādanudāttasya svaritaḥ*) and 8.4.67 नोदात्तस्वरितोदयमगार्ग्यकाश्यपगालवानाम् (*nodāttasvaritodayamagārgyakāśyapa-gālavānām*). Of course, the last rule of the *tripādī* is 8.4.68 अ अ (*a a*).

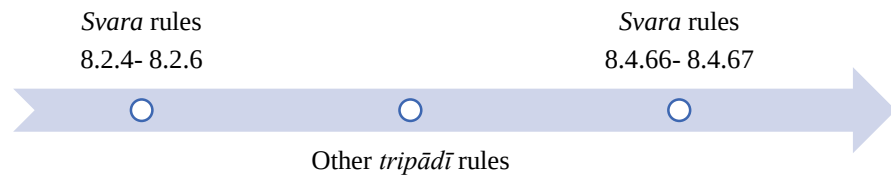


Figure 2.4: Placement of *svara* rules in *tripādī*

All rules related to the *adhikāra* of *pada* are placed in the second *pāda* of the eighth chapter as already observed in the earlier section while all rules pertaining to the *adhikāra* of *saṃhitā* are placed in the third and fourth *pādas* of the eighth chapter. The rules, 8.2.4 – 8.2.6, require the continuation of the *adhikāra* of *pada* while the rules, 8.4.66 – 8.4.67, require the *adhikāra* of *saṃhitā*. There is no need of continuation of any other word or words other than *asiddham* into these rules. Therefore, the placement of these five *svara* rules is justified. All of these rules are covered in detail in the ensuing sections.

*Svara on yaṇ sandhi*¹³⁷ – 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (udāttasvaritayoryaṇaḥ svarito 'nudāttasya)

If *yaṇ sandhi* is prescribed at the place of *udātta* or *svarita*, the *anudātta* that follows gets converted into *svarita*. There are two types of *yaṇ sandhis* being discussed in this rule – *udāttayaṇ* and *svaritayaṇ*. The *anudātta* that follows either of these *yaṇ sandhis* takes *svarita*.

Justification of placement of 8.2.4 in tripādī

8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*) is placed in *tripādī* as it comes under the *adhikāra* of *pada* and it also helps to obtain the correct *svaras* on certain words. There are two *vārttikas* under 8.1.16 पदस्य (*padasya*) that discuss the *svaras* for *yaṇ sandhi* and *ekādeśa sandhi*.

Vārttika 3 यणेकादेशस्वरस्तूर्ध्व पदाधिकारात्। (*yaṇekādeśasvarastūrdhvaṃ padādhikārāt*). This *vārttika* states that *yaṇ svara* and *ekādeśa svara* must be placed after the *adhikāra* of *pada* but *vārttika* 4 इह वचने ह्यपदान्तस्याऽप्राप्तिः॥ (*iha vacane hyapadāntasya 'prāptiḥ*)) refutes this since 8.2.4 will not be applicable to *kumāryaḥ*¹³⁸ but only to *kumāryau*.

MB discusses the example of *kumāryau*. At the stage of *kumārī au*, the *īkāra* is *udātta* that undergoes *yaṇ*. Thus, it becomes *udātta yaṇ* which is followed by

¹³⁷ *yaṇ sandhi* is known as *kṣaipra sandhi* in the *prātiśākhya* and *śikṣā* texts. The *svarita* thus obtained is known as *kṣaipra svarita*. If *udātta i* or *u* of a *pūrvapadānta* is followed by a different vowel at the beginning of the *uttarapada* which is *anudātta*, then *yaṇ saṃdhi* takes place; this *y* or *v* takes *svarita*. Quoted from *Rgvedaprātiśākhya- saṃhitā paṭalam- समनाक्षरमन्तस्थां॥ २१ ॥ न समानाक्षरे स्वे स्वे॥ २२*

(*samanākṣaramantasthām* // 21 ॥ *na samānākṣare sve sve* // 22 ॥ – For more details, refer to Veerendra Kumar Varma, ed. *Rgveda prātiśākhyaṃ uvvaṭa-bhāṣya- saṃvalitam*, (Delhi: Chaukhambha Sanskrit Pratishthan, 1970), 143- 4.

¹³⁸ *Śatapathabrāhmaṇam* 2.5.2.13 – For reference, see Several learned persons, eds. *Śatapathabrāhmaṇam according to the mādhyandina recension with the commentaries of Sāyaṇācārya and Harisvāmī* Part I (Delhi: Nag Publishers, 1990), 221.

anudātta. This *anudātta* becomes *svarita* by 8.2.4 giving *kumāryai*. In continuance of this discussion, *Patañjali* states that the term *padasya* that is continued from 8.1.16 into 8.2.4 is to be considered as *viśeṣaṇaṣaṣṭhī* and not as *sthānaṣaṣṭhī*. Moreover, the term *anta* in 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopaḥ prātipadikāntasya*) is an indication (*jñāpaka*) that the term *padasya* is to be considered as *viśeṣaṇaṣaṣṭhī* and not as *sthānaṣaṣṭhī*.

Under 6.1.166 तिसृभ्यो जसः (*tisṛbhyo jasaḥ*), KK states that 6.1.166 is an exception to 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*).¹³⁹ The example given is *tisraḥ*. *tri* takes *antodātta*. *tisṛ* is the feminine substitute for *tri* as per 7.2.99 त्रिचतुरोः स्त्रियां तिसृचतसृ (*tricituroḥ striyāṃ tisṛcatasṛ*). Therefore, *tisṛ* also takes *antodātta*. On account of *yaṇādeśa* according to 7.2.100 अचि र ऋतः (*aci ra ṛtaḥ*), 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*) would have made *anudātta jas svarita* but it takes *antodātta* now due to 6.1.166. The *sapādasaptādhyāyī* rule takes precedence over *tripādī*. Thus, by placing 8.2.4 in *tripādī*, the correct intonation was achieved. Moreover, the *asiddhatva* of this *svarita* prevents *nighāta*.¹⁴⁰

References and examples in which 8.2.4 is applied

Example 1: व्यक्त (*vyākta*)¹⁴¹

6.2.24 विस्पष्टादीनि गुणवचनेषु (*vispaṣṭādīni guṇavacaneṣu*) gives the example of *vyākta*. KK states that *vyākta* is assigned *ādisvarita* by the rule 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*). At the stage of *vi +akta*, *yaṇ sandhi* takes place and 8.2.4 is applicable by which it takes *ādisvarita*.

Example 2: बह्वरतिः (*bahvāratniḥ*)

Bahvāratniḥ is the example given under 6.2.30 बह्वन्यतरस्याम् (*bahvanyatarasyām*). KK gives the example of *bahu* words. They take *antodātta*. *Bahu*, as a *pūrvapada*, optionally takes *prakṛtisvara* in a *dvigu samāsa* and is

¹³⁹ 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य इत्यस्य अपवादः। (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya 8.2.4 ityasya apavādaḥ*) – For reference, see Ishwar Chandra, *Kāśikāvṛtti*: Part 2, 505.

¹⁴⁰ “loss of accents” – For more details, refer to Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 240.

¹⁴¹ *Rgveda* 9.71.7 – For reference, see Friedrich Max Müller, ed. *Rig-Veda-Samhita: the sacred hymns of the Brahmans together with the commentary of Sayanakarya*, Second Edition, Volume III, Mandalas VII- IX (London: Oxford University Press Warehouse, 1892), 712.

prescribed *antodātta*. When this term optionally takes *prakṛtisvara* and wherever there is *yaṇ sandhi*, 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*) is applicable.

This word was not found in the word references to *saṃhitās*, *brāhmaṇas* and *vedāṅgas* of VVRI.¹⁴² It was also not found in Monier Williams dictionary, Bloomfield's *Vedic Concordance* and *vācaspatyam*. However, words such as *bahvīḥ*, *bahvanna*, *bahvaśvaḥ* were found in the *saṃhitās*, *brāhmaṇas* and *vedāṅgas*. It seems that KK cited a set of words with *bahu* as a *pūrvapada* and *bahu* combined with *aratni* underwent *yaṇādeśa*. Therefore, KK quoted this as an example.

Example 3: न्यँङ् (*nyāṇ*)¹⁴³

The *svara* on *nyāṇ* is given in MB under 6.2.52 अनिगन्तोऽञ्चतौ वप्रत्यये (*aniganto 'ñcatau vapratyaye*). It is formed by combining *ni* and *añc*. *ni* takes *udātta*. After *yaṇ sandhi*, the *akāra* of *ya* takes *svarita* by 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*).

Example 4: व्यन्तः (*vyāntaḥ*)¹⁴⁴

In case of *nyāntaḥ* or *vyāntaḥ*, *ni* or *vi* + *anta* do not take *antodātta* as per 6.2.181 न निविभ्याम् (*na nivibhyām*). 6.2.180 अन्तश्च (*antaśca*) prescribes *antodātta* for *antar* when preceded by an affix. This is negated when preceded by the prefixes *ni* or *vi*. *Yaṇ sandhi* takes place by which 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*) makes it *svarita*.

Example 5: विष्वद्यँङ् (*viṣvadyāṇ*)¹⁴⁵

6.3.92 विष्वग्देवयोश्च ढेरद्यञ्चतावप्रत्यये (*viṣvagdevayośca ṭeradyañcatāvapratyaye*) discusses this example. When the root *añca* is preceded by *viṣvag* or *deva* or *sarvanāma* words, the *ṭi* portion takes *adri ādeśa*. *Yaṇādeśa* takes place and this takes

¹⁴² Vishveshvaranand Vedic Research Institute, Hoshiarpur has published books that are word indices to the *saṃhitās*, *brāhmaṇas* and *vedāṅgas*.

¹⁴³ *R̥gveda* 4.14.5 – For reference, see Max Müller, ed. *Rig-Veda-Sanhita*: Volume II Mandalas II to VI, 385.

¹⁴⁴ *Taittirīyabrāhmaṇa* 2.1.3.1 – For reference, see Shama Sastri. *The Taittirīyabrāhmaṇa with the commentary of Bhaṭṭabhāskaramiśra*, Aṣṭaka II (Mysore: Government Branch Press, 1921), 13.

¹⁴⁵ *R̥gveda* 7.25.1 – For reference, see Max Müller, ed. *Rig-Veda-Sanhita*: Volume III Mandalas VII to IX, 57.

svarita as per 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito- 'nudāttasya*).

This word was not found in the word references to *saṃhitās*, *brāhmaṇas* and *vedāṅgas* of VVRI. The same logic of *bahvāratniḥ* applies to this word also.

Example 6: खलप्याशा (*khālapvyāśā*)

This example is given under 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (*udāttasvaritayoryaṇaḥ svarito 'nudāttasya*). खलं पुनाति इति खलपूः (*khalam punāti iti khalapūḥ*). The locative singular affix *ni* is added giving *khalapvi*. When *khalapvi* is combined with *āśā*, it results in *khālapvyāśā*. The derivation is as follows: *pū* is *udātta* by 6.2.139 गतिकारकोपपदात् कृत् (*gatikārapapadāt kṛt*); the affix *ni* (*i*) is *anudātta* by 3.1.4 अनुदात्तौ सुप्तिौ (*anudāttau suppitau*). There is a consonant *hal* preceding the *udātta yaṇ*. 6.1.174 उदात्तयणो हल्पूर्वात् (*udāttayaṇo halpūrvāt*) assigns *udātta* to the *vibhakti pratyaya*. *Pū* is a *dhātu* that is *ūnanta*. 6.1.175 नोद्धात्वोः (*noḍdhātvoh*) prevents *pū* from obtaining the *udātta svara*. *Yaṇ* takes place resulting in *svarita* by 8.2.4. Now, at the stage of *khālapvi* + *āśā*, *āśā* is *antodātta* by *phiṣṣūtra* 1.18 आशाया अदिगाख्या चेत् (*āśāyā adigākhyā cet*). When *svaritānta khālapvi* combines with *ādyanudāttāśā*, *khālapvi* (*svaritānta*) + *āśā* (*ādyanudātta*) → *khālapvyāśā*.¹⁴⁶

Khalapūḥ was not found in the word references to *saṃhitās*, *brāhmaṇas* and *vedāṅgas* of VVRI. Words such as *khalah*, *khalam* were found in the *śrautasūtras*. The same logic of *bahvāratniḥ* applies to this word also.

एकादेश (*ekādeśa*) svara (8.2.5 and 8.2.6)

[8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttah*) / 8.2.6 स्वरितो वाऽनुदात्ते पदादौ (*svarito vā 'nudātte padādau*)]

The *ekādeśa* that occurs due to *udātta* with an *anudātta* results in an *udātta*. If the beginning of a word has *anudātta svara*, then, that *anudātta* optionally changes into a *svarita* when an *udātta* precedes it. These rules are placed in *tripādī* as they come

¹⁴⁶ This marking of intonations is done according to the *Taittirīya saṃhitā* while according to *R̥gveda*, *Sāmaveda* and *Atharvaveda*, it should have become *kampa* as in *khālapvyā ३' śā*. — For more details, refer to Vrajabihārī Caube, *Vaidika-svarita-mīmāṃsā* (Hoshiarpur: Vaidika Sāhitya Sadana, 1972), 27.

under the *adhikāra* of *pada*. Let us consider examples of 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttah*).

Example 1: ते (*te*)

NY gives the examples of *ye*, *te* and *ke* while quoting this rule under 1.2.29 उच्चैरुदात्तः (*uccairudāttah*). The derivation of *te* is as follows: At the stage of *tad* + *jas*, *tad* is assigned *udātta* and *jas* is assigned *anudātta* by 3.1.4 अनुदात्तौ सुप्पितौ (*anudāttau suppitau*). *Te* gets *udātta* by 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttah*).

Example 2: वोऽवहः (*vo 'śvāḥ*)¹⁴⁷

TB and PraudaM quote *vo 'śvāḥ* under 1.2.32 तस्यादित उदात्तमर्धह्रस्वम् (*tasyādita udāttamardhahrasvam*). *vaḥ* + *aśvāḥ* → *vo 'śvāḥ* (*anudātta* + *udātta*) → *ekādeśa udātta*. The *akāra* of *vaḥ* takes *anudātta* by 8.1.18 अनुदात्तं सर्वमपादादौ (*anudāttam sarvamapādādau*). The *a* of *aśvāḥ* takes *udātta* by 6.1.197 ञित्यादिर्नित्यम् (*ñnityādirnityam*). *Ekādeśa* takes place by which *vo* gets *udātta*.

Example 3: इषे त्वोर्जे त्वां (*iṣe tvorje tvā*)¹⁴⁸

NY discusses the intonation of *iṣe* under 1.2.36 विभाषा छन्दसि (*vibhāṣā chandasi*). There is optionality of *ekaśruti* as per this rule. At the stage of *iṣ* + *a*, there is *akārapratyaya* by *vārttika* इडस्यास्तीति लुगधिकारस्य अप्रत्ययः¹⁴⁹ (*iḍasyāstīti lugadhikārasya apratyayaḥ*). The locative singular is formed by applying 6.1.87 आद्गुणः (*ādguṇaḥ*). It is *ādyudātta* because of *pratyayasvara* after which 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttah*) is applied.

Example 4: काला, द्राक्षा (*kālā, drākṣā*)

NY, under 4.3.167 हरीतक्यादिभ्यश्च (*harītakyaḍibhyaśca*), gives the examples of *kālā*, *drākṣā* etc. They take *antodātta* by 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttah*) after *savarṇadīrghatva* when *īāp* is added. These words were not

¹⁴⁷ *Rgveda* 5.61.2 – For reference, see Max Müller, ed. *Rig-Veda-Sanhita*: Volume II Mandalas II to VI, 638.

¹⁴⁸ *Vājasaneyisaṃhitā* 1.1.1 – For reference, see Wasudev Lasman Sastri Pansikar ed. *Śuklayajurveda saṃhitā (śrīmad vājasaneyi mādhyandina)* with the *mantrabhāṣya* of Uvvaṭācārya and the *vedadīpabhāṣya* of Mahīdhara, Second edition (Bombay: Pandurang Jawaji, 1929), 4.

¹⁴⁹ NY under 1.2.36

found in the word references to *saṃhitās* and *brāhmaṇas*. *Drākṣā* was found in the *vedāṅgas* as seen in *Pāṇinīya uṇādisūtra*, *sūtrapāṭha*, *gaṇapāṭha* and *phiṭsūtras*. *Drākṣām* is mentioned to be found in *śaṅkhalikhita dharmasūtra*. The same logic of *bahvāratniḥ* applies to these words also.

Example 5: चूडालोऽसि (*cūḍālo 'si*)

NY gives the example of *cūḍālo 'si* under 5.2.96 प्राणिस्थादातो लजन्यतरस्याम् (*prāṇisthādāto lajanyatarasyām*). NY points out the significance of the *anubandha c* in the *pratyaya lac*. A *cit pratyaya* takes *antodātta* by 6.1.163 चितः (*citaḥ*). The purpose of this is explained as follows: At the stage of *cūḍāla su asi*, *su* undergoes *rutva* (*ruḥ*) by 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*) and this *rutva* (*ruḥ*) undergoes *utva* by 6.1.113 अतो रोरप्लुतादप्लुते (*ato roraplutādaplute*). 6.1.84 आद्गुणः (*ādguṇaḥ*) and 6.1.109 एङः पदान्तादति (*eṇaḥ padāntādāti*) are applied giving the form *cūḍālo 'si*. *asi* is *nighāta* by 8.1.28 तिङ्ङितिङः (*tiṅṅatiṅaḥ*). *Cūḍālo* is *antodātta* and *asi* is *anudātta*. Now, 8.2.5 is applied and so it remains *udātta*. If *anubandha c* was not included in the *pratyaya lac*, then optionally, it would have become *svarita* by 8.2.6 स्वरितो वाऽनुदात्ते पदादौ (*svarito vā 'nudātte padādu*). *Cūḍālaḥ* was not found in the word references to *saṃhitās* and *brāhmaṇas*. However, *cūḍaḥ* was found in *Śatapathabrāhmaṇa* 14.9.3.18.¹⁵⁰ *Cūḍālā* was found in the *vedāṅgas* as seen in *Pāṇinīya gaṇapāṭha*.

Example 6: त्रीन्¹⁵¹, तिस्रः, त्रीणि (*trīn, tisraḥ, trīṇi*)

MB, under 6.1.167 चतुरः शसि (*caturaḥ śasi*) discusses about *tri* and *catur*. This rule prescribes that *catur* take *antodātta* when *śas* follows. In case of *tri* and *catur*, there is no *ekavacana* or *dvivacana* as they are always plural. There is continuation of *asarvanāmasthāna* from 6.1.170 अञ्जेश्छन्दस्यसर्वनामस्थानम् (*añceśchandasasy-asarvanāmasthānam*) thereby eliminating *jas*. In case of *śas*, *antodātta* is assigned to *tri* when *śas* follows at which point, 8.2.5 is applied.

¹⁵⁰ For reference, see Gaṃgāprasāda Upādhyāya, trans. *Śuklayajurvedīya Śatapathabrāhmaṇa mādhyandīnī śākhā* Part 3 (Delhi: Govindram Hasanand, 1988), 490.

¹⁵¹ *Aitareyabrāhmaṇa* 1.25 – For reference, see Martin Haug, *The Aitareyabrāhmaṇam of the Rgveda* Volume I (Bombay: Government Central Book Depot, 1863), 18.

Example 7: ब्रह्मबन्ध्वा (brahmabandhvā)

KK under 6.1.175 नोद्धात्वोः (noḍdhātvoh) discusses the word “brahmabandhvā”. Brhamabandhuḥ is a bahuvrīhi samāsa. Ūñ is the pratyaya added to make it feminine. Ūñ pratyaya is udātta. At the stage of brahmabandhu + ūñ, ukāra of brahmabandhu is anudātta and ūñ is udātta. Ekādeśa takes place and it is udātta by 8.2.5 एकादेश उदात्तेनोदात्तः (ekādeśa udāttēnodāttah). At the stage of brahmabandhū + ṭā, ṭā is anudātta. Yañādeśa takes place. The ā of brahmabandhvā would have been udātta due to 6.1.174 उदात्तयो हल्पूर्वात् (udāttayaṇo halpūrvāt) but 6.1.175 नोद्धात्वोः (noḍdhātvoh) prevents it. 8.2.4 उदात्तस्वरितयोर्यणः स्वरितोऽनुदात्तस्य (udāttasvaritayoryaṇaḥ svarito ’nudāttasya) prescribes vibhakti svarita resulting in brahmabandhvā. Brahmabandhvā or even brahmabandhū was not found in the word references to saṃhitās, brāhmaṇas and vedāṅgas. The same logic of bahvāratniḥ applies to this word also.

Example 8: स्तूपेशाणः (stūpēśāṇaḥ)

NY, under 6.2.65 सप्तमीहारिणौ धर्म्येऽहरणे (saptamīhāriṇau dharmye ’haraṇe), quotes the example of stūpēśāṇaḥ. If there is a saptamyanta pūrvapada as in stūpe, pūrvapadaprakṛtisvara is generally antodātta as per 6.1.223 समासस्य (samāsasya). An exception to this is 6.2.2 तत्पुरुषे तुल्यार्थतृतीयासप्तम्युपमानाव्ययद्वितीयाकृत्याः (tatpuruṣe tulyārthatrītiyāsaptamyupamānāvvyayadvitīyākṛtyāḥ). According to this rule, pūrvapada takes prakṛtisvara. Here, the discussion is about the word stūpe. As it is in locative case, it takes antodātta as per 8.2.5 एकादेश उदात्तेनोदात्तः (ekādeśa udāttēnodāttah). Stūpēśāṇaḥ was not found in the word references to saṃhitās, brāhmaṇas and vedāṅgas. However, stūpaḥ, stūpaṃ, stūpena, stūpāt and stūpaiḥ were found in the saṃhitās, śrautasūtras and grhyasūtras. Monier Williams¹⁵² gives the reference of 6.2.65 for stūpēśāṇaḥ but does not give the meaning.

Example 9: प्रशाखः (praśākhaḥ)

KK and NY under 6.2.177 उपसर्गात् स्वाङ्गं ध्रुवमपार्शु (upasargāt svāṅgaṃ dhruvamaparśu), discuss praśākho vṛkṣaḥ. This is a counter example for svāṅgo. The word śākhā is derived from the root śo tanūkarāṇe. Khaḥ and ṭāp are added.

¹⁵² Monier Williams, A Sanskrit English dictionary (London: Oxford University Press, 1899), 1260.

Savarṇadīrghatva takes place and *śākhā* is *antodātta* by 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttah*). *Praśākhah* was not found in the word references to *saṃhitās*, *brāhmaṇas* and *vedāṅgas*. The same logic of *bahvāratniḥ* applies to this word also.

Example 10: अतिकृशोऽश्वः (*atīkṛśo 'śvaḥ*)

KK and NY, under 6.2.191 अतेरकृत्पदे (*aterakṛtpade*), discuss *atīkṛśo 'śvaḥ*. This is very similar to Example 2 given above. *Atikaśah* was not found in the word references to *saṃhitās*, *brāhmaṇas* and *vedāṅgas*. However, *atīkāśā* and *atīkāśāt* are mentioned to be found in *Baudhāyanaśrautasūtra* 15.1¹⁵³ and *Āpastambaśrautasūtra* 10.9.8¹⁵⁴ amongst others.

Example 11: कृष्णा (*kṛṣṇā*)

NY under 6.2.194 उपाद् द्व्यजनिमगौरादयः (*upād dvyajajinamagaurādayaḥ*) quotes *kṛṣṇā*. The *uṇādi* rule 3.4 कृषेर्वर्णे नक् (*kṛṣervarṇe nak*) facilitates the form *kṛṣṇah*. During the feminine formation, *savarṇadīrghatva* takes place and 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttah*) is applied by which *kṛṣṇā* takes *antodātta*. *Kṛṣṇā* was not found in the word references to *saṃhitās*, *brāhmaṇas* and *vedāṅgas*. However, *kṛṣṇākṣī*, *kṛṣṇāgomaya* etc. were mentioned.

Example 12: पिबति (*pibati*)¹⁵⁵

7.3.78 पा-घ्रा-ध्मा-स्था-म्ना-दाण्डश्यर्त्ति-सर्त्ति-शद-सदां पिब-जिघ्र-धम-तिष्ठ-मन-यच्छ-पश्य-ऋच्छ-धौ-शीय-सीदाः (*pā-ghrā-dhmā-sthā-mnā-dāṇḍśyartti-sartti-śada-sadām piba-jighra-dhama-tiṣṭha-mana-yaccha-pasya-ṛccha-dhau-śīya-sīdāḥ*) discusses *pibati*. The *ādeśa* for *pā* is *piba*. This is the only *ajanta ādeśa*. All other *ādeśas* end in consonants. *Piba* is assigned *ādyudātta* since it is a *nipātana*. But, *piba* should have been *antodātta* by 6.1.162 धातोः (*dhātoḥ*). The *ekādeśa* with *śap* would have caused *udātta* to the *a* of *ba* which is not desired. To avoid this, it is made a *nipātana*.

¹⁵³ For reference, see W. Caland, ed. *The Baudhāyana śrauta sūtra belonging to the Taittirīya saṃhitā* Volume 2 (Calcutta: Asiatic Society, 1907), 204.

¹⁵⁴ For reference, see G. U. Thite, trans. *Āpastamba-śrauta-sūtra* (Text with English translation and notes) (Delhi: New Bharatiya Book Corporation, 2004), 508.

¹⁵⁵ *Rgveda* 5.37.4 - For reference, see Max Müller, ed. *Rig-Veda-Sanhita*: Volume II Mandalas II to VI, 572.

Example 13: पशून् पशून् (*paśūn paśūn*)¹⁵⁶

KK and NY under 8.1.3 अनुदात्तं च (*anudāttaṃ ca*) discusses *paśūn*. It is derived from *drś ku – uṇādi* 1.27 अर्जिदृशिकम्यमिपशिबाधामृजिपसितुक्धुक्दीर्घहकाराश्च (*arjīdrśi-kamyamipaśibādhāmṛjipasitukdhukdīrghahakārāśca*). At the stage of *paśu śas*, 6.1.102 प्रथमयोः पूर्वसवर्णः (*prathamayoḥ pūrvasavarṇaḥ*) and 6.1.103 तस्माच्छसो नः पुंसि (*tasmācchaso naḥ puṃsi*) are applied. *Paśūn* is *antodātta* after applying 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttaḥ*).

8.2.6 स्वरितो वाऽनुदात्ते पदादौ (*svarito vā 'nudātte padādau*)

This rule, optionally, allows a single replacement in place of a sequence of an *udātta* and an *anudātta* at the beginning of a *pada* to be marked with a *svarita*. If the *pūrvapadānta* is *udātta* and the *uttarapadādi* is *anudātta*, then there will be *svarita* optionally.

Example 1: शतचक्रं यो३ ह्यः (*śatacākraṃ yō3 hyaḥ*)¹⁵⁷

SK, TB and PraudaM under 1.2.32 तस्यादित उदात्तमर्धह्रस्वम् (*tasyādita udāttamardhahrasvam*), discuss the example *śatacākraṃ yō3 hyaḥ*. The first half part of a *svarita-svara* is considered *udātta*. The *svarita* is followed by another *svarita* and in this case also, the *anudātta* portion of the *svarita* is heard. The word *yaḥ* is *antodātta* by *phiṭ* rule 1.1 फिषोऽन्त उदात्तः (*phiṣo 'nta udāttaḥ*); the *visarjanīya* is changed to *u* and *a + u = o* by *guṇa* and this *o* becomes *udātta*, the resultant of *udātta* plus *anudātta* is *udātta*. In *ahya*, the final *a* is *svarita*, the first *a* is therefore, *anudātta*. The *anudātta a* of *ahya* combining with the *udātta o* of *yo* becomes *svarita* by 8.2.6 स्वरितो वाऽनुदात्ते पदादौ (*svarito vā 'nudātte padādau*). This *svarita o* is followed by *svarita a* of *hya* and hence, the *anudātta* portion of *svarita o* is also heard here.

Example 2: चूडालोऽस्ति (*cūdālo 'sti*)

KK and SK emphasise the significance of the *anubandha c* in the *pratyaya lac* mentioned in 5.2.96 प्राणिस्थादातो लजन्यतरस्याम् (*prāṇisthādāto lajanyaatarasyām*). This

¹⁵⁶ *Aitareya brāhmaṇam* 1.8 – For reference, see Haug, *The Aitareyabrāhmaṇam of the Rgveda* Volume I, 5.

¹⁵⁷ *Rgveda* 10.144.4 – For reference, see Max Müller, ed. *Rig-Veda-Sanhita*: Volume IV Mandala X, 459.

cakāra is for *antodāttatva* by 6.1.164 तद्धितस्य (*taddhitasya*) by which *akāra* of *lakāra* of *cūḍāla* is *udātta*.

If the suffix would have been only *la* without the *c*, then, it would have become *ādyudātta* because of 3.1.3 आद्युदात्तश्च (*ādyudāttaśca*). In the example of *cūḍālo'sti*, the *udātta* of *uttarapada* in combination with the *anudātta* would have given *svārīta* by the rule 8.2.6 स्वरितो वाऽनुदात्ते पदादौ (*svārīto vā 'nudātte padādau*). Therefore, there is *cakāra* in the suffix *lac* by which application of 8.2.6 is prevented.

5.2.127 अर्शआदिभ्योऽच् (*arśādibhyo 'c*), 5.3.36 दक्षिणादाच् (*dakṣiṇādāc*) and 5.4.57 अव्यक्तानुकरणाद्ब्रह्मजवरार्धादिनितौ डाच् (*avyaktānukaraṇāddvyaajavarārdhādanitau ḍāc*) also discuss the significance of the *anubandha c* in the *pratyaya ac* in order to avoid the application of 8.2.6 स्वरितो वाऽनुदात्ते पदादौ (*svārīto vā 'nudātte padādau*).

Example 3: गुडोदकम्, गुडोदकम् (*guḍodakam, guḍodakam*)

MB under 6.1.85 अन्तादिवच्च (*antādivacca*), discusses the *vārttika* 11 एकादेशे हि स्वरिताप्रसिद्धिः (*ekādeśe hi svaritāprasiddhiḥ*). One of the uses of *antavadbhāva* is to assign *antodātta* to the *pūrvapada* [*vārttika* 10 पूर्वपदान्तोदात्तत्वं च प्रयोजनम्] (*pūrvapadāntodāttatvaṃ ca prayojanam*), the example being *guḍodakam*. *guḍa* + *udakam* undergoes *guṇarūpa ekādeśa* by 6.1.87 आद्गुणः (*ādguṇaḥ*). 6.2.96 उदकेऽकेवले (*udake 'kevale*) prescribes *antodātta* to *pūrvapada* when *udaka* follows. If *pūrvāntavadbhāva* is not considered, then there will be no *antodātta* for *pūrvapada*. The next point of contention is that there is scope for simultaneous applicability of 6.1.87 आद्गुणः (*ādguṇaḥ*) and 6.2.96 उदकेऽकेवले (*udake 'kevale*). As 6.2.96 उदकेऽकेवले (*udake 'kevale*) is a *para* rule, it is applied first after which 6.1.87 आद्गुणः (*ādguṇaḥ*) can be applied. The logic behind this is as follows. *Antodātta* is undertaken prior to *ekādeśa* by which 6.1.158 अनुदात्तं पदमेकवर्जम् (*anudāttaṃ padamekavarjam*) can be applied. This causes *anudātta* intonation for the remaining part of the word and then *ekādeśa* is undertaken after which 8.2.6 can be applied. If 6.2.96 उदकेऽकेवले (*udake 'kevale*) is not applied prior to 6.1.87 आद्गुणः (*ādguṇaḥ*), 8.2.6 cannot be applied. Thus, both the intonations are made possible. *Guḍodakam* was not found in the word references to *saṃhitās*, *brāhmaṇas* and *vedāṅgas*. The same logic of *bahvāratniḥ* applies to this word also.

Example 4: प्राङ्, प्राञ्चौ, प्राञ्चः or प्राङ्, प्राञ्चौ, प्राञ्चः¹⁵⁸ (*prāṅ, prāñcau, prāñcaḥ or prāṅ, prāñcau, prāñcaḥ*)

6.2.52 अनिगन्तोऽञ्चतौ वप्रत्यये (*aniganto 'ñcatau vapratyaye*) states that a *pūrvapada* that is a *gati* and does not have an *ik* at the end, takes *prakṛtisvara* when the root *añc* having *vapratyayānta* is the *uttarapada*. In the example of *prāṅ*, *pra* + *añcati* + *kvin*, *pra* takes *udātta* and *añc* is *anudātta*. *Ekādeśa* takes place by which it takes *udātta* or *svarita* by 8.2.6.

Vārttika on एकादेशस्वर (*ekādeśasvara*)

KK and NY discuss many *vārttikas* under 8.2.3 न मु ने (*na mu ne*). One such focusses on *ekādeśasvara*.

एकादेशसरोऽन्तरङ्गः सिद्धो वक्तव्यः अयायावेकादेशशतृस्वरैकाननुदात्तसर्वानुदात्तार्थम् ॥
ekādeśasvaro 'ntaraṅgaḥ siddho vaktavyaḥ ay-āy-āv-ekādeśa-śatr-
svaraikānanudātta-sarvānudāttārtham.

It means that the *ekādeśa* is considered *siddha* for any *antaraṅga* operation. *Patañjali* lists out the reasons for such a *vārttika* in *ayāyāvekaśeśa-śatr-svaraikānanudātta-sarvānudāttārtham*.

The operations for which *ekādeśa svara* when an *antaraṅga* operation is considered *siddha* are:

- *ay, āy, āv* substitutions of *e, ai* and *au* as in the examples of *vṛkṣa idam, kumāryā idam, vṛkṣāvidam* respectively,
- *ekādeśa svara* as in *gāṅge 'nūpaḥ*,
- *śatr svara* as in *tudatī*,
- *ekānudātta* as in *tudanti* and
- *sarvānudātta* as in *brāhmaṇāstudanti*.

¹⁵⁸ *Rgveda* 1.110.2 – For reference, see Friedrich Max Müller, ed. *Rig-Veda-Sanhita: the sacred hymns of the Brahmans* Second edition, Volume 1 Mandala 1 (London: Oxford University Press Warehouse, 1890), 480.

8.4.66 उदात्तादनुदात्तस्य स्वरितः (*udāttādanudāttasya svaritah*) and 8.4.67 नोदात्तस्वरितोदयमगार्ग्यकाश्यपगालवानाम् (*nodāttasvaritodayamagārgyakāśyapagālavānām*)

The *anudātta* that follows an *udātta* is replaced by a *svarita*. Other than *Gārgya*, *Kāśyapa* and *Gālava*, all others prohibit this *svarita*.

Placement of 8.4.66/ 8.4.67 in *tripādī*

Loss of *svaras* is prevented by placing these rules in *tripādī*. This is shown in the examples below.

References and examples in which 8.4.66/8.4.67 are applied:

Example 1: अग्निमीळे (*agnimīḷe*)¹⁵⁹

Under 1.2.32 तस्यादित उदात्तमर्धह्रस्वम् (*tasyādita udāttamardhahrasvam*), the example of *agnimīḷe* is given in SK. The *ī* which was *anudātta* by 8.1.28 तिङ्ङितिङः (*tiṅṅatīṅḥ*) becomes *svarita* by 8.4.66 as it follows *udātta i* of *agni*. 6.1.158 अनुदात्तं पदमेकवर्जम् (*anudāttam padamekavarjam*) is not applicable as 8.4.66 is *asiddha* to it. Therefore, both the *udātta* and the *svarita svara* are heard by which *nighāta*¹⁶⁰ is prevented.

Example 2: इमं मे गङ्गे यमुने सरस्वति शुतुद्रि (*imaṁ me gaṅge yamune sarasvatī śutudri*)¹⁶¹

Patañjali under 1.2.32 तस्यादित उदात्तमर्धह्रस्वम् (*tasyādita udāttamardhahrasvam*) discusses *Kātyāyana*'s proposition of shifting nine rules (1.2.32 – 1.2.40) and placing them after 8.4.66. The example discussed is *imaṁ me gaṅge yamune sarasvatī śutudri*. In the word *imaṁ*, the last vowel is *udātta* by 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttah*). *Me* is *anudātta* by 8.1.22 तेमयावेकवचनस्य (*temayāvekavacanasya*) and *gaṅge* is wholly *anudātta* by 8.1.19 आमन्त्रितस्य च (*āmantritasya ca*). The *anudātta* of *me* is replaced by *svarita* by 8.4.66 उदात्तादनुदात्तस्य स्वरितः (*udāttādanudāttasya svaritah*). At this stage, *gaṅge* would have become monotone by 1.2.39 स्वरितात् संहितायामनुदात्तानाम् (*svaritāt saṁhitāyāmanudāttānām*).

¹⁵⁹ *Rgveda* 1.1.1 – For reference, see Max Müller, ed. *Rig-Veda-Sanhita*: Volume 1 Mandala 1, 23.

¹⁶⁰ Suppression or absence of intonation

¹⁶¹ *Rgveda* 10.75.5 – For reference, see Max Müller, ed. *Rig-Veda-Sanhita*: Volume IV Mandala X, 232.

But, 8.4.66 is *asiddha* to 1.2.39. Thus, placing 8.4.66 in *tripādī* has facilitated the desired intonation. *Patañjali* justifies the placement of these nine rules in the *sapādasaptādhyāyī*. His arguments are that there are rules in the *sapādasaptādhyāyī* that assign the *svarita svara*. In such cases, the *anudātta* that follows such a *svarita* will convert into monotone. The examples given are (1) *kāryaṃ devadattayajñadatta* – in this case, the *akāra* of *ya* of *kāryaṃ* has taken *svarita svara* by a *sapādasaptādhyāyī* rule 6.1.185 तित्स्वरितम् (*titsvaritam*); (2) *subrahmaṇyomindra āgaccha* – in this case, the last *akāra* of *subrahmaṇya* takes *svarita* by 6.1.185 तित्स्वरितम् (*titsvaritam*) *īp* follows this *akāra* that undergoes *dīrgha ekādeśa* that again takes *svarita*. The *om* that follows this *akāra* takes *svarita* by 6.1.95 ओमाङोश्च (*omāṇośca*) by *ekādeśa*. (3) *Māṇavaka jaṭilakābhirūpaka kva* – in this case, the *akāra* of *at pratyaya* of *kva* takes *svarita* by 6.1.185 तित्स्वरितम् (*titsvaritam*). In all these cases, the *anudātta* that follows *svarita* prescribed by a *sapādasaptādhyāyī* rule will convert into monotone. *Kātyāyana* points out that there is no need to shift the rules to the *tripādī* section and this proposition is rejected by *vārttika* 5 *devabrahmaṇoranudāttavacanam jñāpakam svaritāditi siddhatvasya*. The *anudātta* that is prescribed by 1.2.38 देवब्रह्मणोरनुदात्तः (*devabrahmaṇoranudāttah*) is an indication that the *anudātta* that follows a *svarita* turns into *svarita*.

There are two cross-references for the rule 8.4.66 उदात्तादनुदात्तस्य स्वरितः (*udāttādanudāttasya svaritah*) that involve the *subrahmaṇyā* litanies. They are: 1.2.37 न सुब्रह्मण्यायां स्वरितस्य तूदात्तः (*na subrahmaṇyāyām svaritasya tūdāttah*) and 1.2.38 देवब्रह्मणोरनुदात्तः (*devabrahmaṇoranudāttah*). These two rules come under the *prakaraṇa* of *ekaśruti*. 1.2.33 एकश्रुति दूरात् सम्बुद्धौ (*ekaśruti dūrāt sambuddhau*) is prescribing *ekaśruti* (monotone) under certain conditions. *Ekaśruti* is defined as “the neutral tone in which *mantras* are pronounced in ritual except in cases like *subrahmaṇyā*, *japa*, *nyūnkha*, and *sāman* recitations to be done by the sacrifice. [t]he maximum close contraction of *udātta*, *anudātta* and *svarita* tones”.¹⁶² The general convention is that the *mantra* portion is recited with all three *svaras* while the *brāhmaṇa* portion is recited in monotone.

The cross-references of rule 8.4.66, namely 1.2.37 न सुब्रह्मण्यायां स्वरितस्य तूदात्तः (*na subrahmaṇyāyām svaritasya tūdāttah*) and 1.2.38 देवब्रह्मणोरनुदात्तः (*devabrahmaṇor-*

¹⁶² Chitrabhanu Sen, *A dictionary of the Vedic rituals* (Delhi: Concept Publishing Company, 1982), 58.

anudāttaḥ), negate monotone for cases like *subrahmanyā*, *japa*, *nyūnkha* and *sāman*.

There are more conditions with respect to the *subrahmanyā* litany. They are:

1. There is no monotone in *subrahmanyā* litany.
2. A vowel which would have normally taken a *svarita svara* takes an *udātta svara* (1.2.37).
3. The words, *deva* and *brāhmaṇa*, in these litanies take *anudātta svara* (1.2.38).

सुब्रह्मण्या (subrahmanyā) litanies¹⁶³

These litanies are recited by *subrahmanyā*, name of the 4th chanter, an assistant of the *udgātr*. His special duty is to recite a litany called *subrahmanyā*, which is a *āhvāna* (call) to *Indra* repeated thrice. “This litany, which is required on the second and the subsequent days of *agniṣṭoma*¹⁶⁴ and almost on all days of other *Soma*, is an invitation to *Indra* beginning with सुब्रह्मण्यो३म् (*subrahmanyō3m*) (repeated thrice) and then, “Come, O *Indra*” etc”.¹⁶⁵ Examples 3 and 4 belong to the *subrahmanyā* litany.

Example 3: सुब्रह्मण्यो३मिन्द्रागच्छ हरिव आगच्छ (*subrahmanyō3mindrāgaccha hariva āgaccha*)¹⁶⁶

The word *subrahmanya* is formed by adding the suffix *yat* to *subrahman*. This *ya* will get *svarita svara* by 6.1.185 तित्स्वरितम् (*titsvaritam*) as it has the *anubandha t*. 1.2.37 न सुब्रह्मण्यायां स्वरितस्य तूदात्तः (*na subrahmanyāyām svaritasya tūdāttaḥ*) converts this *svarita* into *udātta*.

In the words *indra āgaccha*, *Indra* is in the vocative case, *i* of *indra* is *udātta* and the *a* of *indra* is *anudātta* by 6.1.198 आमन्त्रितस्य च (*āmantritasya ca*). *Udātta* followed by an *anudātta* is changed into *svarita* by 8.4.66. This brings about intonation for the first four syllables into *udātta* and the fifth syllable *anudātta* in the phrase *indra*

¹⁶³ I owe my thanks to *sāmakovid* Raghav Ramdasi for his insightful comments on this litany.

¹⁶⁴ *Agniṣṭoma* is a *soma* sacrifice that may last 5 days and is performed annually in the spring. The second day of this *soma* sacrifice consists of certain rites such as purchasing of *soma* stalks, welcoming the *soma*, *pravargya* and *upasad* which is usually performed after the *pravargya*. The *pravargya* and *upasad* are performed twice a day, morning and evening for three days, 2nd, 3rd and 4th days. On the second day, *soma* is led ceremoniously in a cart accompanied with the *subrahmanyā* litany. As part of the *upasadiṣṭi*, the *adhvaryu* calls out to the *subrahmanya* priest to pronounce the *subrahmanyā* litany – For more details, refer to Hari G. Ranade, *Illustrated dictionary of Vedic rituals* (New Delhi: Indira Gandhi National Centre for the Arts, 2006), 14.

¹⁶⁵ Sen. *A dictionary of the Vedic rituals*, 119.

¹⁶⁶ *Śatapathabrāhmaṇa* 3.3.1.19 – For reference, see Several learned persons ed., *Śatapathabrāhmaṇam according to the Mādhyandina recension with the commentaries of Sāyaṇācārya and Harisvāmī* Part II (Delhi: Nag Publishers, 1990), 113.

āgaccha. This type of intonation does not adhere to the general principle of having only one syllable intonated and the others being *anudātta* (6.1.158 अनुदात्तं पदमेकवर्जम् (*anudāttaṃ padamekavarjam*)) justifying the placement of 8.4.66 in *tripādī*.

Example 4: देवा ब्रह्मण आगच्छ (*devā brahmāṇa āgaccha*)¹⁶⁷

The words *devā* and *brahmāṇa* in the *subrahmaṇyā* litanies have *anudātta* *svara* as per 1.2.38 देवब्रह्मणोरनुदात्तः (*devabrahmaṇoranudāttaḥ*). 1.2.38 देवब्रह्मणोरनुदात्तः (*devabrahmaṇoranudāttaḥ*) is an exception to 1.2.37 न सुब्रह्मण्यायां स्वरितस्य तूदात्तः (*na subrahmaṇyāyāṃ svaritasya tūdāttaḥ*) and is prescribed specifically for these two words found in these litanies. The first syllable of *devā* gets the *udātta* *svara* by 6.1.198 आमन्त्रितस्य च (*āmantritasya ca*) and the second syllable of *devā* which was *anudātta* would have been converted into *svarita* by 8.4.66. But, 1.2.38 retains the *anudātta* *svara* and thus, the original *anudātta* *svara* remains unchanged.

Example 5: गोपायतं नः सुमनुस्यमानां (*gopāyatam naḥ sumanasyamānā*)¹⁶⁸

BM under 3.1.28 गुपूधूपविच्छिपणिपनिभ्य आयः (*gupūdhūpavicchīpanīpanibhya āyaḥ*) quotes *Rgveda* 6.74.4. The *ukāra* of *gup* gets *udāttatvam* by 3.1.91 धातोः (*dhātoḥ*). The *āya* suffix is added to the verb by 3.1.28 गुपूधूपविच्छिपणिपनिभ्य आयः (*gupūdhūpavicchīpanīpanibhya āyaḥ*). This suffix gets its first syllable as *udātta* by 3.1.3 आद्युदात्तश्च (*ādyudāttaśca*). There is *guṇa* by 7.3.86 पुगन्तलघूपधस्य च (*puganta-laghūpadhasya ca*) giving *gopāya*. This again gets the designation ‘root’ by 3.1.32 सनाद्यन्ताः धातवः (*sanādyantāḥ dhātavaḥ*). The *akāra* of *ya* gets *udātta* by 6.1.162 धातोः (*dhātoḥ*). At the stage of *gopāya + tam*, *a* of *ta* gets *anudātta* by 3.1.4 अनुदात्तौ सुप्तिता (*anudāttau suppitau*). The next step in the derivation is *gopāya + śap + tam* by 3.1.68 कर्तरि शप् (*kartari śap*). Again, the *akāra* of *śap* gets *anudātta* by 3.1.4 अनुदात्तौ सुप्तिता (*anudāttau suppitau*). There is *pararūpa ekādeśa* resulting in *gopāya + tam* by 6.1.97 अतो गुणे (*ato guṇe*). The *akāra* of *ya* gets *udātta* by 8.2.5 एकादेश उदात्तेनोदात्तः (*ekādeśa udāttēnodāttaḥ*). The *akāra* of *tam* gets *anudātta* by 6.1.186 तास्यनुदात्तेन्दिददुपदेशाल्लसार्वधातुकमनुदात्तमहन्विडोः (*tāsyānudāttēnnidadupadesālla-*

¹⁶⁷ *Śatapathabrāhmaṇa* 3.3.1.20 – For reference, see Several learned persons ed., *Śatapathabrāhmaṇam* Part II, 114.

¹⁶⁸ *Rgveda* 6.74.4 – For reference, see Max Müller, ed. *Rig-Veda-Sanhita*: Volume II Mandalas II to VI, 887.

sārvadhātukamanudāttamahnvīṇoḥ). Thus, in the word *gopāyatam*, other than the *akāra* of *ya*, all other vowels take *anudātta*. The *akāra* of *ta* takes *svarita* by 8.4.66 उदात्तादनुदात्तस्य स्वरितः (*udāttādanudāttasya svaritaḥ*).

Example 6: मघवन् (*maghavan*)

BM under 7.1.70 उगिदचां सर्वनामस्थानेऽधातोः (*ugidacāṃ sarvanāmasthāne-’dhātoḥ*) discusses the *vārttika* छन्दसीवनिपौ चेति वनिबन्तं मध्योदात्तं छन्दस्येव (*chandasīvanipau ceti vanibantaṃ madhyodāttaṃ chandasyeva*). The intonation of *maghavan* is different in Vedic literature and in the spoken language. The affixes *ī* and *vanip* are added in the sense of *matup* in Vedic literature as per 5.2.122 बहुलं छन्दसि (*bahulaṃ chandasi*). Therefore, *maghavan*, when formed with *vanip*, takes *udātta* in the middle (*maghavan*) but in spoken language, it has *udātta* in the final (*maghavan*).

Example 7: भवति पचति (*bhavati pacati*)

NY under 8.1.28 तिङ्ङितिङ्ङः (*tiṅṅatiṅṅaḥ*) discusses why there is no *anudātta* in the example of *bhavati pacati*. This is because *pacati* is *tiṅanta* that follows a *tiṅanta* *bhavati*. Therefore, *pacati* does not lose its *svara*.

Conclusion

The general principle of intonation as given by 6.1.158 अनुदात्तं पदमेकवर्जम् (*anudāttaṃ padamekavarjam*) is not adhered to in some cases. In order to overcome this generalization, certain rules are placed in *tripādī*. This facilitates in achieving the desired *svaras* on some words and also prevents loss of *svaras*, technically termed as *nighāta*, as seen in अग्निमीळे (*agnimīḷe*). The *adhikāra* of *pada* and *saṃhitā* also play a role in the placement of these rules. A few examples for *adhikāra* of *pada* are व्यक्त (vyākta), बह्वरतिः (*bahvāratniḥ*) and the examples for *adhikāra* of *saṃhitā* are गोपायतं (*gopāyatam*), मघवन् (*maghavan*) etc. The *subrahmaṇyā* litanies are a special case of the principle of *asiddhatva*. Thus, the principle of suspension aids in the correct intonation of words and also aids in hearing *svaras* that would otherwise have been suppressed. It is to be noted that some of the examples discussed are not found in Vedic literature. It seems *Kāśikā* has taken words from the *bhāṣā* to explain the *svaras*.

The above discussion provides examples to support the rationale behind the placement and the positioning of these five *svara* rules in *tripādī*.

Chapter III: Critical study of the principle of *asiddhatva*

This chapter is a critical study of the principle of *asiddhatva*. It includes the following:

1. A broad perspective of the principle of *asiddhatva*
2. Critical study of selected *prakaraṇas* of *tripādī*
3. Analysis of the *asiddhavad* section and comparative study of the *asiddhavad* section and the *tripādī*
4. An attempt to establish a link between negation of *sthānivadbhāva*, the *ābhīya* section and the *tripādī* and analysing the rule 1.1.58 न पदान्तद्विर्वचनवरेयलोप-स्वरसवर्णानुस्वारदीर्घजश्चर्विधिषु (na padānta-dvirvacana-vare-ya-lopa-svara-savarṇānusvāra-dīrghajaścarvidhiṣu)
5. An alternative interpretation of the traditional concept of *āśrayāt siddhatvam*
6. Graphical representation of the ordering of *prakaraṇas* using topological sorting.

3.1 A broad perspective of the principle of *asiddhatva* – an extension of the general principle of inheritance

In order to achieve precision and brevity in the derivational process of words, *Pāṇini* has employed many techniques in the *Aṣṭādhyāyī*. As already mentioned earlier, *Pāṇini* modifies bases of words by deleting, replacing or adding affixes. During this process, if an affix is deleted, its properties continue to seem to exist and based on that fact, appropriate rules are applied. This is assigned the technical term, *pratyayalakṣaṇam*. If a substituent is replaced, its properties are transferred to the substitute, technically termed as *sthānivadbhāva*. This concept of properties still existent or transferred is not restricted only to affixes and substitutes. It seems to permeate throughout the *Aṣṭādhyāyī* with minor variations depending on the object. This principle can be termed as ‘inheritance’. This term¹⁶⁹, for lack of a better word, still does not capture the whole idea.

¹⁶⁹ This term has been proposed even though it does not capture the whole idea. Alternatives such as “latent presence”, “implicit presence”, “inherent property” and “intrinsic property” were considered as alternatives. Even Jacques Derrida’s concept of trace was considered as another possibility. According to Derrida’s theory of deconstruction, “trace” is the mark of the absence of a presence. However, the term “inheritance” seems to fit better. Looking further for other such “inappropriate” terms, the term

If there is an object that has certain properties and this object is replaced or deleted, the properties of this object are ‘inherited’ by the substitute in case of replacement or exist in a ‘transient’ manner in case of complete deletion.

Tracing this property in the entire text of the *Aṣṭādhyāyī*, the following can be identified:

- *itsamjñā*
- *pratyayalakṣaṇa*
- *sthānivadbhāva* and
- *asiddhatva*.

Each of these properties is elaborated below:

itsamjñā

The root of *it* is “*iṇ*, to go”. *iṇ gatau | eti gacchati iti it | na tiṣṭhati lupyate iti arthaḥ* |.

It takes the *pratyaya* *kvip* forming *it*. The rules that define *it* are:

1.3.2 उपदेशेऽजनुनासिक इत् (*upadeśe 'janunāsika it*)

1.3.3 हलन्त्यम् (*halantyaṃ*)

1.3.4 न विभक्तौ तुस्माः (*na vibhaktau tusmāḥ*)

1.3.5 आदिर्ङितुडवः (*ādirṅiṭuḍavaḥ*)

1.3.6 षः प्रत्ययस्य (*ṣaḥ pratyayasya*)

1.3.7 चुटू (*cuṭū*)

1.3.8 लशक्तद्धिते (*laśakvataddhite*)

1.3.9 तस्य लोपः (*tasya lopah*)

Summarizing,

- A nasal *svara* present in an *upadeśa* is termed *it*.
- The consonants at the end of an *upadeśa* are also termed *its*. However, if the letters of the *tavarga*, *s* or *m* are at the end of an *upadeśa* of a *vibhakti*, these are not termed *its*.
- The letters *ñi*, *tu* and *du* at the beginning of an *upadeśa* are termed *its*.

“suspension” for the principle of *asiddhatva* also does not fully capture this idea even though modern scholars widely accept this as a synonym. This is also true for the term “accent”.

- The letter *ṣ* and the *cavarga* and *ṭavarga* at the beginning of a *pratyaya* are also termed as *its*.
- The *l*, *ś* and *kavarga* letters at the beginning of a *pratyaya* which is not a *taddhita pratyaya* are termed as *its*.
- All these *it* letters are elided.

Function of *its* in general

Abhyankar¹⁷⁰ defines the technical term *it* and states the functions of *it* as follows:

A letter or a group of letters attached to a word which is not seen in actual use in the spoken language. The *it* letters are applied to a word before it, or after it, and they have got each of them a purpose in grammar viz. causing or preventing certain grammatical operations in the formation of the complete word.....

Almost all vowels and consonants are used as *it* for different purposes and the *it* letters are applied to roots in the *dhātupāṭha*, nouns in the *gaṇapāṭha* as also to affixes, augments and substitutes prescribed in grammar. Only at a few places, they are attached to give facility of pronunciation.

A few examples of *itsamjñā* are

As <i>upadeśa</i>	in	<i>itsamjñā</i>	Rule
<i>sum</i>		<i>um</i>	1.3.2 उपदेशेऽजनुनासिक इत् (<i>upadeśe 'janunāsika it</i>)
<i>gaml̥m</i>		<i>l̥m</i>	
<i>ḍupacam̐ṣ</i>		<i>ḍu</i> <i>am̐</i> <i>ṣ</i>	1.3.5 आदिर्जितुडवः (<i>ādirñiṭuḍavaḥ</i>) 1.3.2 उपदेशेऽजनुनासिक इत् (<i>upadeśe 'janunāsika it</i>) 1.3.3 हलन्त्यम् (<i>halantyaṃ</i>)
<i>ñimidām</i>		<i>Ñi</i> <i>ām</i>	1.3.5 आदिर्जितुडवः (<i>ādirñiṭuḍavaḥ</i>) 1.3.2 उपदेशेऽजनुनासिक इत् (<i>upadeśe 'janunāsika it</i>)
<i>ṭukṣu</i>		<i>ṭu</i>	1.3.5 आदिर्जितुडवः (<i>ādirñiṭuḍavaḥ</i>)
<i>ḍukṛñ</i>		<i>ḍu</i>	
<i>ṣākan</i>		<i>ṣ</i>	1.3.6 षः प्रत्ययस्य (<i>ṣaḥ pratyayasya</i>)
<i>cphañ</i>		<i>c</i>	1.3.7 चुटू (<i>cuṭū</i>)
<i>jas</i>		<i>j</i>	
<i>ñyuṭ</i>		<i>ñ</i>	
<i>khiṣṇuc</i>		<i>kh</i>	1.3.8 लशक्तद्धिते (<i>laśakvataddhite</i>)
<i>gsnu</i>		<i>g</i>	
<i>ghinuṇ</i>		<i>gh</i>	
<i>ñi</i>		<i>ñ</i>	

¹⁷⁰ For reference, see Abhyankar, A Dictionary of Sanskrit Grammar, 63-4.

Application of *itsamjñā*

The following examples elaborate on the application of this term.

Example 1: वन्दनीय (*vandanīya*)

In this derivation, the root is given as वदिँ (अभिवादनस्तुत्योः, भ्वादिः) (*vadim* (*abhivādanastutyoh*, *bhvādiḥ*) in the *dhātupāṭha*. *im* is the *itsamjñā* here which is deleted resulting in *vad*. Rule 7.1.58 इदितो नुम् धातोः (*idito num dhātoḥ*) augments *n* to roots that are *idit* as is the case with *vad*. The complete derivation is as follows:

वदिँ	
वद्	
व नुम् द्	7.1.58 इदितो नुम् धातोः
व न् द्	
व न् द् + अनीयर्	3.1.96 तव्यत्तव्यानीयरः
वन्दनीय	
<i>vadim</i>	
<i>vad</i>	
<i>va num d</i>	7.1.58 <i>idito num dhātoḥ</i>
<i>va n d</i>	
<i>va n d + anīyar</i>	3.1.96 <i>tavyattavyānīyaraḥ</i>
<i>vandanīya</i>	

Example 2: दाशरथि (*dāśarathi*)

It is derived by adding the *taddhita pratyaya iñ* to the base *daśaratha* by applying 4.1.95 अत इञ् (*ata iñ*). The base is now assigned the designation *prātipadikasamjñā* by 1.2.46 कृत्तद्धितसमासाश्च (*kṛttaddhitasamāsāśca*). On account of this designation, 2.4.71 सुपो धातुप्रातिपदिकयोः is applied by which the possessive case of *daśaratha* is elided. Now, *vṛddhi* is undertaken by 7.2.117 तद्धितेष्वचामादेः (*taddhiteṣvacāmādeḥ*) when followed by a *ñit pratyaya* resulting in the form *dāśarathi*. The *prakriyā* is as follows:

दशरथस्य अपत्यम् दाशरथि	
दशरथ + इञ्	4.1.95 अत इञ्
दशरथ + इञ्	1.2.46 कृत्तद्धितसमासाश्च (प्रातिपदिकसंज्ञा)
दशरथ + इञ्	2.4.71 सुपो धातुप्रातिपदिकयोः
दाशरथ + इ	7.2.117 तद्धितेष्वचामादेः
दाशरथ् + इ	6.4.148 यस्येति च
दाशरथि	
<i>daśarathasya apatyam dāśarathi</i>	
<i>daśaratha + iñ</i>	4.1.95 <i>ata iñ</i>
<i>daśaratha + iñ</i>	1.2.46 <i>kṛttaddhitasamāsāśca (prātipadikasamjñā)</i>
<i>daśaratha + iñ</i>	2.4.71 <i>supo dhātuprātipadikayoḥ</i>

<i>dāśaratha + i</i>	7.2.117 <i>taddhiteṣyvacāmādeḥ</i>
<i>dāśarath + i</i>	6.4.148 <i>yasyeti ca</i>
<i>dāśarathi</i>	

It can be observed that the inheritance principle works at the phonemic (*varṇa*) level in case of *itsaṃjñā*.

Pratyayalakṣaṇam

1.1.62 प्रत्ययलोपे प्रत्ययलक्षणम् (*pratyayalope pratyayalakṣaṇam*) states that even though the *pratyaya* has been elided, the operations that are enjoined for that *pratyaya* are still carried out as if it still exists. KK lists out examples such as *agnicit*, *somasut* in which the base retains the *padasaṃjñā* even if *sup pratyaya* has been elided. In case of the example *adhok*, the base retains the *padasaṃjñā* by which *tripādī* rules are applied. KK also alludes to the fact that the whole *pratyaya* has to be elided as against partial elision. This inheritance of properties applies only in such a case of complete elision.

As can be observed, there is inheritance in case of affixes at the morphemic level. These affixes are termed as bound morphemes or inflectional morphemes.

Sthānivadbhāva

Sthānivadbhāva is a technique by which properties of the original (*sthānin*) are transferred to the substitute (*ādeśa*) as given by 1.1.56 स्थानिवदादेशोऽनल्विधौ (*sthānivadādeśo 'nalvidhau*). KK states eight cases of examples in which this inheritance is applicable. धात्वङ्गकृत्तद्धिताव्ययसुप्तिङ्पदादेशाः। (*dhātvaṅgakṛttaddhitāvyayasuptiṅpadādeśāḥ*).

- An *ādeśa* for a root is like the root itself as in the example of *bhavanīya*. The root *as* is substituted by the *ādeśa bhū* (2.4.52 अस्तेर्भूः (*asterbhūḥ*)) by which the designation of root is still retained by *bhū*.
- *kābhyām* is an example for the case of *aṅga* in which the *ka-ādeśa* for *kim* (7.2.103 किमः कः (*kimaḥ kaḥ*)) retains the *aṅga* designation.
- The *kṛt* example is *prakṛtya* in which *lyap* is the substitute of the *krit ktvā* by which *tugāgama* takes place. In the example of *dādhikam*, *prātipadika* designation is given to the base when *ik* substitutes *pratyaya ṭha* (*dadhi + ṭhak*

4.2.18 दध्नाशक (dadhnaṣṭhak). The substitute *ik* is considered a *taddhita* *pratyaya* thereby resulting in the *prātipadika* designation to the base.

- A substitute for an *avyaya* is also treated like an *avyaya* as in the case of *prastutya*. In this example, *lyap* substitutes *ktvā*. 1.1.40 क्त्वातोसुन्कसुनः (*ktvātosunkasunaḥ*) declares words ending in *ktvā*, *tosun* and *kasun* *pratyayas* as *avyayas*. This facilitates the application of 2.4.82 अव्ययादाप्सुपः (*avyayādāpsupaḥ*) that elides *sup* resulting in the desired form.
- *vr̥kṣāya* is an example for the *sup* case. In this case, *ya* is the substitute for the *sup* *pratyaya* *ne*. Since *ya* is considered equivalent to the *sup* *pratyaya*, lengthening takes place by 7.3.102 सुपि च (*supi ca*).
- The *tiñ* example is *akurutām*. *tām* replaces *tas* by 3.4.101 तस्थस्थमिपां तांतंतामः (*tasthasthamipāṃ tāmtaṃtāmāḥ*), thereby still retaining the *pada* designation (1.4.14 सुप्तिङन्तं पदम् (*suptiṇantaṃ padam*)).
- *vaḥ* and *naḥ* are examples for *pada*. *Vas* and *nas* are substitutes for *yusmān* and *asmān*. Retaining the *pada* status, the final *s* of *vas* and *nas* undergoes *rutva* (8.2.66 ससजुषो रँ (*sasajuṣo rum*)) and then *visarga* (8.3.15 खरवसानयोर्विसर्जनीयः (*kharavasānayorvisarjanīyaḥ*)).

In the case of *sthānivadbhāva*, the morphemes can be considered as free morphemes. Thus, the substitutions in the case of *sthānivadbhāva* is at the morphemic level.

Asiddhatva

The principle of *asiddhatva* has been discussed in detail earlier.

Thus, it can be observed that *Pāṇini* has applied this principle at different levels of word formation in the *Aṣṭādhyāyī* with small modifications. The principle of *asiddhatva*, in a broader perspective, can be considered to be working on the principle of inheritance. Summarizing,

- At the *varṇa* level, *Pāṇini* has created the *itsaṃjñā*. The *anubandhas* or *its* are tags that get deleted but still exist for application of rules.

- At the *pratyaya* level, *pratyayalakṣaṇa* comes into play even when the *pratyaya* is elided. Conditions are imposed for certain types of elisions of *pratyayas*.
- At the *ādeśa* level, *sthānivadbhāva* takes over this principle of inheritance. In this case, the properties are transferred to the substitute.
- At the *sūtra* or *vidhi* level, the property of *asiddhatva* applies. The result of the operation undertaken by a *tripādī* is considered ‘suspended’ for any other *sapādasaptādhyāyī* rule.

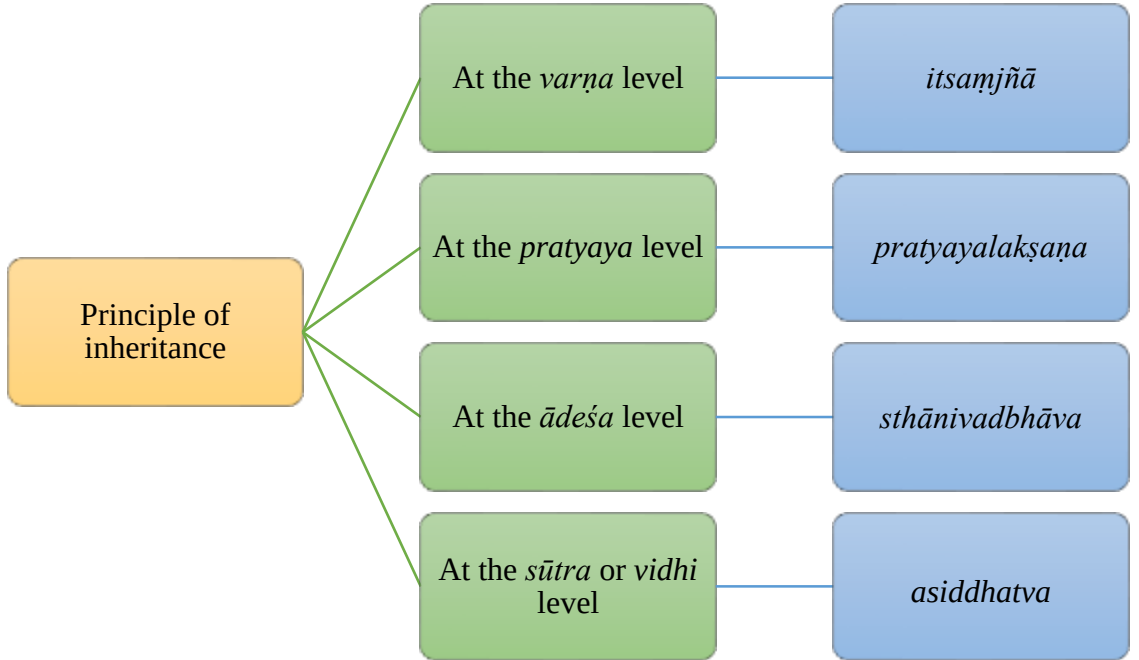


Figure 3.1: Principle of inheritance at various levels of word formation

This thought process of *Pāṇini* can be considered as a technique in the application of rules and extending this, as a technique in the working of the entire *Aṣṭādhyāyī*.

3.2 Critical study of selected *prakaraṇas* of *tripādī*

Selected *prakaraṇas* of the *tripādī* are analysed for this dissertation. This discussion is carried out in the linear ordering of the *Aṣṭādhyāyī* rules.

8.2.2 नलोपः सुप्स्वरसंज्ञातुग्विधिषु कृति (*nalopah supsvarasamjñātugvidhiṣu kṛti*)

KK stresses the importance of the term *kṛti* in this rule. The *nakāralopa* is *asiddha* only when there is *tugāgama* due to 6.1.71 ह्रस्वस्य पिति कृति तुक् (*hrasvasya piti kṛti tuk*) and not due to any other *tugāgama*. The *tugāgama* achieved due to any other rule is *siddha* as seen in the example of *vṛtrahacchāyā*. In this example, the *tugāgama* is due to 6.1.73 छे च (*che ca*). Therefore, *nakāralopa* is *siddha*.

8.2.23 संयोगान्तस्य लोपः (*samyogāntasya lopah*)

The discussion in NY is about the necessity of 6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पृक्तं हल् (*halṅyābbhyo dīrghāt sutisypṛktaṁ hal*) even though 8.2.23 संयोगान्तस्य लोपः (*samyogāntasya lopah*) could have worked. The example *abhino'tra* exemplifies the necessity of 6.1.68. The derivation is as follows:

भिदिर् विदारणे भिद् + लङ् अट् + भिद् + लङ् अ + भिद् + सि अ + भि श्रम् द् + स् अ + भि न द् + स् अ + भि न द् + ०	6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पृक्तं हल्
<i>bhidimr vidāraṇe</i> <i>bhid + laṅ</i> <i>aṭ + bhid + laṅ</i> <i>a + bhid + si</i> <i>a + bhi śnam d + s</i> <i>a + bhi na d + s</i> <i>a + bhi na d + 0</i>	6.1.68 <i>halṅyābbhyo dīrghāt sutisypṛktaṁ hal</i>
At this stage, the <i>d</i> of a root takes <i>rum</i> (8.2.75 दश्च (<i>daśca</i>)) or retains the <i>d</i> .	
अ + भि न र् + अत्र	8.2.75 दश्च
अ + भि न उ + अत्र	6.1.114 हशि च
अ + भिनो + अत्र	6.1.87 आद्गुणः
अभिनोऽत्र	6.1.109 एङः पदान्तादति

<i>a + bhi na rum + atra</i>	8.2.75 <i>daśca</i>
<i>a + bhi na u + atra</i>	6.1.114 <i>haśi ca</i>
<i>a + bhino + atra</i>	6.1.87 <i>ādguṇaḥ</i>
<i>abhino'tra</i>	6.1.109 <i>eṇaḥ padāntādati</i>

In this case, *sakāra* was dropped by 6.1.68. This could have been achieved even by applying 8.2.23 संयोगान्तस्य लोपः (*saṃyogāntasya lopaḥ*). If that was the case, 8.2.23 would have been suspended for *utva*. 6.1.113 अतो रोरप्लुतादप्लुते (*atororaplutādaplute*) would have perceived only *sakāra* by which the desired form would not have been derived.

Another example that establishes the necessity of 6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पृक्तं हल् (*halṅyābbhyo dīrghāt sutispyakṭaṃ hal*) is *rājā*. At the stage of *rājān* s, after applying 8.2.23 संयोगान्तस्य लोपः (*saṃyogāntasya lopaḥ*), the undesired form *rājān* would have derived as *saṃyogānta lopa* is *asiddha* to *nalopa* due to which *nalopa* does not take place. Therefore, 6.1.68 is required. There is a *kārikā* given in KK under 6.1.68 stating this:

संयोगान्तस्य लोपे हि नलोपादिर्न सिद्ध्यति ।
रातु ते नैव लोपः स्याद् हलस्तस्माद्विधीयते ।¹⁷¹

saṃyogāntasya lope hi nalopādirna siddhyati |
rāttu te naiva lopaḥ syād halastasmādvīdhīyate |

nalopa etc. are *asiddha* to *saṃyogānta lopa*.

When *repha* is followed by *ta*, then that *ta* does not get elided.

Thus, elision of *hal* is prescribed.

8.2.25 धि च (*dhi ca*)

This rule prescribes deletion of *sakāra* when followed by a *pratyaya* that begins with *dh*. There is a *vārttika* धिसकारे सिचो लोपो वक्तव्यः॥ (*dhisakāre sico lopo vaktavyaḥ*||) under this rule. The debate is about considering *sakāralopa* only for the *pratyaya sic*. This discussion is summarized in the *kārikā* given below:

धि सकारे सिचो लोपश्चकाङ्क्षीति प्रयोजनम् ।
आशाध्वं तु कथं जश्त्वं सकारस्य भविष्यति ॥
सर्वमेवं प्रसिद्धं स्याच्छ्रुतिश्चापि न विद्यते ।

¹⁷¹ Refer to Ishwar Chandra Pandit: *Kāśikāvṛtti*: Part 2, 457.

लुङश्चापि न मूर्द्धन्ये ग्रहणं सेटि दुष्यति ॥
घसिभसोर्न सिध्येत तस्मात्सिज्ग्रहणं न तत् ।
छान्दसो वर्णलोपो वा यथेष्कर्त्तरिमध्वरे ॥¹⁷²

dhi sakāre sico lopaścakāddhīti prayojanam |
āśādhvam tu katham jaśtvam sakārasya bhaviṣyati ||
sarvamevaṃ prasiddhaṃ syācchrutiścāpi na vidyate |
luṇāścāpi na mūrddhanye grahaṇam seṭi duṣyati ||
ghasibhasorna sidhyeta tasmātsijgrahaṇam na tat |
chāndaso varṇalopo vā yatheṣkarttāramadhvare ||

This rule is confined to the elision of the सिच् only, for the sake of preserving the स् in चकाद्धि. How then do you form आशाध्वं by the elision of स्? The स् is not elided but changed to a जश् letter. If this be so, then let जश् come every where, for there is no difference in sound, moreover this will shorten 8.3.78 by omitting the word लुङ् from it. The जश् cannot come every where, as the difficulty will be in सेट् Aorist. The forms सग्धिः and बब्ध्या could not be formed from घस् and भस् if the elision of स् were confined to सिच्. Hence सिच् should not be read into this *sūtra*.¹⁷³

If *sakāralopa* is considered applicable exclusively for the *pratyaya sic*, certain words cannot be derived. Observing the examples, it is evident that this type of elision is predominantly for *luṇ* in which there is *sakāralopa* for *sic*. But, it is not restricted only to this as in the case of *vyatidhve*.

In the example of *vyatidhve*, at the stage of *vyati as dhve*, 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*) is applied giving *vyati s dhve*. At this stage, 8.2.25 धि च (*dhi ca*) is applied which is not applicable to *sic* but applicable to *as* resulting in *vyatidhve*.

Moreover, forms such as *āśādhvam* cannot be derived. An additional problem with non-deletion of *s* will cause *dvitva* of *s* by 8.4.47 अनचि च (*anaci ca*) and undesired forms will be obtained.

Vedic words such as *sagdhiḥ* and *babdhām* cannot be derived. Another discussion regarding *sagdhiḥ* is about the root from which it is derived. *Patañjali* states that it is derived from *sadh* and not *ad*.¹⁷⁴ The conclusion is that *sakāralopa* mentioned in 8.2.25 is not restricted only to *sic*. Examples of 8.2.24 रात्सस्य (*rātsasya*) also point to the fact that *sakāralopa* is not only for *sic* but for other prefixes/suffixes also.

¹⁷² For reference, see Ishwar Chandra Pandit: *Kāśikāvṛtti*: Part 3, 359.

¹⁷³ The translation of this *kārikā* is taken from S.C. Vasu's English translation of the *Aṣṭādhyāyī*. – For reference, see Vasu, *The Aṣṭādhyāyī of Pāṇini*, Book VIII Parts XXIX - XXXII, 1555-6.

¹⁷⁴ इह तावत्सगधिरिति नैतद्धसे रूपम् ॥ किं तर्हि? सधेरतद्रूपम् ॥ (*iha tāvatsagdhiriti naitaddhase rūpam || kiṃ tarhi? || sadheretadrūpam ||*) – MB under 8.2.25. For reference, see Abhyankar, *Vyākaraṇamahābhāṣyam*, Part 6 Chapters VII and VIII, 351.

8.2.30 चोः कुः (*coh kuh*)

7.3.52 चजोः कु घिण्यतोः (*cajoh ku ghiṇṇyatoḥ*) also suggests *kutva*. This *kutva* is only for *cakāra* and *jakāra*-ending roots when followed by *ghiti* and *ṇyati pratyayas*. This rule comes under the *adhikāra* of *aṅga* and it cannot come under the *adhikāra* of *pada*. Therefore, 7.3.52 was not placed in *tripādī*. Moreover, other *sapādasaptādhyāyī* rules need to be undertaken for the derivation of words by which this rule cannot be made *asiddha*.

8.2.31 हो ढः (*ho dhah*)

SK, under 1.1.69 अणुदित् सवर्णस्य चाप्रत्ययः (*aṇudit savarṇasya cāpratyayaḥ*), discusses the homogeneity between *ā* and *h*. Quoting 1.1.10 नाज्झलौ (*nājjhalau*), this rule is split as *na ā ac halau*. There is no homogeneity between a *hal* letter, *ā* and *ac* letters. In the example of *viśvapābhiḥ*, *ā* and *h* are not considered *sāvarṇya*. At the stage of *viśvapābhis*, if *ā* is replaced by *h*, then, that *h* will undergo *ḍhatva* by 8.2.31 resulting in the undesired form.

It is to be noted that *h* is substituted by *ḍh* as per 8.2.31. Sometimes, this *ḍh* either undergoes *jaśtva* prescribed by 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*) or gets converted to *k* prescribed by 8.2.41 षढोः कः सि (*ṣaḍhoḥ kaḥ si*).

8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*) and 8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*)

Both the rules, 8.2.39 and 8.4.53, prescribe *jaśtva*. The conversions of *jhal* letters into *jaś* letters are tabulated below. It can be observed that there are some letters that do not undergo *jaśtva* either because certain other rules precede these rules as in the case of *ś* and *h* or that a particular rule is considered as an exception to *jaśtva* as in the case of *s*.

<i>jhal</i> letter (<i>jhabhañ ghaḍhadhaṣ</i> <i>jabagaḍadaś khaphachaṭhathacaṭatav</i> <i>kapay śaśasar hal</i>)	<i>jaś</i> letter (<i>jabagaḍadaś</i>)
<i>k kh gh</i>	<i>g</i>
<i>c ch jh</i>	<i>j</i>
<i>ṭ ṭh ḍh</i>	<i>ḍ</i>
<i>t th dh</i>	<i>d</i>
<i>p ph bh</i>	<i>b</i>
<i>ś</i> should have been replaced by <i>j</i> according to <i>icuyaśānām tālu</i>	Instead, 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः

	(<i>vraścabhraśjaśrjamrjayajarājabhrā jacchaśām śaḥ</i>) is applied.
ṣ	ḍ due to <i>ṛtulasānām mūrdhā</i>
s should have undergone d by <i>ṛtulasānām dantāḥ</i>	Instead, 8.2.66 ससजुषो रूः (<i>sasajuṣo ruṃḥ</i>) is applied converting s to r.
h should have been g as per <i>akuhavisarjanīyānām kaṇṭhaḥ</i>	Instead, 8.2.31 हो ढः (<i>ho ḍhaḥ</i>) is applied.

Table 3.1: *jaśtva*

8.2.42 रदाभ्यां निष्ठातो नः पूर्वस्य च दः (*radābhyām niṣṭhāto naḥ pūrvasya ca dah*)

The substitution of *t* with *n* is undertaken in this *prakaraṇa*. The letters *t* and *n* share the same place of articulation (*ṛtulasānām dantāḥ*). The letter *d* also gets replaced by *n*. *t*, *d* and *n* belong to the same place of articulation i.e. all are dentals. From a phonological point of view, such a replacement is justified.

8.2.43 संयोगादेरातो धातोर्यण्वतः (*saṃyogāderāto dhātoryaṇvataḥ*)

A root that has a *saṃyoga* at the beginning, ends in a *ākāra* and contains *yaṇ* when followed by *niṣṭhā takāra*, that *niṣṭhā takāra* is replaced by *nakāra*. A survey of all the roots that have a *saṃyoga* at the beginning, are *ākārānta* and contain *yaṇ* i.e. *y v r l* are as follows: (*Mādhavīyā dhātuvṛttiḥ* (MDV) was used to find these roots).¹⁷⁵

- There are 34 roots that are *ākārānta* but those with *saṃyoga* at the beginning are: श्री, घ्रा, ध्मा, स्था, म्ना, स्ना, द्रा, प्सा, ख्या, प्रा, ज्या (*śrā, ghrā, dhmā, sthā, mnā, snā, drā, psā, khyā, prā* and *jyā*). Amongst these, those that are *yaṇvat* are श्री, घ्रा, द्रा, ख्या, प्रा, ज्या (*śrā, ghrā, drā, khyā, prā, jyā*).
- Another search was done for roots that have *antyavarṇa* as *aikārānta*. This is because these *aikārānta* roots undergo *ākārānta* by 6.1.45 आदेच उपदेशेऽशिति (*ādeca upadeśe'siti*). Amongst these, those with *saṃyoga* at the beginning are ग्लै, म्लै, द्यै, द्रै, ध्यै, स्तयै, श्रै, स्तै, स्रै, श्यै, प्यै, त्रै and स्रै (*glai, mlai, dyai, drai, dhrai, dhyai, styai, śrai, stai, snai, śyai, pyai, trai* and *srai*). In these roots, those *yaṇvat* are ग्लै, म्लै, द्यै, द्रै, ध्यै, स्तयै, श्रै, श्यै, प्यै, त्रै and स्रै (*glai, mlai, dyai, drai, dhrai, dhyai, styai, śrai, śyai, pyai, trai* and *srai*).

¹⁷⁵ For reference, Swami Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttiḥ by Sāyaṇācārya* (Varanasi: Prācyā Bhāratī Prakāśan, 1964).

- Thus, roots that have a *saṃyoga* at the beginning, are *ākārānta* and contain *yaṇ* are: श्रा, घ्रा, द्रा, ख्या, प्रा, ज्या, ग्लै, म्लै, द्यै, द्रै, ध्यै, स्त्यै, श्रै, श्यै, छै, त्रै and स्रै (*śrā, ghrā, drā, khyā, prā, jyā, glai, mlai, dyai, drai, dhrai, dhyai, styai, śrai, śyai, pyai, trai* and *srai*).

The *niṣṭhānatva* forms of these roots are tabulated below:

Root	<i>niṣṭhānatva</i>	Rule applicable
<i>śrā</i> <i>śrai</i>	<i>śṛtaṃ</i> <i>śrāṇā</i>	6.1.27 शृतं पाके (<i>śṛtaṃ pāke</i>) - <i>nipātanāt</i> <i>kṣīrahaviṣoranyatra śrāṇā yavāgūḥ</i>
<i>ghrā</i>	<i>ghrāṇaḥ</i> <i>ghrātaḥ</i>	8.2.56 नुदविदोन्द्राघ्राहीभ्योऽन्यतरस्याम् (<i>nudavidondatrāghrāhrībhyo 'nyatarasyām</i>)
<i>mdrā/</i> <i>drai</i>	<i>drāṇaḥ</i>	8.2.43 संयोगादेरातो धातोर्यण्वतः (<i>saṃyogāderāto dhātoryaṇvataḥ</i>)
<i>khyā</i>	<i>khyātam</i>	8.2.57 न ध्या- ख्या- पृ- मूर्च्छिमदाम् (<i>na dhyā- khyā- pṛ- murchimadām</i>)
<i>prā</i>	<i>prāṇaḥ</i>	8.2.43 संयोगादेरातो धातोर्यण्वतः (<i>saṃyogāderāto dhātoryaṇvataḥ</i>)
<i>jyā</i>	<i>jīnam</i>	8.2.44 ल्वादिभ्यः (<i>lvādibhyaḥ</i>)
<i>glai</i>	<i>glānaḥ</i>	8.2.43 संयोगादेरातो धातोर्यण्वतः (<i>saṃyogāderāto dhātoryaṇvataḥ</i>)
<i>mlai</i>	<i>mlānaḥ</i>	
<i>dyai</i>	<i>dyānam</i>	
<i>dhrai</i>	<i>dhrāṇaḥ</i> <i>dhrātaḥ</i>	8.2.43 संयोगादेरातो धातोर्यण्वतः (<i>saṃyogāderāto dhātoryaṇvataḥ</i>) <i>dhrātaḥ iti kṣīrataraṅgiṇī</i>
<i>dhyai</i>	<i>dhyātam</i>	8.2.57 न ध्या- ख्या- पृ- मूर्च्छिमदाम् (<i>na dhyā- khyā- pṛ- murchimadām</i>)
<i>styai</i>	<i>styānaḥ</i>	8.2.43 संयोगादेरातो धातोर्यण्वतः (<i>saṃyogāderāto dhātoryaṇvataḥ</i>)
	<i>prastītaḥ/</i> <i>prastīmaḥ</i>	8.2.54 प्रस्त्योऽन्यतरस्याम् (<i>prastyo 'nyatarasyām</i>) prescribes optional substitution of <i>m</i> for <i>niṣṭhātakāra</i> when the root <i>stayai</i> has undergone <i>samprasāraṇa</i> and has the <i>upasarga pra</i> . The derivation is as follows:
		ष्ट्यै स्त्यै स्त्या प्र + स्त्या + क्त प्र + स्त् इ आ + त प्र + स्त् इ + त प्र + स्त् ई + त प्रस्तीत or प्रस्तीमः 6.1.45 आदेच उपदेशेऽशिति 6.1.23 स्त्यः प्रपूर्वस्य 6.1.108 सम्प्रसारणाच्च 6.4.2 हलः 8.2.54 प्रस्त्योऽन्यतरस्याम्
		<i>ṣtyai</i> <i>styai</i> <i>styā</i> 6.1.45 ādeca upadeśe 'siti

		<i>pra + styā + kta</i> <i>pra + st i ā + ta</i> 6.1.23 <i>styah prapūrvasya</i> <i>pra + st i + ta</i> 6.1.108 <i>samprasāraṇācca</i> <i>pra + st ī + ta</i> 6.4.2 <i>halaḥ</i> <i>prastīta</i> or <i>prastīmaḥ</i> 8.2.54 <i>prastyo 'nyatarasyām</i>
		It should be noted that once <i>samprasāraṇa</i> has been undertaken, the root is no longer <i>ākārānta</i> and therefore, 8.2.43 is not applicable.
<i>śyai</i>	<i>śīto vāyuh / śītam ghṛtam</i>	8.2.47 श्योऽस्पर्श (śyo 'sparśe)
<i>pyai</i>	<i>pīnaḥ</i>	8.2.45 ओदितश्च (oditaśca)
<i>trai</i>	<i>trāṇaḥ / trātaḥ</i>	8.2.56 नुदविदोन्द्राघ्राहीभ्योऽन्यतरस्याम् (nudavidondatrāghrāhrībhyo 'nyatarasyām)
<i>srai</i>	<i>srāṇaḥ</i>	8.2.43 संयोगादेरातो धातोर्यण्वतः (saṃyogāderāto dhātoryaṇvataḥ)

Table 3.2: *niṣṭhānatva* forms

8.2.62 क्तिन्प्रत्ययस्य कुः (kvinpratyayasya kuh)

This section is about the *pratyaya kvin*. *Kvinpratyaya* is a *sarvāpahārī pratyaya* according to the rules of *Aṣṭādhyāyī*. In this case, the entire *pratyaya* gets deleted. This *pratyaya* is used only in a *samāsa* as can be seen in the following rules. The rules dealing with *kvinpratyaya* in *Aṣṭādhyāyī* are:

3.2.58 स्पृशोऽनुदके क्तिन् (sprśo 'nudake kvin)

The affix *kvin* comes after the verb *sprś* 'to touch' when it is in composition with a case-inflected word other than *udaka* 'water'. Here, it is only about the root *sprś* when in a compound word.

3.2.59 ऋत्विग्दधृक्स्रग्दिगुष्णिगञ्चुयुजिकृञ्चां च (ṛtvig-dadhṛk-srag-dig-uṣṇig-añcu-yuji-kruñcāṃ ca)

The words, *ṛtvik*, *dadhṛk*, *srag*, *dik* and *uṣṇik*, are *nipātanas* derived using *kvin pratyaya*. *Añc* takes *kvin pratyaya* in presence of an *upapada*, whereas the verbs *yuj* and *kruñc* get the *kvin pratyaya* in absence of an *upapada*.

3.2.60 त्यदादिषु दृशोऽनालोचने कञ् च (*tyadādiṣu dṛśo 'nālocane kañ ca*)

For pronouns such as *tyadādi* when they are *upapadas*, then, the root *dṛś* takes both affixes, *kañ* and *kvin*, when this root does not mean perception. *tad + dṛś + kvin = tādṛś*

An example, *ghṛtaspr̥gbhyām*, is derived as follows:

घृतस्पृश् + किन्	3.2.58 स्पृशोऽनुदके किन्
घृतस्पृश् + भ्याम्	पदसंज्ञा
घृतस्पृष् + भ्याम्	8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः
घृतस्पृङ् + भ्याम्	8.2.39 झलां जशोऽन्ते
घृतस्पृग्भ्याम्	8.2.62 किन्प्रत्ययस्य कुः
<i>ghṛtaspr̥ś + kvin</i>	3.2.58 <i>spr̥śo 'nudake kvin</i>
<i>ghṛtaspr̥ś + bhyām</i>	<i>padasamjñā</i>
<i>ghṛtaspr̥ṣ + bhyām</i>	8.2.36 <i>vraścabhbrasjasr̥jamrjayajarāja-bhrājacchaśāṃ ṣaḥ</i>
<i>ghṛtaspr̥ḍ + bhyām</i>	8.2.39 <i>jhalām jaśo 'nte</i>
<i>ghṛtaspr̥gbhyām</i>	8.2.62 <i>kvinpratyayasya kuḥ</i>

This derivational process is called **षडगकाः** (*ṣaḍagakāḥ*) in SK, PraudaM, and BM etc.

The conversion of *ḍ* to *g* can be justified on the basis of external effort of articulation as shown below:

आभ्यन्तरप्रयत्न क, ख, ग, घ, ङ - स्पृष्टः ट, ठ, ड, ढ, ण - स्पृष्टः	
<i>Ābhyantaraprayatna</i> <i>k, kh, g, gh, ṅ - spr̥ṣṭa</i> <i>ṭ, ṭh, ḍ, ḍh, ṇ - spr̥ṣṭa</i>	

NY gives another derivation which is not convincing:

घृतस्पृश् + किन्	3.2.58 स्पृशोऽनुदके किन्	<i>ghṛtaspr̥ś + kvin</i>	3.2.58 <i>spr̥śo 'nudake kvin</i>

At this stage, 8.2.62 is applied. The *śakāra* is replaced by *khakāra*. The rationale behind this is as follows: In case of *ābhyantara prayatna*, *vivāra*, *śvāsa* and *aghoṣa* letters are *khar* (ख, फ, छ, ठ थ च, ट, त् क प श ष स) (*kh, ph, ch, ṭh th c, ṭ, t k p ś ṣ s*).

घृतस्पृख	8.2.62 किन्प्रत्ययस्य कुः	<i>ghṛtaspr̥kh</i>	8.2.62 <i>kvinpratyayasya kuḥ</i>
घृतस्पृग्	8.2.39 झलां जशोऽन्ते	<i>ghṛtaspr̥g</i>	8.2.39 <i>jhalām jaśo 'nte</i>
घृतस्पृक्	8.4.56 वाऽवसाने	<i>ghṛtaspr̥k</i>	8.4.56 <i>vā 'vasāne</i>

This derivation is not convincing because it goes against the basic principle of *asiddhatva* as 8.2.39 is undertaken **after** 8.2.62.

KK states that *kutva* is undertaken even with other roots. The roots, *srj* and *ḍṛś*, take *kvin* to form *srak* and *ḍṛk* in *Vedic* literature. The forms used in *Vedic* literature are *asrāk* and *adrāk*.

मा नो अस्माक्। मा नो अद्राक्। (*mā no asrāk | mā no adrāk |*)¹⁷⁶

The derivation of *asrāk*¹⁷⁷ is as follows:

सृज् लुङ्	
अट् सृज् च्लि	
अ सृज् सिच्	
अ सृ (अम्) ज् तिप्	6.1.58 सृजिदृशोर्झल्यमकिति
अ स्रज्+ ति	6.1.77 इको यणचि
अस्राज् ति	7.2.3 वदव्रजहलन्तस्याचः
अस्राज्	6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पृक्तं हल्
अस्राग्	8.2.62 किन्प्रत्ययस्य कुः
अस्माक्	8.4.56 वाऽवसाने
<i>srj luṅ</i>	
<i>aṭ srj cli</i>	
<i>a srj sic</i>	
<i>a sṛ (am) j tip</i>	6.1.58 <i>sṛjīdṛśorjhalīyamakiti</i>
<i>a sraja+ ti</i>	6.1.77 <i>iko yaṇaci</i>
<i>asrāj ti</i>	7.2.3 <i>vadavrajahalantasyācaḥ</i>
<i>asrāj</i>	6.1.68 <i>halṅyābbhyo dīrghāt sutisyapṛktaṃ hal</i>
<i>asrāg</i>	8.2.62 <i>kvinpratyayasya kuḥ</i>
<i>asrāk</i>	8.4.56 <i>vā'vasāne</i>

Similarly, *ḍṛgbhyām* and *ḍṛgbhiḥ* can also be derived. The root *ḍṛś* takes both affixes, *kvip* and *kvin*. The discussion is continued in PM about the derivation of *rajjusṛḍbhyām*. This is derived from the root *srj* with *kvip*. PM, under 6.1.58 सृजिदृशोर्झल्यमकिति (*sṛjīdṛśorjhalīyamakiti*), states that परिभाषा धातोः स्वरूपग्रहणे तत्प्रत्ययविज्ञानं (*paribhāṣā dhātoḥ svarūpagrahaṇe tatpratyayavijñānam*) is applicable in this case. This means that if an affix which is associated with a root is given in its original form, the operation specified for the original form needs to be considered. This affix cannot be associated with a *prātipadika*. In case of *rajjusṛḍbhyām*,

¹⁷⁶ I was unable to find the *Vedic* references for these phrases in *Vedic concordance*. – For reference, see Maurice Bloomfield, *Vedic concordance* (Cambridge, Massachusetts: Harvard University, 1906). However, अस्माक् was referred to in *Rgveda* 4.53.4 – For reference, see Max Müller, ed., *Rig-Veda-Samhita*: Volume II, Mandalas II- VI, 481.

¹⁷⁷ This derivation is also given in Chapter 2 in the section on ordering of rules. It has been repeated for clarity.

devadṛgbhyām, *am āgama* does not take place because of 6.1.58 as it is a *nāmadhātu*. As it is derived from *kvip* and not *kvin*, 8.2.62 is not applicable.

It is to be noted that there is another *kvinpratyaya* given in *uṇādi sūtras*. In this case, *vi* is retained by which it is not a *sarvāpahārī pratyaya*. The rules are:

SK 497 जृशृस्तुजागृभ्यः क्तिन्
जीर्विः पर्शुः । शीर्विर्हिस्रः । स्तीर्विरध्वर्युः । जागृविर्नृपः ।

SK 497 *jṛśṛstṛjāgrbhyah kvin*
jīrvih parśuḥ | śīrvirhimsraḥ | stīrviradhvaryuḥ | jāgrvirnṛpaḥ |

SK 498 दिवो द्वे दीर्घश्चाभ्यासस्य क्तिन्
दीदिविः स्वर्गमोक्षयोः ।

SK 498 *divo dve dīrghaścābhyāsasya kvin*
dīdivih svargamokṣayoḥ |

SK 499 कृविघृष्विच्छविस्थविकिकीदिवि क्तिन्
कृविस्तन्तुवायद्रव्यम् । घृष्विर्वराहः । छास्थोर्हस्वत्वं च । छविर्दीप्तिः । स्थविस्तन्तुवायः । दीव्यतेः
किकीपूर्वात् किकीदिविश्चाषः । बाहुलकाद्ध्रस्वदीर्घयोर्विनिमयः । चाषेण किकीदीविना ।

SK 499 *kṛvighṛṣvichavisthavikikīdivi kvin*
kṛvistantuvāyadravyam | ghṛṣvirvarāhaḥ | chāsthorhrasvatvaṁ ca |
chavirdīptiḥ | sthavistantuvāyaḥ | dīvyateḥ kikīpūrvāt kikīdiviścāṣaḥ |
bāhulakāddhrasvadīrghayorvinimayaḥ | cāṣeṇa kikīdīvinā |

The examples are *jīrvih parśuḥ | dīdivih* etc.

It is noteworthy that the ordering in SK is 8.2.62 क्तिन्प्रत्ययस्य कुः (*kvinpratyayasya kuḥ*) (SK 377) which is followed by 8.2.30 चोः कुः (*coḥ kuḥ*) (SK 378).

8.2.64 मो नो धातोः (*mo no dhātoḥ*)

The example, *praśān*, is discussed in all the *Sanskrit* commentaries under this rule.

The derivation is as follows:

प्र+शम् + क्तिप्	
प्रशाम्	6.4.15 अनुनासिकस्य क्तिञ्जलोः क्तिञ्ति
प्रशाम् + सुँ	6.1.68 हल्ङ्याभ्यो दीर्घात् सुतिस्पर्कं हल्
प्रशान्	8.2.64 मो नो धातोः
<i>pra+śam + kvip</i>	
<i>praśām</i>	6.4.15 <i>anunāsikasya kvijhaloḥ kñiti</i>

<i>praśām + sum</i>	6.1.68 <i>halñyābbhyo dīrghāt sutisyapṛktaṃ hal</i>
<i>praśān</i>	8.2.64 <i>mo no dhātoḥ</i>

The other examples that are discussed are *pratān* and *pradān*. They are formed in a similar manner: *pra + tam + kvip* gives *pratān* and *pra + dam + kvip* gives *pradān*. In these cases, these are nouns. However, they are also considered as *avyayas* as given in the *svarādi gaṇa* under 1.1.37 स्वरादिनिपातमव्ययम् (*svarādinipātamavyayam*).

Another rule of the *tripādī* also refers to *praśān* which is 8.3.7 नश्छव्यप्रशान् (*naśchavyapraśān*). The rationale behind singling out this particular word, namely, *praśān*, is investigated. This did not give satisfactory results. A survey of the words *praśān*, *pratān* and *pradān* in the Deccan College Scriptorium¹⁷⁸ gave the following outputs:

1. *Pradān* is a word that has not been recorded in the Scriptorium.
2. *Praśān* is mentioned as both a noun and an indeclinable in the slips found in the Scriptorium. The references of this word in the *saṃhitās*, *brāhmaṇās* and *āraṇyakas*¹⁷⁹ are in *Śatapathabrāhmaṇa* 3.1.3.10 and *Kāṇvīya Śatapatha Brāhmaṇa* 4.1.3.9.
3. *Pratān* is given as an indeclinable having the meaning ‘exhaustedly/ breathlessly’.

With this search in the Deccan College Scriptorium, it was not possible to provide justification for specifying this particular word, *praśān*, in 8.3.7 नश्छव्यप्रशान् (*naśchavyapraśān*) as it could not be associated with any particular significance.

8.2.66 ससजुषो रुः (*rutva (ruh)*)

*Laghupāṇinīyam*¹⁸⁰ justifies the purpose of the *anubandha u* in *ruh*.

रेफस्यास्य पुनरपि उत्त्वयत्वयोरादेशान्तरयोर्विधानार्थं उकारानुबन्धयोजनम्। उत्त्वयत्वे सकारादेशभूतस्य रेफस्यैव विवक्षिते; तथा च नैसिर्गिकरेफात् सकारादेशरेफस्य भेदप्रदर्शनाय पूर्वो र इति, उत्तरो रुः इति च व्यपदिश्यते।

¹⁷⁸ The Scriptorium, which houses ten million slips, is the heart of the Sanskrit Dictionary. The Dictionary is based on an entirely new reading of the original texts and a fresh extraction of the material from 1500 books covering the entire gamut of Sanskrit Literature.

¹⁷⁹ Searches were undertaken in the encyclopaedias published by VVRI, Hoshiarpur.

¹⁸⁰ Rajaraja Varma AR, *Laghupāṇinīyam*, 33.

*rephasyāśya punarapi utva-yatvayor-ādeśāntarayor-vidhānārthaṃ
ukārānubandhayojanam| utvayatve sakārādeśabhūtasya rephasyaiva
vivakṣite; tathā ca naisirgikarephāt sakārādeśarephasya bhedapradarśanāya
pūrvo ra iti uttaro ruḥ iti ca vyapadiśyate|*

The letter *r* alone remains of *ruḥ*. This *r* undergoes *utva* and *yatva* and is so indicated by *ruḥ*. Moreover, *utva* and *yatva* is only for *sakārādeśa repha*. To differentiate between *naisirgikarepha* and *sakārādeśarepha*, it is mentioned as *r* and *ruḥ* respectively.

The derivation of *pipaṭhīḥ* elegantly captures the principle of *asiddhatva* as well as the significance of the ordering of the rules within *tripādī*. At the stage of *pipaṭhis + kvip*, 8.3.39 इणः षः (*iṇaḥ ṣaḥ*) becomes applicable giving the form *pipaṭhiṣ*. At this stage, *pipaṭhiṣ + su*, 6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पृक्तं हल् (*halṅyābbhyo dīrghāt sutisyapṛktaṃ hal*) deletes *su* giving *pipaṭhiṣ*. 8.3.39 is *asiddha* to 8.2.66. Thus, it is still *pipaṭhis* for 8.2.66. Therefore, *ṣ* is considered as *s* which changes *pipaṭhiṣ* to *pipaṭhir*. Now, 8.2.76 वोरुपधाया दीर्घ इकः (*rvorupadhāyā dīrgha ikaḥ*) is applicable by which *pipaṭhīḥ* is obtained.

8.3.1 मतुवसो रु सम्बुद्धौ छन्दसि (*matuvaso ru sambuddhau chandasi*)

*Laghupāṇinīyam*¹⁸¹ differentiates three types of *repha* under this rule:

1. *ruḥ* (Masculine gender) as in 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*)
2. *ru* (neuter gender) as in 8.3.1 मतुवसो रु सम्बुद्धौ छन्दसि (*matuvaso ru sambuddhau chandasi*)
3. *ra* – the common one

Utva and *yatva* are applicable to both *ruḥ* and *ru*. *Pūrvasvara anunāsikatva* and *anusvāra* is only for *ru*. Therefore, it is termed as *ruṇaḥ*. *Mādhavīyā dhātuvṛttiḥ*¹⁸² also mentions the neuter *ru* as *ruṇaḥ*. *Ra* is the common *repha*.

¹⁸¹ Rajaraja Varma AR, *Laghupāṇinīyam*, 34.

¹⁸² Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttiḥ*, 338.

8.3.2 अत्रानुनासिकः पूर्वस्य तु वा (*atrānunāsikah pūrvasya tu vā*) / 8.3.23 मोऽनुस्वारः (*mo-
'nusvārah*)

A note on *anusvāra* and *anunāsika*

This section elaborates on the two nasals: *anusvāra* and *anunāsika*. A brief literature review is presented at first which is followed by the dissimilarities between these two nasals.

Literature review on *anusvāra*

L. S. Sharma¹⁸³ quotes different texts to describe *anusvāra*. The texts referred to in this article are *Varṇaratnapradīpikāśikṣā*, *Chandaśśāstra*, *Yājñavalkyaśikṣā*, *Pāṇinīyaśikṣā*, *Rkprātiśākhya*, *Tantrasāstra* amongst others.

To summarize:

- *Anusvāra* is an *ayogavāha* sound.
- It is of three types- *hrasva*, *dīrgha* and *guru*.
- Two *mātras* are required for its pronunciation.
- It has both the elements of a vowel and a consonant.
- An *anusvāra* needs more airflow when compared to an *anunāsika*.

Madhav Deshpande shows that “there were theorists who reduced the total number of primitive sounds to a much smaller number..”.¹⁸⁴ He quotes an ancient *śikṣā* text in *caturādhyāyībhāṣya*. His views on *anusvāra* are given below:

The nature of the sound represented by *m̐*, the *anusvāra*, is highly debated in the ancient texts. The general consensus is that it is an oral-nasal generic sound which changes to homorganic nasals in accordance with what follows. An unchanged or unchangeable *m̐* is found only before the spirants and *r*. [S]ince there was a feeling that an *anusvāra* could be prolonged in length in recitation, the same text says that an *anusvāra* may be considered to be either a vowel or a consonant.

¹⁸³ Ladukeshvar Shatapathi Sharma, “अनुस्वार विमर्शः,” *Proceedings of the fifth world Sanskrit conference* ed. R. N. Dandekar, P.D. Navathe (1981), 331-5.

¹⁸⁴ Madhav Deshpande, ed., *Śaunakīya caturādhyāyikā: A Prātiśākhya of the Śaunakīya Atharvaveda: with the commentaries, Caturādhyāyībhāṣya, Bhārgava Bhāskaravṛtti and Pañcasamdhī* (Cambridge, Massachusetts: Department of Sanskrit and Indian Studies, Harvard University, 1997), 40-3.

George Cardona outlines the development of nasals in early Indo-Aryan in particular, the *anunāsika* and *anusvāra*.¹⁸⁵ The rules relating to *anunāsika* and *anusvāra* as given in the *prātiśākhya* and the *śikṣā* texts and those in the *Aṣṭādhyāyī* are discussed and analysed. The outcome of this discussion is as follows:

The available evidence demonstrates that for the authors of *prātiśākhya*s and for *Pāṇini*, *anusvāra* was indeed a distinct linguistic entity. [A]s a replacement for other, basic sound units, *anusvāra* is as much a distinct sound unit as *ḥ*, *k* and *p*. [T]he *ayogavāha* sounds are not recited anywhere among the fourteen *sūtras* that make up *Pāṇini*'s sound catalog (*akṣarasamāmnāya*) but they are indeed heard (*śrūyante*).

On interpreting 8.4.57 वा पदान्तस्य (*vā padāntasya*), Kunjunni Raja points out that “there is no unanimity among scholars regarding the use of *anusvāra* and homorganic nasals (*parasavarṇa*) in Sanskrit.” Quoting 8.3.25 मो राजि समः कौ (*mo rāji samah kvau*), he discusses the two forms *samrāt* and *saṃrāt*. This rule “ordains *samrāt* and rejects *saṃrāt*.” KK states मकारस्य मकारवचनमनुस्वारनिवृत्त्यर्थम्। (*makārasya makāravacanamanusvāranivṛttyartham*) and *anusvāra* can be applied optionally here by 8.3.25 by assigning *pada* to *sam*.¹⁸⁶

In short, *anusvāra* is a different *varṇa*. Even though it has not been included in the *śivasūtras*, SK states that it is included in the *aṭ-pratyāhāra* as given under 8.4.2 अट्कुप्वाङ्नुम्व्यायेऽपि (*aṭkuvāṅnumvyavāye 'pi*). *Anusvāra*, *visarga*, *jihvāmūlīya* and *upadhmānīya* together make up the *ayogavāhā* sounds and all *ayogavāhā* sounds are included in the *aṭ-pratyāhāra*.

Anunāsika is just a speech sound, it is not a different *varṇa*. If a *varṇa* is pronounced with the help of the nose, then such a *varṇa* is known as *anunāsika* as per the rule 1.1.8 मुखनासिकावचनोऽनुनासिकः (*mukhanāsikāvacano 'nunāsikaḥ*). All *svaras* and *ya/va/la/* have types of *anunāsikas*. The *vargapañcamās* are always *anunāsikās* because the nose is used in their pronunciation. Thus, it can be stated that *aṃ* is one *varṇa* but *aṃ* has two different *varṇas* in it.

¹⁸⁵ George Cardona, “Developments of nasals in early Indo-Aryan: *anunāsika* and *anusvāra*,” *Tokyo University Linguistic Papers (TULIP)* 33 (2013) 3-81.

¹⁸⁶ Kunjunni Raja refers to 8.4.59 as 8.4.57 in his article “On the interpretation of *vā padāntasya* (8.4.57),” *Michigan papers on South and Southeast Asia* (1991), 289.

8.3.10 नृन् पे (nṛn pe)

This rule prescribes optional *rutva* for the *nakāra* of the word *nṛn* when it is followed by a *pakāra*. KK points out that this *rutva* is not optional but obligatory and does not specifically state that this is a *Vedic* rule. SK also does not include this rule in the *Vedic* section. G.B. Palsule discusses this rule in detail and shows evidence that this is a purely *Vedic* rule and that the *visarga* in this case gets replaced by *ṣ* in the *Maitrāyaṇī saṃhitā*. This replacement was not noticed by *Pāṇini*.¹⁸⁷

8.3.18 व्योर्लघुप्रयत्नतरः शाकटायनस्य (vyorlaghuprayatnataraḥ śākatāyanasya)

This rule prescribes “lighter articulation”¹⁸⁸ of the letters *y* and *v* at the end of words when followed by *aś* according to *Śākatāyana*. A survey of the term *laghuprayatnatara* in the Deccan College scriptorium refers to many varied texts¹⁸⁹ that reiterate that it means “having little effort in utterance”. In *Ṛgvedaprātiśākhya*,¹⁹⁰ the elision of *y* and *v* is considered as *doṣa*. There is no mention of lighter articulation in *Ṛgvedaprātiśākhya*. According to Raghav Ramdasi,¹⁹¹ there is no such mention in the *Sāmaveda*. There is no reference of the word *laghuprayatnataraḥ* in the word index to Patañjali's *Vyākaraṇa Mahābhāṣya*.¹⁹²

8.3.21 उञि च पदे (uñi ca pade) and 8.3.33 मय उञो वो वा (maya uño vo vā)

The *nipāta* uñ

This *nipāta* has been mentioned by two rules of the *tripādī*, namely 8.3.21 उञि च पदे (*uñi ca pade*) and 8.3.33 मय उञो वो वा (*maya uño vo vā*). There is no particular meaning for the word *uñ*. It is usually used in addressing someone in anger etc. *ñ* is elided and only *u* remains. This is a *nipāta* prescribed by 1.1.14 एकाजनाङ् (ekājanāṅ) by which it

¹⁸⁷ G. B. Palsule, “Two Vedic rules of *Pāṇini*: 8.3.47 and 8.3.10,” T. N. Dharmadhikari (Ed.), *Tilaka-mahārāṣṭra-vidyāpīṭha-śākhābhūta vaidika-saṃśodhana-maṇḍalena prakāśitaḥ suvarṇamahotsava-granthaḥ* [Golden Jubilee volume, *Vaidika Sanaśodhana Maṇḍala* la] Pune: Vaidika Sanaśodhana Maṇḍala (1982) 185-8.

¹⁸⁸ The term “lighter articulation” has been used by Vasu S.C. under this rule. – For reference, Vasu, *The Siddhānta kaumudī of Bhaṭṭoji Dīkṣita* Vol. I, 85.

¹⁸⁹ To name a few: मातृहानिघण्टु of महीदास 5-39-20, अभिनवभारती on नाट्यशास्त्र 370.13, लघुशब्देन्दुशेखर 13.24/ 33.24, प्रक्रियाकौमुदी I.109.15, I.110.1

¹⁹⁰ *Ṛgvedaprātiśākhya uccāraṇadoṣapaṭalam* 48 – For reference, see Varma, ed., *Rgveda prātiśākhya*, 471.

¹⁹¹ This was an oral discussion with *sāmakovid* Raghav Ramdasi.

¹⁹² Shridharshastri Pathak, and Siddheshvarshastri Chit Rao, *Word index to Patañjali's Vyākaraṇa-mahābhāṣya* (Pune: Bhandarkar Oriental Research Inst., 1927).

gets *pragrhyasamjñā* and there is *prakṛtibhāva* by 6.1.125 प्लुतप्रगृह्या अचि नित्यम् (*plutapragrhyā aci nityam*).

8.3.21 उञि च पदे (*uñi ca pade*) states that if there is *uñ* following a *padāntavakāra*, then, there is elision by 8.3.21. Therefore, there is no scope to apply 8.3.32 डमो ह्रस्वादचि डमुणित्यम् (*ṇamo hrasvādaci ṇamuṇityam*). In the example of *kim u uktam* → *kim v uktam* (8.3.33 मय उञो वो वा (*maya uño vo vā*)) → *kimvuktam*. There is no *anusvārādeśa* because of 8.3.23 मोऽनुस्वारः (*mo 'nusvārah*) as it is placed before 8.3.33 resulting in the desired form.

8.3.26 हे मपरे वा (*he mapare vā*)/ 8.3.27 नपरे नः (*napare nah*)

A *padāntamakāra* when followed by the cluster ‘ह + म्’ (*h + m*) is optionally converted to *makāra* and if it is followed by the cluster ‘ह + न्’ (*h + n*), it is optionally converted to *nakāra*. Madhav Deshpande has attributed certain linguistic presuppositions for such a conversion.¹⁹³ वार्तिक यवलपरे यवला वेति वक्तव्यम् (*vārttika yavalapare yavalā veti vaktavyam*) under 8.3.26 also includes the clusters ह + य, ह + व, ह + ल् (*h + y, h + v, h + l*). Deshpande summarizes his analysis as follows:

.....*Pāṇini* noticed a peculiar behaviour of the clusters *hm* and *hn* after a word-final *m*. These clusters, [w]ere pronounced [m]ost probabaly as *m* and *n* in the word-initial position, in accordance with a tendency in that area as demonstrated by the eastern Iraninan language represented by the Avestan texts. [t]his behaviour represents a frontier phenomenon in Sanskrit, quite unrelated to the metathesis of *h*-clusters in Prakrits. Later *Kātyāyana* and *Patañjali* who come from south-central and eastern India respectively extended this particular grammatical procedure to the cluster *hy*, *hv* and *hl*....This later generalization arose in a different region and time from that of *Pāṇini*, and also most probably for a different reason.

8.3.34 विसर्जनीयस्य सः (*visarjanīyasya sah*)

The technical term for the replacement of *visarjanīya* with a *sakāra* or *ṣakāra* is called *upācaritasandhiḥ* in the *prātiśākhya* and the *śikṣā* texts.¹⁹⁴ MB and KK designate it as *upacārah* under 1.1.41 अव्ययीभावश्च (*avyayībhāvaśca*). *R̥gvedapraṭiśākhya* 4.41¹⁹⁵

¹⁹³ Madhav Deshpande, “Linguistic presuppositions of *Pāṇini* 8.3.26- 27,” *Proceedings of the International Seminar on Pāṇini* 1982, 23-42.

¹⁹⁴ The references and the explanation have been translated from the Hindi book – For reference, see Indra: *Prātiśākhyaṃ meṃ prayukta pāribhāṣika śabdoṃ kā ālocanātmaka adhyāyana* (Varanasi: Dr. Indra, 1973), 146.

¹⁹⁵ For reference, see Varma, ed., *R̥gveda prātiśākhya*, 279.

prescribes the conditions of replacement of *visarjanīya* with a *ṣakāra* and the conditions for the replacement of *visarjanīya* with a *sakāra*. This is quoted below:

यथादिष्टं नामिपूर्वः षकारं सकारमन्योऽरिफितः ककारे ।
पकारे च प्रत्ययेऽन्तःपदं तु सर्वत्रैवोपाचरितः स संधिः ॥

yathādiṣṭaṃ nāmipūrvah ṣakāraṃ sakāramanyo 'riphitaḥ kakāre |
pakāre ca pratyaye 'ntahpadaṃ tu sarvatraivopācaritaḥ sa saṃdhiḥ ||

If there is a *nāmisvara*¹⁹⁶ (ऋ ऌ ई उ ऊ ए ऐ ओ औ) (*r ṛ i ī u ū e ai o au*) following the *visarjanīya*, then that *visarjanīya* is replaced with a *ṣakāra* and if not a *nāmisvara*, then that *visarjanīya* is replaced with a *sakāra* when *ka* or *pa* follow.

Taittirīyaprātiśākhya 6.5 and *Caturādhyāyikā* 2.62 do not mention the term “*upācāra*” but prescribe the rules for it. *Visarjanīya*, *s* and *ṣ* belong to *ūṣma* letters. The rationale behind naming this *sandhi* as *upācarita* is that this *visarjanīya* gets converted into another *ūṣma* letter.¹⁹⁷

Patañjali under 1.1.41 अव्ययीभावश्च (*avyayībhāvaśca*) quotes *Kātyāyana* and lists out the reasons for declaring an *avyayībhāva samāsa* as an *avyaya* in the वार्तिक लुङ्मुखस्वरोपचाराः (*vārttika luṅmukhasvaropacārāḥ*). One of the reasons is to prevent *upacāra* in case of *avyayas* as seen in the examples of *upapayaḥkāraḥ* and *upapayaḥkāmaḥ*. 8.3.46 अतः कृकमिकंसकुम्भपात्रकुशाकर्णेष्वनव्ययस्य (*ataḥ kṛ-kami-kamsakumbhapātra kuśākarnīṣvanavyayasya*) applies by which the *visarga* is not replaced by *sakāra*.

8.3.38 सोऽपदादौ (*so 'padādau*) / 8.3.39 इणः षः (*inaḥ ṣaḥ*)

The discussion in MB under 8.3.39 is about the continuation of *visarjanīya* or *s* as the substituend and about the continuation of *s* or *ṣ* as the substitute. *Patañjali* gives the option of context *yathēcchasi tathāstu| ...sambandhamanuvarttiṣyate*. The continuation of either *s* or *ṣ* substitute depends on what is required. Commenting on

¹⁹⁶ ऋकारादयो दश नामिनः स्वराः| (*ṛkārādayo daśa nāminah svarāḥ*)| *Ṛgvedaprātiśākhya* 1.65 – For reference, see Varma, ed., *Ṛgveda prātiśākhyam*, 94.

¹⁹⁷ The references and the explanation have been translated from the Hindi book, Indra: *Prātiśākhyom*, 147.

this, S.D. Joshi and Saroja Bhate suggest considering these two rules as *adhikāra* rules instead of the traditional interpretation as *vidhi* rules.¹⁹⁸

8.3.47 अधःशिरसी पदे (*adhahśirasī pade*)

In forming a *samāsa*, if the *pūrvapada* is either *adhaḥ* or *śiraḥ* and if the *uttarapada* is *pada*, the *visarga* of the *pūrvapada* is converted to *sakāra*. However, if the *pūrvapada* is itself a *samāsa*, then this *sakārādeśa* does not happen. G.B. Palsule¹⁹⁹ has elaborated on this rule.

To paraphrase:

He states that *śiraspadam* does not occur in *Vedic* as also in the later *Sanskrit* literature known to us and that some forms of *adhaspada* are found only in *Vedic* literature. This rule is not a purely *Vedic* one as there is no word, say, *chandasi* either read directly in this rule or valid from some previous rule. He gives three solutions to this question: The rule was misplaced and included in the general section; the word was used in non-*Vedic* language during *Pāṇini*'s days; *Pāṇini* did not include the rule in the *Vedic* section because he did not think that the *śrautasūtras* belonged to the *chandas*. There is an example when the *visarga* is retained as in *adhaḥpadam*.

8.3.55 to 8.3.119 – *mūrdhanyādeśa prakaraṇa*

The point of discussion in this section is about the *adhikāra* rule 8.3.57 इण्कोः (*iṅkoḥ*) that is valid till the end of the third quarter of the eighth chapter. Retroflexion of *s* takes place when preceded by either *iṅ* or *kavarga*. The *iṅ pratyāhāra* includes letters इ उ ऋ ल ए ओ ऐ औ ह य व र ल (*i u ṛ ḷ e o ai au ha ya va ra la*). This sound conversion can be considered from a physiological point of view:

Sakāra belongs to the dental sounds: लृतुलसानां दन्ताः। (*lṛtulasānāṃ dantāḥ*).

This *sakāra* gets converted into *ṣakāra* which belongs to the retroflex sounds: ऋटुरषाणां मूर्धा। (*ṛṭuraṣāṇāṃ mūrdhā* |)

The retroflex sound is produced by touching the front roof of the mouth with the tip of the tongue and the dental sound is produced by touching the back of the front

¹⁹⁸ S.D. Joshi, and Saroja Bhate, *The Fundamentals of Anuvṛtti* (Pune: University of Poona, 1983), 216.

¹⁹⁹ Palsule, "Two Vedic rules of *Pāṇini*: 8.3.47 and 8.3.10," [Golden Jubilee volume, *Vaidika Sanaśodhana Maṇḍala*], 185-8.

teeth with the tip of the tongue. This conversion seems easy from a physiological point of view.

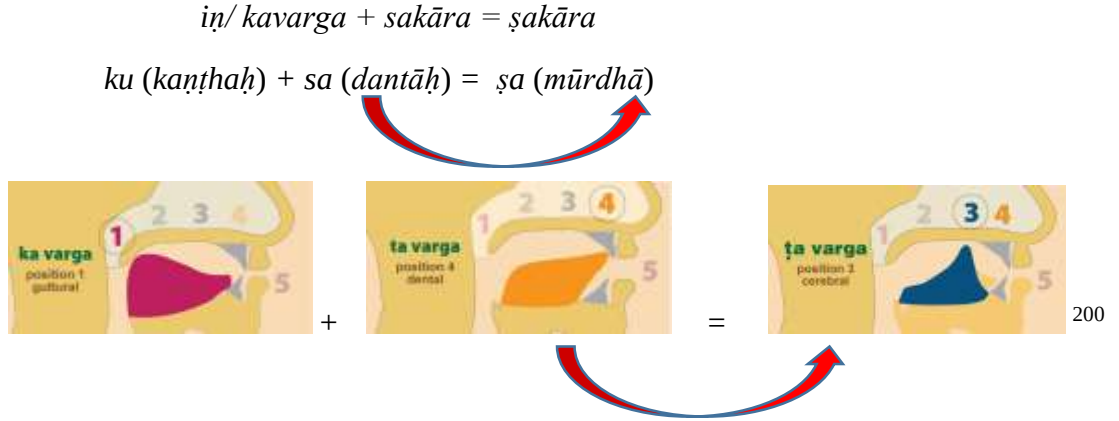


Figure 3.2: *mūrdhanyādeśa*

In this representation, it can be observed that the tip of the tongue moves from position 4 to position 3. Thus, it is easier to move the tongue in this manner.

8.4.1– 8.4.39 *ṇatva prakarana*

Even though *ṇatva* is also a *mūrdhanyādeśa*, *Pāṇini* started a new *pāda* since the continuation of 8.3.57 इण्कोः (*iṇkoḥ*) was not desired in the fourth *pāda*. Moreover, *ṇatva* was required in the same word (*samānapada*). This could have been achieved even with the *adhikāra* of *saṃhitā*. But, the *adhikāra* of *saṃhitā* is valid even across words. Therefore, *samānapada* is employed. Phonetically, it is easier to pronounce *ṇa* when followed by *repha* and *śakāra* as they belong to the same place of articulation (ऋदुरषाणां मूर्धा । *ṛturaṣāṇāṃ mūrdhā*). *Repha* (not for *padānta*) and *mūrdhanya śatva* have to be undertaken at first before which *ṇatva* cannot take place. Logically, *ṇatva* has to be placed after *rutva* and *mūrdhanya śatva*.

The technical term used for *ṇatva* in the *prātiśākhya* and the *śikṣā* texts is *nati* or *vināma*.²⁰¹ *Vināma* is the process of cerebralization. *Nati* is defined in the *Ṛgvedaprātiśākhya* as follows:

एषा नतिर्दन्त्यमूर्धन्यभावः ॥

eṣā natirdantya mūrdhanyabhāvaḥ ॥ *Ṛgvedaprātiśākhya* 5.61.

The process of dentals converting into cerebrals is known as *nati*.

²⁰⁰ Picture courtesy: “Chapter 3 – Grouped Consonants – Sanskrit Chanting.” <https://sanskritguide.com/grouped-consonants/>

²⁰¹ The references and the explanation have been translated from the Hindi book, Indra: *Prātiśākhyaṃ*, 157.

The term *nati* has not been defined in *Taittirīyaprātiśākhya* but the rules have been mentioned in 1.42 दन्त्यस्य मूर्धन्यापत्तिर्नतिः (*dantyaśya mūrdhanyāpattirnatih*). The literal meaning of the term *nati* means ‘to bend’. For ease of pronunciation, the tip of the tongue in the dental position bends back to the cerebral position.



Figure 3.3: *natva*

The tongue **flips back** from position 4 to position 3.

J. M Shukla summarizes the *natva* rules of the *tripādī*, namely 8.4.1– 8.4.39. The *vārttikas* on 8.4.19, 8.4.20, 8.4.21 and 8.4.28 are discussed in detail and he suggests placing 8.4.28 after 8.4.21. A comparison of the rules in the *prātiśākhya* texts with those of the *tripādī* rules was undertaken. References to non- *Pāṇinīan* grammatical systems such as *Cāndravyākaraṇa*, *Jainendra vyākaraṇa* and *Śākaṭāyana* are also made.²⁰³

Placement of *natva* rules

The placement of *natva* rules in the *tripādī* plays a significant role in the derivation of words. *Pāṇini* has devised a technique by which undesired *natva* is avoided. The concept is a simple one: The *nakāra* is converted into an *anusvāra*. As this *nakāra* is not seen as it has become an *anusvāra*, *natva* cannot take place. This is achieved by placing the *anusvāraprakaraṇa* in the middle. In case *nakāra* is again needed, *parasavarṇa* is undertaken. An example of this is *caranti*. The derivation is as follows:

चर् + लट्	<i>car + laṭ</i>
चर् + झि	<i>car + jhi</i>
चर् + शप् + झि	<i>car + śap + jhi</i>

²⁰² Picture courtesy: “Chapter 3 – Grouped Consonants – Sanskrit Chanting.”

²⁰³ J. M. Shukla, “The *natva* rules in the *Aṣṭādhyāyī* (VII.4.1 – 39)”, *Proceedings of the International Seminar on Pāṇini*: 1987, 109- 18.

चर् + अ + अन्ति चर् + अ + अंति 8.3.24 नश्चापदान्तस्य झलि	<i>car + a + anti</i> <i>car + a + aṃti</i> 8.3.24 <i>naścāpadāntasya</i> <i>jhali</i>

At this stage, the *nakāra* is not visible to 8.4.2 अट्कुप्वाङ्नुम्वयायेऽपि (*aṭkuvāṅnum-vyavāye 'pi*). It is visible as *caramti* to 8.4.2. Therefore, 8.4.2 is not applicable.

चर् + अ + अन्ति चरन्ति	8.4.58 अनुस्वारस्य ययि परसवर्णः
<i>car + a + anti</i> <i>caranti</i>	8.4.58 <i>anusvārasya yayi parasavarṇaḥ</i>

8.4.6 विभाषौषधिवनस्पतिभ्यः (*vibhāṣausadhivanaspatibhyah*)

This rule has been discussed just to emphasize the difference among *vanaspati*, *oṣadhi*, *vṛkṣa* and *vīrudhaḥ*. A *kārikā* defines these four types of plants:

फली वनस्पतिर्ज्ञेयो वृक्षाः पुष्पफलोपगाः।
ओषध्यः फलपाकान्ता लतागुल्माश्च वीरुधः।²⁰⁴

phalī vanaspatirjñeyo vṛkṣāḥ puṣpaphalopagāḥ|
oṣadhyāḥ phalapākāntā latāgūlmāśca vīrudhaḥ|

Vanaspati is a tree that bears fruit apparently without a flower, as a fig tree *udumbara*. *Vṛkṣa* is a tree that bears both flower and fruit, *oṣadhi* is an annual herb, that dies after the ripening of the fruit, and creepers and tubercles are called *vīrudhaḥ*.²⁰⁵

8.4.40 स्तोः शुना श्चुः (*stoh ścunā ścuh*)

Physiological aspect of ścutva

In a combination of s or dentals with ś or palatals, the s or dentals is replaced by ś or palatals.

dantāḥ (*lṛtulasānām dantāḥ*) + *tālu* (*icuyaśānām tālu*) → *dantāḥ* replaced by *tālu*.

This is called palatalization in linguistics.

²⁰⁴ Similar thoughts are also expressed in *Charakasamhitā* by *Agniveśa* with *Āyurveda dīpikā* commentary by *Cakrapāṇidatta* 1.72/73. For reference, see Vaidya Jāḍavaji Trikaṃji Ācārya, ed., *Charakasamhitā* by *Agniveśa* with *Āyurveda dīpikā* commentary by *Cakrapāṇidatta* (Bombay: Nirṇaya Sagar Press, 1941), 20.

²⁰⁵ Translation from Vasu, *Siddhāntakaumudī*, Vol. I, 597.

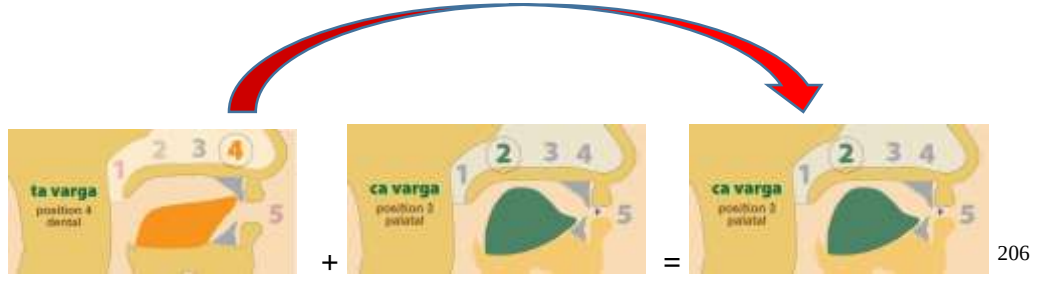


Figure 3.4: ścutva

Dentals are sounded with the tip of the tongue at the back of the front teeth. Palatals are sounded with the tongue held down and the tip of the tongue at the base of the lower row of front teeth. This forces the sound to hit the roof of mouth at position 2.

Cutva and ścutva

There is another operation called *cutva* by 7.4.62 कुहोश्चुः (*kuhoścuḥ*). This prescribes conversion of gutturals into palatals. This process is the reversal of *kutva* by 8.2.30 चोः कुः (*coḥ kuḥ*). The other conditions are that this conversion of gutturals into palatals is undertaken for *abhyāsa* for an *aṅga*.

Jha discusses the palatal law from a historical perspective. The development of two stages of palatalizations of the Indo-Aryan languages is elucidated pertaining to *Sanskrit*, *Avesta*, *Lituanian*, *Greek* and *Latin*. *Pāṇini*'s rule 7.4.62 is also explained.²⁰⁷

Placement of 7.4.62

7.4.62 कुहोश्चुः (*kuhoścuḥ*) could have been placed in *tripādī* as there are rules that specifically state operations for *aṅga*²⁰⁸ and this is also true for *abhyāsa*.²⁰⁹ The following discussion is a justification of placement of 7.4.62 in *sapādasaptādhyāyī*. The methodology adopted is similar to that of the *tripādī* rules. Cross-referencing was carried out for the occurrences of 7.4.62 in the commentaries on *Aṣṭādhyāyī* that produced the following result:

²⁰⁶ Picture courtesy: "Chapter 3 – Grouped Consonants – Sanskrit Chanting."

²⁰⁷ Girish K. Jha "Palatal Law and *Pāṇini*", *Journal of the Oriental Institute*, Vol. 45, Nos. 3-4, March- June 1996 Issue, 149- 156.

²⁰⁸ The rules that include the term *aṅga* in *tripādī* are: 8.2.27 ह्रस्वादङ्गात् and 8.3.78 इणः षीध्वंलुङ्लिटं धोऽङ्गात्

²⁰⁹ 8.4.54 अभ्यासे चर्च

Rule	Example
1.1.14 निपात एकाजनाङ् (nipāta ekājanāṅ)	cakāra
1.1.58 न पदान्तद्विर्वचनवरेयलोपस्वरसवर्णानुस्वारदीर्घजश्चर्विधिषु (na padāntadvirvacanavareyalopasvarasavarṇānusvāradīrghajaśc arvidhiṣu)	cakṣatuḥ
1.1.59 द्विर्वचनेऽचि (dvirvacane 'ci)	jaghāna
1.1.63 न लुमताङ्गस्य (na lumatāṅgasya)	juhutaḥ
1.1.69 अणुदित् सवर्णस्य चाप्रत्ययः (aṇudit savarṇasya cāpratyayah)	jagāda
1.2.5 असंयोगाल्लिट् कित् (asamyogālliṭ kit)	cakre
1.3.33 अधेः प्रसहने (adheḥ prasahane)	adhicakre
3.1.5 गुप्तिज्जिह्वः सन् (guptijkidbhyaḥ san)	jugupsate
3.1.7 धातोः कर्मणः समानकर्तृकादिच्छायां वा (dhātoḥ karmaṇaḥ samānakartṛkādicchāyāṃ vā)	cikīrṣati
3.1.21 मुण्डमिश्रश्लक्ष्णलवणव्रतवस्तहलकलकृततूस्तेभ्यो णिच् (muṇḍamiśraślakṣṇalavaṇavratavastrahalakalakṛtatūstebhyo ṇic)	aujaḍhat
3.1.32 सनाद्यन्ता धातवः (sanādyantā dhātavaḥ)	jugupsa
3.1.40 कृञ् चानुप्रयुज्यते लिटि (krñ cānuprayujyate liṭi)	cakre
3.1.48 णिश्रिद्रुसुभ्यः कर्तरि चङ् (ṇisridrusubhyaḥ kartari caṅ)	acīkarat
6.1.3 न न्द्राः संयोगादयः (na ndrāḥ samyogādayaḥ)	īcīkṣiṣate
6.1.4 पूर्वोऽभ्यासः (pūrvo 'bhyāsaḥ)	juhoti
6.1.11 चङि (caṇi)	acīkirat
6.1.32 ह्रः सम्प्रसारणम् (hvaḥ samprasāraṇam)	juhāva
6.1.193 लिटि (liti)	cikīrṣaka
6.3.111 ढ्रलोपे पूर्वस्य दीर्घोऽणः (ḍhralope pūrvasya dīrgho 'ṇaḥ)	ajarghāḥ
6.4.16 अज्झनगमां सनि (ajjhanagamāṃ sani)	cikīrṣati
6.4.87 हुश्रुवोः सार्वधातुके (huśruvoḥ sārva dhātuke)	juhvati, juhuvatuḥ, ṇuṇuve
6.4.89 ऊदुपधाया गोहः (ūdupadhāyā gohaḥ)	juguhatuḥ
6.4.98 गमहनजनखनघसां लोपः किङत्पनङि (gamahanajanakhanaghasāṃ lopah kiṅtṣyanaṇi)	jagmatuḥ, jaghnuḥ
6.4.101 हुझल्भ्यो हेर्धिः (hujhalbhyo herdhiḥ)	juhudhi
6.4.116 जहातेश्च (jahāteśca)	jahitaḥ, jahītaḥ
6.4.117 आ च हौ (ā ca hau)	jahāhi jahihi, jahīhi
6.4.118 लोपो यि (lopo yi)	jahyāt
6.4.120 अत एकहल्मध्येऽनादेशादेर्लिटि (ata ekahalmadhye 'nādeśāderliṭi)	jagmatuḥ, jaganatuḥ, jaganuḥ
6.4.121 थलि च सेटि (thali ca seṭi)	cakanatuḥ

7.1.58 इदितो नुम् धातोः (<i>idito num dhātoḥ</i>)	<i>cuskunde</i>
7.1.91 णलुत्तमो वा (<i>ṇaluttamo vā</i>)	<i>cakāra</i>
7.2.67 वस्वेकाजादघसाम् (<i>vasvekājādghasām</i>)	<i>jakṣivān</i>
7.3.55 अभ्यासाच्च (<i>abhyāsācca</i>)	<i>jighāṃsati</i>
7.3.56 हेरचडिं (<i>heracaṇi</i>)	<i>prājīhayat</i>
7.3.87 नाभ्यस्तस्याचि पिति सार्वधातुके (<i>nābhyastasyāci piti sārva dhātuke</i>)	<i>cākaśīti</i>
7.4.66 उरत् (<i>urat</i>)	<i>cakāra</i>
7.4.97 ई च गणः (<i>ī ca gaṇaḥ</i>)	<i>aujaḍhat</i>
8.2.1 पूर्वत्रासिद्धम् (<i>pūrvatrāsiddham</i>)	<i>aujaḍhat</i>
8.2.37 एकाचो बशो भष् झषन्तस्य स्ध्वोः (<i>ekāco baśo bhaṣ jhaṣantasya sdhvoḥ</i>)	<i>ajarghāḥ</i>
8.2.78 उपधायां च (<i>upadhāyām ca</i>)	<i>cukūrda</i>
8.3.58 नुम्बिसर्जनीयशर्षवायेऽपि (<i>numvisarjanīyaśarvyavāye 'pi</i>)	<i>cikīrṣati</i>
8.3.60 शासिवसिघसीनां च (<i>śāsivasighasīnām ca</i>)	<i>jakṣuḥ</i>
8.3.112 सिचो यडिं (<i>sico yaṇi</i>)	<i>caṅkaṇaḥ</i>
8.4.54 अभ्यासे चर्च (<i>abhyāse carca</i>)	<i>cukūja, cakhāda, jagāma, jaghāgha, jahāsa</i>

Table 3.3: Examples of cross-referencing of 7.4.62 कुहोश्चुः (*kuhoścuḥ*)

In case 7.4.62 कुहोश्चुः (*kuhoścuḥ*) was placed in *tripādī*, *aujaḍhat* cannot be derived.

वह् + त	
उह् + त	6.1.15 वचिस्वपियजादीनां किति
उद् + त	8.2.31 हो ढः
उद् + ध	8.2.40 झषस्तथोर्धोऽधः
उद् + ढ	8.4.41 ष्टुना ष्टुः
उ + ढ	8.3.13 ढो ढे लोपः
ऊढ	6.3.111 ढ्रलोपे पूर्वस्य दीर्घोऽणः
ऊढ + णिच्	3.1.26 हेतुमति च
ऊढ + णिच् + लुङ्	3.2.110 लुङ्
ऊढ + णिच् + च्लि	3.1.43 च्लि लुङि
ऊढ + णिच् + चङ्	3.1.48 णिश्रिद्रुसुभ्यः कर्तरि चङ्
ऊढ + णिच् + अ	
ऊढ + अ	6.4.155 टेः
ऊह्रतढ + चङ् + त्	6.1.11 चङि

<i>vah + ta</i>	
<i>uh + ta</i>	6.1.15 <i>vacisvapiyajādīnām kiti</i>
<i>uḍh + ta</i>	8.2.31 <i>ho ḍhaḥ</i>
<i>uḍh + dha</i>	8.2.40 <i>jhaṣastathordho 'dhaḥ</i>
<i>uḍh + ḍha</i>	8.4.41 <i>ṣṭunā ṣṭuḥ</i>
<i>u + ḍha</i>	8.3.13 <i>ḍho ḍhe lopah</i>
<i>ūḍha</i>	6.3.111 <i>ḍhralope pūrvasya dīrgho 'ṇaḥ</i>
<i>ūḍha + ṇic</i>	3.1.26 <i>hetumati ca</i>
<i>ūḍha + ṇic + luṇ</i>	3.2.110 <i>luṇ</i>
<i>ūḍha + ṇic + cli</i>	3.1.43 <i>cli luṇi</i>
<i>ūḍha + ṇic + caṇ</i>	3.1.48 <i>ṇisridrusrubhyaḥ kartari caṇ</i>
<i>ūḍha + ṇic + a</i>	
<i>ūḍha + a</i>	6.4.155 <i>ṭeḥ</i>
<i>ūhtaḍha + caṇ + t</i>	6.1.11 <i>caṇi</i>

At this stage, *dvitva* has taken place of *hta*.

ऊहढत्	7.4.60 हलादिः शेषः	<i>ūhaḍhat</i>	7.4.60 <i>halādiḥ śeṣaḥ</i>
ऊझढत्	7.4.62 कुहोश्चुः	<i>ūjhaḍhat</i>	7.4.62 <i>kuhoścuḥ</i>

This operation could not have been accomplished if it was placed in *tripādī*.

ऊजढत्	8.4.54 खरि च	<i>ūjaḍhat</i>	8.4.54 <i>khari ca</i>
अ ऊजढत्	6.4.71 लुङ्लङ्लृङ्क्ष्वडुदात्तः	<i>a ūjaḍhat</i>	6.4.71 <i>luṇlaṇlṛṇkṣvaḍudāttah</i>
औजढत्		<i>aujaḍhat</i>	

In the same manner, there would have been problems even to derive *īcikṣiṣate*.

ईक्ष सन्नन्त		<i>īkṣa sannanta</i>	
ई क्ष इ ष		<i>ī kṣ i ṣa</i>	
ई क ष इ ष		<i>ī k ṣ i ṣa</i>	
ई क्षिष् क्षिष्		<i>ī kṣiṣ kṣiṣ</i>	
ई कि क्षिष्	7.4.62 कुहोश्चुः	<i>ī ki kṣiṣ</i>	7.4.62 <i>kuhoścuḥ</i>
ई चि क्षिषते		<i>ī ci kṣiṣate</i>	

Therefore, 7.4.62 has been placed in *sapādasaptādhyāyī*.

8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*)

In a combination of *s* or dentals with *ṣ* or cerebrals, the *s* or dentals is replaced by *ṣ* or cerebrals.

dantāḥ (lṛtulasānām dantāḥ|) + ṛturaṣāṇām mūrdhā | → *dantāḥ* replaced by *mūrdhā*

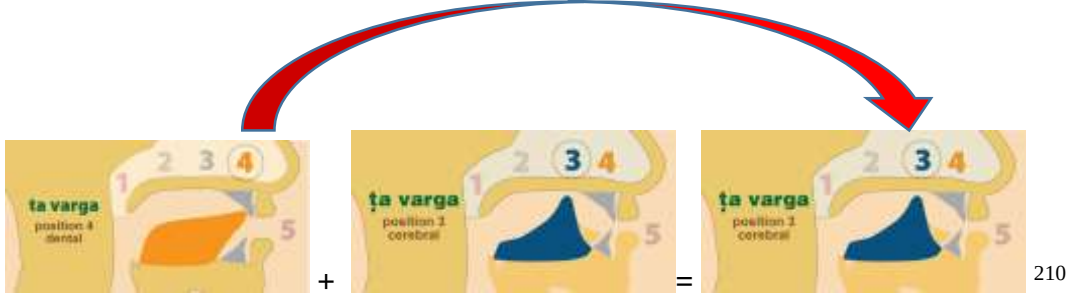


Figure 3.5: ṣṭutva

The overriding principle for all these phonetic conversions seems to be ease of pronunciation. As the Vedic tradition was an oral tradition, pronunciation played a significant role in such simplifications. The assimilation of letters as shown in the case of palatalization is one such example.

8.4.48 नादिन्याक्रोशे पुत्रस्य (*nāḍinyākrośe putrasya*)

चयो द्वितीयाः शरि पौष्करसादेरिति वाच्यम् (*cayo dvitīyāḥ śari pauṣkarasāderiti vācyam*) is a *vārttika* under this rule. The *pratyāhāra* *cay* used in this *vārttika* has not been used by Pāṇini in the *Aṣṭādhyāyī*.

This concludes the study of selected *prakaraṇas* of the *tripādī*.

3.3 Asiddhatva in the Ābhīya section

Asiddhatva in the *ābhīya* section has been discussed in detail in Chapter I. Summarizing, two rules are said to be *asiddha* to each other only when they share the same environment in the *ābhīya* section. This is traditionally known as *samānāśraya*. i.e., if the causes (*nimitta*) for the application of rules are the same, then they are said to be *samānāśraya*.

The methodology adopted to analyse this section is different from that of the *tripādī*. The rules are analysed based on the Sanskrit commentaries²¹¹ and “cross-referencing” has **not** been undertaken for this section.

²¹⁰ “Chapter 3 – Grouped Consonants – Sanskrit Chanting.”

²¹¹ KK, NY, PM and SK were referred to.

This discussion aims to clarify the rationale behind creating the *ābhīya* section, to comprehend how the *asiddhatva* principle functions differently and evaluate the manner of application of rules of the *ābhīya* section in the derivation of words.

Keeping this in mind, the *ābhīya* section is analysed in the following manner:

- Overview of this section
- Purpose of this section
- Ordering principles
 - of *ābhīya* rules with respect to other *ābhīya* rules
 - of *ābhīya* rules with respect to other *sapādasaptādhyāyī* rules
- Comparison of *ābhīya* section with *tripādī*

Overview of the operations in the *ābhīya* section

A very broad overview of the operations in this section is given below. The operations in the *ābhīya* section can be divided basically into three types:

<i>ajādeśa</i>	• <i>akāra/ ākāra/ ikāra/ īkāra lopa</i> • <i>iyaṇ uvaṇ</i> substitutions for <i>ivarṇānta /uvarṇānta aṅga</i> • <i>hrasva / upadhā hrasva</i> • <i>ākāra</i> gets <i>īkārādeśa/ akāra</i> takes <i>ekārādeśa</i>
<i>halādeśa</i>	• <i>nalopa / upadhā nalopa/ anunāsikalopa/ ṭilopa</i> • <i>śās</i> takes <i>śā ādeśa / han</i> takes <i>ja/ re</i> is diversely substituted for <i>ire /arvan</i> takes <i>ṛ ādeśa</i> • <i>yaṇādeśa/ guṇādeśa</i> • <i>hi</i> takes <i>dhi /luk of hi /luk of cha</i>
<i>āgamas</i>	• <i>ram āgama</i> for <i>bhrasj</i> • <i>aḍāgama/ āḍāgama</i> for <i>luṇ, laṇ, lṛṇ</i> • <i>vugāgama/ yidāgama</i>

Figure 3.6: Overview of the operations in the *ābhīya* section

Observations:

1. Both *ajādeśas* and *halādeśas* are dealt with in this section.
2. Augmentation is also undertaken here.
3. Elision seems to be another predominant operation.

4. These rules come under the domain of *aṅga*.
5. There are two sub-sections, namely *ārdhadhātuka* and *bha* within this section.
6. This section includes rules that deal with *gaṇa* operations as tabulated below.

<i>gaṇa</i>	Rules mentioning the <i>vikaraṇapratyayas</i> of the <i>gaṇas</i>	<i>Ābhīya</i> rule	Operation carried out
<i>rudhādi</i>	3.1.78 रुधादिभ्यः श्रम् (<i>rudhādibhyaḥ śnam</i>)	6.4.23 श्रान्नलोपः (<i>śnānnalopaḥ</i>)	<i>nalopa</i>
		6.4.111 श्रसोरल्लोपः (<i>śnasorallopaḥ</i>)	<i>allopa</i>
<i>kryādi</i>	3.1.81 क्रयादिभ्यः श्रा (<i>kryādibhyaḥ śnā</i>)	6.4.112 श्राऽभ्यस्तयोरातः (<i>śnā 'bhyastayorātaḥ</i>)	<i>ākāralopa</i> of <i>śnā</i>
<i>divādi</i>	3.1.69 दिवादिभ्यः श्यन् (<i>divādibhyaḥ śyan</i>)	6.4.105 अतो हेः (<i>ato heḥ</i>)	<i>hi - luk</i> for <i>akārānta aṅga</i> [<i>hi - luk</i> for <i>śap</i> , <i>śyan</i> and <i>śa</i> in case of <i>loṭ si</i>]
<i>tudādi</i>	3.1.77 तुदादिभ्यः शः (<i>tudādibhyaḥ śaḥ</i>)		
<i>svādi</i>	3.1.73 स्वादिभ्यः श्रुः (<i>svādibhyaḥ śnuḥ</i>)	6.4.106 उत्तश्च प्रत्ययादसंयोगपूर्वात् (<i>utaśca pratyayādasanyogapūrvāt</i>)	<i>hi luk</i> for <i>vikaraṇapratyaya</i> ending in <i>u</i>
<i>tanādi</i>	3.1.79 तनादिकृञ्भ्य उः (<i>tanādikṛñbhya uḥ</i>)		
<i>svādi</i>	3.1.73 स्वादिभ्यः श्रुः (<i>svādibhyaḥ śnuḥ</i>)	6.4.77 अचि श्रुधातुभ्रुवां य्वोरियडुवडौ (<i>aci śnudhātubhruvām yvorīyaṇuvaṇau</i>)	<i>iyaṇ / uvaṇ</i> substitutions

The rationale behind creating this *asiddhatva* section termed *asiddhavat* when there was already a separate section of *tripādī* is analysed in the ensuing section.

Purpose of the *asiddhavat* section

The traditional interpretation of *asiddhatva* holds true even for this section. The traditional interpretation of *asiddhatva*, already discussed earlier, includes two basic principles- avoidance of rules (*ādeśalakṣaṇapratīṣedhārthaṃ*) and application of rules (*utsargalakṣaṇabhāvārthaṃ*). The following discussion cites examples for both these cases.

Ādeśalakṣaṇapraṭiṣedhārtham

Ādeśalakṣaṇapraṭiṣedhārtham is applied in order to avoid application of rules within this section. A few examples are given below. In all these examples, there is *asiddhatva* only if the two rules share the same linguistic elements.

Example 1: आगहि (*āgahi*)

आ गम् लोट् आ गम् हि आ ग हि	6.4.37 अनुदात्तोपदेशवनतितनोत्यादीनामनुनासिक लोपो झलि किङिति
<i>ā gam loṭ</i> <i>ā gam hi</i> <i>ā ga hi</i>	6.4.37 <i>anudāttopadeśavanatitanotyādīnāmanunāsika lopo jhali kṛiti</i>

Rules involved: 6.4.37 is applied. However, this application is suspended for 6.4.105 अतो हेः (*ato heḥ*). Thus, 6.4.105 is avoided.

Example 2: जहि (*jahi*)

हन् + लोट् हन् + सिप् हन् + शप् + सिप् हन् + सिप् हन् + हि ज + हि ज + हि जहि	6.4.36 हन्तेर्जः	<i>han + lomṭ</i> <i>han + sip</i> <i>han + śap + sip</i> <i>han + sip</i> <i>han + hi</i> <i>ja + hi</i> <i>ja + hi</i> <i>jahi</i>	6.4.36 <i>hanterjah</i>

Rules involved: 6.4.36 is applied and 6.4.105 अतो हेः (*ato heḥ*) is avoided.

Example 3: गत (*gata*)

गम् क्त गत	6.4.37 अनुदात्तोपदेशवनतितनोत्यादीनामनुनासिक लोपो झलि किङिति
<i>gam kta</i> <i>gata</i>	6.4.37 <i>anudāttopadeśavanatitanotyādīnāmanunāsika lopo jhali kṛiti</i>

Rules involved: 6.4.37 is applied and 6.4.48 अतो लोपः (*ato lopaḥ*) avoided because it is still *gam* to 6.4.48.

Utsargalakṣaṇabhāvārtham

Utsargalakṣaṇabhāvārtham is used in case of application of rules. It is to be noted that the **substituends are different** in these examples.

Example 1: एधि (*edhi*)

अस् + लौट्	
अस् + सिप्	
अस् + शप् + सिप्	
अस् + सिप्	
अस् + हि	
अस् + धि	6.4.101 हुञ्जल्भ्यो हेर्धिः
ए + धि	6.4.119 घ्वसोरेद्धावभ्यासलोपश्च
एधि	
<i>as + lom̐t</i>	
<i>as + sip</i>	
<i>as + śap + sip</i>	
<i>as + sip</i>	
<i>as + hi</i>	
<i>as + dhi</i>	6.4.101 <i>hujhalbhyo herdhiḥ</i>
<i>e + dhi</i>	6.4.119 <i>ghvasoreddhāvabhyāsalopaśca</i>
<i>edhi</i>	

Rules involved: 6.4.101 is *asiddha* to 6.4.119. Therefore, both are applicable.

Example 2: दध्रे (*dadhre*) -Vedic example

धा लिट्		<i>dhā liṭ</i>	
धा धा लिट्		<i>dhā dhā liṭ</i>	
धा धा झ		<i>dhā dhā jha</i>	
धा धा इरे		<i>dhā dhā ire</i>	
ध ध् इरे	6.4.64 आतो लोप इटि च	<i>dha dh ire</i>	6.4.64 <i>āto lopa iṭi ca</i>
ध ध् रे	6.4.76 इरयो रे	<i>dha dh re</i>	6.4.76 <i>irayo re</i>
दध्रे		<i>da dhre</i>	

Rules involved: 6.4.64 and 6.4.76 are both applicable.

Example 3: शाधि (*śādhi*)

शास् + लौट्		<i>śās + lom̐t</i>	
शास् + सिप्		<i>śās + sip</i>	
शास् + शप् + सिप्		<i>śās + śap + sip</i>	
शास् + सिप्		<i>śās + sip</i>	
शास् + हि		<i>śās + hi</i>	
शा + हि	6.4.35 शा हौ	<i>śā + hi</i>	6.4.35 <i>śā hau</i>
शा + धि	6.4.101 हुञ्जल्भ्यो हेर्धिः	<i>śā + dhi</i>	6.4.101 <i>hujhalbhyo herdhiḥ</i>
शाधि		<i>śādhi</i>	

Rules involved: 6.4.35 and 6.4.101 are applied.

Example 4: अङ्क्तः (*aṅktaḥ*) [Similarly, इन्धे (*indhē*)]

अञ्ज + लँट्	<i>añj + lamṭ</i>
अञ्ज + तस्	<i>añj + tas</i>
अनञ्ज + तस्	<i>anañj + tas</i>
अन ० ज् + तस् 6.4.23 श्रान्नलोपः	<i>ana 0 j + tas 6.4.23 śnānnalopaḥ</i>
अन् ० ज् + तस् 6.4.111 श्रसोरल्लोपः	<i>an 0 j + tas 6.4.111 śnasorallopaḥ</i>
अन् तस्	<i>ang tas</i>
अङ् तस्	<i>aṅg tas</i>
अङ्क् तस्	<i>aṅk tas</i>
अङ्क्तः	<i>aṅktaḥ</i>

Rules involved: 6.4.23 and 6.4.111 both applicable simultaneously as 6.4.23 and 6.4.111 are *asiddha* to each other.

Example 5: सौरी (*saurī*)

सूर्य डीष्	
सूर्य ई	6.4.148 यस्येति च
सूर ई	6.4.149 सूर्यतिष्यागस्त्यमत्स्यानां य उपधायाः
सौरी	
<i>sūrya ṇīṣ</i>	
<i>sūry ī</i>	6.4.148 yasyeti ca
<i>sūr ī</i>	6.4.149 sūryatiṣyāgastyamatsyānāṃ ya upadhāyāḥ
<i>saurī</i>	

Rules involved: 6.4.148 is *asiddha* to 6.4.149. *ya* is still in *upadhā*. Therefore, 6.4.149 can be applied. Moreover, 6.4.149 can be considered as a special rule with respect to the term “*sūrya*”.

Analysis of the contents of the *ābhīya* section

This sub-section provides a bird’s eye view of the contents of the *ābhīya* rules. The domain of the *ābhīya* section and the roles of *sthānivadbhāva* and *pratyayalakṣaṇa* are discussed.

Domain of *aṅga*

The *ābhīya* section comes under the *adhikāra* of *aṅga*.²¹² The *adhikāra* of *aṅga* extends upto the end of the seventh chapter. *Aṅga* is defined by 1.4.13 यस्मात्

²¹² 6.4.1 अङ्गस्य (*aṅgasya*)

प्रत्ययविधिस्तदादि प्रत्ययेऽङ्गम् (*yasmāt pratyayavidhistadādi pratyaye'ṅgam*). When a *pratyaya* is added, all those syllables that precede the *pratyaya* is termed as *aṅga*. There are two *adhikāras* under this domain of the *asiddhavat* section, namely *ārdhadhātuka* (6.4.46 आर्धधातुके (*ārdhadhātuke*)) and *bha* (6.4.129 भस्य (*bhasya*)).

The *bhasamjñā* is defined as 1.4.18 यचि भम् (*yaci bham*). There is continuation of the entire rule 1.4.17 स्वादिष्वसर्वनामस्थाने (*svādiṣvasarvanāmasthāne*) into this rule, 1.4.18. The base that is followed by *pratyayas* that are *yakārādi* or *ajādi* and the *pratyayas* that do not have the designation *sarvanāmasthāna* is termed as *bha*. The *bha* section is included in the *asiddhavat* section. The *adhikāra* of *bha* starts from 6.4.129 भस्य (*bhasya*) and extends upto the end of the sixth chapter, 6.4.175 ऋत्व्यवास्त्व्यवास्त्वमाध्वीहिरण्ययानि च्छन्दसि (*ṛtvya-vāstvyā-vāstva-mādhvī-hiraṇyayāni cchandasi*).

The rationale behind placing the *asiddhavat* section in the domain of *aṅga* is that all the operations are related to *aṅga*. The structure of the *Aṣṭādhyāyī*, already discussed in Chapter I, shows that all operational rules pertaining to *aṅga* are placed in the fourth *pāda* of the sixth chapter extending till the end of the seventh chapter. The principle of *asiddhatva* was required even in the *adhikāra* of *aṅga* to obtain desired words.

The suffix *vat* added to 6.4.22 असिद्धवदत्राभात् (*asiddhavadatrābhāt*) suggests that the principle of *asiddhatva* of this section is similar to that of the principle of *asiddhatva* in the *tripādī* but not the same. Tradition does not differentiate between these two sections as already discussed earlier in literature review. However, the discussions given below will indicate that there are differences between both the sections. A comparison table at the end of this section summarizes this statement.

Sthānivadbhāva

A few examples of the working of *sthānivadbhāva* and the *ābhīya* section are given below. An attempt is made to show that the working of this principle is the same as to the rest of the *sapādasaptādhyāyī*. *Sthānivadbhāva* and the principle of *asiddhatva* are discussed in detail in a later section.

ābhīya section and sthānivadbhāva

Example: आटिटत् (*āṭiṭat*)

This example, *āṭiṭat*, is also given in KK and MB under 1.1.59 द्विर्वचनेऽचि (*dvirvacane 'ci*). This rule (1.1.59) prescribes *sthānivadbhāva* for a vowel in case of reduplication when followed by *ac*. KK and MB list out the reasons for *sthānivadbhāva* in case of *dvitva* under this rule as:

आल्लोपोपधालोपणिलोपयणयवायावादेशः प्रयोजनम् ।
āllopopadhālopanilopayaṇayavāyāvādeśaḥ prayojanam |

Ṇilopa is one of the cases when there is *sthānivadbhāva* for a vowel for reduplication. The purpose of this is shown in the derivation below:

अट् णिच् अट् इ लुङ् आट् अट् इ च्लि लुङ् 6.4.72 आडजादीनाम् आ अट् इ चङ् तिप् आ अट् इ अ त्	<i>aṭ ṇic</i> <i>aṭ i luṅ</i> <i>āṭ aṭ i cli luṅ 6.4.72 āḍajādīnām</i> <i>ā aṭ i caṅ tip</i> <i>ā aṭ i a t</i>
At this stage, there is elision of <i>i</i> by 6.4.51 णेरनिटि (<i>ṇeraniṭi</i>). However, this elision is considered <i>sthānivat</i> according to 1.1.59 द्विर्वचनेऽचि (<i>dvirvacane 'ci</i>). Thus, 6.1.2 अजादेर्द्वितीयस्य (<i>ajāderdvitīyasya</i>) is applied by which the derivation proceeds as follows.	
आ अ टि टि अ त् 6.1.11 चङि	<i>ā a ṭi ṭi a t 6.1.11 caṅi</i>
As soon as the reduplication is over, it goes back to its original form. This is described as follows in KK: रूपातिदेशश्चायं नियतकालः। तेन कृते द्विर्वचने पुनरादेशरूपमेवावतिष्ठते। (<i>rūpātiśeśaścāyaṃ niyatakālah tena kṛte dvirvacane punarādeśarūpamevāvatiṣṭhate</i>)	
आ अ टि ट् अ त् आ टि ट् अ त् आटिटत्	<i>ā a ṭi ṭ a t</i> <i>ā ṭi ṭ a t</i> <i>āṭiṭat</i>

Rules involved: 6.4.51 is applied and 6.4.82 एरनेकाचो-ऽसंयोगपूर्वस्य (*eranekāco- 'saṃyogapūrvasya*) is avoided.

ābhīya section and prevention of guṇa and vrddhī due to sthānivadbhāva

1.1.4 न धातुलोप आर्धधातुके (*na dhātulopa ārdhadhātuke*) prevents *guṇa* and *vrddhī* for the *ik* of the remaining part of the root if part of the root has been elided due to a *ārdhadhātuka pratyaya*. The working of this rule, in combination with the *adhikāra ārdhadhātuke* of the sixth chapter, is manifested in the examples given below:

Example: स्पृहालुः (*sprhayāluḥ*)

The root *sprha* is an *adanta* root belonging to the *curādi gaṇa*. *Mādhavīyā dhātuvṛttiḥ*²¹³ clearly states that the reason for making some roots of the *curādi gaṇa* as *adanta* is that the elision of *adanta* has *sthānivadbhāva* so that *guṇa* and *vṛddhī* can be prevented.

एतदादयोऽदन्ताः। तत्फलञ्च कथयति इत्यादौ अलोपस्य स्थानिवद्भावाद्यथायोगं वृद्धिगुणयोरभावः।
(*etadādayo'dantāḥ| tatphalañca kathayati ityādau allopasya sthānivadbhāvād-
yathāyogam vṛddhiguṇayorabhāvaḥ*)

स्पृह णिच् स्पृह इ 6.4.48 अतो लोपः स्पृह अय् 6.4.55 अयामन्ताल्वाय्येत्विष्णुषु स्पृहालुः	<i>sprha ṇic</i> <i>sprh i 6.4.48 ato lopaḥ</i> <i>sprh ay 6.4.55 ayāmantālvāyeyetnviṣṇuṣu</i> <i>sprhayāluḥ</i>

The *akāra* of *ha* of *sprha* is elided by 6.4.48. Thus, *sthānivadbhāva* of such an elision prevents *guṇa* and *vṛddhī*.

ābhīya section and pratyayalakṣaṇa

1.1.63 न लुमताङ्गस्य (*na lumatāṅgasya*) blocks *pratyayalakṣaṇa* if the *pratyaya* has been elided by *luk*, *lup* or *ślu*.

Example: सनीस्रंसः (*sanīsraṃsaḥ*)²¹⁴

At the stage of *sani* + *sraṃs* + *ya* + *ac*, two rules are applicable simultaneously: 2.4.74 यङोऽचि च (*yaṇo'ci ca*) prescribes *luk* of *yaṇ* and 6.4.24 अनिदितां हल उपधायाः क्ङिति (*aniditāṃ hala upadhāyāḥ kṇiti*) prescribes *lopa* of pre-final *n* of a verbal base which is not marked with *anubandha i* before a suffix marked with *anubandha k* or *ṇ*. *pratyayalakṣaṇa* is blocked as there is elision by *luk* prescribed by 2.4.74. This, in turn, results in blocking the application of 6.4.24.

²¹³ Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttiḥ*, 567.

²¹⁴ Pataskar, *Utsargāpavāda relation in the Aṣṭādhyāyī*, 194-5.

Ordering principles of the *ābhīya* section

The next step of this analysis is to observe the ordering principles when there is absence of *asiddhatva* in the *ābhīya* section. The goal of this section is to determine if the ordering principles of the *ābhīya* section differ with respect to the other remaining *sapādasaptādhyāyī* rules keeping in mind the principle of *asiddhatva*. This interpretation is formulated in the following way:

- Interaction of *ābhīya* rules within the *ābhīya* section and
- Interaction of *ābhīya* rules with the rest of the *sapādasaptādhyāyī*.

Ābhīya rules within the *ābhīya* section

The interaction of *ābhīya* rules within the *ābhīya* section can be discussed under two topics: – *vyāśrayatva* and *utsarga-apavāda* relation.

Vyāśrayatva

Asiddhatva in this section holds true only when two rules are *samānāśraya*. This example shows the working when two rules are *vyāśraya* within this section.

Example: पशुषः (*paśuṣaḥ*)

पशुं सनोति पशु सन् पशु सन् विद् शस् पशु सन् ० शस् पशु स आ शस् पशु सा अस्	6.4.41 विड्वनोरनुनासिकस्यात् 6.1.101 अकः सवर्णे दीर्घः
<i>paśuṃ sanoti</i> <i>paśu san</i> <i>paśu san viṭ śas</i> <i>paśu san 0 śas</i> <i>paśu sa ā śas</i> <i>paśu sā as</i>	6.4.41 viḍvanoranunāsikasyāt 6.1.101 akaḥ savarṇe dīrghaḥ
At this stage 6.4.140 आतो धातोः (<i>āto dhātoḥ</i>) can be applied since 6.4.41 is <i>siddha</i> to 6.4.140.	
पशु स् अस् पशु सः पशुषः	6.4.140 आतो धातोः <i>paśu s as</i> 6.4.140 āto dhātoḥ <i>paśu saḥ</i> <i>paśuṣaḥ</i>

Utsarga- apavāda relation within ābhīya section

Example: यन्ति (yanti)

6.4.81 इणो यण् (*iṇo yaṇ*) is an exception to 6.4.77 अचि श्रुधातुभ्रुवां खोरियडुवडौ (*aci śnudhātubhruvām yvoriyaṇuvau*) as stated in KK - इयडादेशापवदोऽयम्। (*iyaṇādeśāpavado 'yam*).

इ + लँट्	
इ + झि	
इ + शप् + झि	
इ + झि	
इ + अन्ति	
य् + अन्ति	6.4.81 इणो यण्
य् + अंति	8.3.24 नश्चापदान्तस्य झलि
यन्ति	8.4.58 अनुस्वारस्य ययि परसवर्णः
यन्ति	
<i>i + lamṭ</i>	
<i>i + jhi</i>	
<i>i + śap + jhi</i>	
<i>i + jhi</i>	
<i>i + anti</i>	
<i>y + anti</i>	6.4.81 <i>iṇo yaṇ</i>
<i>y + aṁti</i>	8.3.24 <i>naścāpadāntasya jhali</i>
<i>yanti</i>	8.4.58 <i>anusvārasya yayi parasavarṇaḥ</i>
<i>yanti</i>	

Ābhīya section and its relationship with the rest of the sapādasaptādhyāyī

The interaction of ābhīya rules with the rest of the sapādasaptādhyāyī can be discussed under utsarga-apavāda relation.

Utsarga-apavāda relation

Case 1: 6.4.48 अतो लोपः (*ato lopaḥ*) takes precedence over operations such as *vṛddhi*, *dīrghatva*, *pararūpa-ekādeśa*, *guṇaikādeśa* and *vṛddhi-ekādeśa* as seen in the examples below.²¹⁵

²¹⁵ Pataskar, *Utsargāpavāda relation in the Aṣṭādhyāyī*, 130-1.

Example: चिकीर्षक (*cikīrṣaka*)

Vṛddhi by 7.2.115 अचो ङिति (*aco ṅṇiti*) is avoided in this case. Pataskar²¹⁶ says that 6.4.48 is a special rule. Tradition applies *pūrvavipratishedha* principle while SD Joshi, using the *siddha* principle, states that deletion rules are environment- changing rules that take precedence.

Case 2: 6.4.51 णेरनिति (*ṇeraniṭi*)

KK states that 6.4.51 णेरनिति (*ṇeraniṭi*) is an *apavāda* to *iyaṇ-yaṇ-guṇa-vṛddhi* and *dīrghā* operations (*iyaṇyaṇguṇavṛddhidīrghāṇāmapavādaḥ*). The examples are as follows:

Examples	Operation avoided	Rule avoided
<i>atatakṣat</i> <i>ararakṣat</i>	<i>iyaṇ</i>	6.4.77 अचि श्रुधातुभ्रुवां खोरियडुवडौ (<i>aci śnudhātubhruvām yvoriyaṇuvaṇau</i>)
<i>āśiśat</i> , <i>āṭiṭat</i>	<i>yaṇādeśa</i>	6.4.82 एरनेकाचोऽसंयोगपूर्वस्य (<i>eranekāco 'saṃyogapūrvasya</i>)
<i>kāraṇā</i> <i>hāraṇā</i>	<i>guṇa</i>	7.3.84 सार्वधातुकार्धधातुकयोः (<i>sārvadhātukārdhadhātukayoḥ</i>)
<i>kāraḥ</i> <i>hāraḥ</i>	<i>vṛddhi</i>	7.2.115 अचो ङिति (<i>aco ṅṇiti</i>)
<i>kāryate</i> <i>hāryate</i>	<i>dīrgha</i>	7.4.25 अकृत्सार्वधातुकयोर्दीर्घः (<i>akṛtsārvadhātukayordīrghaḥ</i>)
<i>jñīpsati</i>	<i>dīrgha</i>	6.4.16 अज्झनगमां सनि (<i>ajjhanagamām sani</i>)

Case 3: 6.4.64 आतो लोप इति च (*āto lopa iṭi ca*)

Example: ययतुः (*yayatuḥ*)

At the stage of *ya + yā + atus*, 6.4.64 आतो लोप इति च (*āto lopa iṭi ca*) and 6.1.101 अकः सवर्णे दीर्घः (*akaḥ savarṇe dīrghaḥ*) are applicable. 6.4.64 is prescribed for *ā* of *a* verbal base + *atus* (any *ārdhadhātuka* suffix) while 6.1.101 is for any *ā* + any *a*. Thus, 6.4.64 is a special rule. 6.4.64 prevails giving *ya + y + atus*.

6.4.48, 6.4.51 and 6.4.64 come under the *adhikāra* of *ārdhadhātuka*. This may be considered as another factor for the precedence of application of rules over the other general rules.

²¹⁶ Pataskar, *Utsargāpavāda relation in the Aṣṭādhyāyī*, 126.

Case 4: *iyaṇ* /*uvaṇ* substitutions (6.4.77 – 6.4.80)

Example: लुलुवतुः (*luluvatuḥ*)

At the stage of *lu* + *lū* + *atus*, 6.4.77 अचि श्रु-धातु-भ्रुवां खोरियडुवडौ (*aci śnu-dhātubhruvām yvoriyaṇuvaṇau*) and 6.1.77 इको यणचि (*iko yaṇaci*) are applicable. 6.4.77 is for *i* of a verbal base while 6.1.77 is for any. Therefore, 6.4.77 prevails giving *lu* + *luv* + *atus*.

Summarizing,

1. The *ābhīya* section includes *ajādeśas*, *halādeśas* and *āgama* rules.
2. The traditional interpretation, domain of *aṅga*, *sthānivadbhāva* and *pratyayalakṣaṇa* are discussed.
3. The interaction of *ābhīya* rules within the *ābhīya* section is considered under *vyāśrayatva* and *utsarga-apavāda* relation and the interaction of *ābhīya* rules with the rest of the *sapādasaptādhyāyī* is considered under *utsarga-apavāda* relation.

Observations:

The observations after examining the examples of the *asiddhavat* section discussed above are:

1. There is *asiddhatva* only when there is *samānāśraya* within the *ābhīya* section. *Asiddhatva* does not hold in all cases and is not invariably applicable as mentioned in NY. To quote: आभाच्छास्त्रीयमसिद्धत्वमनित्यम्॥ (*ābhācchāstrīyam-asiddhatvamanityam*) under 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*).
2. The rules of the *ābhīya* section that are *siddha* to each other are applied in the same manner as the rules of the rest of the *sapādasaptādhyāyī*.
 - a. The *utsarga-apavāda* relation is applied in the same manner as the rest of the *sapādasaptādhyāyī* rules.
 - b. All other ordering principles that are valid throughout the *sapādasaptādhyāyī* are valid even in the *ābhīya* section.
3. The rules of the *ābhīya* section are not applied in a sequential manner.
4. There is no *asiddhatva* between the earlier rules and the latter ones as in the case of *tripādī*.

Comparison of *tripādī* with the *ābhīya* section

Two distinct sections of the *Aṣṭādhyāyī* address the principle of *asiddhatva*. The next step in studying this principle is to compare the two sections. A comparison of *tripādī* and *ābhīya* sections is tabulated below:

<i>tripādī</i>	<i>ābhīya</i>
<i>Asiddhatva</i> is <i>nitya</i> to <i>sapādasaptādhyāyī</i> as well as the subsequent rules.	There is no <i>asiddhatva</i> with respect to <i>sapādasaptādhyāyī</i> . There is <i>asiddhatva</i> only if the rules within this section share the same linguistic elements. Thus, <i>asiddhatva</i> is said to be <i>anitya</i> . This is a justification for the term <i>vat</i> in 6.4.22. Thus, <i>asiddhatva</i> is <i>anitya</i> .
Domain of <i>pada</i> and <i>saṃhitā</i>	Domain of <i>aṅga</i>
The rules are applied in sequential order.	There are no such constraints in this section. However, there seems to be some sort of sequentiality in application of rules when they are <i>samānāśraya</i> .
The types of operations in <i>tripādī</i> are predominantly <i>halādeśa</i> operations.	Both <i>ajādeśa</i> and <i>halādeśa</i> operations are observed in <i>ābhīya</i> section.
<i>Sthānin</i> is the same when there is <i>asiddhatva</i> .	<i>Sthānins</i> can be different when there is <i>asiddhatva</i> .
There is no <i>vipratīṣedha</i> in <i>tripādī</i> .	There is no <i>vipratīṣedha</i> even in this section.

Table 3.4: Comparison of *tripādī* and *ābhīya* sections

It can be observed from the above table that the *asiddha* section (*tripādī*) and the *asiddhavat* section (*ābhīya*) are different from each other. This concludes the analysis of the *ābhīya* section.

3.4 *Sthānivadbhāva* and *asiddhatva*²¹⁷

Sthānivadbhāva, as already mentioned earlier, is a technique by which properties of the substituend (*sthānin*) are transferred to the substitute (*ādeśa*). The rules 1.1.56 – 1.1.59 deal with this concept. These rules are considered in brief below:

1.1.56 स्थानिवदादेशोऽनल्विधौ (*sthānivadādeśo 'nalvidhau*)

A substitute acts like the substituend for operations that are not associated with a single letter.

1.1.57 अचः परस्मिन् पूर्वविधौ (*acaḥ parasmin pūrvavidhau*)

A substitute, if in case of a vowel, acts like the substituend when the cause for this substitution lies in the subsequent entity and it behaves like the substituend only for an operation to be undertaken for an entity that lies prior to the substituend.

1.1.58 न पदान्तद्विर्वचनवरेयलोपस्वरसवर्णानुस्वारदीर्घजश्चर्विधिषु

(*na padānta-dvirvacana-vareyalopa-svara-savarṇānusvāra-dīrgha-jaścarvidhiṣu*)

1.1.59 द्विर्वचनेऽचि (*dvirvacane 'ci*) – This rule is not relevant for this discussion.

This transference of properties is negated for certain operations as given by the rule 1.1.58 न पदान्तद्विर्वचनवरेयलोपस्वरसवर्णानुस्वारदीर्घजश्चर्विधिषु (*na padānta-dvirvacana-vareyalopa-svara-savarṇānusvāra-dīrgha-jaścarvidhiṣu*), the conditions for such a negation being laid down by 1.1.57 अचः परस्मिन् पूर्वविधौ (*acaḥ parasmin pūrvavidhau*): *ac* is a *sthānin*; there is *ādeśa* (substitute) for this *ac*, the *nimitta* for this *ādeśa* lies in the subsequent entity; this substitute behaves like the substituend for a *pūrvavidhi* to be undertaken. Paying close attention to the operations listed out in 1.1.58, it can be observed that most of these operations involve the *tripādī* section.

Traditional and modern scholars have undertaken studies on the relationship between *sthānivadbhāva* and *asiddhatva*. A review of these studies seems appropriate at this juncture.

²¹⁷ This section has been published in part in *Annals of the Bhandarkar Oriental Research Institute* Volume 102. The review of Prof. George Cardona has been included in this revised version.

Literature review

Many studies have focussed on the relation between *sthānivadbhāva* and *asiddhatva*. One of the earliest studies on *tripādī* is by Buiskool.²¹⁸ He combines rules 1.1.56 – 1.1.63 under the heading of *sthānivatsūtras* and mentions that 1.1.57 – 1.1.59 refer to vowel substitutions.

The functions of *sthānivadbhāva* and *asiddhatva*, the *siddha* theory and the positive aspect of *sthānivadbhāva* have been analysed in the four articles penned by S.D. Joshi and J.A.F. Roodbergen.²¹⁹ Across these studies, the following points have been highlighted:

- The *antaraṅga* – *bahiraṅga* relation does not hold word-internally and the negative version of *sthānivadbhāva* is not accepted. They suggest placing the *svarasandhi* rules in *tripādī*. The *padavidhi* section dealing with compounds, *taddhitas* and denominative verbs is probably later addition to the basic text.
- The concepts of *asiddha*, *sthānivadbhāva* and *antaraṅga paribhāṣā* have been badly mixed up, starting from a relatively early (pre- *Patañjali*) date, because to all three of them the same function has been ascribed.
- *Sthānivadbhāva* applies only word-internally and it is not meant to block operations. Therefore, the rule 1.1.58 can be rejected.

Echoing the views of S.D. Joshi and J.A.F. Roodbergen, Sulich-Cowley²²⁰ states:

Sanskrit grammatical tradition does not clearly distinguish between the three mentioned principles, namely *sthānivadbhāva*, *asiddhatva* and *antaraṅga bahiraṅga*. Their domains of application often overlap and sometimes it seems that their functions are oddly similar, which would definitely be redundant.

To summarize, studies on *sthānivadbhāva* and *asiddhatva* have proposed the following: *siddha* theory, the rejection of negative aspect of *sthānivadbhāva* and *sthānivadbhāva* does not block operations.

²¹⁸ Buiskool, *The Tripādī*, 28-9.

²¹⁹ S.D. Joshi, and J.A.F. Roodbergen, "The Structure of the *Aṣṭādhyāyī* in historical perspective," *Proceedings of the International Seminar on Studies in the Aṣṭādhyāyī of Pāṇini* (1981): 59-95; S.D. Joshi, and J.A.F. Roodbergen, "On *Siddha*, *Asiddha* and *Sthānivat*," *Annals of the Bhandarkar Oriental Research Institute* Vol. 68, No. 1/4, 541-549; S.D. Joshi, and J.A.F. Roodbergen, "The rejection of P. 1.1.58: A confirmation of the exclusively positive aspect of *sthānivadbhāva*," *Annals of the Bhandarkar Oriental Research Institute* LXIX, (1988): 217 – 228; S.D. Joshi, and J.A.F. Roodbergen "The *Siddha*- principle as presupposed by some *Pāṇinisūtras*," *Annals of the Bhandarkar Oriental Research Institute*, Vol. 72/73, (1991): 47-58.

²²⁰ Sulich-Cowley, *The principle of suspension (asiddhatva) in Pāṇinian grammar*, 42.

Vārttika 3 पूर्वत्रासिद्धे च न स्थानिवदिति वक्तव्यम् । *Vārttika* 10 तस्य दोषः संयोगादिलोपलक्षणत्वेषु ।
 ॥ (*pūrvatrāsiddhe ca na sthānivaditi vaktavyam* | *tasya doṣaḥ saṃyogādilopa-latvaṇatveṣu*) are given under 1.1.58. These *vārttikas* negate *sthānivadbhāva* in *tripādī* except in cases such as *saṃyogādilopa*, *latva* and *ṇatva*. The ensuing section considers *Patañjali*'s interpretation of the *vārttika pūrvatrāsiddhe ca*.

Traditional interpretation of the *vārttika pūrvatrāsiddhe ca*

Patañjali under rule 1.1.58 न पदान्तद्विर्वचनवरेयलोपस्वरसवर्णानुस्वारदीर्घजश्चर्विधिषु (*na padānta-dvirvacana-vare-yalopa-svarasavarṇānusvāra-dīrgha-jaścarvidhiṣu*) discusses the rationale behind absence of *sthānivadbhāva* in *tripādī*. He lists out reasons:

Reason 1:

In the derivation of *adugdha*, there is complete elision of *ksa* by 7.3.73 लुग्वा दुहदिहलिहगुहामात्मनेपदे दन्त्ये (*lugvā duhadihalihaguhāmātmanepade dantye*). Consider the case when only the *a* of *ksa* (*sa*) is elided. In that case, only *s* of *ksa* will remain. This *s* can also be deleted by 8.2.26 झलो झलि (*jhalo jhali*). If *sthānivadbhāva* of *allopa* is considered, then as it is not followed by *jhal*, 8.2.26 cannot be applied. But, this *vārttika* states that there is no *sthānivadbhāva* in *tripādī* by which *sthānivadbhāva* for *allopa* is prevented.

Reason 2:

In the derivation of *dhaddhvam*, there is *ākāralopa* of *dhā* by 6.4.112 श्राऽभ्यस्तयोरातः (*śnābhyastayorātaḥ*). If *ākāralopa* is *sthānivat*, then, the root *dhā* will not be *jhaṣanta* by which 8.2.38 दधस्तथोश्च (*dadhastathośca*) will not be applicable. However, at this stage, the root *dhā* is *dh* which is *jhaṣanta* facilitating the application of 8.2.38.

Reason 3:

In the derivation of *ādityaḥ*, *ākāralopa* of *ya* of *āditya* is undertaken by 6.4.148 यस्येति च (*yasyeti ca*). Suppose *ākāralopa* is *sthānivat*, 8.4.64 हलो यमां यमि लोपः (*halo yamām yami lopah*) cannot be applied as *yam* will not follow.

Reason 4:

In the derivation of *pāpakṭiḥ*, there is *akāralopa* of *ya* of *yañ* by 6.4.48 अतो लोपः (*ato lopaḥ*); if the *akāralopa* is considered as *sthānivat* then, in that case, *kutva* by 8.2.30 cannot be undertaken because there is no *jhal*. Therefore, it is not considered as *sthānivat*.

After enumerating the advantages, *Patañjali* lists out three faults of this *vārttika* (*tasya doṣaḥ saṃyogādilopalatvaṇatveṣu*). They are:

1. *Samyogādilopa* – The example is *kākyartham*. At the stage of *kāki* + *artha*, there is *yaṅsandhi*. 8.2.29 स्कोः संयोगाद्योरन्ते च (*skoḥ saṃyogādyorante ca*) should not be applied; otherwise, there will be undesired elision of *k*. Thus, there is *sthānivadbhāva* for this operation. This is the first fault of this *vārttika*.
2. *Latva* - Examples are *nigāryate*, *nigālyate*. In their derivations, *ṇic lopa* (6.4.51 णेरनिटि (*ṇeraniṭi*)) takes place. At this stage, the consonant *r* is not followed by a vowel anymore. If *sthānivadbhāva* is considered, i.e. assume that *ṇic* is still present, optional *latva* by 8.2.21 अचि विभाषा (*aci vibhāṣā*) can be achieved.
3. *Ṇatva* – Examples are *māṣavapanī-vrīhivapanī* or *māṣavapaṇī - vrīhivapaṇī*. At the derivational stage of *māṣavapana ṇīp*, there is *allopa* by 6.4.148 यस्येति च (*yasyeti ca*) resulting in *māṣavapan ṇīp*. Now it is *nakārānta*, so the परिभाषा- गतिकारकोपपदानां कृद्धिः सह समासवचनं प्राक् सुबुत्पत्तेः (*paribhāṣā- gatikārapapadānāṃ kṛdbhiḥ saha samāsavacanam prāk subutpatteh*) is applied before *ṇīp*. It becomes *samāsa* before applying *ṇīp*; thus, there is optional *ṇatva* because of 8.4.11 प्रातिपदिकान्तनुम्बिभक्तिषु च (*prātipadikānta-numvibhaktiṣu ca*). If *allopa* is considered *sthānivat*, then as it is not *nakārānta*, *ṇatva* will not take place. Therefore, there is *sthānivadbhāva* in *tripādī* for *ṇatva*. It is considered as one of the faults.

It is to be noted that in case of *latva* and *ṇatva*, there is optionality introduced by 8.2.21 अचि विभाषा (*aci vibhāṣā*) and 8.4.11 प्रातिपदिकान्त-नुम्बिभक्तिषु च (*prātipadikānta-numvibhaktiṣu ca*). This is the reason for considering them as *doṣas* (faults) as these operations are not negated completely. Therefore, these operations are also not included in 1.1.58 न पदान्तद्विर्वचन-वरेयलोप-स्वरसवर्णानुस्वार-दीर्घजश्चर्विधिषु (*na padānta-dvirvacana-vare-yalopa-svara-savarṇānusvāra-dīrghajaścarvidhiṣu*).

As already pointed out, certain specific operations of the *tripādī* have been listed out in 1.1.58. This served as the trigger point for proposing a hypothesis linking the negation of *sthānivadbhāva* (1.1.58), the *ābhīya* section and *tripādī*.

Hypothesis proposed

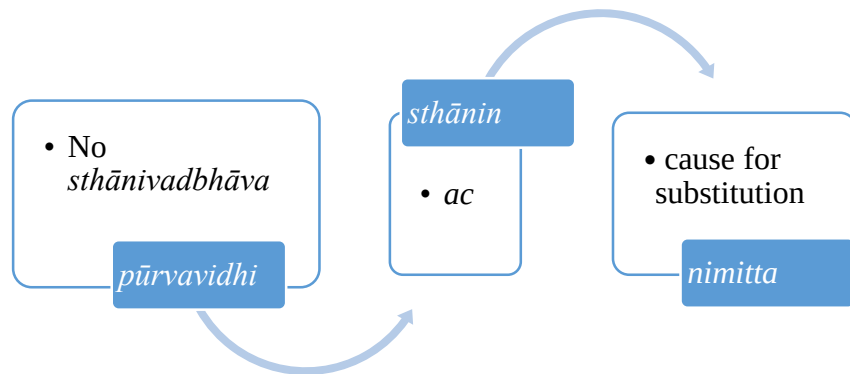
A link between the negation of *sthānivadbhāva* (1.1.58), the *ābhīya* section and *tripādī* is being proposed in this section. Prior to this, a quick review of the concepts of *ajādeśa* and the negation of *sthānivadbhāva* is presented below:

- If there is a *ādeśa* for *ac* which is a *sthānin* and the cause of this *ādeśa* lies in the subsequent entity and if a *pūrvavidhi* has to be undertaken, then for this *pūrvavidhi*, there is no *sthānivadbhāva* for the operations listed in 1.1.58.
- The operations listed out in 1.1.58 न पदान्तद्विर्वचन-वरे-यलोप-स्वर-सवर्णानुस्वार-दीर्घ-जश्चर्विधिषु (*na padānta-dvirvacana-vare-yalopa-svara-savarṇānusvāra-dīrghajaścarvidhiṣu*) are *padānta-dvirvacana-vare-yalopa-svara-savarṇa-anusvāra-dīrgha- jaś- car*. The operations *padānta-dvirvacana-svara-savarṇa-anusvāra-dīrgha- jaś- car* are all described in *tripādī*. *Vare-yalopa* can be interpreted either as *yalopa* in case of *varac* affix or as two separate operations such as *varac* and *yalopa*. *Yalopa* takes place either by 6.1.66 लोपो व्योर्वलि (*lopo vyorvali*) in case of *varac* or by 8.4.64 हलो यमां यमि लोपः (*halo yamāṃ yami lopah*) of the *tripādī*.
- The *vārttika pūrvatrāsiddhe ca* clearly mentions that there is no *sthānivadbhāva* in *tripādī*. However, there is no such *vārttika* for the *ābhīya* section.

- None of the rules in *tripādī* deal with *ajādeśa* other than *dīrghavidhi* which is again only for roots and *pada* (8.2.76 वीरुपधाया दीर्घ इकः (*rvorupadhāyā dīrgha ikah*) – 8.2.79 न भकुर्चुराम् (*na bhakurchurām*)). Thus, it is entirely acceptable to have such a *vārttika*.

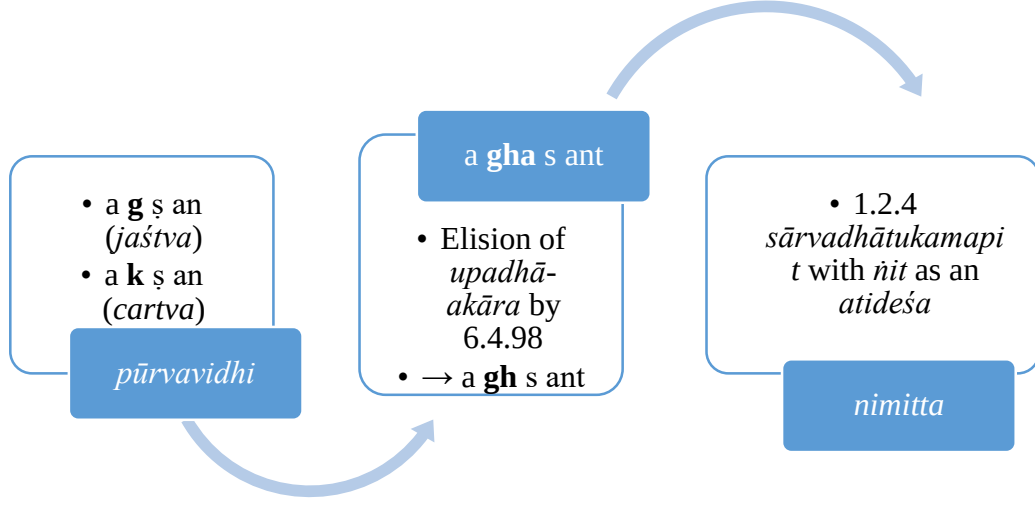
The main points of this hypothesis are:

1. All consonant substitutions are undertaken in *tripādī*. There is *sthānivadbhāva* for a *ādeśa* only for operations not associated with a single letter (1.1.56 स्थानिवदादेशोऽनल्विधौ (*sthānivadādeśo 'nalvidhau*)). Therefore, the concept of *sthānivadbhāva* in *tripādī* is automatically dismissed.
2. It seems that *Pāṇini*'s strategy is to continue negation of *sthānivadbhāva* even in the *ābhīya* section. This negation seems to be restricted to vowel substitutions.
3. To achieve this, an *ajādeśa* rule of the *ābhīya* section is applied. After applying the *ābhīya* rule, the *pūrvavidhi* is undertaken. This *pūrvavidhi* does not have *sthānivadbhāva* only for those operations listed in 1.1.58.
4. This hypothesis holds true for most cases of the operations. The exceptions are discussed in the examples.



To illustrate, the example of *akṣan* is considered. At the stage of *a gha s ant*, there is elision of *upadhā-akāra* by 6.4.98 गम-हन-जन-खन-घसां लोपः किट्यनडि (*gama-hana-jana-khana-ghasām lopah knityanani*) (*ābhīya rule*). Elision of *t* takes place by 8.2.23 संयोगान्तस्य लोपः (*saṃyogāntasya lopah*) and *ṣatva* by 8.3.60 शासिवसिघसीनां च (*śāsivasighasīnām ca*).

a gh ś an → *a g ś an* (*jaśtva* 8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*)) → *a k ś an* (*cartva* 8.4.55 खरि च (*khari ca*)) → *ak ś an*



The *akāralopa* of *gha* takes place by 6.4.98 of the *ābhīya* section. This elision is a *ādeśa* for a vowel. The cause lies in the subsequent entity; 1.2.4 सार्वधातुकमपित् (*sārva dhātukamapit*) with *nit* as an *atideśa*. *Pūrvavidhi* is that **gh** undergoes *jaśtva* (**g**) followed by *cartva* (**k**). Both these operations, *jaśtva* and *cartva* are listed in 1.1.58. In this manner, the negation of *sthānivadbhāva* as given in 1.1.58 can be linked with the *ābhīya* section and *tripādī*.

Methodology

The methodology adopted for validating this hypothesis is as follows:

Searches are made for references for the terms “*pūrvatrāsiddhe*”, “*na sthāniva*” and *sthānivadbhāvaniṣedha* in commentaries such as *Mahābhāṣyaṃ*, *Kāśikā*, *Nyāsa*, *Padamañjarī*, *Siddhāntakaumudī*, *Bālaṃanoramā*, *Tatvabodhinī* and *Prauḍhamanoramā* using the search engine <https://ashtadhyayi.com/search/#word> developed by Neelesh Bodas. An additional task of examining the *ābhīya* section to identify rules that applied only to *ajādeśa* is also undertaken. Such rules are:

- 6.4.48 अतो लोपः (*ato lopah*)
- 6.4.51 णेरनिति (*ṇeraniṭi*)
- 6.4.64 आतो लोप इति च (*āto lopa iti ca*)
- 6.4.98 गमहनजनखनघसां लोपः किङित्यनङि (*gamahanajanakhanaghasām lopah knityanani*)

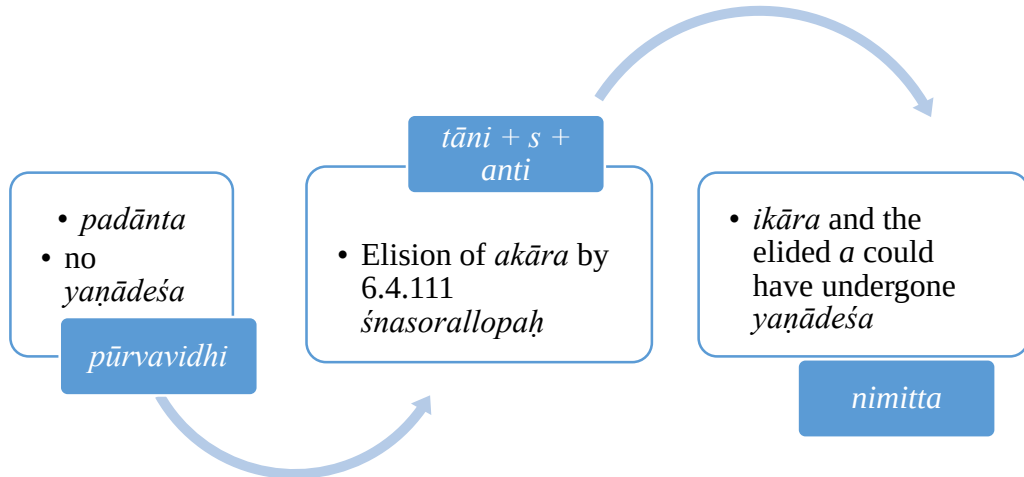
- 6.4.100 घसिभसोर्हलि च (*ghasibhasorhali ca*)
- 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*)
- 6.4.112 श्राऽभ्यस्तयोरातः (*śnā'bhyastayorātaḥ*)
- 6.4.134 अल्लोपोऽनः (*allopo'naḥ*)
- 6.4.148 यस्येति च (*yasyeti ca*)

Using this methodology, the hypothesis's validity can be demonstrated with examples. The examples are divided into two categories: those discussed under 1.1.58 and those found during the searches.

Examples discussed in *Kāśikā* under the rule 1.1.58 न पदान्त-द्विर्वचन-वरे-यलोप-स्वर-सवर्णानुस्वार-दीर्घजश्चर्विधिषु (*na padānta-dvirvacana-vare-yalopa-svarasavarṇānusvāra-dīrgha-jaścarvidhisu*)

Example for *padānta – tāni santi*

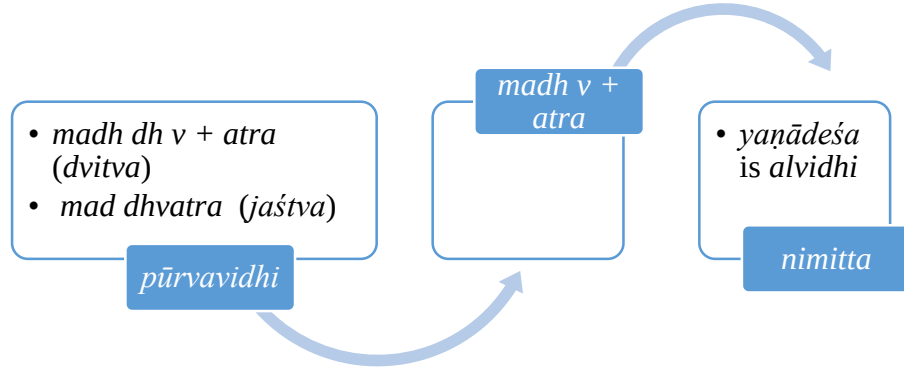
There is *akāralopa* by 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*) at the stage *tāni + s + anti*. *Ikāra* and the elided *a* could have undergone *yaṇādeśa* if *sthānivadbhāva* was considered. But, *padānta* in 1.1.58 prevents it. In this example, even though there is no rule of the *tripādī*, the *tripādī* still falls under the *adhikāra* of *pada*.



Example for *dvirvacana – maddhvatra*

6.1.77 इको यणचि (*iko yaṇaci*) is applied at the stage *madh v + atra*. *v* is not considered *sthānivat* (*ukāra*), thus *dvitva* takes place by 8.4.47 अनचि च (*anaci ca*). *madh dh v + atra* → *maddhvatra* (8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*))

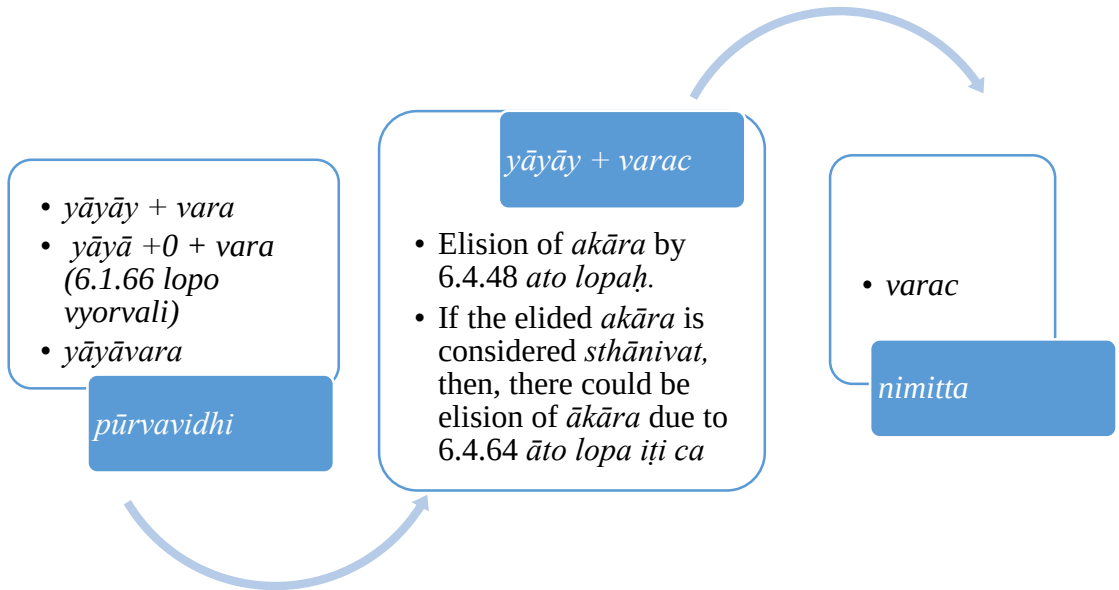
As there is no *sthānivadbhāva* for *yaṇādeśa* (*paranimitta*), *dvitva* is possible for *dh* and this also undergoes *jaśtva*. In this case, there is no involvement of the *ābhīya* section.



Example for *vare* – *yāyāvara*

At the stage of *yāyāya* + *varac*, there is elision of *akāra* by 6.4.48 अतो लोपः (*ato lopah*).

yāyāy + *vara* → *yāyā* + 0 + *vara* (6.1.66 लोपो व्योर्वलि (*lopo vyorvali*)) → *yāyāvara*



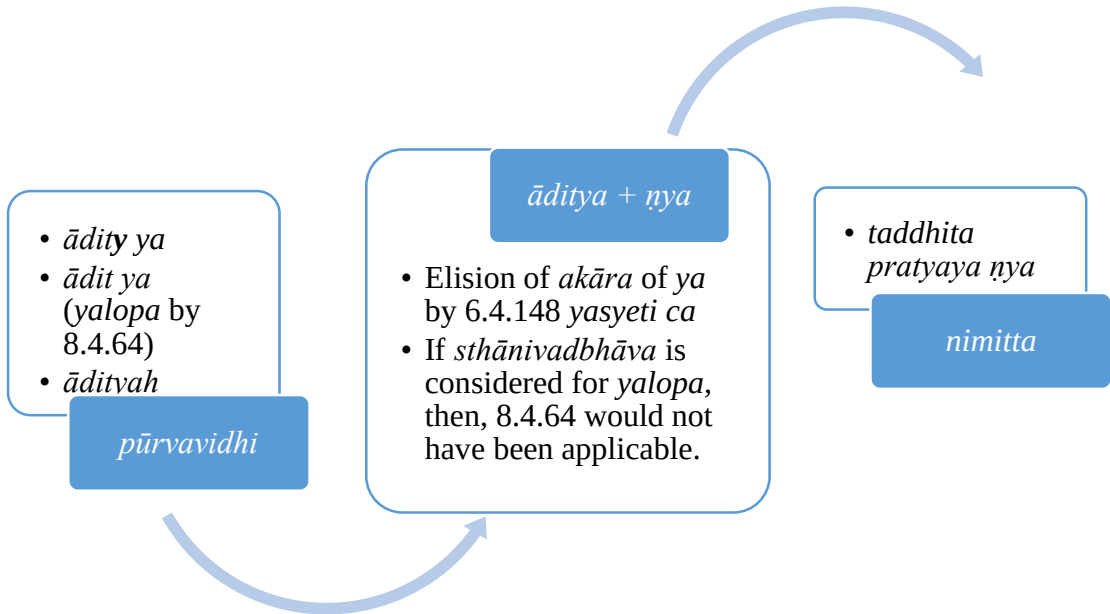
Varac is a *ārdhadhātuka pratyaya* (*paranimitta*). 6.4.48 states that the *a* standing at the end of an *aṅga* (stem) is elided before an *ārdhadhātuka* affix. If the elided *akāra* is considered *sthānivat*, then, there could be elision of *ākāra* due to 6.4.64 आतो लोप इति च (*āto lopa iṭi ca*). However, in case of *vara*, it is not *sthānivat*. It is to be noted that this rule, 6.4.64, is also from the *ābhīya* section. As there is no

sthānivadbhāva for *varac*, 6.4.64 cannot be applied. In this case, the negation of *sthānivadbhāva* helps to block an operation.

Example for *yalopa* – *ādityaḥ*

At the stage of *āditya* + *ṇya*, there is elision of *akāralopa* of *ya* by 6.4.148 यस्येति च (*yasyeti ca*) → *āditya ya* → *ādit ya* (8.4.64 हलो यमां यमि लोपः (*halo yamāṃ yami lopah*)) → *ādityaḥ*

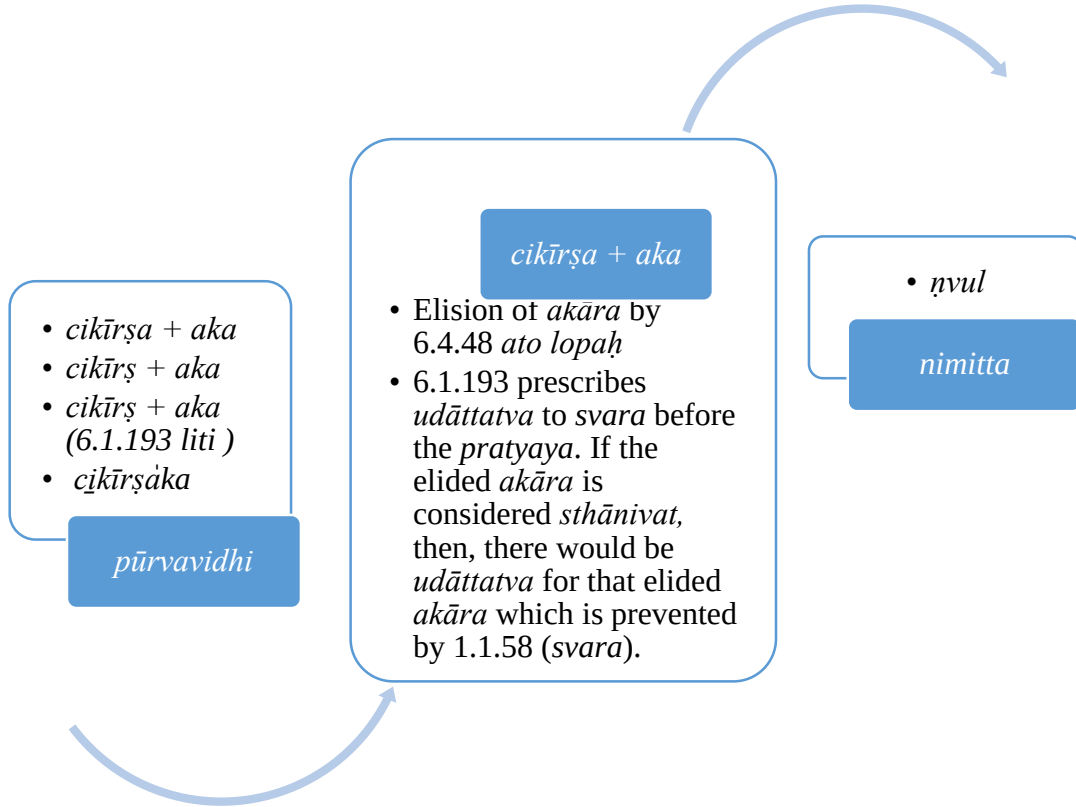
There is *yalopa* by 8.4.64 हलो यमां यमि लोपः (*halo yamāṃ yami lopah*) giving the desired form *ādityaḥ*. If *sthānivadbhāva* is considered for *yalopa*, then, 8.4.64 would not have been applicable.



Example for *svara* – *cikīrṣāka*

At the stage of *cikīrṣa* + *aka*, there is elision of *akāra* by 6.4.48 अतो लोपः (*ato lopah*).

cikīrṣa + *aka* → *cikīrṣa* + *aka* (6.1.193 लिति (*liti*)) → *cikīrṣāka*

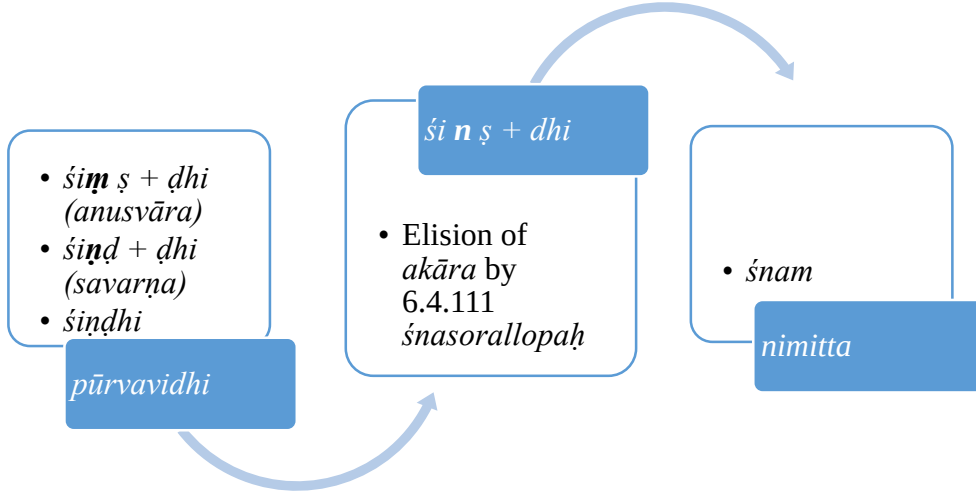


Ṇvul is an *ārdhadhātuka pratyaya* (*paranimitta*). 6.4.48 अतो लोपः (*ato lopah*) states that the *a* standing at the end of a *aṅga* (stem) is elided before an *ārdhadhātuka* affix. 6.1.193 लिति (*liti*) prescribes *udāttatva* to *svara* before the *pratyaya*. If the elided *akāra* is considered *sthānivat*, then, there would be *udāttatva* for that elided *akāra* which is prevented by 1.1.58 (*svara*). Thus, the *īkāra* after *kakāra* gets *udātta*. In this case, a *ābhīya* rule is involved but not a *tripādī* rule.

Example for *savarṇa* and *anusvāra* – *śiṇḍhi*

This is an example for both the operations – *savarṇa* and *anusvāra* mentioned in 1.1.58. At the stage of *śiṣ + hi*, 6.4.101 हुज्झल्भ्यो हेर्धिः (*hujhalbhyo herdhiḥ*) is applied before which *śnam pratyaya* (3.1.78 रुधादिभ्यः श्रम् (*rudhādibhyaḥ śnam*)) is added. Applying 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*), *śi na ṣ + dhi* → *śi n ṣ + dhi* → *śim ṣ + dhi* (*anusvāra* by 8.3.24 नश्चापदान्तस्य झलि (*naścāpadāntasya jhali*)). Then, *ṣṭutva* (8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*)) and *jaṣṭva* (8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*)) are undertaken.

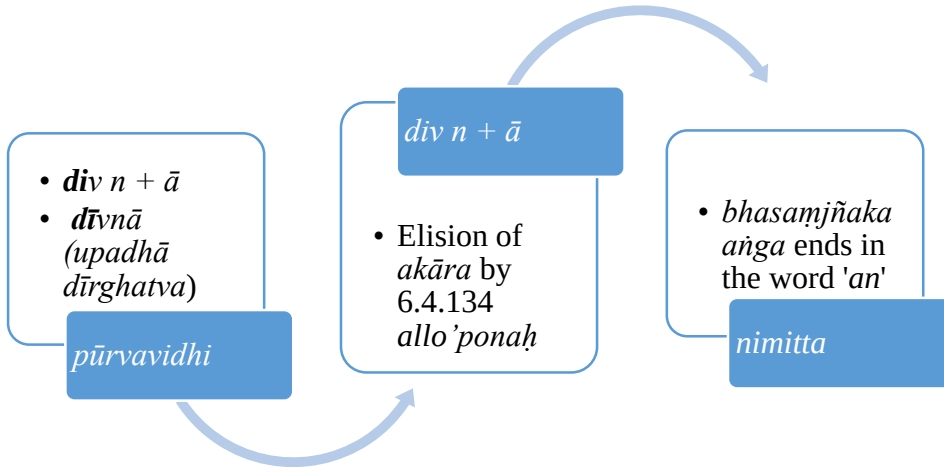
śim ṣ + dhi → *śim ḍ + dhi* → *śiṇḍ + dhi* (8.4.58 अनुस्वारस्य ययि परसवर्णः (*anusvārasya yayi parasavarṇaḥ*)) → *śiṇḍḍhi* (8.4.65 झरो झरि सवर्णे (*jharo jhari savarṇe*)) → *śiṇḍhi*



This elision (*akāralopa*) is for *nakāra* of *śnam-pratyaya* (*paranimitta*) and this *nakāra* is the one that undergoes *anusvāra* and also *savarṇa*. If the *akāralopa* is considered *sthānivat*, both the operations would not have taken place.

Example for *upadhā dīrgha – dīvnā*

In the example of *dīvnā*, *akāralopa* of *an* takes place at the stage *div n + ā* by 6.4.134 अल्लोपोऽनः (*allopo 'naḥ*) after which penultimate lengthening is done by 8.2.77 हलि च (*hali ca*) giving the desired form *dīvnā*.

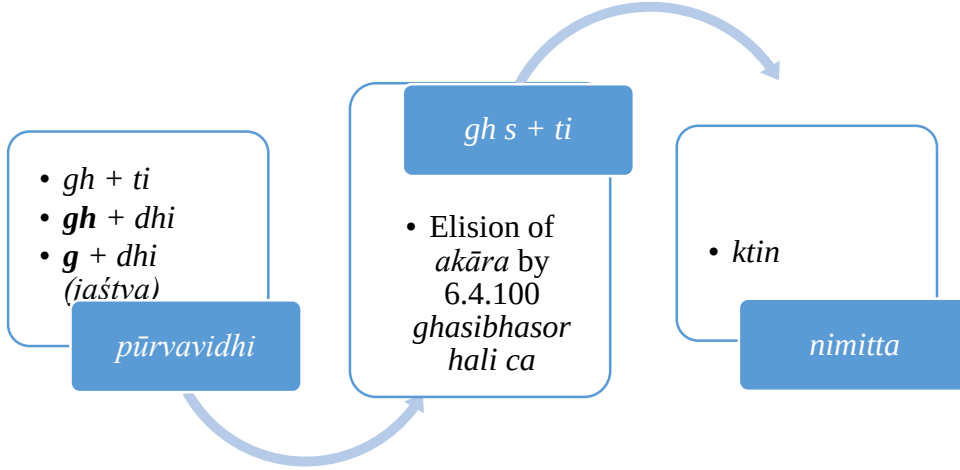


6.4.134 states that if a *bhasamjñaka aṅga* ends in the word 'an', then the 'a' of this 'an' is omitted. This elision of *akāralopa* is not *sthānivat* for penultimate lengthening. If it is considered so, then there would be no *hal* by which lengthening will not take place.

Example for *jaṣṭva* – *gdhiḥ*

At the stage of *ghas + ti*, there is elision of *akāra* → *gh s + ti* (6.4.100 घसिभसोर्हलि च (*ghasibhasorhali ca*)). There is *sakāralopa* by 8.2.26 झलो झलि (*jhalo jhali*).

gh + ti → *gh + dhi* (8.2.40 झषस्तथोर्धोऽधः (*jhaṣastathordho'dhaḥ*)) → *g + dhi*. *gh* undergoes *jaṣṭva* by 8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*) giving the form *gdhiḥ*.



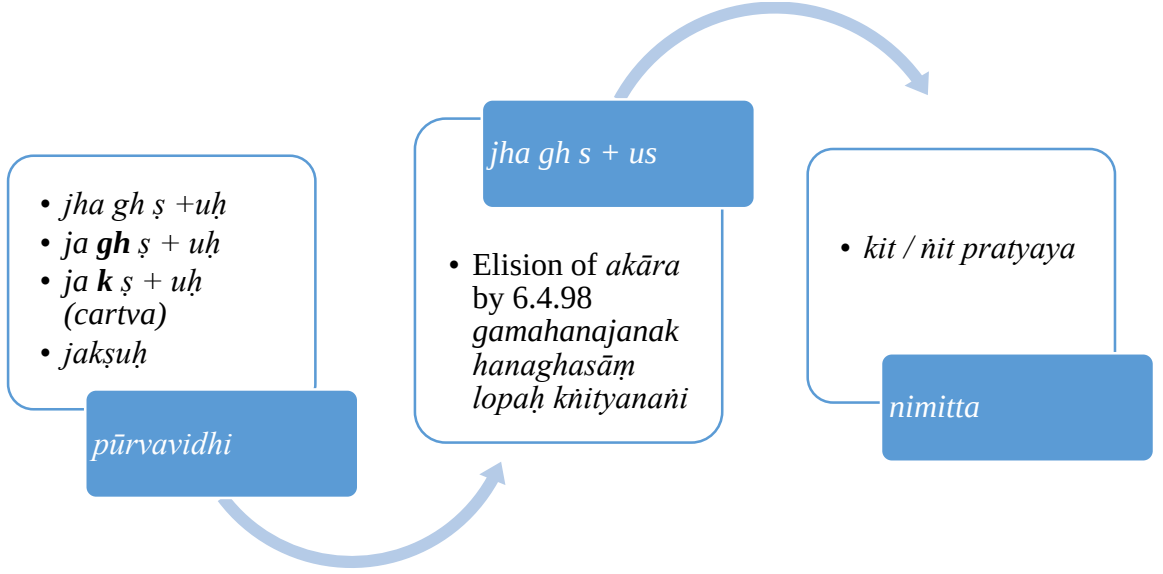
6.4.100 states that the root-vowel of *ghas* and *bhas* is elided in the *chandas* (*Vedas*) before any affix whether beginning with a vowel or a consonant which has an indicative *k* or *ṇ*. This elision of *akāra* is not *sthānivat* for *jaṣṭva*.

Example for *cartva* – *jakṣuḥ*

At the stage of *jha ghas + us*, 6.4.98 गमहनजनखनघसां लोपः किङित्यनङि (*gamahanajanakhanaghasām lopah kiṇityanaṇi*) is applied.

jha gh s + us → *jh gh s + uḥ* (*rutva* and *visarjanīya* by 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*) and 8.3.15 खरवसानयोर्विसर्जनीयः (*kharavasānāyorvisarjanīyaḥ*)) → *jha gh ṣ + uḥ* (*ṣatva* by 8.3.60 शासिवसिघसीनां च (*śāsivasighasīnām ca*)) → *ja gh ṣ + uḥ* (7.4.62 कुहोश्चुः (*kuhoścuḥ*)).

At this stage, *cartva* (8.4.55 खरि च (*khari ca*)) takes place of *gh* for which there was *akāralopa* → *ja k ṣ + uḥ* giving the form *jakṣuḥ*.



6.4.98 states that the *upadhā* letter of the verb roots *gam*, *han*, *jan*, *khan*, *ghas* is elided when followed by a *kit / nit pratyaya* (*paranimitta*) except for the *aṇ pratyaya*. This elision of *akāralopa* of *ghas* is not *sthānivat* for *cartva*.

It can be observed that the hypothesis of linking the negation of *sthānivadbhāva*, the *ābhīya* section and *tripādī* holds true for operations such as *yalopa*, *parasavarṇa*, *anusvāra*, *dīrgha*, *jaṣṭva* and *cartva*. In case of the other operations, namely *padānta*, *dvirvacana*, *varac* and *svara*, either a rule from the *ābhīya* section or a *tripādī* rule is linked to the negation of *sthānivadbhāva*.

A few more examples obtained from the searches have been tabulated to further validate the hypothesis.

Example	Prakriyā	ābhīya rule	Operation listed in 1.1.58
<i>babdhām</i>	At the stage of <i>babhs+tām</i> , 6.4.100 घसिभसोर्हलि च (<i>ghasibhasorhali ca</i>) is applicable. There is <i>sakāralopa</i> by 8.2.26 झलो झलि (<i>jhalo jhali</i>). <i>babh+tām</i> → <i>babh+dhām</i> (8.2.40 झषस्तथोर्धोऽधः (<i>jhaṣastathordho 'dhaḥ</i>)) → <i>babdhām</i> (8.4.53 झलां जश् झशि (<i>jhalām jaś jhaśi</i>))	6.4.100 घसिभसोर्हलि च (<i>ghasibhasorhali ca</i>)	The <i>akāralopa</i> of <i>bha</i> takes place. <i>Pūrvavidhi</i> is that this <i>bha</i> undergoes <i>jaśtva</i> (<i>b</i>).
<i>runddhaḥ</i> <i>rundhaḥ</i>	<i>akāralopa</i> of <i>śnam</i> takes place by 6.4.111 श्रसोरल्लोपः (<i>śnasorallopaḥ</i>) <i>ru n dh + tas</i> → <i>ru n dh + dhas</i> (8.2.40 झषस्तथोर्धोऽधः (<i>jhaṣastathordho 'dhaḥ</i>)) → <i>ru n dh + dharum</i> (8.2.66 ससजुषो रुः (<i>sasajuṣo ruḥ</i>)) → <i>ru n dh + dhaḥ</i> (8.3.15 खरवसानयोर्विसर्जनीयः (<i>kharavasānayorvisarjanīyah</i>)) → <i>rum dh + dhaḥ</i> (8.3.24 नश्चापदान्तस्य झलि (<i>naścāpadāntasya jhali</i>)) → <i>rum d + dhaḥ</i> (8.4.53 झलां जश् झशि (<i>jhalām jaś jhaśi</i>)) → <i>run d + dhaḥ</i> (8.4.58 अनुस्वारस्य ययि परसवर्णः (<i>anusvārasya yayi parasavarṇaḥ</i>)) <i>runddhaḥ, rundhaḥ</i> (8.4.65 झरो झरि सवर्णे (<i>jharo jhari savarṇe</i>))	6.4.111 श्रसोरल्लोपः (<i>śnasorallopaḥ</i>)	The <i>akāralopa</i> of <i>na</i> takes place. <i>Pūrvavidhi</i> is that this <i>n</i> undergoes <i>anusvāra</i> followed by <i>parasavarṇa</i> .
<i>bhinddhi</i> <i>bhindhi</i> Similarly, <i>indhe</i>	At the stage of <i>bhi n d + hi</i> , 6.4.111 श्रसोरल्लोपः (<i>śnasorallopaḥ</i>) is applied. → <i>bhi n d + dhi</i> (6.4.101 हुझल्भ्यो हेर्धिः (<i>hujhalbhyo herdhiḥ</i>)) → <i>bhim d + dhi</i> (8.3.24 नश्चापदान्तस्य झलि (<i>naścāpadāntasya jhali</i>)) → <i>bhi n d + dhi</i> (8.4.58 अनुस्वारस्य ययि परसवर्णः (<i>anusvārasya yayi parasavarṇaḥ</i>))		

	→ <i>bhindddhi, bhindhi</i> (8.4.65 झरो झरि सवर्णे (<i>jharo jhari savarṇe</i>))		
<i>yunkte</i>	At this stage, <i>yunj+te</i> (6.4.111 श्रसोरल्लोपः (<i>śnasorallopaḥ</i>)) → <i>yung+te</i> (8.2.30 चोः कुः (<i>coḥ kuḥ</i>)) → <i>yumṅ+te</i> (8.3.24 नश्चापदान्तस्य झलि (<i>naścāpadāntasya jhali</i>)) → <i>yumkte</i> (8.4.55 खरि च (<i>khari ca</i>)) → <i>yunkte</i> (8.4.58 अनुस्वारस्य ययि परसवर्णः (<i>anusvārasya yayi parasavarṇaḥ</i>))		
<i>rinṅktaḥ</i> Similarly <i>bhaṅktaḥ</i> <i>bhañjvaḥ</i>	At this stage, <i>rinc+tas</i> (6.4.111 श्रसोरल्लोपः (<i>śnasorallopaḥ</i>)) → <i>rink+tas</i> (8.2.30 चोः कुः (<i>coḥ kuḥ</i>)) → <i>rink+tarum</i> (8.2.66 ससजुषो रुः (<i>sasajuṣo ruḥ</i>)) → <i>rink+taḥ</i> (8.3.15 खरवसानयोर्विसर्जनीयः (<i>kharavasānayorvisarjanīyaḥ</i>)) → <i>riṅk+taḥ</i> (8.3.24 नश्चापदान्तस्य झलि (<i>naścāpadāntasya jhali</i>)) → <i>rinṅktaḥ</i> (8.4.58 अनुस्वारस्य ययि परसवर्णः (<i>anusvārasya yayi parasavarṇaḥ</i>)) → <i>rinṅktaḥ</i>		
<i>sisanīḥ</i>	At the stage of <i>si saniṣa kvip</i> , 6.4.48 अतो लोपः (<i>ato lopah</i>) is applicable by which there is <i>akāralopa</i> <i>si saniṣ</i> → <i>si sani ru</i> (<i>rutva</i> takes place because <i>ṣatva</i> is <i>asiddha</i>) → <i>sisanīr</i> (8.2.76 वोरुपधाया दीर्घ इकः (<i>rvorupadhāyā dīrgha ikah</i>)) <i>sisanīḥ</i>	6.4.48 अतो लोपः (<i>ato lopah</i>)	The <i>akāralopa</i> of <i>sa (ṣa)</i> takes place. <i>Pūrvavidhi</i> is that this <i>upadhā ni</i> undergoes <i>dīrghatva</i>
<i>kīrtanīya</i>	<i>kṛt + ṇic</i> → <i>kir t + i</i> → <i>kirti</i> → <i>kirti + anīyar</i>	6.4.51 णेरनिति (<i>ṇeraniṭi</i>)	<i>Pūrvavidhi</i> is that this <i>upadhā ki</i> undergoes <i>dīrghatva</i>

Similarly, <i>acikīrtat</i>	At this stage, 6.4.51 णेरनिटि (<i>ṇeraniṭi</i>) is applicable by which there is <i>i lopa</i> of <i>ti</i> . <i>kirt + anīya</i> (6.4.51 णेरनिटि (<i>ṇeraniṭi</i>)) <i>kīrtanīya</i> (8.2.78 उपधायां च (<i>upadhāyāṃ ca</i>))		
<i>dattaḥ</i>	At the stage of <i>da dā + tas</i> , 6.4.112 श्राऽभ्यस्तयोरातः (<i>śnā 'bhyastayorātaḥ</i>) is applied. → <i>dad + taḥ</i> → <i>dattaḥ</i> (8.4.55 खरि च (<i>khari ca</i>))	6.4.112 श्राऽभ्यस्तयोरातः (<i>śnā 'bhyastayorātaḥ</i>)	The <i>ākāralopa</i> of <i>dā</i> takes place. This <i>d</i> undergoes <i>cartva</i> (<i>t</i>).
<i>dhaddhve</i>	At the stage of <i>dha dhā dhvam</i> , 6.4.112 श्राऽभ्यस्तयोरातः (<i>śnā 'bhyastayorātaḥ</i>) is applied. → <i>dha dh dhvam</i> → <i>dha dh dhve</i> → <i>da dh dhve</i> (8.4.54 अभ्यासे चर्च (<i>abhyāse carcca</i>)) → <i>dhadh dhve</i> (8.2.38 दधस्तथोश्च (<i>dadhastathośca</i>)) → <i>dha d dhve</i> (8.4.53 झलां जश् झशि (<i>jhalāṃ jaś jhaśi</i>)) → <i>dhaddhve</i>		The <i>ākāralopa</i> of <i>dhā</i> takes place. The <i>dh</i> undergoes <i>jaśtva</i> (<i>d</i>).
<i>ṣaḍika</i>	<i>ṣaḍ + aṅgulidattaḥ + ṭha</i> → <i>ṣaṣ + a + ṭhac</i> → <i>ṣaṣ + a + ik</i> At this stage, there is elision of <i>akāralopa</i> of <i>ṣa</i> by 6.4.148 यस्येति च (<i>yasyeti ca</i>) → <i>ṣaṣ + ik</i> → <i>ṣaḍ + ik</i> (8.2.39 झलां जशोऽन्ते (<i>jhalāṃ jaśo 'nte</i>)) → <i>ṣaḍika</i>	6.4.148 यस्येति च (<i>yasyeti ca</i>)	The <i>akāralopa</i> of <i>ṣa</i> takes place. The <i>ṣ</i> undergoes <i>jaśtva</i> (<i>ḍ</i>)
<i>haviṣya</i>	<i>haviṣyā ityukte āhutiḥ</i> <i>haviṣyā + yat</i>		

	At this stage, there is elision of <i>ākāralopa</i> of <i>ya</i> by 6.4.148 यस्येति च (<i>yasyeti ca</i>) → <i>haviṣy + yat</i> (6.4.148 यस्येति च (<i>yasyeti ca</i>)) → <i>haviṣyya</i> → <i>haviṣya</i> (8.4.64 हलो यमां यमि लोपः (<i>halo yamām yami lopah</i>))		
<i>āśya</i>	<i>āśye bhavaḥ</i> <i>āśya + yat</i> → <i>āśy + ya</i> (6.4.148 यस्येति च (<i>yasyeti ca</i>)) → <i>āś + ya</i> (8.4.64 हलो यमां यमि लोपः (<i>halo yamām yami lopah</i>)) → <i>āśya</i>		

The rationale behind selecting only these particular operations listed out in 1.1.58 will be analysed in the subsequent section.

Omission of other operations of *tripādī*

The *tripādī* has many other operations other than those listed in 1.1.58 न पदान्तद्विर्वचनवरेयलोपस्वरसवर्णानुस्वारदीर्घजश्चर्विधिषु (*na padāntadvirvacanavareyalopa-svarasavarṇānusvāra-dīrghajaścarvidhiṣu*). The reasons for not including the other operations could be because they are *paravidhi* or that the *ādeśa* is not an *ac ādeśa*. A few examples have been shown below to demonstrate this fact.

Examples when *paravidhi* is involved

Example 1: *rājñah* / *rājñā*

At the stage of *rāj an as*, there is elision of *akāralopa* of *an* by 6.4.134 अल्लोपोऽनः (*allopo 'nah*). $\rightarrow rāj\ n\ as \rightarrow rāj\ ñ\ as$ (8.4.40 स्तोः श्रुना श्रुः (*stoḥ ścunā scuh*)). In this case, *j* is followed by *n*. *n* undergoes *ścutva* and not *j*. *j* remains as it is. *ścutva* then becomes a *paravidhi* and not a *pūrvavidhi*. Therefore, *ścutva* is not included in 1.1.58.

Example 2: *abhiṣyāt*

In case of *abhiṣyāt*, there is *akāralopa* of *as* by 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*).

abhi as yāsuṭ t $\rightarrow$ *abhi s yās t* $\rightarrow$ *abhiṣyāt*

In this case, *s* undergoes *ṣatva* which is a *paravidhi* and this is not included in 1.1.58.

Example 3: *vyatidhve*

At the stage of *vyati as dhvam*, 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*) elides *akāra* of *as*.

vyati s dhvam $\rightarrow$ *vyati s dhve* (8.2.25 धि च (*dhi ca*)) $\rightarrow$ *vyatidhve*. In this case, the operation involved is *sakāralopa*. The elision of *s* is again *paravidhi* and it is not included in 1.1.58.

Example 4: *āyan*

At the stage of *y + ant*, 6.4.81 इणो यण् (*iṇo yaṇ*) becomes applicable replacing *i* with *y*

→ *āt + i + ant* (6.4.72 आडजादीनाम् (*āḍajādīnām*)) → *āyan* (8.2.23 संयोगान्तस्य लोपः (*saṃyogāntasya lopah*)). The operation involved is *saṃyogāntalopa* which is again a *paravidhi*. It does not involve the replacement of *i* with *y*. Therefore, *saṃyogāntalopa* is not included in 1.1.58. Another example of a similar kind is *abhūvan*.

Examples when the operation is not *ac vidhi*

Example 1: *sadhi*

At the stage of *sas+hi* → *sas+dhi* (6.4.101 हुज्जल्भ्यो हेर्धिः (*hujhalbhyo herdhiḥ*)) is applied → *sa +dhi* (8.2.25 धि च (*dhi ca*)). There is substitution of *hi* with *dhi* by a *ābhīya* rule. This substitution is not *ac*. In this case, there is avoidance of rules of the *ābhīya* section. *s* gets deleted by 8.2.25 धि च (*dhi ca*). 6.4.105 अतो हेः (*ato heḥ*) requires the deletion of *hi* as it follows after a root ending in *a*. But, it is not so because the elision of *s* is by a *tripādī* rule and therefore, *asiddha* for *sapādasaptādhyāyī* due to which 6.4.105 is not applied.

Example 2: *soḍhā*

In the derivation of *soḍhā*, at the stage of *sah + tā + ā*, there is *ṭilopa* by 6.4.143 टेः (*teḥ*)

→ *sah + t + ā* → *saḍh + t + ā* (8.2.31 हो ढः (*ho ḍhaḥ*)) → *saḍh + dh + ā* (8.2.40 झषस्तथोर्धोऽधः (*jhaṣastathordho'dhaḥ*)) → *saḍh + ḍh + ā* (8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*)) → *sa + ḍh + ā* (8.3.13 ढो ढे लोपः (*ḍho ḍhe lopah*)) → *so + ḍh + ā* (6.3.112 सहिवहोरोदवर्णस्य (*sahivahorodavarṇasya*)) → *soḍhā*. It is to be noted that even though there was only elision of *ākāra* of *tā*, it was done by 6.4.143 टेः (*teḥ*). It was *ṭisaṃjñaka lopa* and not an *ajādeśa*. The operations involved are *dhatva* and *ṣṭutva* which are not included in 1.1.58.

The above discussion justifies the rationale behind mentioning only some specific rules of *tripādī* and not others.

The negation of *sthānivadbhāva* prescribed by 1.1.58 has been rejected by S.D. Joshi and J.A.F. Roodbergen. They justify the derivations with the help of the *siddha*

theory and the *paribhāṣā asiddhaṃ bahiraṅgamantaraṅge*. The subsequent section will refute this rejection in a logical manner.

Refuting the rejection of 1.1.58

S.D. Joshi and J.A.F. Roodbergen have rejected the rule 1.1.58 based on the *siddha* theory of Paul Kiparsky, the acceptance of the “*exclusively positive aspect of sthānivadbhāva*” and the *paribhāṣā asiddhaṃ bahiraṅgamantaraṅge*.²²¹ Another reason to reject this rule is because it is considered as a later addition to the text and that this negation rule has been interspersed between two positive rules.

The reasons as given in the article are paraphrased below:

In the case of *tāni santi*, 6.1.77 इको यणचि (*iko yaṇaci*) and 6.4.111 श्रसोरल्लोपः (*śnasorallopaḥ*) are applicable simultaneously. Using the *paribhāṣā asiddhaṃ bahiraṅgamantaraṅge*, 6.4.111 is applied. So, we can dispense with the prohibition, *na padānta..*

The examples *maddhvatra*, *kaṇḍūtiḥ*, *śiṇḍhi*, *dīvnā*, *gdhiḥ* and *akṣan* are justified by stating that *sthānivadbhāva* is not meant to block operations as it is meant for *bhāvātideśa* “transference in order to allow an operation to take place”. This is in adherence with the *siddha* theory. So, we can dispense with 1.1.58.

In the case of *yāyāvara*, Joshi and Roodbergen state that the property *nittva* of *yaṇ* belongs to *yaṇ* as a whole. It does not belong to a part of *yaṇ* like *a*. Therefore, since the *a* of *yaṇ* is not *nit* (*kit*), P. 6.4.64 cannot become applicable. So we dispense with the prohibition, *na varelopa*.

In the case of *cikīrṣāka*, two rules become applicable at the same time, namely, 6.4.48 which prescribes the deletion of *a* and 6.1.193 which prescribes for the *udātta* accent for *a*. Here the application of 6.4.48 destroys the *nimitta* for applying the other rule. Therefore, it is *siddha* with regard to 6.1.193 and it is applied first. The result is that *a* is deleted. Then, in the next stage, 6.1.193 which has scope for application in the syllable preceding the deleted *a*, is applied. That gives us the desired accentuation. So, we can dispense with the prohibition, *na.... svara*.

But, if the existence of 1.1.58 is accepted, these “traditional difficulties” as shown can be dispensed with. In fact, this rule avoids conflicts of simultaneous application of rules too as already illustrated in some cases.

²²¹ S.D. Joshi and J.A.F. Roodbergen, “The rejection of P. 1.1.58: A confirmation of the exclusively positive aspect of *sthānivadbhāva*,” *ABORI* Volume LXIX (1988), 217-28.

Another reason for rejecting 1.1.58 is that it disrupts the sequence of rules as negation of *sthānivadbhāva* is not continued in 1.1.59. The logic is as follows: 1.1.59 *dvirvacane* 'ci should continue *na sthānivat* from 1.1.58 or then a new topic needs to be introduced.

This reasoning can be rejected by considering instances in the entire *Aṣṭādhyāyī* where a process is introduced, then, negated in the subsequent rule and the negation of that process is not continued in the next subsequent rule.

To elaborate:

Rule 1 introduces a process.

Rule 2 negates this process.

Rule 3 continues with the process of Rule 1 and negation as given in Rule 2 is not continued in Rule 3.

Such examples have been tabulated below after observing all negation rules in the *Aṣṭādhyāyī*.²²²

Negation rule	Sequence of rules	Negation not continued but process continued
1.3.4 न विभक्तौ तुस्माः (<i>na vibhaktau tusmāḥ</i>)	1.3.2 उपदेशेऽजनुनासिक इत् (<i>upadeśe 'janunāsika it</i>) 1.3.3 हलन्त्यम् (<i>halantyaṃ</i>) 1.3.4 न विभक्तौ तुस्माः (<i>na vibhaktau tusmāḥ</i>) 1.3.5 आदिर्जितुडवः (<i>ādirñīṭuḍavaḥ</i>) 1.3.6 षः प्रत्ययस्य (<i>ṣaḥ pratyayasya</i>) 1.3.7 चुटू (<i>cuṭū</i>) 1.3.8 लशक्तद्धिते (<i>laśakvataddhite</i>) 1.3.9 तस्य लोपः (<i>tasya loṇaḥ</i>)	Negation is only for <i>vibhaktau tusmāḥ</i> and it is not continued in 1.3.5 – 1.3.9
1.3.15 न गतिर्हिंसार्थेभ्यः (<i>na gatiḥiṃsārthebhyaḥ</i>)	1.3.12 अनुदात्तङित आत्मनेपदम् (<i>anudāttāṇita ātmanepadam</i>) 1.3.13 भावकर्मणोः (<i>bhāvakarmaṇoḥ</i>)	These rules define when <i>ātmanepadapratyayas</i> are used starting from 1.3.12.

²²² The book by S.D. Joshi, Bhate Saroja, *The Fundamentals of Anuvṛtti* (Pune: University of Poona, 1983) was also referred to.

	1.3.14 कर्तरि कर्मव्यतिहारे (<i>kartari karmavyatihāre</i>) 1.3.15 न गतिहिंसार्थेभ्यः (<i>na gatihiṃsārthebhyaḥ</i>) 1.3.16 इतरेतरान्योन्योपपदाच्च (<i>itaretarānyonyopapadācca</i>) 1.3.17 नेर्विशः (<i>nerviśaḥ</i>) 1.3.18 परिव्यवेभ्यः क्रियः (<i>parivyavebhyaḥ kriyaḥ</i>) ... 1.3.57	There is negation by rule 1.3.15 which is continued in 1.3.16. 1.3.17 – 1.3.57 do not continue the negation. Basically, there is negation only for rules 1.3.15 and 1.3.16.
1.3.58 नानोर्ज्ञः (<i>nānorjñāḥ</i>)	1.3.58 नानोर्ज्ञः (<i>nānorjñāḥ</i>) 1.3.59 प्रत्याङ्भ्यां श्रुवः (<i>pratyāṅbhyāṃ śruvaḥ</i>)	These rules define when <i>ātmanepadapratyayas</i> are used starting from 1.3.12. There is negation by rule 1.3.58 again which is continued in 1.3.59. 1.3.60 – 1.3.77 do not continue the negation.
2.4.61 न तौल्वलिभ्यः (<i>na taulvalibhyaḥ</i>)	2.4.60 इञः प्राचाम् (<i>iñāḥ prācām</i>) 2.4.61 न तौल्वलिभ्यः (<i>na taulvalibhyaḥ</i>) 2.4.62 तद्राजस्य बहुषु तेनैवास्त्रियाम् (<i>tadrājasya bahūṣu tenaivāstriyām</i>)	In this case, there is elision by 2.4.60 which is continued from 2.4.58. There is negation in 2.4.61 and no negation in 2.4.62.
2.4.67 न गोपवनादिभ्यः (<i>na gopavanādibhyaḥ</i>)	2.4.67 न गोपवनादिभ्यः (<i>na gopavanādibhyaḥ</i>) 2.4.68 तिककितवादिभ्यो द्वन्द्वे (<i>tikakitavādibhyo dvandve</i>)	Again, in this case also, there is elision by 2.4.67 which is continued from 2.4.58. There is negation in 2.4.67 and no negation in 2.4.68.
5.4.5 न सामिवचने (<i>na sāmivacane</i>)	5.4.3 स्थूलादिभ्यः प्रकारवचने कन् (<i>sthūlādibhyaḥ prakāravacane kan</i>) 5.4.4 अनत्यन्तगतौ क्तात् (<i>anatyantagatau ktāt</i>) 5.4.5 न सामिवचने (<i>na sāmivacane</i>) 5.4.6 बृहत्या आच्छादने (<i>bṛhatyā ācchādane</i>)	In this case, there is negation of <i>kan-pratyaya</i> in 5.4.5 but not continued in 5.4.6.

The above table shows instances when a negation rule has been interspersed between two rules in which the relevant topic has been continued; as is the case with 1.1.58 and 1.1.59. Therefore, it does not seem logical to reject a rule on this basis.

As regard to interpolation of rules, George Cardona²²³ discusses the various kinds of interpolations and the research carried out by scholars such as Bhattacharya, Kielhorn, Bahulikar, Birwe, to name a few. In all these discussions, 1.1.58 has not been mentioned. Cardona comes to the conclusion that

...the *Aṣṭādhyāyī* has at least from the time of *Mahābhāṣya*, been well preserved. Moreover, I think it reasonable to say that attempts to demonstrate massive interpolation or borrowing in the text received by *Kātyāyana* and *Patañjali* cannot be deemed successful.

Another significant point to factor in is that *vārttikas* have been written on the rule 1.1.58 and that *Patañjali* has also commented on it. In view of the above discussion, to reject such a rule seems unacceptable.

Conclusion

It is observed from the above discussion that there is a relation between the negation of *sthānivadbhāva* and the concept of *asiddhatva*. There is no *sthānivadbhāva* in the *tripādī* as given by the *vārttika pūrvatrāsiddhe ca | tasya doṣaḥ saṃyogādilopalatvaṇatveṣu*. This idea of negation is continued by *Pāṇini* even in the *ābhīya* section by including the elision rules of *ajādeśa* in that section. The operations listed out in 1.1.58 न पदान्त-द्विर्वचन-वरे-यलोप-स्वर-सवर्णानुस्वार-दीर्घ-जश्चर्विधिषु (*na padānta-dvirvacana-vare-yalopa-svara-savarṇānusvāra-dīrghajaścarvidhiṣu*) have a definite purpose. This has been demonstrated by considering examples. Thus, it can be concluded that 1.1.58 न पदान्त-द्विर्वचन-वरे-यलोप-स्वर-सवर्णानुस्वार-दीर्घ-जश्चर्विधिषु (*na padānta-dvirvacana-vare-yalopa-svara-savarṇānusvāra-dīrgha-jaś-carvidhiṣu*) is a very valid and relevant rule and there is a link between negation of *sthānivadbhāva* and the concept of *asiddhatva*.

²²³ George Cardona, *Recent research in Pāṇinian studies* (New Delhi: Motilal Banarasi Dass Pvt Ltd., 2004), 112-33.

3.5 *Āśrayāt siddhatvam*: an alternative interpretation²²⁴

The principle of *asiddhatva* is based on the fact that if a rule from the *tripādī* is applied, it is as if not effected. This means: whatever operation that has been done due to a rule from the *tripādī* will not be visible to the rule of the *sapādasaptādhyāyī*. The rules of the *tripādī* are ‘suspended’ for other rules.

However, the principle of *asiddhatva* (suspension) does not always hold true in the *Aṣṭādhyāyī*. The traditional justification in such cases is known as *āśrayāt siddhatvam*. There is direct dependency (*āśraya*) for the application of a *sapādasaptādhyāyī* rule on a *tripādī* rule without which the existence of the *sapādasaptādhyāyī* rule would be superfluous. This section attempts to justify the *siddhatva* of certain *tripādī* rules. A hypothesis has been postulated to examine an alternative interpretation of *āśrayāt siddhatvam*.

Hypothesis:

A different interpretation for the concept of *āśrayāt siddhatvam* has been proposed. *Pāṇini* has retained all consonant to consonant substitutions in *tripādī*. The *sapādasaptādhyāyī* contains both vowel and consonant substitutions. Whenever a consonant had to be replaced by a vowel, he switched to *sapādasaptādhyāyī*. Moreover, *adhikāra* or domain plays an important role in deciding the placement of rules. Some rules of the *sapādasaptādhyāyī* cannot be placed under the *adhikāra* of *asiddhatva* as they may be applied in a generalized manner. In some cases, other *sapādasaptādhyāyī* rules need to be applied later. This cannot take place if the rules are considered *asiddha*. *Anuvṛtti* also played a role in deciding the placement of rules. In order to validate this hypothesis, certain pairs of rules that do not adhere to the principle of *asiddhatva* are examined below.

Methodology:

These special cases were located by searching for the term *āśrayāt siddhatvam* in the search engine <https://ashtadhyayi.com>.²²⁵ The commentaries included in the search are *Kāśikā*, *Nyāsa*, *Padamañjarī*, *Siddhāntakaumudī*, *Bālaṃanoramā*, *Tatvabodhinī*,

²²⁴ This section has been published in *Journal of Indian Intellectual Traditions* Vol. XVI, Number 2, Department of Sanskrit, Savitribai Phule Pune University, June 2023.

²²⁵ This website has been developed and maintained by Neelesh Bodas as already mentioned earlier.

Praudhamanoramā and *Mahābhāṣyam*. Seven such results were obtained. The references of these cases are available on this website. These cases have been explained below.

Discussion

Case 1: 8.2.2 नलोपः सुप्स्वरसंज्ञातुग्विधिषु कृति (*nalopah supsvarasamjñātugvidhisu kṛti*)/ 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopah prātipadikāntasya*) / 8.2.9 मादुपधायाश्च मतोर्वोऽयवादिभ्यः (*mādupadhāyāśca matorvo'yavādibhyaḥ*) in combination with 6.1.220 अन्तोऽवत्याः (*anto'vatyāḥ*) and 6.1.221 ईवत्याः (*īvatyāḥ*)²²⁶

It is to be noted that in this case, one rule of *tripādī* is considered *asiddha* while another one is termed *siddha* for the derivation of the same word.

In the case of *rājavatī*, the derivation is as follows:

राजन् + मतुप् + डीप्	
राजन् + मतुप् + ई	8.2.7 नलोपः प्रातिपदिकान्तस्य
राज + वत् + ई	8.2.9 मादुपधायाश्च मतोर्वोऽयवादिभ्यः
राजवती	
<i>rājan + matuṃp + ṇīp</i>	
<i>rājan + matuṃp + ī</i>	8.2.7 <i>nalopah prātipadikāntasya</i>
<i>rāja + vat + ī</i>	8.2.9 <i>mādupadhāyāśca matorvo'yavādibhyaḥ</i>
<i>rājavatī</i>	

6.1.220 अन्तोऽवत्याः (*anto'vatyāḥ*) prescribes *antodātta* to words that end in *avatī* in case of feminine proper nouns. The elision of *nakāra* (8.2.7) is *asiddha* to 6.1.220 अन्तोऽवत्याः (*anto'vatyāḥ*). It is visible to 6.1.220 as *rājanvatī* ending in *anvatī* and not as *avatī*. Thus, there is no scope to apply 6.1.220. The wording of the rule 6.1.220 is *avatyāḥ*. This assumes that 8.2.9 has been applied making it *siddha*. If 8.2.9 is not considered *siddha* for 6.1.220, then, the rules 6.1.220 अन्तोऽवत्याः (*anto'vatyāḥ*) and 6.1.221 ईवत्याः (*īvatyāḥ*) will become redundant.

Justification for placement of 6.1.220 and 6.1.221 in *sapādasaptādhyāyī*

6.1.219 मतोः पूर्वमात् संज्ञायां स्त्रियाम् (*matoḥ pūrvamāt samjñāyāṃ striyām*) prescribes *udātta* for the *ā* before *mat* for a feminine name. There is continuation of *udātta*,

²²⁶ *Nyāsa* and *Mahābhāṣyam* have commented on this under 6.1.220.

matup, *saṃjñāyām* and *striyām* in 6.1.220 and 6.1.221. All these rules involve intonation for *matup* affixes. *Pāṇini* has placed 6.1.220 and 6.1.221 in *sapādasaptādhyāyī* for the sake of *anuvṛtti* and *prakaraṇa*.

Case 2: 8.2.66 ससजुषोः रुः (*sasajuṣoḥ ruḥ*) – 8.2.71 भ्रुवश्च महाव्याहतेः (*rutva prakaraṇa*) in combination with 6.1.113 अतो रोरप्लुतादप्लुते (*ato roraplutādaplute*) and 6.1.114 हशि च (*haśi ca*)²²⁷

Rutva is substituted for s-ending words by the rule 8.2.66 ससजुषोः रुः. This *rutva* is replaced by *ukāra* by 6.1.113 अतो रोरप्लुतादप्लुते (*ato roraplutādaplute*) and 6.1.114 हशि च (*haśi ca*) when it is placed between *apluta hrasva akāra* or between *apluta hrasva akāra* or *haś*. Some examples for this case:

Example 1:			
राम सुँ अस्ति			
राम रुँ अस्ति	8.2.66 ससजुषोः रुः		
राम उ अस्ति	6.1.113 अतो रोरप्लुतादप्लुते		
रामो अस्ति	6.1.87 आद्गुणः		
रामोऽस्ति	6.1.109 एङः पदान्तादति		
<i>rāma suṁ asti</i>			
<i>rāma ruṁ asti</i>	8.2.66 <i>sasajuṣoḥ ruḥ</i>		
<i>rāma u asti</i>	6.1.113 <i>ato roraplutādaplute</i>		
<i>rāmo asti</i>	6.1.87 <i>ādguṇaḥ</i>		
<i>rāmo 'sti</i>	6.1.109 <i>eṇaḥ padāntādati</i>		
Example 2:			
राम सुँ गच्छति		<i>rāma suṁ gacchati</i>	
राम रुँ गच्छति	8.2.66 ससजुषोः रुः	<i>rāma ruṁ gacchati</i>	8.2.66 <i>sasajuṣoḥ ruḥ</i>
राम उ गच्छति	6.1.114 हशि च	<i>rāma u gacchati</i>	6.1.114 <i>haśi ca</i>
रामो गच्छति	6.1.87 आद्गुणः	<i>rāmo gacchati</i>	6.1.87 <i>ādguṇaḥ</i>

²²⁷ *Kāśikā* and *Mahābhāṣyam* have commented on this under 6.1.113.

8.2.68 अहन् (*ahan*) in combination with 6.1.113 अतो रोरप्लुतादप्लुते (*ato roraplutād-aplute*) and 6.1.114 हशि च (*haśi ca*)

अहन् + भ्याम्		<i>ahan + bhyām</i>	
अहरँ + भ्याम्	8.2.68 अहन्	<i>aharum + bhyām</i>	8.2.68 <i>ahan</i>
अहउ + भ्याम्	6.1.114 हशि च	<i>ahu + bhyām</i>	6.1.114 <i>haśi ca</i>
अहोभ्याम्	6.1.87 आद्गुणः	<i>ahobhyām</i>	6.1.87 <i>ādguṇaḥ</i>

In these cases, *rutva* is substituted by *ukāra* – a consonant is substituted by a vowel. Moreover, other rules are applied after this substitution.

Justification for placement of 6.1.113 and 6.1.114 in *sapādasaptādhyāyī*

The reasons for placing these two rules in *sapādasaptādhyāyī* are as follows:

1. 6.1.113/6.1.114 come under the *ekādeśa prakaraṇa*.
2. After this rule is applied, *guṇa* operation is undertaken by 6.1.87 आद्गुणः (*ādguṇaḥ*) and maybe followed by 6.1.109 एङः पदान्तादति (*eṇaḥ padāntādati*). It is not possible to place all these rules in *tripādī* as the *adhikāras* or domains are different and these rules cannot become *asiddha*. Moreover, *guṇa* operation that is undertaken is a general rule applied to many other derivations of words.

Case 3: 8.2.80 अदसोऽसेर्दादु दो मः (*adaso 'serdādu do mah*) and 8.2.81 in combination with 1.1.12 अदसो मात् (*adaso māt*)²²⁸

1.1.12 अदसो मात् (*adaso māt*) prescribes *pragrhyasaṃjñā* for the pronoun *adas* which end in *mī / mū / me*. 8.2.80 prescribes *mutva* for *adas*. 1.1.12 is directly dependent on 8.2.80.

Justification for placement of 1.1.12 in *sapādasaptādhyāyī*

Pāṇini wanted to continue the concept of the *pragrhyasaṃjñā* as a *prakaraṇa*. Therefore, 1.1.12 is placed in the *sapādasaptādhyāyī*.

²²⁸ *Mahābhāṣyam* has commented on this under 1.1.12.

Case 4: *pluta prakarana* (8.2.82 – 8.2.108) and 6.1.125 प्लुतप्रगृह्या अचि नित्यम् (*plutapragrhyā aci nityam*)²²⁹

6.1.125 assigns *prakṛtibhāva* for *pluta* section so that *svarasandhi* does not take place. One such example is एहि कृष्ण३ अत्र गौश्वरति (*ehi kṛṣṇa3 atra gauścarati*). The final *akāra* of *kṛṣṇa* becomes *pluta* by 8.2.84 दूराद्धूते च (*dūrāddhūte ca*) → *kṛṣṇa3*. This *pluta* and the *akāra* of *atra* should have undergone *savarṇadīrghaḥ*. This does not take place because of 6.1.125.

Justification for placement of 6.1.125 in *sapādasaptādhyāyī*

As both *pluta* and *pragrhya* acquire *prakṛtibhāva*, *Pāṇini* combined both these units and placed them together in the sixth chapter even though *pluta* is in *tripādī* adhering to the principle of brevity which is an important characteristic of the *Aṣṭādhyāyī*.

Case 5: 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopah*) and 8.3.14 रो रि (*ro ri*) in combination with 6.3.111 द्रलोपे पूर्वस्य दीर्घोऽणः (*dhralope pūrvasya dīrgho 'nah*) and 6.3.112 सहिवहोरोदवर्णस्य (*sahivahorodavarnasya*)²³⁰

Let us first consider 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopah*) in combination with 6.3.111 द्रलोपे पूर्वस्य दीर्घोऽणः (*dhralope pūrvasya dīrgho 'nah*).

The main points of 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopah*) are:

1. If a *ḍhakāra* is followed by another *ḍhakāra* in a *saṃhitā*, the first one gets elided. This elision is only for *apadānta ḍhakāra*.
2. This rule is always used only after 8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*).
3. It is used only when *takārādi-pratyaya* follows.

Example:

गुह्रँ	
गुह्र + क्त	
गुह्र + त	8.2.31 हो ढः
गुह्र + ध	8.2.40 झषस्तथोर्धोऽधः
गुह्र + ढ	8.4.41 ष्टुना ष्टुः
गुह्र	8.3.13 ढो ढे लोपः
गुह्र	6.3.111 द्रलोपे पूर्वस्य दीर्घोऽणः

²²⁹ *Nyāsa* and *Padamañjarī* state *siddhatva* for *pluta* for 6.1.125.

²³⁰ *Padamañjarī*, *Bālaṃanoramā*, *Tatvabodhinī* and *Praudhāmanoramā* have commented under 6.3.111.

<i>guhūm</i>	
<i>guh + kta</i>	
<i>guḍh + ta</i>	8.2.31 <i>ho ḍhaḥ</i>
<i>guḍh + dha</i>	8.2.40 <i>jhaṣastathordho 'dhaḥ</i>
<i>guḍh + ḍha</i>	8.4.41 <i>ṣṭunā ṣṭuḥ</i>
<i>guḍha</i>	8.3.13 <i>ḍho ḍhe lopah</i>
<i>gūḍha</i>	6.3.111 <i>ḍhralope pūrvasya dīrgho 'ṇaḥ</i>

Similarly, लिह् + क्त → लीढ, मुह् + क्त → मूढ, मिह् + क्त → मीढ (*lih + kta* → *līḍha*, *muh + kta* → *mūḍha*, *mih + kta* → *mīḍha*).

An example of 8.3.13 ढो ढे लोपः (*ḍho ḍhe lopah*) in combination with 6.3.112 सहिवहोरोदवर्णस्य (*sahivahorodavarṇasya*) is:

Example:		
वह् + तृच्		<i>vah + tṛc</i>
वढ् + तृ	8.2.31 हो ढः	<i>vaḍh + tṛ</i> 8.2.31 <i>ho ḍhaḥ</i>
वढ् + धृ	8.2.40 झषस्तथोर्द्धोऽधः	<i>vaḍh + dhṛ</i> 8.2.40 <i>jhaṣastathordho 'dhaḥ</i>
वढ् + ढृ	8.4.41 ष्टुना ष्टुः	<i>vaḍh + ḍhṛ</i> 8.4.41 <i>ṣṭunā ṣṭuḥ</i>
व ढृ	8.3.13 ढो ढे लोपः	<i>va ḍhṛ</i> 8.3.13 <i>ḍho ḍhe lopah</i>
वोढा	6.3.112 सहिवहोरोदवर्णस्य	<i>voḍhā</i> 6.3.112 <i>sahivahorodavarṇasya</i>

The pattern of application of rules seems to be:

8.2.31 हो ढः → 8.2.40 झषस्तथोर्द्धोऽधः → 8.4.41 ष्टुना ष्टुः → 8.3.13 ढो ढे लोपः → 6.3.111
ढ्रलोपे पूर्वस्य दीर्घोऽणः
8.2.31 *ho ḍhaḥ* → 8.2.40 *jhaṣastathordho 'dhaḥ* → 8.4.41 *ṣṭunā ṣṭuḥ* → 8.3.13 *ḍho ḍhe lopah* → 6.3.111 *ḍhralope pūrvasya dīrgho 'ṇaḥ*

The hypothesis formulated is reaffirmed - *ḍhalopah* is a *halādeśa*, however, the *dīrghavidhi* of *aṇ* is *ajādeśa*. Whenever there is an intersection between *halādeśa* and *ajādeśa*, *Pāṇini* switches to *sapādasaptādhyāyī* and keeps the concept of only *halādeśa* in *tripādī*.

An example of 8.3.14 रो रि (*ro ri*) in combination with 6.3.111 is:

Example:	
पुनर् + रमते	
पुन रमते	8.3.14 रो रि

6.4.14 अत्वसन्तस्य चाधातोः (atvasantasya cādhātoḥ)	dhīmān gataṽn candramāḥ bhavān kṛtavān gomān yavamān
6.4.15 अनुनासिकस्य क्विङ्लोः क्विङिति (anunāsikasya kvijhaloḥ kvīti)	praśān pratān
6.4.16 अज्झनगमां सनि (ajjhanagamāṃ sani)	tuṣṭūṣati cikīrṣati jihīrṣati jighāṃsati
6.4.17 तनोतेर्विभाषा (tanotervibhāṣā)	titāṃsati, titāṃsati

Analysing the above data, the following can be observed:

1. 6.3.111 comes under the *adhikāra* of *uttarapada* as the term *pūrvasya* in 6.3.111 is clearly referring to *pūrvapada*.
2. There is *anuvṛtti* of *dīrgha* till the end of the third *pāda* (6.3.139) and also till 6.4.18 spanning over both the *adhikāras* of *uttarapada* and *aṅga*. Therefore, it is not possible to place 6.3.111 in *tripādī* as it would mean placing all the rules from 6.3.111 to 6.3.139 in *tripādī*.

An example of *manoratha* shows the beautiful linking of 6.1.113 अतो रोरप्लुतादप्लुते (ato roraplutādaplute) / 6.1.114 हशि च (haśi ca) with 8.3.14 followed by 6.3.111 द्रलोपे पूर्वस्य दीर्घोऽणः (dhralope pūrvasya dīrgho 'ṇaḥ). The derivation is as follows:

मनसः रथः मनोरथः मनस् + रथ मनरुँ + रथ 8.2.66 ससजुषो रुँः	manasaḥ rathaḥ manorathaḥ manas + ratha manarum̐ + ratha 8.2.66 sasajuṣo ruṁḥ

At this stage 6.1.114 हशि च (haśi ca) and 8.3.14 रो रि (ro ri) are applicable simultaneously. As a *tripādī* rule is *asiddha* to a *sapādasaptādhyāyī* rule, 6.1.114 prevails. Therefore, 6.1.114 is applied.

मनउ + रथ 6.1.114 हशि च मनोरथ 6.1.87 आद्गुणः	manu + ratha 6.1.114 haśi ca manoratha 6.1.87 ādguṇaḥ

This is another reason to place 8.3.14 in *tripādī*. Otherwise, words like *manoratha* cannot be derived.

Case 6a: 8.4.55 खरि च (*khari ca*) in combination with 6.3.124 दस्ति (*dasti*)²³¹

6.3.124 दस्ति (*dasti*) prescribes the lengthening of the *upasarga* that ends in *i* or *u* for the root *dā* when it is followed by *takāra uttarapada*.

Example:			
नीत्तम्		<i>nīttam</i>	
नि दा क्त		<i>ni dā kta</i>	
नि द् त् त	7.4.47 अच उपसर्गात्तः	<i>ni d t ta</i>	7.4.47 <i>aca upasargāttah</i>
नि त् त् त	8.4.55 खरि च	<i>ni t t ta</i>	8.4.55 <i>khari ca</i>
नी त् त् त	6.3.124 दस्ति	<i>nī t t ta</i>	6.3.124 <i>dasti</i>
नी त् त	8.4.65 झरो झरि सवर्णे	<i>nī t ta</i>	8.4.65 <i>jharo jhari savarṇe</i>
नीत्तम्		<i>nīttam</i>	

7.4.47 has been interpreted in two ways in *Kāśikā*: *ākāra* of *dā* is replaced by *t* or 7.4.47 itself has two *t* by which the entire *dā* is replaced by *tt*. 6.3.124 दस्ति (*dasti*) has also been interpreted in two ways²³²: The root *dā* can be followed by *takārādi uttarapada* or by a *takārānta uttarapada*. There are problems in both the ways. If it is considered as followed by *takārādi uttarapada*, then, there will be no lengthening of the *upasarga* of the root *dā* for the words *nīttam* or *vīttam*. If it is considered as followed by a *takārānta uttarapada*, then, there will be undesired lengthening of the *upasarga* of the root *dā* for the words *sudattam* and *pratidattam*. *Patañjali* proposes a solution that *cartva* is undertaken for *d* by 8.4.55 *khari ca* and consider this *cartva* as *siddha* to 6.3.124.

Justification for placement of 6.3.124 in *sapādasaptādhyāyī*

6.3.124 comes under the *adhikāra* of *uttarapada* and there is continuation of *dīrghatva* from 6.3.111 as already mentioned in Case 5.

²³¹ *Kāśikā*, *Padamañjarī*, *Siddhāntakaumudī*, *Bālaṃanoramā*, *Tatvabodhinī* and *Mahābhāṣyam* have commented under 6.3.124.

²³² For reference, see Vasudeo Shastri Abhyankar trans. *Vyākaraṇamahābhāṣyam*, Text and Marathi Translation Part 5 Chapter VI (Pune: Deccan Education Society, 1953), 365.

Case 6b: 8.4.55 खरि च (*khari ca*) in combination with 6.4.19 च्छोः शूडनुनासिके च (*cchvoḥ śūdanunāsike ca*)²³³

The discussion revolves around the *ādeśa ūṭh* for *vakāra*. The example is *dhautah*.

The derivation²³⁴ is as follows:

धावुं गतिशुद्ध्योः		<i>dhāvum gatiśuddhyoḥ</i>
धाव् क्त		<i>dhāv kta</i>
धा ऊट् त	6.4.19 च्छोः शूडनुनासिके च	<i>dhā ūṭh ta</i> 6.4.19 <i>cchvoḥ śūdanunāsike ca</i>
धा ऊट् त	8.4.55 खरि च	<i>dhā ūṭ ta</i> 8.4.55 <i>khari ca</i>
धौतः	6.1.89 एत्येधत्यूत्सु	<i>dhauta</i> 6.1.89 <i>etyedhatyūṭhsu</i>

Ūṭh is an *ādeśa* prescribed for *vakāra* by 6.4.19. *v* of *dhāv* is replaced by *ūṭh* when followed by *cta* → *dhā ūṭh ta*. At this stage, *vrddhyekādeśa* has to be carried out by 6.1.89 एत्येधत्यूत्सु (*etyedhatyūṭhsu*) to obtain the desired form *dhauta*. एत्येधत्यूत्सु (*etyedhatyūṭhsu*) is in Locative case (seventh case) by which 1.1.66 तस्मिन्निति निर्दिष्टे पूर्वस्य (*tasminniti nirdiṣṭe pūrvasya*) becomes applicable. This means that the operation prescribed by the rule has to be carried out on an entity that immediately precedes. *Ūṭh* is *ṭhit*. Technically, it should have been elided by 1.3.3 हलन्त्यम् (*halantyaṃ*). But, if this is carried out, 6.1.89 cannot be applied. *Vrddhyekādeśa* has to be performed on *ā* of *dhā* and *ū* of *ūṭh*. In order that 6.1.89 can be applied, *ūṭh* has to be *para*. *Patañjali* comes up with a solution: The *ādeśa ūṭh* is converted into *ūṭ* (*cartva*, 8.4.55) by which 1.1.46 आद्यन्तौ टकितौ (*ādyantau ṭakitau*) can be applied. Now *ūṭ* is before *ta* and thus becomes part of *para*. This facilitates in applying 6.1.89 एत्येधत्यूत्सु (*etyedhatyūṭhsu*). It is noteworthy that a *ādeśa* is technically converted into a *āgama* to shift the positioning of *aṅga*. Another significant fact is that 6.4.19 is placed just before the *asiddhavat* (*ābhīya*) section.

Justification for placement of 6.4.19 in *sapādasaptādhyāyī*

6.4.19 comes under the *adhikāra* of *aṅga* and is thus placed in *sapādasaptādhyāyī*.

²³³ *Mahābhāṣyam* has commented under 6.4.19.

²³⁴ The same derivation is also given in *Mādhavīyadhātuvṛtti* – For reference, see Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttiḥ*, 160.

Conclusion

The traditional interpretation of *siddhatva* of some rules of the *tripādī* to that of the *sapādasaptādhyāyī* is termed as *āśrayāt siddhatvam*. There is direct dependency (*āśraya*) for the application of a *sapādasaptādhyāyī* rule on a *tripādī* rule without which the existence of the *sapādasaptādhyāyī* rule would be superfluous. The rationale behind placing certain rules in the *sapādasaptādhyāyī* that can be applied only after applying a *tripādī* rule has been justified in the aforementioned cases. Summarizing,

1. If a consonant has to be substituted by a vowel, then *Pāṇini* resorts to the *sapādasaptādhyāyī*.
2. *Anuvṛtti* and *prakaraṇa* play an important role in the placement of rules in the *Aṣṭādhyāyī*. This might justify placement of certain *sapādasaptādhyāyī* rules that are directly dependent on a *tripādī* rule.
3. In some cases, a word can be continued across domains or even chapters as seen in *dīrghatva* of 6.3.111 द्रलोपे पूर्वस्य दीर्घोः (*ḍhralope pūrvasya dīrgho 'ṇaḥ*). If such be the case, it is not possible to place all those rules in *tripādī*.
4. *Asiddhatva* is not a universal principle. This principle has a specific purpose and cannot be generalized.

Considering these factors, it can be stated that the placement of the rules of the *Aṣṭādhyāyī* need not be disturbed.²³⁵

3.6 Graphical representation of the rules of the *tripādī* using Directed Acyclic graphs²³⁶ and implementation of topological sorting algorithm

As mentioned earlier, the principle of *asiddhatva* is also applied within the *tripādī* itself. The earlier rule or rather, the earlier *prakaraṇa*, is not visible to the latter rule or *prakaraṇa*. This technique implicitly brings about linear ordering of the rules. Therefore, the rules of the *tripādī* can be considered as a linear order relation. This

²³⁵ This is also confirmed by George Cardona in his article “*pūrvatrāsiddham and āśrayāt siddham*” in Cardona, George, and Ashok Aklujkar. "Studies in Sanskrit grammars: proceedings of the *Vyākaraṇa* Section of the 14th World Sanskrit Conference." (2012). To quote: “In sum, the available evidence and the rules of the *Aṣṭādhyāyī* as traditionally arranged accord with the known Vedic materials and the later Sanskrit developments”.

²³⁶ I owe my thanks to Yash Karampuri, IISER, Pune for his insightful comments and discussions on this topic.

study is an attempt to represent the linear ordering of the *tripādī* rules graphically and to implement topological sorting algorithm in order to re-create the linear ordering. This discussion will proceed along these lines:

- A brief introduction to linear ordering
- Data representation using graphs
- Topological ordering of a directed acyclic graph
- Partial ordering
- DAGs and posets for *tripādī* rules
- Topological sort algorithm.

Linear ordering- Definition

A linear ordering on a finite collection of objects may be described as follows: each object has exactly one *immediate predecessor* object and one *immediate successor* object with two exceptions, the first object and the last one.

A binary relationship $a \leq b$ (read as “ a ” precedes or equals “ b ”) between two objects is said to be a linear ordering if:

1. For any a and b , either $a \leq b$ or $b \leq a$,
2. If both $a \leq b$ and $b \leq a$ it follows that $a = b$, and
3. The relationship is transitive: if $a \leq b$ and $b \leq c$, this implies that $a \leq c$.²³⁷

This linear ordering can be represented using graphs.

Data representation using graphs

Many real-world situations can conveniently be described by means of a diagram consisting of a set of points together with lines joining certain pairs of these points. For example, the points could represent people, with lines joining pairs of friends; or the points might be communication centres, with lines representing communication links. [A] mathematical abstraction of situations of this type gives rise to the concept of a graph.²³⁸

²³⁷ “Linear Orderings | Abstract Data Types | Algorithms and Data Structures | University of Waterloo,” Copyright (C) 2004-2012 University of Waterloo., n.d., https://ece.uwaterloo.ca/~dwharder/aads/Abstract_data_types/Linear_ordering/.

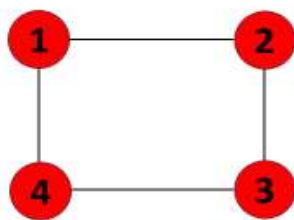
²³⁸ John Adrian Bondy and U.S.R. Murty, *Graph Theory with applications* (New York: North-Holland, 1982), 1.

Graphs are mathematical structures that represent pairwise relationships between objects. A graph is a flow structure that represents the relationship between various objects. It can be visualized by using the following two basic components:

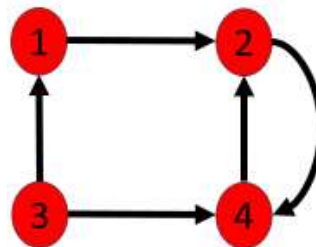
- **Nodes:** These are the most important components in any graph. Nodes are entities whose relationships are expressed using edges. If a graph comprises 2 nodes A and B and an undirected edge between them, then it expresses a bi-directional relationship between the nodes and edge.
- **Edges:** Edges are the components that are used to represent the relationships between various nodes in a graph. An edge between two nodes expresses a one-way or two-way relationship between the nodes.

Types of graphs

- **Undirected:** An undirected graph is a graph in which all the edges are bi-directional i.e. the edges do not point in any specific direction.
- **Directed:** A directed graph is a graph in which all the edges are uni-directional i.e. the edges point in a single direction.²³⁹



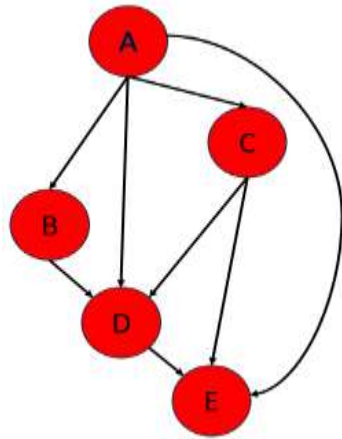
Undirected graph



Directed graph

- **Cyclic:** A graph is cyclic if the graph comprises a path that starts from a vertex and ends at the same vertex. That path is called a cycle.
- An acyclic graph is a graph that has no cycle.
- A directed graph with no directed cycles is called a directed acyclic graph.

²³⁹ “Graph Representation Tutorials & Notes | Algorithms | HackerEarth,” HackerEarth, April 27, 2016, <https://www.hackerearth.com/practice/algorithms/graphs/graph-representation/tutorial/>.



240

For a directed graph, the indegree of a node is the number of edges leading into that node and its outdegree, the number of edges leading away from it.²⁴¹

One technique used in graph theory to order the vertices of a directed acyclic graph is the topological sort or ordering.

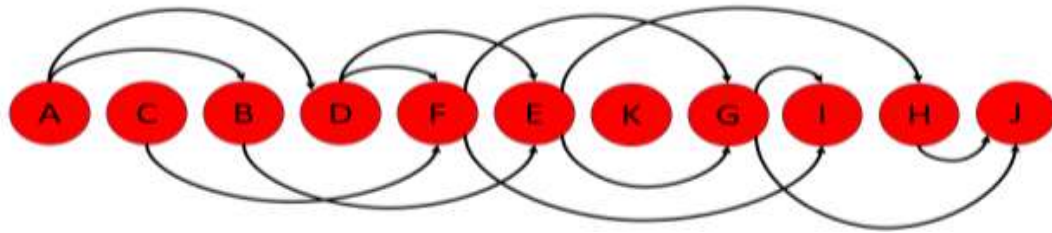
Topological ordering of a directed acyclic graph

- A **topological ordering** of a directed graph is a linear ordering of its vertices such that for every directed edge (u, v) from vertex u to vertex v , u comes before v in the ordering. For instance, the vertices of the graph may represent tasks to be performed, and the edges may represent constraints that one task must be performed before another; in this application, a topological ordering is just a valid sequence for the tasks.
- Precisely, a topological sort is a graph traversal in which each node v is visited only after all its dependencies are visited.
- A topological ordering is possible if and only if the graph has no directed cycles, that is, if it is a directed acyclic graph (DAG).
- Any DAG has at least one topological ordering.²⁴²

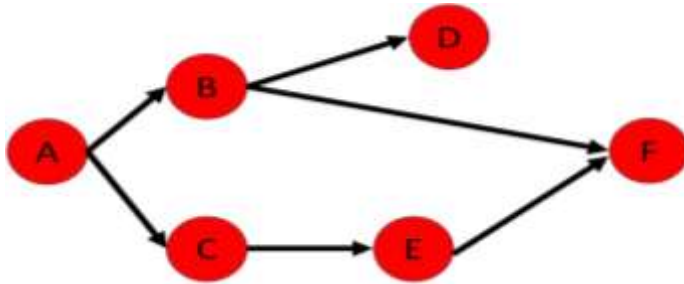
²⁴⁰ intricity101, “What Is DAG?” November 11, 2021, <https://www.youtube.com/watch?v=1Yh5S-S6wsl>.

²⁴¹ [https://web.mit.edu/urban_or_book/www/book/chapter6/6.1.html#:~:text=The%20degree%20of%20a%20node,also%20Figures%206.1%20and%206.2\)](https://web.mit.edu/urban_or_book/www/book/chapter6/6.1.html#:~:text=The%20degree%20of%20a%20node,also%20Figures%206.1%20and%206.2))

²⁴² GfG, “Topological Sorting,” GeeksforGeeks, March 7, 2024, <https://www.geeksforgeeks.org/topological-sorting/>.



A topological ordering is an ordering of the nodes in a directed graph where for each directed edge from node A to node B, node A appears before node B in the ordering.



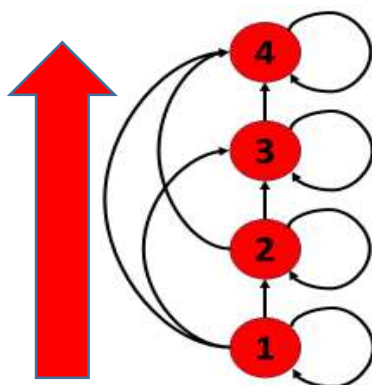
- Edges represent dependencies
- Can't do F until we've done A, B, C and E.

Partial ordering

In mathematics, the partial ordering on a set is defined as follows:

A relation R on a set S is called a partial ordering if it is reflexive, antisymmetric and transitive. A set S together with a partial ordering R is called a partially ordered set, or poset, and is denoted by (S, R) .²⁴³

Partial orders on finite sets can be represented by graphs called "Hasse diagrams". By the Hasse diagram of a (finite) partially ordered set $(A, \leq)$ we mean a directed graph with set of nodes A , the edges of which are all pairs (x, y) such that x is an immediate predecessor of y . Hasse diagrams are usually drawn with their edges directed upwards (and with arrow heads left off).²⁴⁴



$(\{1, 2, 3, 4\}, \leq)$

Hasse diagram

We can represent a Poset by a directed graph.

1. Remove self loops.
2. Remove all edges that must be present because of transitivity.
3. Also remove the arrows as all arrows point upwards.

²⁴³ Debdeep Mukhopadhyay and IIT Kharagpur, *Partial Orderings*, n.d., https://cse.iitkgp.ac.in/~debdeep/courses_iitkgp/FOC/slidespdf/POS.pdf.

²⁴⁴ <https://www3.cs.stonybrook.edu/~cse213/slides/4order.pdf>

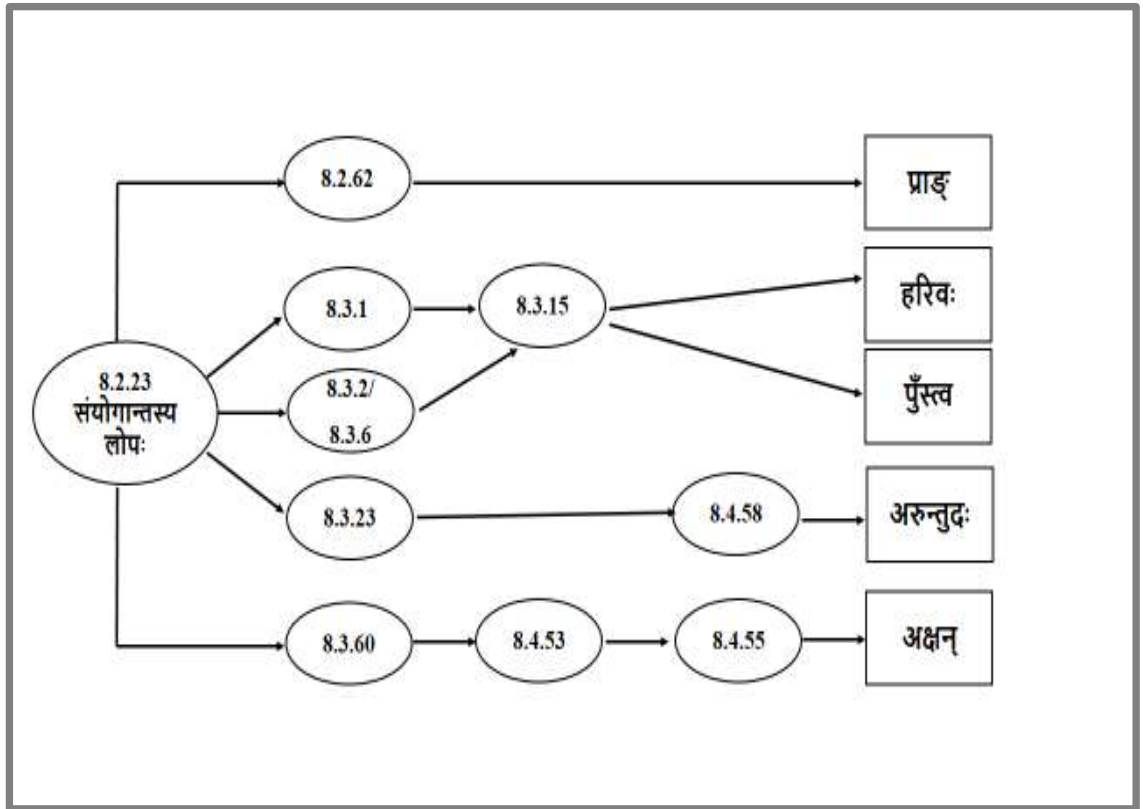
DAGs and posets for *tripādī* rules

In this study of research, the different *prakaraṇas* listed out in *tripādī* can be considered as the vertices of the graphs. The edges represent the dependencies: one operation must be performed before the other one can be undertaken.

Considering 8.2.23 संयोगान्तस्य लोपः (*saṃyogāntasya lopaḥ*) as an example:

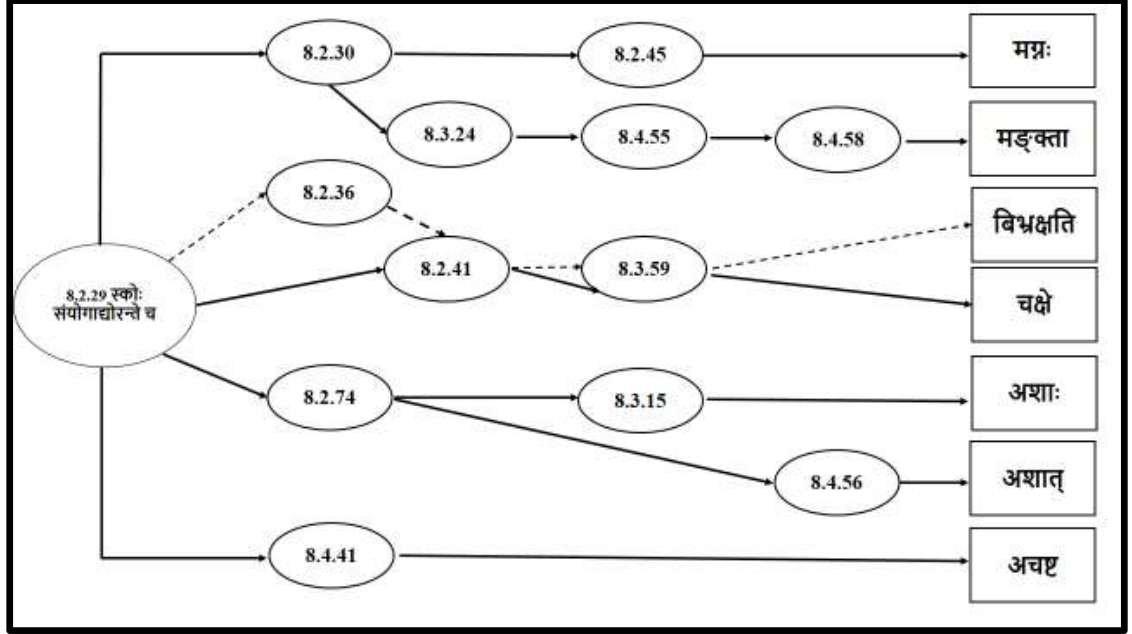
In order to derive the word *prāṇ*, the sequence of rules to be applied are 8.2.23 and 8.2.62. The word *harivaḥ* requires 8.2.23, 8.3.1 and 8.3.15, *pumstva* requires 8.2.23, 8.3.2, 8.3.6 and 8.3.15, *aruntudaḥ* needs 8.2.23, 8.3.23 and 8.4.58 while *akṣan* follows 8.2.23, 8.3.60, 8.4.53 and 8.4.55. To derive a word, each individual word required a different set of rules. This process of derivation of words can be represented graphically using DAGs. A representative DAG for 8.2.23 is shown below:

Representative DAG for 8.2.23

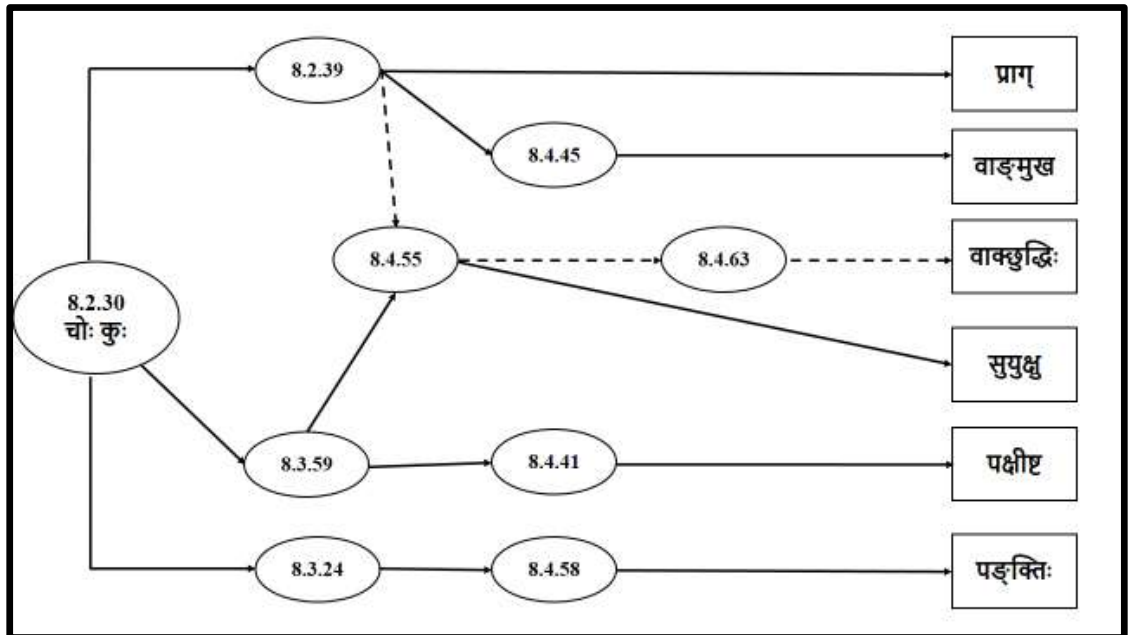


Two more examples follow:

Representative DAG for 8.2.29



Representative DAG for 8.2.30



It is to be noted that dotted lines and bold lines are used in two of the DAGs in order to avoid ambiguity about the rules used for the derivation of words.

Posets for *tripādī* rules

The *tripādī* section in its entirety is considered as a linear order. But, the derivation of individual words require a certain set of rules following the ordering as in *tripādī*. This set of rules are unique to the derivation of individual words. Such a set can be considered as a partial order.

In order to perform a task, a series of operations need to be performed in a particular sequence. This order will not change. Let us consider Task₁ (derivation of a particular word) which needs certain operations (rules to be applied) such as O₂, O₅, O₉. Thus, the operations required to perform Task₁ becomes a partially ordered set. In this manner, *n* number of posets can be formed with the available data. These posets can be merged to re-create the linear ordering using certain algorithms such as topological sorting algorithm, and the like. The topological sorting algorithm is considered for this study.

Topological sorting algorithm

Topological sorting algorithms such as Kahn's algorithm can be implemented in order to re-construct the linear ordering of the *tripādī* rules. A database of posets for *n* number of words can be created. Implementing any topological sorting algorithm, this database can be used to re-create the linear order thereby showing that this is the optimum configuration for the *tripādī* rules. The Kahn's algorithm is explained below:

Kahn's algorithm for topological sorting is a method used to order the vertices of a directed graph in a linear order such that for every directed edge from vertex A to vertex B, A comes before B in the order. The algorithm works by repeatedly finding vertices with no incoming edges, removing them from the graph, and updating the incoming edges of the remaining vertices. This process continues until all vertices have been ordered.²⁴⁵

In this manner, the linear ordering of the *tripādī* section can be graphically represented and a topological sorting algorithm can be executed to re-construct the linear ordering of the *tripādī* section.

²⁴⁵ <https://www.geeksforgeeks.org/topological-sorting-indegree-based-solution/>

Chapter IV: Case studies

This chapter includes six case studies. As elaborated in Chapter I, the references have been grouped and assigned to different topics. All these case studies address the *tripādī* rules. Even though these case studies may not be directly linked to each other, the common thread for all these case studies is the application or avoidance of *tripādī* rules.

Case study 1 highlights the importance of *anubandhas* of the *āgamas* and *pratyayas*. It also throws light on the application or avoidance of some *tripādī* rules resulting in desired forms. One such discussion pertains to the statement “*nuk* and *num* are *upalakṣaṇas* for *anusvāra*” and this statement is logically validated.

Case study 2 demonstrates the role of *saṃjñās* in the application or avoidance of some *tripādī* rules resulting in desired forms. Some *vārttikas* that assign *saṃjñās* are also examined.

Case study 3 illustrates the relevance of words in certain *sapādasaptādhyāyī* rules and also in the *tripādī* rules. The *sapādasaptādhyāyī* rules considered here include the application or avoidance of *tripādī* rules.

Case study 4 discusses the *gaṇas* of roots that are mentioned in a few *tripādī* rules. Some commentaries of selected *sapādasaptādhyāyī* rules refer to roots that cite *tripādī* rules. These references have also been included.

Case study 5 includes the *nipātanas* that have been mentioned in some *sapādasaptādhyāyī* rules located during cross-referencing and also the *nipātana* rules of *tripādī*. Certain operations of the *tripādī* section become valid due to *nipātanatva*.

The *vārttikas* that were located during the cross-referencing of the *tripādī* rules in the *sapādasaptādhyāyī* are included in Case study 6.

Case study 1: Augments (*āgamas*) and their end-tags and *pratyayas*

This case study is a compilation of the references of the *tripādī* rules found in the *sapādasaptādhyāyī* that involve *āgamas* and *pratyayas*. The ‘cross-referencing’ of the *tripādī* rules threw up certain insightful observations on augments and affixes. These references have been discussed below. Literature review is provided where appropriate.

Augments

Introduction

An augment is defined as “a word element which is added to the primitive or basic word during the process of the formation of a complete word or *pada*”.²⁴⁶ आगमश्च नामापूर्वः शब्दोपजनः (*āgamaśca nāmāpūrvah śabdopajanaḥ*)²⁴⁷ is the new addition of a linguistic element (*śabda*). “*Āgamas* are word-building elements without lexical or grammatical meaning”.²⁴⁸ The *āgamas* have *anubandhas* or end-tags such as *ṭ*, *k* or *m*. “Those that have *ṭ* are prefixed, those with *k* are affixed while those with *m* are placed immediately after the last vowel of the word”.²⁴⁹ *Pāṇini* has not defined *āgama* in the *Aṣṭādhyāyī* but this term has been used in grammatical traditional literature. The rules pertaining to augments in the *Aṣṭādhyāyī* are 1.1.46 आद्यन्तौ टकितौ (*ādyantau ṭakitau*) and 1.1.47 मिदचोऽन्त्यात्परः (*midaco ’ntyātparaḥ*). These rules assign positions at which the augments are added.

Positioning of *āgamas* that are *ṭit* and *kit*

1.1.46 आद्यन्तौ टकितौ (*ādyantau ṭakitau*) prescribes the position of augmentation to the base. If the augment is *ṭit*, then, that augment is added before the base and if the augment is *kit*, then, that augment is added after the base.

²⁴⁶ Abhyankar, *A Dictionary of Sanskrit grammar*, 51.

²⁴⁷ Abhyankar, *Vyākaraṇamahābhāṣyam*, Part 1 Chapter 1 *pāda* 1, 2, 281.

²⁴⁸ Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 75.

²⁴⁹ Abhyankar, *A Dictionary of Sanskrit grammar*, 51.

Positioning of āgamas that are mit

1.1.47 मिदचोऽन्त्यात्परः (*midaco 'ntyātparaḥ*) prescribes the positioning of the augment that has an *anubandha m*. This augment is added after the last vowel of the base.

- ❖ MB, under 1.1.47 मिदचोऽन्त्यात्परः (*midaco 'ntyātparaḥ*), discusses about the continuation of the terms *ādi* and *antya* (from 1.1.46 आद्यन्तौ टकितौ (*ādyantau takitau*)). There are three possibilities if there is *anuvṛtti* of *ādi* and *antya* and both the words are not continued.

Possibility 1: The augment *mit* can be added at the end of the previous entity

Possibility 2: or at the beginning of the next entity

Possibility 3: can be considered as an independent entity.

Suppose *mit* is considered an independent entity i.e., it is neither *ādi* nor *antya*, in that case, operations such as lengthening, *nalopa*, *svara*, *ṇatva*, *anusvāra* and *śībhāva* will not be undertaken as given under the *vārttika* 4 अभक्ते दीर्घ-नलोप-स्वर-णत्वानुस्वार-शीभावाः (*abhakte dīrgha-nalopa-svara-ṇatvānusvāra-śībhāvāḥ* ||).²⁵⁰ Amongst these operations, those that are relevant to the *tripādī* are *nalopa*, *ṇatva* and *anusvāra*.

The case of *nalopa* is considered at first:

8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopaḥ prātipadikāntasya*)

- ❖ Suppose *mit* is an independent entity i.e., it is neither *ādi* nor *antya*, in that case, operations such as *nalopa* will not be undertaken as given नलोपः प्रातिपदिकान्तस्येति नलोपो न प्राप्नोति। (*nalopaḥ prātipadikāntasyeti nalopo na prāpnoti*)).²⁵¹

Examples: The Vedic forms of *trīṇi* and *tāni* are *trī* and *tā*.

अग्ने॑ त्री॒ ते वाजि॑ना त्री॒ ष॒धस्था॑।²⁵²
agne trī te vājīnā trī ṣadhasṭhā

ता ता॒ पिण्डा॑नाम्॥²⁵³
tā tā piṇḍānām

²⁵⁰ Abhyankar, *Vyākaraṇamahābhāṣyam*, Part 1 Chapter 1 *pāda* 1, 2, 289.

²⁵¹ Abhyankar, *Vyākaraṇamahābhāṣyam*, Part 1 Chapter 1 *pāda* 1, 2, 289.

²⁵² *Rgveda* 3.20.2 – For reference, see Max Müller, ed., *Rig-Veda-Samhita*: Volume II, Mandalas II-VI, 189.

²⁵³ *Rgveda* 1.162.19 – For reference, see Max Müller, ed., *Rig-Veda-Samhita*: Volume I, Mandala I, 689.

In the derivation of *tā*, there is elision of *sup* in *chandasi* by 7.1.39 सुपां सुलुक्पूर्वसवर्णा-SSच्छेयाडाड्यायाजालः (*supām su-luk-pūrvasavarṇā-''ccheyā-dāḍyāyājālah*) resulting in the form *tā n*. At this stage, 8.2.7 is applied. But, if that *mit* is considered as an independent entity and not as *antya*, then 8.2.7 cannot be applied. The same logic is applicable to *trī* too.

Natva operation

8.4.11 प्रातिपदिकान्तनुम्विभक्तिषु च (*prātipadikāntanumvibhaktiṣu ca*)

- ❖ The examples quoted in MB are *māṣavāpāṇi* or *vrīhivāpāṇi*. At the stage of *māṣavāpa jas*, 7.1.20 जश्शसोः शिः (*jaśśasoḥ śiḥ*) is applied and there is *numāgama* by 7.1.72 नपुंसकस्य झलचः (*napuṃsakasya jhalacah*).

The three scenarios for *mit* are:

- If *mit* is considered as *pūrvānta*, it would be futile to include *num* in 8.4.11 प्रातिपदिकान्तनुम्विभक्तिषु च (*prātipadikāntanumvibhaktiṣu ca*) as *ṇatva* will be achieved with *prātipadikānta* itself.
- If *mit* is considered as *parādi*, there will be *ṇatva* because *num* will be considered as the *avayava* of *paravartī vibhakti śi*. The term *vibhakti* in the rule 8.4.11 प्रातिपदिकान्तनुम्विभक्तिषु च (*prātipadikāntanumvibhaktiṣu ca*) will produce the desired *ṇatva*. So, this also shows that there is no need to include *num* in 8.4.11 प्रातिपदिकान्तनुम्विभक्तिषु च (*prātipadikāntanumvibhaktiṣu ca*).
- If *mit* is considered as *abhakta*, then *num* will have to be included in 8.4.11 प्रातिपदिकान्तनुम्विभक्तिषु च (*prātipadikāntanumvibhaktiṣu ca*). Therefore, there will be no fault even if *mit* is considered as an independent entity.

Anusvāra operation

8.3.24 नश्चापदान्तस्य झलि (*naścāpadāntasya jhali*)

- ❖ There will be no *anusvāra* if *mit* is considered as an independent entity as in the examples *dviṣaṃtapah* and *paraṃtapah*. There is *mumāgama* by 6.3.67 अरुर्द्विषदजन्तस्य मुम् (*arurdviṣadajantasya mum*) which cannot be considered as *padāntamakāra*. Therefore, 8.3.23 मोऽनुस्वारः (*mo 'nusvārah*) cannot be applied. The counterargument given is that 8.3.24 नश्चापदान्तस्य झलि (*naścāpadāntasya jhali*) can be applied. This argument does not hold true for examples such as

vahaṃliho gauḥ| abhraṃliho vāyuh as in these cases, *jhal* does not follow.

Thus, *mit* cannot be considered as an independent entity.

This ends the discussion on the *vārttika* अभक्ते दीर्घ-नलोप-स्वर-णत्वानुस्वार-शीभावाः
(*abhakte dīrgha-nalopa-svara-ṇatvānusvāra-śībhāvāḥ* |

The ensuing sections elaborate on other augments such as *tuṭ*, *tuk*, *thuk*, *āduk*, *num*, *nuk* and *nuṭ*.

Āgama tuṭ

8.3.15 खरवसानयोर्विसर्जनीयः (*kharavasānayorvisarjanīyaḥ*)

- ❖ *Patañjali* justifies using *āgama tuṭ* instead of *tuk* under the rule 4.3.23 सायं-चिरम्प्राह्णे-प्रगेऽव्ययेभ्य-ष्ट्युत्युलौ तुट् च (*sāyaṃ-ciram-prāhṇe-prage'vyayebhya-ṣtyuṭyulau tuṭ ca*). The discussion also refers to the rule 4.3.15 श्वसस्तुट् च (श्वसस् तुट् ठञ्) (*śvasastuṭ ca (śvasas tuṭ ṭhañ)*). If it was *tuk*, then there would have been *ka ādeśa* by 7.3.51 इसुसुक्तान्तात् कः (*isusuktāntāt kaḥ*) for the word *śauvastikam* which is not desired. *Patañjali* further reiterates that the augment has to be *tuṭ* and not *tuk*. Consider the examples of *prātaṣṭanam* and *punastanam*. If the augment is considered to be affixed, i.e. *tuk*, it will be considered as the *antāvayava* of the base. Therefore, it will be *apadānta* by which *visargavidhāna* will not be undertaken. If it is considered as *tuṭ* then, it will be prefixed to the *pratyaya*. *Āgama t* is *khar* by which 8.3.15 will be applied.

Āgama thuk

8.3.34 विसर्जनीयस्य सः (*visarjanīyasya saḥ*)

- ❖ KK, under 5.2.51 षट्कतिकतिपयचतुरां थुक् (*ṣaṭkatikatipayacaturāṃ thuk*), discusses the necessity of introducing a new augment *thuk* when there is already continuance of *thaṭ*. There will be problems in the following cases: *thaṭ* would have caused augment at the beginning while *thuk* will cause augment at the end. If the augment is at the beginning, undesired form, *catustha*, will be obtained after applying rule 8.3.34. Thus, *thuk* is applied.

Āgama āduk

8.4.45 यरोऽनुनासिकेऽनुनासिको वा (yaro 'nunāsike 'nunāsiko vā)

- ❖ While explaining the word *ekānnaviṃśatiḥ*, KK and NY, under 6.3.76 एकादिश्वैकस्य चादुक् (*ekādiśvaikasya cāduk*), state that the negative particle remains unchanged in a word which begins with *eka* and when *āduk* (*ad*) is added to this *eka*. Thus *ekena na viṃśatiḥ* results in *ekānnaviṃśatiḥ*. The augment *āduk* is added to the final of the first member so that optionally, two forms are derived, *ekād na viṃśatiḥ* and *ekānnaviṃśatiḥ* by 8.4.45. MB further suggests the rationale behind not making it *āduḥ*. This would have blocked the application of 8.4.45 causing *anunāsika*.

Āgama tuk

8.4.55 खरि च (*khari ca*)

- ❖ 6.1.75 दीर्घात् (*dīrghāt*) prescribes *tugāgama* for a lengthened vowel when followed by *chakāra*. While explaining *cecchidyate*, SK and BM discuss that the augment *tuk* is added to the long vowel and not to *cha* as *Pāṇini* indicates in 2.4.25 विभाषा सेना-सुरा-च्छाया-शाला-निशानाम् (*vibhāṣā senā-surā-cchāyā-śālā-niśānām*). If *tuk* be added to *cha*, then *cha* would have got converted to *ca* by 8.4.54 अभ्यासे चर्च (*abhyāse carca*); there would have been two *cas* and there would not be the form *cch* as used by *Pāṇini* himself in 2.4.25. Another alternative is to apply the maxim संनिपातलक्षणविधिः²⁵⁴ (*saṃnipātalakṣaṇa-vidhiḥ*), the *ch* may not be changed because *ch* was the *nimitta* for *tugāgama* and this *tugāgama* should not cause the deletion of the *nimitta* itself. This indicates that *tuk* is added to the long vowel.

Āgamas- num, nuk, nuḥ

The *āgamas num*, *nuk* and *nuḥ* are considered collectively as they result in the augmentation of *n*. There are three ways by which *n* can be augmented: *nugāgama*, *numāgama* and *nuḍāgama*. The cross-referencing of these three augments resulted in the following:

²⁵⁴ “the maxim or convention that an operation which is based upon, or is caused or occasioned by, a relationship between two things that cannot break their relation” – For reference, see Abhyankar, *A Dictionary of Sanskrit grammar*, 376.

Nugāgama

8.3.24 नश्चापदान्तस्य झलि (*naścāpadāntasya jhali*)

- ❖ KK and MB discuss the augment *nuk* under 7.4.85 नुगतोऽनुनासिकान्तस्य (*nugato 'nunāsikāntasya*). The examples considered are the two possible forms of *yaṃyamyate* and *yaṃyyamyate*. *Kāśikakāra* states that *nuk* is just an *upalakṣaṇa* (indication) for *anusvāra*. *Patañjali* articulates this clearly. अनुस्वारागमवचनात्तु सिद्धम्। (*anusvārāgamavacanāttu siddham*)). *Nuk āgama* is to be considered as *anusvāra*. If *nuk* is taken to be a *āgama*, then it will not be possible to derive forms such as *yaṃyamyate*, *raṃramyate*. This is because *jhali* does not follow this *nakāra*. Therefore, 8.3.24 नश्चापदान्तस्य झलि (*naścāpadāntasya jhali*) cannot be applied. *Patañjali* suggests considering *nuk* as an *anusvāra*. But, this will still not facilitate the derivations of both the forms as this will result only in deriving *yaṃyyamyate* and not *yaṃyamyate*. *Patañjali* offers a solution to this: *vārttika* 3 - पदान्तवच्चेति वक्तव्यम् (*padāntavacceti vaktavyam*).²⁵⁵ Consider it as *padāntavat*. Then, *yaṃyamyate* can be derived by applying 8.4.59 वा पदान्तस्य (*vā padāntasya*), since there can be optional *parasavarṇa*.

Nuḍāgama

The *āgama nuḍ* is included in 8.2.16 अनो नुट् (*ano nuṭ*). *Patañjali* justifies the usage of *nuṭ* instead of *nuk*. If it is *nuk*, then there will be prohibition of *ṇatva* in case of *akṣaṇvān* by 8.4.37 पदान्तस्य (*padāntasya*). Similarly, in case of *supathintaraḥ*, *ruṇṭva* will become applicable by 8.3.7 नश्छव्यप्रशान् (*naścavyapraśān*).²⁵⁶

Numāgama

The *āgama num* is included in three of the *tripādī* rules, namely 8.3.58 नुम्विसर्जनीय-शर्व्यवायेऽपि (*numvisarjanīyaśarvyavāye 'pi*), 8.4.2 अट्कुप्वाङ्नुम्व्यवायेऽपि (*aṭkupvāṇnumvyavāye 'pi*) and 8.4.11 प्रातिपदिकान्तनुम्विभक्तिषु च (*prātipadikāntanumvibhaktiṣu ca*).

8.3.58 नुम्विसर्जनीयशर्व्यवायेऽपि (*numvisarjanīyaśarvyavāye 'pi*)

²⁵⁵ Abhyankar, *Vyākaraṇamahābhāṣyam*, Part 6 chapters VII and VIII, 250.

²⁵⁶ MB 8.2.16 अनो नुकिविनामरुविधिप्रतिषेधः॥ (*ano nukivinaamaruvividhipratishedhaḥ*||)

- ❖ MB while explaining the *śivasūtra hayavaraṭ*, states that the *num* of this *sūtra* must be the *anusvāra* which replaces *num* and not any other *anusvāra*. Therefore, *mūrdhanyādeśa śatva* is not carried out in *suhinsu* or *pumsu*. Though *anusvāra* was included in the *pratyāhāra śar* by the *vārttika* 7 शर्षु जशभावषत्वे (*śarṣu jaśbhāvaṣatve*), *visarjanīya*, *anusvāra*, *jihvāmūlīya* and *upadhmānīya* should be included in the *śar pratyāhāra* for the sake of *jaś vidhi* and *śatva vidhi*; yet the separate mention of *num* in this *sūtra* indicates that the *anusvāra* is to be taken which results from *num*.

8.4.2 अट्कुप्वाङ्नुम्वयायेऽपि (*aṭkuvāṅnumvyavāye 'pi*)

- ❖ MB while explaining the *śivasūtra hayavaraṭ*, elaborates on the *vārttika* 6 अयोगवाहानामट्सु णत्वम्। (*ayogavāhānāmaṭsu ṇatvam* |). The *ayogavāhas* are included in the *pratyāhāra aṭ* to facilitate *ṇatva*. The examples quoted are: *uraḥkeṇa*, उरःकेण (*uraḥkeṇa*), उरःपेण (*uraḥpeṇa*), *uraḥpeṇa*. Thus, 8.4.2 can be applied.
- ❖ MB and PM under 7.1.72 नपुंसकस्य झलचः (*napuṃsakasya jhalacaḥ*) discuss that in certain words like *śreyāṃsi*, *bhūyāṃsi*, *kurvanti*, both the rules 7.1.70 उगिदचां सर्वनामस्थानेऽधातोः (*ugidacāṃ sarvanāmasthāne 'dhātoḥ*) and 7.1.72 are applicable. *Patañjali* says let both be applicable. In case of *śreyāṃsi*, *bhūyāṃsi*, there will be two *numāgamas*. The latter *numāgama* will undergo *anusvāra* and the earlier one will still be distinctly heard since it did not undergo *anusvāra*. Suppose, we did only one *numāgama*. This does not undergo *ṇatva* due to 8.4.2 अट्कुप्वाङ्नुम्वयायेऽपि (*aṭkuvāṅnumvyavāye 'pi*) because 8.3.24 नश्चापदान्तस्य झलि (*naścāpadāntasya jhali*) and 8.4.2 अट्कुप्वाङ्नुम्वयायेऽपि (*aṭkuvāṅnumvyavāye 'pi*) are both applicable simultaneously. But, *ṇatva* is *asiddha* since it is a latter rule. So *anusvāra* takes place. Now, there is absence of *nakāra* disabling the scope to do *ṇatva*.
- ❖ KK states that *num* is an *upalakṣaṇa* for *anusvāra*.²⁵⁷ In examples such as *ṭṛmhaṇam* and *ṭṛmhaṇīyam*, even though there is *vyavadhāna* of *anusvāra* but absence of augmentation of *num*, *ṇatva* is undertaken. In case of *prenvanam*, even if there is *num*, there is no *anusvāra* and thus, *ṇatva* is not undertaken.

²⁵⁷ नुमग्रहणमनुस्वारोपलक्षणार्थं द्रष्टव्यम्। (*numgrahaṇamanusvāropalakṣaṇārthaṃ draṣṭavyam* |)

8.4.11 प्रातिपदिकान्तनुम्बिभक्तिषु च (*prātipadikāntanumvibhaktiṣu ca*).

- ❖ According to the *Kāśīkakāra* and *Pradīpakāra*, *num* in 8.4.11 is useful in the *vārttika* उत्तरपदं यत् प्रातिपदिकं तदन्तस्यैव णत्वम् (*uttarapadaṃ yat prātipadikaṃ tadantasyaiva ṇatvam*). This *vārttika* means that the *nakāra* of the *prātipadika* in the *uttarapada* alone undergoes substitution. The examples quoted are *māṣavāpāṇi* or *vrīhivāpāṇi*. The *num* included in 8.4.11 is a *jñāpaka* for this *vārttika* because the *num* due to 7.1.72 नपुंसकस्य झलचः (*napuṃsakasya jhalacaḥ*) is in the *aṅgādhikāra*. Therefore, the whole term *māṣavāpa* is an *aṅga* and not just *vāpa*. In this state, the *num āgama* is for the end of whole entity *māṣavāpa* and not just for the end of the term *vāpa*. Hence, in such a situation, there will be no substitution due to the term *prātipadikānta* by the rule 8.4.11. Therefore, there is need to include *num* in the rule. As *Pāṇini* does not use any term unnecessarily, it can be concluded that *nakāra prātipadikānta* in the *uttarapada* alone undergoes substitution. *Bhaṭṭoji Dīkṣita* and *Pradīpakāra* further justify the inclusion of *num* in the rule. If it was not included, it would not be possible to derive forms such as *prahiṇvan*. *Pra hivi prīnane* (*bhvādi*) with *śatṛ* gets *num* due to 7.1.58 इदितो नुम् धातोः (*idito num dhātoḥ*). This *num* is not at the end of the *prātipadika* but it is in the middle of the *dhātu*. The substitution would not have taken place by just using the term *prātipadikānta* in this rule. Therefore, it is necessary to use *num*.

The commentaries state that *nuk* and *num* are *upalakṣaṇas* for *anusvāra*. In order to analyse this statement, a search was carried out for the rules that bring about the augmentation of *n* in the *Aṣṭādhyāyī* using the search engine <https://ashtadhyayi.com/>. Once these rules were identified, the examples given in these rules were analysed to ascertain the modifications of *n* augment. The results of such an analysis are tabulated below with examples for each of these augments.

Nudāgama

The rules that bring about *nuḍāgama* are tabulated below:

Rule	Example	Explanation
6.3.74 तस्मान्नुडचि (<i>tasmānnuḍaci</i>)	<i>anajaḥ, anaśvaḥ</i>	
6.3.75 नभ्राण्नपान्नवेदा नासत्यानमुचि नकुलनखनपुंसकनक्षत्रनक्रनाकेषु प्रकृत्या	<i>nabhrāt, napāt, navedāḥ, nāsatyāḥ, namuciḥ,</i>	

(<i>nabhrāṇnapānnavedā nāsatyānamuci nakulanakha- napuṃsakanakṣatranakranākeṣu prakṛtyā</i>)	<i>nakulaḥ, nakham, napuṃsakam, nakṣatram, nakraḥ, nākam</i>	Here <i>n</i> remains as <i>n</i> . Sometimes, <i>n</i> undergoes <i>ṇatva</i> .
6.3.76 एकादिश्चैकस्य चादुक् (<i>ekādiścaikasya cāduk</i>)	<i>ekānnaviṃśatiḥ, ekānnatrimśat</i>	
6.3.77 नगोऽप्राणिष्वन्यतरस्याम् (<i>nago 'prāṇiṣvanyatarasyām</i>)	<i>nagā vrkṣāḥ, agā vrkṣāḥ</i>	
7.1.54 ह्रस्वनद्यापो नुट् (<i>hrasvanadyāpo nuṭ</i>)	<i>plakṣāṇām, agnīnām, gaurīṇām</i>	
7.1.55 षट्चतुर्भ्यश्च (<i>ṣaṭcaturbhyaśca</i>)	<i>pañcānām, ṣaṇṇām</i>	
7.1.56 श्रीग्रामण्योश्छन्दसि (<i>śrīgrāmaṇyośchandasi</i>)	<i>śrīṇāmūdāro dharuṇo rayīṇām</i> ²⁵⁸	
7.1.57 गोः पादान्ते (<i>goḥ pādānte</i>)	<i>vidmā hi tvā gopātiṃ sūra gonām</i> ²⁵⁹	
8.2.16 अनो नुट् (<i>ano nuṭ</i>)	<i>akṣaṇvantāḥ</i> ²⁶⁰	
8.2.17 नाद्घस्य (<i>nādghasya</i>)	<i>supathintaraḥ dasyuhantamaḥ</i>	
8.3.32 ङमो ह्रस्वादचि ङमुणित्यम् (<i>ṇamo hrasvādaci ṇamuṇityam</i>)	<i>sannacyuta, kurvannāste, rājannehi, apaṭhannamūḥ jighrannaśnan</i>	

Nugāgama

The rules that bring about *nugāgama* are tabulated below:

Rule	Example	Explanation
4.1.32 अन्तर्वत्पतिवतोर्नुक् (<i>antarvatpativatornuk</i>)	<i>antarvatnī pativatnī</i>	There is <i>nugāgama</i> to obtain feminine forms for <i>antarvat</i> , <i>pativat</i> and <i>pati</i> .
4.1.33 पत्युर्नो यज्ञसंयोगे (<i>patyurno yajñasamyoge</i>)	<i>patnī</i>	
7.3.39 लीलोर्नुग्लुकावन्यतरस्यां स्नेहविपातने (<i>līlornuglukāvanyatarasyām snehavipātane</i>)	<i>ghṛtaṃ vilīnayati/ ghṛtaṃ vilāyayati</i>	The roots <i>lī</i> and <i>lā</i> optionally get <i>nuk</i> and <i>luk</i> augment respectively before the affix <i>ṇi</i> when the Causative means 'the melting of a fatty substance'.

²⁵⁸ *Rgveda* 10.45.5 – For reference, see Max Müller, ed., *Rig-Veda-Samhita*: Volume IV, Mandala X, 135.

²⁵⁹ *Rgveda* 10.47.2 – For reference, see Max Müller, ed., *Rig-Veda-Samhita*: Volume IV, Mandala X, 142.

²⁶⁰ *Rgveda* 10.71.7 – For reference, see Max Müller, ed., *Rig-Veda-Samhita*: Volume IV, Mandala X, 221.

7.4.85 नुगतोऽनुनासिकान्तस्य (<i>nugato 'nunāsikāntasya</i>)	<i>yayyammyate,</i> <i>yamyamyate</i>	The augment <i>nuk</i> here should be considered as <i>anusvāra</i> , because a <i>ādeśa</i> is indicated by the nature of the <i>sthānin</i> which is replaced; and therefore in <i>yamyamyate</i> , it remains <i>anusvāra</i> .
	Another alternative interpretation for making it <i>kit</i> i.e. <i>nuk</i> is that there should be no lengthening because of 7.4.83 दीर्घोऽकितः (<i>dīrgho 'kitaḥ</i>). Even though <i>Pāṇini</i> wanted to introduce only <i>anusvāra</i>, he had to state it as <i>nuk</i> to make it <i>kit</i> by which 7.4.83 will not be applicable.	
7.4.86 जपजभदहदशभञ्जपशां च (<i>japajabhadahadaśabhañjapaś āṃ ca</i>)	<i>japa-</i> <i>jañjapyate</i> <i>jañjapīti</i> <i>jabha -</i> <i>jañjabhyate</i> <i>jañjabhīti</i> <i>daha -</i> <i>dandahyate</i> <i>dandahīti</i>	8.3.24 नश्चापदान्तस्य झलि (<i>naścāpadāntasya jhali</i>) is applicable by which there is <i>anusvāra</i> .
	<i>daśa -</i> <i>dandaśyate</i> <i>dandaśīti</i>	<i>Daśa</i> is actually the root “ <i>daṃśiḥ</i> ”. There is elision of <i>nakāra</i> for <i>yanluk</i> also.
	<i>bhañja -</i> <i>bambhajyate</i> <i>bambhañjīti</i>	
	<i>paśa-</i> <i>pampaśyate</i> <i>pampaśīti</i>	<i>Paśa</i> is a <i>sautra dhātu</i> .
7.4.87 चरफलोश्च (<i>caraphalośca</i>)	<i>caṃcūryate</i> <i>caṃcūrīti</i> <i>paṃphulyate</i> <i>paṃphulīti</i>	SK states clearly that consider <i>nuk</i> as <i>anusvāra</i> .

Numāgama

The rules that bring about *numāgama* are tabulated below:

Rule	Example	Explanation
7.1.58 इदितो नुम् धातोः (<i>idito num dhātoḥ</i>)	<i>vand</i>	वदिँ वन् द् 7.1.58 इदितो नुम् धातोः वं द् 8.3.24 नश्चापदान्तस्य झलि व न् द् 8.4.58 अनुस्वारस्य ययि परसवर्णः वन्द <i>vadim</i> <i>van d</i> 7.1.58 <i>idito num dhātoḥ</i> <i>vaṃ d</i> 8.3.24 <i>naścāpadāntasya jhali</i> <i>va n d</i> 8.4.58 <i>anusvārasya yayi parasavarṇaḥ</i> <i>vand</i>
7.1.59 शे मुचादीनाम् (<i>śe mucādinām</i>)	<i>muñcati</i> , <i>lumpati</i> / <i>lumpate</i> , <i>vindati</i> / <i>vindate</i> , <i>limpati</i> / <i>limpate</i> , <i>siñcati</i> / <i>siñcate</i> <i>kṛntati</i> , <i>khindati</i>	The same process as above is applicable for these examples.
	<i>piṃśati</i>	In case of <i>piṃśati</i> , <i>parasavarṇa</i> does not take place as it is not followed by <i>yay-varṇa</i> .
7.1.60 मस्जिनशोर्झलि (<i>masjinaśorjhalī</i>)	<i>mañktā</i> <i>naṃṣṭavya</i>	In these examples too, <i>numāgama</i> gets converted to <i>anusvāra</i> which in turn gets converted to <i>parasavarṇa</i> .
7.1.61 रधिजभोरचि (<i>radhijabhoraci</i>)	<i>randhayati</i> <i>jambhayati</i>	
7.1.63 रभेरशब्लितोः (<i>rabheraśabliṭoḥ</i>)	<i>ārambhayati</i>	
7.1.64 लभेश्च (<i>labheśca</i>)	<i>lambhayati</i>	
7.1.70 उगिदचां सर्वनामस्थानेऽधातोः (<i>ugidacāṃ sarvanāmasthāne 'dhātoḥ</i>)	<i>bhavān</i> / <i>bhavantau</i> / <i>bhavantaḥ</i> , <i>śreyān</i> / <i>śreyāṃsau</i> /	

	<i>śreyāṃsaḥ,</i> <i>pacan/</i> <i>pacantau/</i> <i>pacantaḥ,</i> <i>prāñ/</i> <i>prāñcau/</i> <i>prāñcaḥ</i>	
7.1.71 युजेरसमासे (<i>yujerasamāse</i>)	<i>yuñ/ yuñjau/</i> <i>yuñjaḥ</i>	
7.1.72 नपुंसकस्य झलचः (<i>napuṃsakasya</i> <i>jhalacaḥ</i>)	<i>udaśvinti,</i> <i>śakṛnti,</i> <i>yaśāṃsi,</i> <i>payāṃsi,</i> <i>kuṇḍāni,</i> <i>vanāni,</i> <i>trapūṇi,</i> <i>jatūni</i>	
The process is: <i>numāgama</i> gets converted to <i>anusvāra</i> which in turn, sometimes, gets converted to <i>parasavarṇa</i>. <pre> graph LR A[numāgama] --> B[anusvāra] B --> C[parasavarṇa] </pre>		

Summarizing,

- *Nuḍāgama* – Here *n* remains as *n*. Sometimes, *n* undergoes *ṇatva*.
- *Nugāgama* – *nuk* is considered as an *anusvāra* and it also gets converted into an *anusvāra*.
- *Numāgama* – *num* is considered as an *anusvāra* and gets converted to *anusvāra* which in turn gets converted to *parasavarṇa*.

Nugāgama and *numāgama* get converted into *anusvāra*. As already mentioned earlier, *Patañjali*, under the *śivasūtra hayavaraṭ*, states that the *num* mentioned in 8.3.58 नुम्विसर्जनीयशर्ववायेऽपि (*numvisarjanīyaśarvyavāye 'pi*) refers to the *anusvāra* which replaces *num* and not any other *anusvāra*.

There is a *vārttika* under 8.4.2 अट्कुप्वाङ्नुम्व्यवायेऽपि (*aṭkupaṅnum-vyavāye 'pi*) that states वार्तिक 6 - नुम्व्यवाये णत्वेऽनुस्वाराऽभावे प्रतिषेधः (*num-vyavāye ṇatve- 'nusvārā- 'bhāve pratiṣedhaḥ*)²⁶¹ which states that 8.4.2 applies to augment *num* which has been

²⁶¹ Abhyankar, *Vyākaraṇamahābhāṣyam*, Part 6 Chapters VII and VIII, 474.

changed into an *anusvāra*, and not otherwise. The examples quoted are *prenvanam*, *prenvanīyam*. *Ṇatva* could apply on the basis of 8.4.32 इजादेः सनुमः (*ijādeḥ sanumah*) as the verbal root begins with a sound other than *a* and has the augment *num*. This *vārttika* prevents the substitution because *n* of *num* is not turned into *anusvāra*.

Moreover, in case of *num*, it has been combined with *visarjanīya* in 8.3.58 नुम्विसर्जनीयशर्ववायेऽपि (*numvisarjanīyaśarvyavāye'pi*), which is an *ayogavāha*. *Anusvāra* is also an *ayogavāha*. *Pāṇini*'s technique of combining related entities in a rule is well-known. This is technically termed as *jñāpaka*.²⁶² One such example proving this is in the rule 6.4.125 फणां च सप्तानाम् (*phaṇām ca saptānām*).

The root *phaṇa* along with six others are mentioned in the rule 6.4.125 - *phaṇa*, *rājṛ*, *ṭubhrājṛ* *ṭubhrāśṛ*, *ṭubhlāśṛ*, *syamu* and *svana*. The root *bhrāj* can mean *bhrājṛm* *dīptau* and *ṭubhrājṛm* *dīptau*. The root *ṭubhrājṛm* is mentioned in 6.4.125 so that this rule can be applicable to it. The root *bhrājṛm* *dīptau* is given separately in order to prevent the application of the rule 8.2.36. The *j* of this *bhrāj* (*bhrājṛm* *dīptau*) is not changed to *ṣ* but the *j* of *ṭubhrājṛm* is changed to *ṣ*. Moreover, in the rule 8.2.36 व्रश्चभ्रस्जसृजमृजयजराजभ्राजच्छशां षः (*vraśca-bhrasja-srja-mṛja-yaja-rāja-bhrājacchaśāṃ ṣaḥ*), the root *bhrāj* is read along with *rāj* and so it indicates that the *phaṇādi* *bhrāj* is subject to this rule.

The pattern when *num* is added is as follows:

Anusvāra is undertaken by 8.3.24 नश्चापदान्तस्य झलि (*naścāpadāntasya jhali*). This in turn is followed by 8.4.58 अनुस्वारस्य ययि परसवर्णः (*anusvārasya yayi parasavarṇaḥ*) that causes the *anusvāra* to again change to *parasavarṇa*. Sometimes, *num* remains as *anusvāra* itself.

Thus, the statement that *nuk* and *num* are *upalakṣaṇa* (indication) for *anusvāra* can be validated.

Pratyayas

A *pratyaya* is defined as “a suffix as opposed to *prakṛiti* ‘stem’”.²⁶³ The definition that is given in MB is यस्तमर्थं संप्रत्याययति स प्रत्ययः (*yastamarthaṃ saṃpratyāyayati sa*

²⁶² Indirect or implicit revealer; a word very commonly used in the sense of an indicatory statement. For reference, see Abhyankar, *A Dictionary of Sanskrit grammar*, 150.

²⁶³ Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 2008, 294.

pratyayah).²⁶⁴ The ensuing examples are the references in which certain significant points of a particular *pratyaya* are discussed.

8.2.23 संयोगान्तस्य लोपः (*saṃyogāntasya loṣaḥ*)

- ❖ NY discusses the affix *am* that gets the *ādeśa am* for a neuter gender base that ends in short vowel *a* prescribed by 7.1.24 अतोऽम् (*ato 'm*). The purpose of replacing *pratyaya am* by *ādeśa am* is as follows: *am* is an *anekāl ādeśa*. It becomes a *sarvādeśa* by 1.1.55 अनेकाल् शित् सर्वस्य (*anekāl śit sarvasya*). If this substitution was not undertaken, then there would have been elision of this *pratyaya* by 7.1.23 स्वमोर्नपुंसकात् (*svamornapuṃsakāt*). Another alternative is to mention the *ādeśa* just as *m* instead of *am*. This would have also caused problems during derivation. *phala am* → *phala m m*. At this stage, 7.3.102 सुपि च (*supi ca*) would have been applicable and lengthening would have taken place, 8.2.23 would have been applied resulting in the undesired form, *phalām*.

8.3.23 मोऽनुस्वारः (*mo 'nusvāraḥ*)

- ❖ KK discusses the affixes *am* and *maś* under 7.1.40 अमो मश् (*amo maś*). The *akāra* of *maś* is for *uccāraṇārtha* (pronunciation). The indicatory *ś* of *maś* shows that the whole of the affix *am* is to be replaced. A Vedic example is given: वर्धी वृत्रम्²⁶⁵ (*vadhīm vṛtram*). The substitution of *m* for *m* is to prevent the change of *m* into *anusvāra* as in 8.3.23 - मकारस्यापि हि मकार-वचनमनुस्वार-निवृत्त्यर्थं स्यात्॥²⁶⁶ (*makārasyāpi hi makāravacanamanusvāranivṛttyartham syāt||*)

8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*)

- ❖ 5.3.91 वत्सोक्षाश्वर्षभेभ्यश्च तनुत्वे (*vatsokṣāśvaṣabhebhyascha tanutve*) discusses the *pratyaya ṣṭarac*. In the derivation of *vatsatara*, *ṣṭarac* is added. *Ṣakāra* and *cakāra* become *it*. Applying the परिभाषा अकृतव्यूहाः पाणिनीयाः (*paribhāṣā*

²⁶⁴ MB 3.1.1 – A *pratyaya* is that by which the meaning is known. There is a पाठभेद – “यः स्वमर्थः...” – For reference, see Vasudeo Shastri Abhyankar trans. *Vyākaraṇamahābhāṣyam*, Text and Marathi Translation Part 3 Chapter 3 (Pune: Deccan Education Society, 1951), 4.

²⁶⁵ *Rgveda* 1.165.8 – For reference, see Max Müller, ed., *Rig-Veda-Samhita* Volume I, Mandala I, 723.

²⁶⁶ In KK under 7.1.40.

akṛtavyūhāḥ pāṇinīyāḥ), after the elision of *śakāra*, as the cause is lost, *ṣṭutva* is not undertaken (*nimittāpāye naimittikasyāpyapāyāḥ*). So, *tara* remains.²⁶⁷

- ❖ NY, under 1.1.63 न लुमताङ्गस्य (*na lumatāṅgasya*), states that there is absence of *pratyayalakṣaṇa* as there is elision because of *luk* in the example of *mṛṣṭaḥ*. *Vṛddhi* does not take place because of 7.2.114 मृजेर्वृद्धिः (*mṛjervṛddhiḥ*). The prohibition of such operations due to affixes is termed as *saṃkrama*. KK under 1.1.5 क्ङिति च (*kniti ca*) defines this technical term: संक्रमो नाम गुणवृद्धि-प्रतिषेधविषयः (*saṃkramo nāma guṇavṛddhipratiṣedhaviṣayaḥ*). *Samkrama* is the “technical term given for affixes in ancient grammars for the prohibition of *guṇa* and *vṛddhi* for the preceding vowel. It also stands for letters *k*, *g* and *ṇ* when they are mute to prohibit *guṇa* and *vṛddhi*”.²⁶⁸

8.4.55 खरि च (*khari ca*)

- ❖ MB, under 3.2.57 कर्तरि भुवः खिष्णुच्युक्तौ (*kartari bhuvāḥ khiṣṇucchyuktau*), discusses the *pratyaya khiṣṇuc* in the rule. The *ikāra* indicated in the *pratyaya* could have been achieved even with *idāgama* by 7.2.35 आर्धधातुकस्येड् वलादेः (*ārdhadhātukasyeḍ valādeḥ*). This would have also sufficed. The reason given for the *ikāra* of *khiṣṇuc* is that this *pratyaya* has been mentioned as *iṣṇuc* in 6.2.160 कृत्योकेषुच्चावदयश्च (*kṛtyokeṣuuccārvādayaśca*). 6.2.160 prescribes *udāttasvara* on the final for words formed by *kṛtya* affixes, *uka* and *iṣṇuc* affixes and the words *cāru* etc when they are after *nañ*. There will be *udāttasvara* only for those words that are formed with *iṣṇuc* affixes and not for those that have been construed by adding *idāgama*.²⁶⁹ Therefore, there is *ikāra* for *khiṣṇuc*. Moreover, there is a rule 3.2.136 अलंकृन्निराकृञ्प्रजनोत्पचोत्पतोन्मद-रुच्यपत्रपवृतुवृधुसहचर इष्णुच् (*alamkṛñ-nirākṛñ-prajanotpacotpatonmadarucyapatrapavṛtuvṛdhusahacara iṣṇuc*) that also prescribes *iṣṇuc pratyaya*. The *iṣṇuc* in 6.2.160 is meant to include both the *pratyayas iṣṇuc* and *khiṣṇuc*.²⁷⁰

²⁶⁷ This explanation has been given by Neelesh Bodas under this rule.

²⁶⁸ Abhyankar, *A Dictionary of Sanskrit grammar*, 373-4.

²⁶⁹ The technical terms used for such a usage are *pratipadokta* and *lākṣaṇika*. *Pratipadokta* means “expressly stated as opposed to implied or suggested, *lākṣaṇika*. For reference, see Abhyankar, *A Dictionary of Sanskrit grammar*, 244.

²⁷⁰ SK under 6.2.160 – इष्णुजग्रहणे खिष्णुचो द्व्यनुबन्धकस्यापि ग्रहणमिकारादेर्विधानसामर्थ्यात् । (*iṣṇujgrahaṇe khiṣṇuco dvyanubandhakasyāpi grahaṇamikārādevi dhānasāmarthyāt* |)

- ❖ KK under 3.2.139 ग्लाजिस्थश्च क्सुः (*glājisthaśca ksnuḥ*) states that term *ksnuḥ* actually contains *g* which has undergone *cartva*. The indicatory letter of this affix is really *g* and not *k*, and therefore, substitution of long *ī* for the *ā* of *sthā* by 6.4.66 घुमास्थागापाजहातिसां हलि (*ghumāsthāgāpājahātisām hali*) is not undertaken which would otherwise have taken place, had the affix been *kit*. In the case of *pratyaya ksnuḥ*, it is considered to be as *git*. Continuing the same thought process, 1.1.5 क्ङिति च (*kṇiti ca*) has *g* included in it. But, *kṇiti* of 6.4.63 दीङो युङचि क्ङिति (*dīṇo yuḍaci kṇiti*) does not include *g*. This *kṇiti* of 6.4.63 is continued in 6.4.66. A cursory glance of rules that mention *kṇiti* are 1.1.5 क्ङिति च (*kṇiti ca*), 6.4.15 अनुनासिकस्य क्ङिञलोः क्ङिति (*anunāsikasya kvijhaloḥ kṇiti*), 6.4.24 अनिदितां हल उपधायाः क्ङिति (*aniditām hala upadhāyāḥ kṇiti*), 6.4.37 अनुदात्तोपदेशवनतितनोत्यादीनामनुनासिक लोपो झलि क्ङिति (*anudāttopadeśa-vanati-tanotyādīnāmanunāsika lopo jhali kṇiti*), 6.4.63 दीङो युङचि क्ङिति (*dīṇo yuḍaci kṇiti*) and 7.4.22 अयङ् यि क्ङिति (*ayaṅ yi kṇiti*). Other than 1.1.5, all other rules do not include *g* according to the *Sanskrit* commentaries. This can lead to the conclusion that depending on the *prayojana*, the inclusion of *g* in *kṇiti* needs to be decided. **This needs some more investigation.**

8.4.56 वाऽवसाने (*vā 'vasāne*)

- ❖ BM, under 7.1.25 अद्ङ् डतरादिभ्यः पञ्चभ्यः (*adḍḥ datarādibhyaḥ pañcabhyaḥ*) discusses the necessity of including *ḍ* to the *pratyaya adḍḥ*. In the derivation of *anyad/anyat*, at the stage of *anya* + *adḍḥ*, 6.4.143 टेः (*teḥ*) is applied by which there is elision of *akāra* of *ya* for a *ḍit* *pratyaya* resulting in *any* + *ad*. If *ḍ* was not added to the *pratyaya adḍḥ*, the undesired form *anyād* would have resulted due to *pūrvasavarṇadīrghatva*.

This concludes the study of augments and affixes.

Case study 2: Role of *saṃjñās* in application of rules²⁷¹

As already mentioned in Chapter I, there are six types of rules in the *Aṣṭādhyāyī*. One such type is called *saṃjñāsūtras*. The term *saṃjñā* is defined as follows: संज्ञायते अनया इति संज्ञा । (*saṃjñāyate anayā iti saṃjñā*)²⁷²

संज्ञा a technical term; a short wording to convey ample sense;... वृद्धिशब्दः संज्ञा, आदैचः संज्ञिनः M.Bh. on P.I.1.1. There are two main divisions of संज्ञा – कृत्रिमसंज्ञा or an artificial term such as टि, घु or भ which is merely conventional, and अकृत्रिमसंज्ञा which refers to the literal sense conveyed by the word such as अव्यय, सर्वनाम and the like.²⁷³

A literature review on *saṃjñās* in *Aṣṭādhyāyī* showed these two works by Chatterjee²⁷⁴ and Dvivedi.²⁷⁵ A search on Google Ngram Viewer also did not reflect any relevant works done. K.C. Chatterjee reviews the technical terms of *Sanskrit* grammar from the viewpoint of various *Sanskrit* commentators. Terms used in other schools of grammar are also discussed.²⁷⁶ H.P. Dvivedi classifies the technical terms in the *Aṣṭādhyāyī* into three categories: *śabdasaṃjñā*, *arthasaṃjñā* and *dharmaśaṃjñā*. The technical terms are discussed in detail keeping *Patañjali*'s commentary as the base. Pre- *Pāṇinian* technical terms are said to be those that are “multisyllable ones borrowed by him from his predecessors” while “all monosyllabic terms like *ṭi*, *ghu*, *bha* etc. are *Pāṇini*'s own creation”.²⁷⁷ Moreover, the “arrangement of the technical terms in the *Aṣṭādhyāyī* is not an arbitrary affair, on the contrary it is based on a scientific principle”.²⁷⁸ A comparative study of *Aṣṭādhyāyī* and *Cāndravyākaraṇa* was also undertaken. *Bhartṛhari*'s view on meaning of a technical term along with that of *Haradatta*'s and *Nāgeśa*'s are touched upon in the chapter on “The Character of *saṃjñā śāstra*”.

The purpose of using *saṃjñās* for brevity is well-known in the *Aṣṭādhyāyī*. This study is an attempt to analyse the role of *saṃjñās* in the working of the *Aṣṭādhyāyī*.

²⁷¹ Parts of this case study have been presented in the *Brhanmahārāṣṭra prācyavidyā pariṣad*, Nāśik, conference held in December 2023.

²⁷² H.P. Dvivedi, *Studies in Pāṇini: Technical terms of the Aṣṭādhyāyī* (Delhi: Inter-India Publications, 1978), 9.

²⁷³ Abhyankar, *A Dictionary of Sanskrit Grammar*, 375.

²⁷⁴ Kshitish Chandra Chatterjee, *Technical terms and technique of Sanskrit grammar*, 1948.

²⁷⁵ H.P. Dvivedi, *Technical terms of the Aṣṭādhyāyī*, 1978.

²⁷⁶ Kshitish Chandra Chatterjee, *Technical terms and technique of Sanskrit grammar*, 1948.

²⁷⁷ H.P. Dvivedi, *Technical terms of the Aṣṭādhyāyī*, 1978, 101.

²⁷⁸ H.P. Dvivedi, *Technical terms of the Aṣṭādhyāyī*, 1978, 166.

Rule application or avoidance of rules plays a significant role in the derivation of words. The end goal is to derive the desired form of a word. *Pāṇini* has employed many techniques to achieve this. Defining *saṃjñās* can be considered as one such technique. This study will examine cases in which *saṃjñās* have played a pivotal role in the application or avoidance of rules. Some *vārttikas* assign certain *saṃjñās* in order to facilitate word derivation. Some of these *vārttikas* are also examined.

Prātipadikasamjñā

KK and MB, under 1.2.45 अर्थवदधातुरप्रत्ययः प्रातिपदिकम् (*arthavadadhāturapratyayaḥ prātipadikam*), state the importance of the definition of *prātipadika*. *Van* is *adhātu* and *apratyaya* but it is not *arthavān*. Thus, it is not a *prātipadika* avoiding *nalopa* by 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopaḥ prātipadikāntasya*). In continuation with the definition of a *prātipadika*, MB discusses *vārttika* 15 सुब्लोपे च प्रत्ययलक्षणत्वात् (*sublope ca pratyayalakṣaṇatvāt*). Considering elision of a *vibhaktipratyaya* and applying the principle of *pratyayalakṣaṇa*, it could be conceived that it is a *pratyayānta śabda* thus debarring the *prātipadikasamjñā*. For example, *rājā*, *takṣā*. In these cases, 6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पर्कत्वं हल् (*halṅyābbhyo dīrghāt sutisparṇatvaṃ hal*) could debar *prātipadikasamjñā*. This argument is not convincing because of the rule, 8.2.8 न ङिसम्बुद्ध्योः (*na ṅisambuddhyoḥ*). This rule is a *jñāpaka* which negates *nalopa* followed by *ni-pratyaya* and *sambuddhi-pratyaya*. Thus, it indirectly points to the fact that a *pratyayānta* base does not debar *prātipadikasamjñā*. This same concept of *prātipadikasamjñā* is discussed under 4.1.1 ङ्याप्रातिपदिकात् (*ṅyāprātipadikāt*) and under 8.1.1 सर्वस्य द्वे (*sarvasya dve*) in NY.

Pragrhyasamjñā

6.1.125 प्लुतप्रगृह्या अचि नित्यम् (*plutapragrhyā aci nityam*) prescribes *prakṛtibhāva* for *pluta* letters and *pragrhya* words when followed by an *ac*-letter, even when there is *saṃhitā*. This means that they do not undergo *sandhi*.

NY and BM, under 1.1.12 अदसो मात् (*adaso māt*), justify the designation of *pragrhya* to *adas* which ends in *mī*, *mū* or *me*. In the example of *amī āsāte*, *yaṇādeśa* cannot be applied since *amī* is assigned *pragrhyasamjñā*. This is because there is *prakṛtibhāva* as per 6.1.125 प्लुतप्रगृह्या अचि नित्यम् (*plutapragrhyā aci nityam*).

Optional *pragrhyasamjñā* is achieved by 1.1.16 सम्बुद्धौ शाकल्यस्येतावनार्षे (*sambuddhau śākalyasyetāvanārṣe*). This is one of the rules that defines *pragrhyasamjñā*. According to *Śākalya*, the *okāra* at end of the *sambodhana-ekavacana* form, when followed by the word *iti* in a non-Vedic context, gets the term *pragrhya*. Thus, optionality is achieved. The examples are *bhāno iti* or *bhānaviti*.

Option 1: *sandhi* does not take place when there is *pragrhyasamjñā*.

In case of *bhāno + iti* → *bhāno iti*, there is *prakṛtibhāva* as it is considered as *pragrhya*.

Option 2: In the absence of *pragrhyasamjñā*, *sandhi* takes place.

bhāno + iti → *bhānaviti* [6.1.78 एचोऽयवायावः (*eco 'yavāyāvah*) is applied.]

Nipātasamjñā

1.4.57 चादयोऽसत्त्वे (*cādayo 'sattve*) is a rule that prescribes the designation of *nipātās* to the *cādigāṇa*. Amongst these, some *nipātās* look identical to *upasargas*, *vibhakti* and *svara*. KK states उपसर्गविभक्तिस्वरप्रतिरूपकाश्च निपाताः (*upasarga-vibhakti-svara-pratirūpakāśca nipātāḥ*). As they are assigned the term *nipātās*, they are not subjected to certain rules. A few examples are: In case of *avadattam*, *ava* is not an *upasarga* but a *nipāta*. Therefore, it is not subject to 7.4.47 अच उपसर्गात्तः (*aca upasargāttah*). *Ādeśa* of *takāra* would have resulted in undesired form, *avattam*. In the example of *durnītam*, *dur* is not an *upasarga*. If it was considered so, *ṇatva* by 8.4.14 उपसर्गादसमासेऽपि णोपदेशस्य (*upasargādasamāse 'pi ṇopadeśasya*) would have applied resulting in undesired form, *durṇītam*. In case of *ahamyuḥ*, *aham* is a *nipāta* and not a word ending in a *vibhaktipratyaya*. If not considered as a *nipāta*, *yus pratyaya* could not have been affixed by 5.2.140 अहंशुभमोर्युस् (*ahamśubhamoryus*).

Padasamjñā

Example 1: *brahmatva*

The affix *tva* is added to *brahman* by 5.1.119 तस्य भावस्त्वतलौ (*tasya bhāvastvatalau*). The *pratyaya tva* is not a *sarvanāmasthānasamjñākapratyaya*; therefore, the base gets *padasamjñā* (1.4.17 स्वादिष्वसर्वनामस्थाने (*svādiṣv-asarvanāmasthāne*)) by which 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopah prātipadikāntasya*) is applied giving the desired form.

Example 2: *bhavadīyaḥ*

Chas *pratyaya* is added to *bhavat* by 4.2.115 भवतश्छसौ (*bhavataṣ-ṭhakchasau*). *Chas* is substituted by *īy*, the rule being 7.1.2 आयनेयीनीयिः फट्खच्छघां प्रत्ययादीनाम् (*āyaneyīnīyiyāḥ phadḥkhacchaghāṁ pratyayādīnām*). It has *padasamjñā* by 1.4.16 सिति च (*siti ca*). Now, *jaśtva* by 8.2.39 झलां जशोऽन्ते (*jhalāṁ jaśo 'nte*) gives the desired form, *bhavadīyaḥ*.

Example 3: *vācya*

Vācya is an example of prohibition of a rule because the base does not have the required *saṁjñā*. The *pratyaya* *kyac* is added by 3.1.8 सुप आत्मनः क्यच् (*supa ātmanah kyac*). *Kyac* is a *sanādipratyaya* by which it gets the *dhātusaṁjñā* by 3.1.32 सनाद्यन्ता धातवः (*sanādyantā dhātavaḥ*). At the stage of *vāc ya*, *padasamjñā* is prohibited since only *nakārānta* bases when followed by *kya* get *padasamjñā* (1.4.15 नः क्ये (*naḥ kye*)). Thus, 8.2.30 चोः कुः (*coḥ kuḥ*) is not applicable giving the desired form, *vācya*.

Example 4: *vidvān*

In the derivation of *vidvān*, at the stage of *vidvān s s*, 6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पर्कतं हल् (*halṅyābbhyo dīrghāt sutisyparktaṁ hal*) is applied. *Padasamjñā* is maintained due to 1.1.62 प्रत्ययलोपे प्रत्ययलक्षणम् (*pratyayalope pratyayalakṣaṇam*) enabling the application of 8.2.23 संयोगान्तस्य लोपः (*saṁyogāntasya lopah*) and giving the desired form, *vidvān*.

Angasamjñā

In the derivation of *juhutaḥ*, at the stage of *hu + śap + tas*, there is elision of *śap* by *śluḥ* (2.4.75 जुहोत्यादिभ्यः श्लुः (*juhotyādibhyaḥ śluḥ*)) resulting in *hu + tas*. 1.1.63 न लुमताङ्गस्य (*na lumatāṅgasya*) negates *pratyayalakṣaṇam*. If *pratyayalakṣaṇam* was not prohibited, 7.3.84 सार्वधातुकार्धधातुकयोः (*sārvadhātukārdhadhātukayoḥ*) would have caused *guṇa* keeping *śap* as *nimitta*. Thus, *āṅgakārya* is prohibited giving the desired result.

Bhasamjñā

1.4.19 तसौ मत्वर्थे (*tasau matvarthe*) is one of the rules that defines *bha*. KK and NY give the examples of *udaśvitvān* and *yaśasvī*.

Example 1: *udaśvitvān*

KK, under 8.2.9 मादुपधायाश्च मतोर्वोऽयवादिभ्यः (*mādupadhāyāśca matorvo- 'yavādibhyaḥ*) states that *matup* stands for *sthānī* or *kāryī* and this rule is applicable to that *prātipadika* that meets the requirements - मतोरिह कार्यित्वेनोपादानात् सामर्थ्यलब्धं प्रातिपदिकम् (*matoriha kāryitvenopādānāt sāmartyalabdham prātipadikam*). This statement in KK indicates that *prātipadika* from 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopah prātipadikāntasya*) is continued in 8.2.9–8.2.17. At the stage of *udaśvit* + *su*, *matup* is added by 5.2.94 तदस्यास्त्यस्मिन्निति मतुप् (*tadasyāstyasminniti matup*). This base gets *bhasamjñā* by 1.4.19 तसौ मत्वर्थे (*tasau matvarthe*) thus debarring *padasamjñā*. This *matup* is changed to *vatup* by 8.2.10 झयः (*jhayah*). The designation *bha* prevents the substitution of *d* for the stem-final *t* as given by 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*).

Example 2: *yaśasvī*

In case of *yaśasvī*, *bhasamjñā* prevents the application of *rutva* by 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*).

Example 3: *ṣaṣṭha*

In the derivational process of this word, NY, under 5.2.51 षट्कतिकतिपयचतुरां थुक् (*ṣaṭkatikatipayacaturāṁ thuk*)²⁷⁹, justifies the introduction of a new *pratyaya* *thuk* even though there is continuation of *thaṭ*. At the stage of *ṣaṣ* + *ḍaṭ*, the augment *thuk* is added by 5.2.51. *ṣaṣ* + *thuk* + *ḍaṭ* resulting in (*ṣaṣ* + *th*) + *a*. *ṭilopa* by 6.4.143 टेः (*teḥ*) is not carried out because the augment *thuk* is *kit*. By making this augment *kit*, the base is now (*ṣaṣ* + *th*). This is followed by *a* giving it *bhasamjñā*. If the same *pratyaya* *thaṭ* would have been continued, then, it would have become part of the beginning of the next entity by which *padasamjñā* (by 1.4.17 स्वादिष्वसर्वनामस्थाने (*svādiṣvvasarvanāmasthāne*)) would have been assigned and undesired *jaśtva* would have taken place. *Ṣṭutva* is undertaken by 8.4.41 ष्टुना ष्टुः (*ṣṭunā ṣṭuḥ*) giving the desired form, *ṣaṣṭha*.

²⁷⁹ This reference was also mentioned in case study 1, but the context and the example were different.

Ghusamjñā

In the derivation of *dattah*, at the stage of *da dā + tas*, 6.4.112 श्राऽभ्यस्तयोरातः (*śnā'bhyastayorātaḥ*) is applied resulting in *dad + tas*. 6.4.113 ई हल्यघोः (ई हलि अघोः) (*ī halyaghoḥ (ī hali aghoḥ)*) prescribes the conversion of *ākāra* into *īkāra* but not for *ghu*. The root *dā* has *ghusamjñā*. Therefore, 6.4.113 ई हल्यघोः (*ī halyaghoḥ*) cannot be applied. In this case, a particular *saṃjñā* prohibits application of a rule.

Gatisamjñā, upasargasamjñā and karmapravacanīyasamjñā

KK under 1.4.60 गतिश्च (*gatiśca*) justifies the rationale behind separating the rules namely, 1.4.59 उपसर्गः क्रियायोगे (*upasargāḥ kriyāyoge*) and 1.4.60 गतिश्च (*gatiśca*). This *yogavibhaga* is to continue only the *gatisamjñā* into the subsequent rules and not of *upasarga*. *Prādayas* have two *saṃjñās*, *upasarga* and *gati* while *ūryādayas*, *cvyantās* and *ḍājantās* have only one *saṃjñā*, *gati*. The examples for *prādayas* are *praṇītam/* *abhiṣiktam*. *Pra* when considered as *upasarga*, can be subjected to 8.4.14 उपसर्गादसमासेऽपि णोपदेशस्य (*upasargādasamāse'pi ṇopadeśasya*) by which *ṇatva* is undertaken giving the desired form, *praṇītam*. *Abhi* when considered as an *upasarga*, can be subjected to 8.3.87 उपसर्गप्रादुर्भ्यामस्तिर्यचरः (*upasarga-prādurbyāmastiryacparaḥ*); *ṣatva* is carried out giving the desired form, *abhiṣiktam*. Considering them as *gati*, the intonation can be achieved for these examples with 6.2.49 गतिरनन्तरः (*gatiranantaraḥ*).

1.4.91 अभिरभागे assigns the *karmapravacanīyasamjñā* to *abhi* only when it means “division” or “share of”. In the example of *yadatra mamābhiṣyāt tad dīyatām*], *abhi* is not a *karmapravacanīya* but an *upasarga*. Therefore, 8.3.87 उपसर्गप्रादुर्भ्यामस्तिर्यचरः (*upasargaprādurbyāmastiryacparaḥ*) is applicable resulting in *ṣatva*.

8.3.98 सुषामादिषु च (*suṣāmādiṣu ca*) includes the words *suṣedhaḥ*, *niṣsedhaḥ* and *duṣsedhaḥ*. The discussion in KK is the reasoning behind including these three words in this list. *Ṣatva* could have been achieved by 8.3.65 उपसर्गात् सुनोति-सुवति-स्यति-स्तौति-स्तोभति-स्था-सेनय-सेध-सिच-सञ्ज-स्वञ्जाम् (*upasargāt sunoti-suvati-syati-stauti-stobhati-sthā-senaya-sedha-sica-sañja-svañjām*) as **sedha** is in the list. *su* is assigned *karmapravacanīyasamjñā* by 1.4.94 सुः पूजायाम् (*suḥ pūjāyām*); *nir* and *dur* are not

upasargas because they are *kriyāntaraviṣaya*;²⁸⁰ they are connected to the verb *gama* as in *nirgataḥ sedhaḥ* or *durgataḥ sedhaḥ*. Another reason could be to avoid prohibition prescribed by 8.3.113 सेधतेर्गतौ (*sedhatergatau*).

Some *vārttikas* assign certain *saṃjñās* to derive words. These *vārttikas* are discussed below.

उभयसंज्ञानि अपि इति वक्तव्यम् । (*ubhayasaṃjñāni api iti vaktavyam*)²⁸¹

This *vārttika* states that certain bases take two *saṃjñās* in *Vedic* literature, the two *saṃjñās* being *bha* and *pada*. A few examples are shown below:

Example 1: *ṛkvātā*²⁸²

At the stage of *ṛc* + *vat*, considering it as *padasaṃjñā*, 8.2.30 चोः कुः (*coḥ kuḥ*) is applied giving *ṛk* + *vat*. This gives the form *ṛkvat*. At this stage, it is considered as *bha* and *jaśtva* by 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*) is prohibited.

Example 2: *vājineṣu*²⁸³

Vājinaḥ is derived as follows: *vācām inah* (*prabhuḥ*) is a *ṣaṣṭhītatpuruṣasamāsa* [*vācām inah* 2.2.8 षष्ठी (*ṣaṣṭhī*)]. It is made *bha* at this stage by which *kutva* by 8.2.30 चोः कुः (*coḥ kuḥ*) is prohibited. After this stage, it is assigned *padasaṃjñā* resulting in *jaśtva* by 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*) and giving the desired result *vāj ina* (*vājinaḥ*).

Example 3: *śukra*²⁸⁴

In *Vedic* literature, *yat pratyaya* is used in place of *matup*. Moreover, there are times when this *yat pratyaya* either undergoes *luk* or is substituted by *a*, *i* or *ra* as given

²⁸⁰ *Kriyāntaraviṣaya* means ‘whose domain is another action’ – For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology* 2008, 155.

²⁸¹ This *vārttika* is under 1.1.1 वृद्धिरादैच् (*vṛddhirādaic*) in MB.

²⁸² *Rgveda* 4.50.5 – For reference, see Max Müller, ed., *Rig-Veda-Sanhita*: Volume II Mandalas II to VI, 475.

²⁸³ *Rgveda* 10.71.5 – For reference, see Max Müller, ed., *Rig-Veda-Sanhita*: Volume IV Mandala X, 221.

²⁸⁴ *Taittirīyasaṃhitā* 1.4.14.1- For reference, see N. S. Sontakke and T. N. Dharmadhikari, ed., *Taittirīyasaṃhitā* with the *padapāṭha* and commentaries of *Bhaṭṭabhaṣkaramiśra* and *Sāyaṇācārya*, (Pune: Vaidika Saṃśodhana maṇḍal, 1970), 564.

by the *vārttika* लुगकारेकाररेफाश्च वक्तव्याः (*lugakārekārarephāśca vaktavyāḥ*)²⁸⁵. In the derivation of *śukra*, *ra pratyaya* is substituted for *matup* resulting in *śuc + ra*. At this stage, it is considered as *padasamjñā*, 8.2.30 चोः कुः (*coḥ kuḥ*) is applied resulting in *śuk + ra*. Now, at this stage, it is considered as *bha* and *jaśtva* by 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*) is prohibited. Additionally, there is a *vārttika* under 8.2.18 कृपो रो लः (*kṛpo ro laḥ*), *kapilakādīnām* that gives optional forms such as *kapilaka* | *nirvilika* | *lomāni* | *pāmsula* | *kalpa* | *śukla* | *kapilakā* | *tarpilikā* | *tarpili* || in which the optional form, *śukla* is mentioned.

अग्नीधः शरणे रण् भं च ॥ (*agnīdhaḥ śaraṇe raṇ bhaṁ ca ||*)²⁸⁶

Agnidh/ agnīdh (name of a *ṛtvik* priest) is a fire-kindling priest officiating in majority of the *śrauta* sacrifices. *Āgnīdhram* is the place where the priest, *agnīdh*, kindles the fire. The derivation is explained as follows: अग्निमिन्धे अग्नीध्, तस्य स्थानमाग्नीध्रम् । (*agnimindhe agnīdh, tasya sthānamāgnīdhram* |). This *vārttika* suggests that the *pratyaya raṇ* is to be added to *agnīdh* and also assign *bhasamjñā* to it. This *bhasamjñā* will prevent *jaśtva* of *dh* to *d* by 8.2.39 झलां जशोऽन्ते (*jhalām jaśo 'nte*).

भसंज्ञायामुत्तरपदलोपे षषः प्रतिषेधः (*bhasamjñāyām-uttarapada-lope ṣaṣaḥ pratiṣedhaḥ*)²⁸⁷

This *vārttika* has been considered in association with two other *vārttikas*. Basically, two words are being discussed here – *ṣaḍikaḥ* and *vācikaḥ*. The derivations of these words are as follows:

Ṣaḍikaḥ is a compound word derived from अनुकम्पितः षडङ्गुलिदत्तः सः षडिकः (*anukampitaḥ ṣaḍaṅgulidattaḥ saḥ ṣaḍikaḥ*). *Ṭhac* is added to *ṣaḍaṅgulidattaḥ* by 5.3.78 बह्वचो मनुष्यनाम्नष्टज्वा (*bahvaco manuṣyanāmnaṣṭhajvā*) resulting in *ṣaṣ + aṅgulidattaḥ + ṭhac*. Applying 5.3.83 ठाजादावूर्ध्वं द्वितीयादचः (*ṭhājādāvūrdhvaṁ dvitīyādacaḥ*), *ṣaṣ + a + ṭhac* is obtained. 7.3.50 ठस्येकः (*ṭhasyekaḥ*) is now applied resulting in *ṣaṣ + a + ik*. 6.4.148 यस्येति च (*yasyeti ca*) elides *a* thereby destroying the entire *uttarapada* (*aṅgulidattaḥ*).

²⁸⁵ This *vārttika* is given in MB under 4.4.128 मत्वर्थे मासतन्वोः (*matvarthe māsatantvoḥ*).

²⁸⁶ This *vārttika* is given in KK and SK under 4.3.120 तस्येदम् (*tasyedam*).

²⁸⁷ This *vārttika* is given in MB under 1.4.18 यचि भम् (*yaci bham*).

अनुकम्पितः षडङ्गुलिदत्तः सः षडिकः	
षष्+अङ्गुलिदत्तः+ठच्	5.3.78 बह्वचो मनुष्यनाम्नष्टज्वा
षष् + अ + ठच्	5.3.83 ठाजादावूर्ध्वं द्वितीयादचः
षष् + ठच्	6.4.148 यस्येति च
षष् + इक्	7.3.50 ठस्येकः
<i>anukampitaḥ ṣaḍaṅgulidattaḥ saḥ ṣaḍikaḥ</i>	
<i>ṣaṣ + aṅgulidattaḥ ṭhac</i>	5.3.78 <i>bahvaco manuṣyanāmnaṣṭhajvā</i>
<i>ṣaṣ + a + ṭhac</i>	5.3.83 <i>ṭhājādāvūrdhvaṃ dvitīyādacaḥ</i>
<i>ṣaṣ + ṭhac</i>	6.4.148 <i>yasyeti ca</i>
<i>ṣaṣ + ik</i>	7.3.50 <i>ṭhasyekaḥ</i>

At this stage, the elision of *akāra* has *sthānivadbhāva* by the *vārttika* सिद्धमचः स्थानिवत्त्वात् (*siddhamacaḥ sthānivattvāt*). This means that the *sthānivadbhāva* of elision of *akāra* prevents *bhasaṃjñā*. Thus, *padasaṃjñā* is retained by which *jaṣṭva* can be applied giving the desired form, *ṣaḍikaḥ*.

As part of the discussion in MB of this *vārttika*, the *pūrvapakṣa* reiterates that this argument of *sthānivadbhāva* must be valid even for *vācikaḥ* by which *bhasaṃjñā* is prohibited. Thus, *kutva* and *jaṣṭva* can be applied. But, this would lead to undesired form. The derivation of *vācikaḥ* is as follows:

वागाशीर्दत्तः वाचिकः	
वाच् आशीर्दत्तः ठच्	5.3.78 बह्वचो मनुष्यनाम्नष्टज्वा
वाच् आ ठच्	5.3.83 ठाजादावूर्ध्वं द्वितीयादचः
वाच् आ इक्	7.3.50 ठस्येकः
वाच् इक्	6.4.148 यस्येति च
<i>vāgāśīrdattaḥ vācikaḥ</i>	
<i>vāc āśīrdattaḥ ṭhac</i>	5.3.78 <i>bahvaco manuṣyanāmnaṣṭhajvā</i>
<i>vāc ā ṭhac</i>	5.3.83 <i>ṭhājādāvūrdhvaṃ dvitīyādacaḥ</i>
<i>vāc ā ik</i>	7.3.50 <i>ṭhasyekaḥ</i>
<i>vāc ik</i>	6.4.148 <i>yasyeti ca</i>

At this stage, if the same logic of *sthānivadbhāva* of *ṣaḍikaḥ* is assumed, then, due to *padasaṃjñā*, *kutva* and *jaṣṭva* will be applied giving undesired form. *Bhasaṃjñā* needs to be retained. *Patañjali* states that there is another *vārttika* एकाक्षरपूर्वपदानामुत्तरपदलोपो वक्तव्यः (*ekākṣara-pūrvapadānām-uttarapada-lopo*

vaktavyaḥ).²⁸⁸ If the *pūrvapada* consists of a single syllable, there is elision of the *uttarapada* as in *vācikaḥ*. The counter-argument is if that be the case, the form *ṣaḍikaḥ* cannot be obtained. The *siddhāntin* points out that the form *ṣaḍikaḥ* is achieved by the *vārttika* षषः ठाजादिवचनात् सिद्धम् (*ṣaṣaḥ thājādivacanāt siddham*).

It is to be noted that भसंज्ञायामुत्तरपदलोपे षषः प्रतिषेधः (*bhasamjñāyām-uttarapadalope ṣaṣaḥ pratiṣedhaḥ*) is specifically mentioning *ṣaṣ*. This excludes all other words. The counter-example does not hold true unless the discussion is only about *sthānivadbhāva*.

क्विवन्ताः विजन्ताश्च प्रातिपदिकत्वं न जहति, धातुत्वमपि न मुञ्चन्ति (*kvibantāḥ vijantāśca prātipadikatvaṃ na jahati, dhātutvamapi na muñcanti*)²⁸⁹

The example for this *vārttika* is *dhug/ dhuk*. The application of 8.2.32 दादेर्धातोर्घः (*dāderdhātorghaḥ*) is facilitated because of this *vārttika*. At the stage of *duh + sum*, it has *padasamjñā*. 8.2.32 is applied as it has *dhātusamjñā* too resulting in the desired forms. Another example for this *vārttika* is *dhuryaḥ*. In this example, *dhur* takes three *samjñās* namely *prātipadikam*, *dhātu* and *bha*. *dhur + yat* gives it the status of *bha*. Lengthening by 8.2.79 न भकुर्चुराम् (*na bhakurchurām*) is avoided since it is *bha*.

Praśān also reaffirms this *vārttika*. *pra + śam + kvip* gives it the *prātipadikasamjñā*. At the stage of *praśām*, there is elision of *sum* by 6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पर्कत्वं हल् (*halṅyābbhyo dīrghāt sutisyparkatvaṃ hal*). *Padasamjñā* is retained due to 1.1.62 प्रत्ययलोपे प्रत्ययलक्षणम् (*pratyayalope pratyayalakṣaṇam*). 8.2.64 मो नो धातोः (*mo no dhātoḥ*) can be applied since *kvibantās* do not give up their *dhātutva* status.

गोर्युतौ छन्दस्युपसङ्ख्यानम् (*goryūtau chandasyupasaṅkhyānam*)²⁹⁰

SK, BM, TB and PraudaM discuss the word *gavyūtiḥ* under 6.1.79 वान्तो यि प्रत्यये (*vānto yi pratyaye*) under which this *vārttika* is located. 6.1.79 prescribes *av* or *āv ādeśa* for *okāra-aukāra* when followed by a *yakārādi-pratyaya*. Additionally, in Vedic literature, when *go* follows *yūti*, *okāra* of *go* gets *av ādeśa* giving the desired form, *gavyūtiḥ*. The reference is *Rgveda* 3.62.16 आ नो मित्रावरुणा घृतैर्गव्यूतिमुक्षतम् (*ā nō*

²⁸⁸ This is given under 5.3.84 शेवलसुपरिविशालवरुणार्यमादीनां तृतीयात् (*śevalasupariviśālavaruṇāryamādīnāṃ tṛtīyāt*).

²⁸⁹ This has not been quoted in the MB. NY has quoted this on 6.4.77 and 6.4.87— For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology* 2008, 157.

²⁹⁰ This *vārttika* is given in MB under 6.1.79 वान्तो यि प्रत्यये (*vānto yi pratyaye*).

mitrāvaruṇā ghṛtairgavyūtimukṣatam).²⁹¹ In *bhāṣā*, it is *goyūtiḥ*. There is an addendum to this *vārttika*. In *bhāṣā*, when the distance covered on the road is to be expressed, the word *gavyūtiḥ* is used- अध्वपरिमाणे च (*adhvapārimāṇe ca*). An example of such usage in *bhāṣā* is: *gavyūtimātramadhvānam gataḥ*. *Sudhātīkā* quotes *amarakośa* “गव्यूतिः स्त्री क्रोशयुगम्” इत्यमरः (“*gavyūtiḥ strī krośayugam*” *ityamarah*) and states that one *gavyūtiḥ* stands for one *krośayugam* which is about 4 kms.

SK points out that in the examples of *gavyam* and *nāvyam*, *v* is not elided by applying 8.3.19 लोपः शाकल्यस्य (*lopaḥ śākalyasya*) or 8.3.22 हलि सर्वेषाम् (*hali sarveṣām*). This is because 8.3.19 and 8.3.22 apply to *pada*. *Go* or *nau* before *yat* is not a *pada* but a *bha*. Therefore, 8.3.19 or 8.3.22 are not applicable to *gavyam* and *nāvyam*.

नभोङ्गिरोमनुषां वत्युपसंख्यानं कर्तव्यम् । (*nabhoṅgaromanuṣāṃ vatyupasaṃkhyānam kartavyam* ।)²⁹²

KK, NY and MB quote this *vārttika*. *Nabhas*, *aṅgiras* and *manuṣ* should be assigned the *bhasamjñā* when *vat* follows.

नभ इव नभस्वत्। अङ्गिरा इव अङ्गिरस्वत्। मनुर्विव मनुष्वत्॥

nabha iva nabhasvat | aṅgirā iva aṅgirasvat | manuriva manuṣvat ||

Bhasamjñā prevents the conversion of *s* into *r* by 8.2.66 ससजुषो रुः (*sasajuṣo ruḥ*) as it is not assigned the *padasamjñā*.

वृषण्वस्वश्वयोश्च ॥ (*vṛṣaṇvasvasvayośca* ॥)²⁹³

The word *vṛṣan* is treated as *bha* in the *Vedas* when the words *vasu* and *aśva* follow. The examples are: वृषण्वसू²⁹⁴ (*vṛṣaṇvasū*), वृषण्वस्य मेनासीत्²⁹⁵ (*vṛṣaṇasvasya menāsīt*). The logic behind making this as *bha* is to prohibit *nakāralopa* by 8.2.7 नलोपः

²⁹¹ For reference, see Max Müller, ed., *Rig-Veda-Sanhita*: Volume II Mandalas II to VI, 339.

²⁹² This *vārttika* is given in MB under 1.4.18 यचि भम् (*yaci bham*).

²⁹³ This *vārttika* is also given in MB under 1.4.18 यचि भम् (*yaci bham*).

²⁹⁴ *Rgveda* 1.111.1 – For reference, see Max Müller, ed., *Rig-Veda-Sanhita*: Volume 1 Mandala 1, 483.

²⁹⁵ *Maitrāyaṇī saṃhitā* 2.5.5 – For reference, see Śrīpāda Dāmodara Sātavalekara, ed., *Yajurvedīya Maitrāyaṇī Saṃhitā* (Satara: Svadhyaya Mandal Bharat Mudranalaya, 1941), 137.

प्रातिपदिकान्तस्य (*nalopaḥ prātipadikāntasya*) and णत्वा by 8.4.37 पदान्तस्य (*padāntasya*) is not prohibited.

प्रादिसमासे प्रसङ्गे कर्मप्रवचनीयां प्रतिषेधो वक्तव्यः (*prādisamāse prasaṅge karmapravacanīyāṃ pratiṣedho vaktavyaḥ*)²⁹⁶

While discussing the intonation of the word *sūtthitaḥ*, NY under 8.2.6 स्वरितो वाऽनुदात्ते पदादौ (*svarito vā'nudātte padādau*), quotes this *vārttika*. *Su* is assigned *karmapravacanīyasamjñā* by 1.4.94 सुः पूजायाम् (*suḥ pūjāyām*). When *pra* etc. function as *karmapravacanīyas*, then a *samāsa* of the *prādi* type is prohibited. Since *su* is a *karmapravacanīya*, it is also an *avyaya*. *Sūtthitaḥ* is an *avayayibhava samāsa*. These compounds retain the intonation of its first member by 6.2.2 तत्पुरुषे तुल्यार्थ-तृतीया-सप्तम्युपमानाव्ययद्वितीयाकृत्याः (*tatpuruṣe tulyārtha-trṭīyā-saptamyupamānāvyaya-dvītiyākṛtyāḥ*), and thus, *su* is *ādyudātta* and the rest are *anudatta*. Thus, the *udatta u* of *su* is compounded with the *anudatta u* of *utthitaḥ* which stands at the beginning of a *pada*, and so the *ekādeśa* is optionally *svarita*. NY also states that the status of *su* is *anitya*.²⁹⁷

अन्तःशब्दस्याऽङ्कविधिसमासणत्वेषूपसंख्यानम् (*antaḥśabdasyā'ṅkavidhi-samāsa-ṇatveṣūpasamkhyānam*)²⁹⁸

Antaḥ should be considered as *gati* for the following operations: *-aṅ*, *ki-vidhi*, *samāsa* and *ṇatva*. The examples for each of these operations are *antarddhā*, *antarddhiḥ*, *antarhatya* and *antarṇayati* respectively.

मरुच्छब्दस्य च उपसङ्ख्यानम् कर्तव्यम् (*marucchabdasya ca upasaṅkhyānam kartavyam*)²⁹⁹

Marut is assigned the *upasargasamjñā* according to this *vārttika*. The example discussed is *maruttaḥ*. The *vigrahavākya* is *marudbhiḥ dattaḥ*. Since *marut* is assigned the *upasargasamjñā*, 7.4.47 अच उपसर्गात्तः (*aca upasargāttāḥ*) is applicable by which

²⁹⁶ This *vārttika* is under 2.2.18 कुगतिप्रादयः (*kugatiprādayaḥ*) in MB.

²⁹⁷ अनित्यत्वं तु सुशब्दस्य सुषामादिषु प्रयोगाद्विज्ञेयम्। (*anityatvaṃ tu suśabdasya suṣāmādiṣu prayogādvijñeyam*) – NY under 8.2.6.

²⁹⁸ This *vārttika* is under 1.4.65 अन्तरपरिग्राहे (*antaraparigrahe*) in MB.

²⁹⁹ This *vārttika* is under 1.4.59 उपसर्गाः क्रियायोगे (*upasargāḥ kriyāyoge*) in MB.

dā is substituted by *t* before a *kit* suffix when preceded by a vowel-ending *upasarga*. This results in the desired form, *maruttaḥ*.

दुरः षत्वणत्वयोरुपसर्गत्वप्रतिषेधो वक्तव्यः (*duraḥ ṣatvaṇatvayorupasargatvapraṭiṣedho vaktavyaḥ*)³⁰⁰

This *vārttika* strips off the designation of *upasarga* for *dur* by which *ṇatvaṃ* due to 8.4.16 आनि लोट् (*āni loṭ*) does not take place as in *durbhavāni*.

The role of *saṃjñās* and some *vārttikas* in the derivation of words is demonstrated in the above discussion.

Case study 3: Relevance of words used in the rules of the *Aṣṭādhyāyī*

The cross-referencing of the *tripādī* rules gave insights into the significance of words used in the *sapādasaptādhyāyī* rules and also in the *tripādī* rules. This study is an attempt to collect such examples and present them. This discussion is done according to the *prakaraṇas* of the *tripādī* to enhance its relevance.

Nalopa prakaraṇa

❖ 6.3.25 आनङ् ऋतो द्वन्द्वे (*ānaṅ ṛto dvandve*)

PM and MB discuss the form *ānaṅ* in the rule. Though the *pratyaya* is only *ā*, *n* is added. The reason for this addition is given as pronunciation. In the derivation of *mātāpitarau* (*mātr pitṛ au*), 6.3.25 is applied by which *mātān* (*ānaṅ ādeśa*) is derived. *Mātān* gets *pada* designation. Now, 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopaḥ prātipadikāntasya*) is applied. *n* is added to this *pratyaya* in order that as *ān*, it is not *aṅ*. This prevents the application of 1.1.51 उरण् रपरः (*uraṅ raparaḥ*).

❖ 6.3.74 तस्मान्नुडचि (*tasmānnuḍaci*)

KK and MB discuss the three words in this rule- namely, *tasmāt*, *nuṭ* and *aci*. The rule could have been framed as *nuḍaci*. The reason for using *tasmāt* is to indicate “after such a *nañ*”. Otherwise, *nuṭ* would have been the augment of *nañ* and not of the subsequent word. Adding *nuṭ* to *nañ* or rather to *a*, we have

³⁰⁰ This *vārttika* is not recorded in MB but in SK under 8.4.16 आनि लोट् (*āni loṭ*).

an. The example in KK is *nañ aśvaḥ* → *a n aśva* → *anaśvaḥ*. This is assuming that *nuṭ* is not to be added before *a* but after it which is against 1.1.46 आद्यन्तौ टकितौ (*ādyantau ṭakitau*). If it was added earlier, then in the case of *anuṣṇaḥ* (example in MB), 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopaḥ prātipadikāntasya*) would have caused *nalopa*. This is more for the justification of the word *tasmāt* in this rule.

- ❖ MB discusses 8.2.7 नलोपः प्रातिपदिकान्तस्य (*nalopaḥ prātipadikāntasya*) under the concept of *antagrahaṇādvā nalope*. The rule should have been नलोपः प्रातिपदिकस्य (*nalopaḥ prātipadikasya*) instead of नलोपः प्रातिपदिकान्तस्य (*nalopaḥ prātipadikāntasya*). If the word “*anta*” had not been included, then, it will be assumed to be the *nakāra* of *pada* and not of *padānta*. In such a case, there would be *nalopa* for words such as *rājānau* which is not desirable. Therefore, *anta* is included in *prātipadika*.

Vatva prakaraṇa

- ❖ 8.2.17 नादघस्य (*nādghasya*)

An observation of this rule is: *Pāṇini* did not continue *anaḥ* from 8.2.16 अनौ नुट् (*ano nuṭ*) but he used only *nāt*. The examples for 8.2.16 are: अक्ष्वन्तः, अस्थन्वन्तः (*akṣṇvantah, asthṇvantam*) and the examples for 8.2.17 are *supathintarah, dasyuhantamah*. *Pāṇini* used *nāt* because only certain words of Vedic literature take *anañ ādeśa*. As for example, *pathin* and *han* do not take *anañ ādeśa* as they are not listed in 7.1.75 अस्थिदधिसक्थ्यक्ष्णामनङुदात्तः (*asthidadhisakthyakṣṇāmananudāttah*).

Samyogāntasya lopa prakaraṇa

- ❖ The discussion in MB is about reframing the rule as संयोगान्तस्य लोपोऽरात् (*samyogāntasya lopo 'rāt*). 8.2.24 रात्सस्य (*rātsasya*) prescribes the elision of the consonant *s* when followed by consonant *r*. The rationale behind singling out the consonant *s* when followed by *r* in case of a *samyoga* is to prevent *rutva* as in the examples quoted, *payah* and *śirah*.

Kvinkutva prakaraṇa

❖ 8.2.62 किन्प्रत्ययस्य कुः (*kvinpratyayasya kuḥ*)

KK and MB discuss the possibility of reframing the rule as *kvinaḥ kuḥ*; if that was the case, then *v* of *kvin* would have undergone *kutva*. But, *v* is elided because of 6.1.67 वेरपृक्तस्य (*veraprktasya*). This means that after deleting this affix, the *varṇa* just before *kvin* will undergo *kutva*. If *kutva* for *vakāra* was desired, it would have been framed as *kvino ghaḥ*. *Kuḥ* indicates that it is not about the *vakāra* of *kvin*. *Kvinaḥ ghaḥ* will hold true if it is about *sāvarṇya* with *vakāra* in *kavarga*. *Ghoṣa-saṃvāra-nāda* and *alpaprāṇa* are common to both *vakāra* and *ghakāra*. Since, this is not what *Pāṇini* had in mind, he did not state it.

Pluta prakaraṇa

❖ 1.1.48 एच इग्नस्वादेशे (*eca igghrasvādeśe*)

The significance of the word *hrasvādeśe* is discussed in KK and PM. There are no *hrasva* forms of *ec* as these are *saṃdhyakṣara*. This rule prescribes *ik varṇa* in place of *ec* when there is *hrasvādeśa*. This is an interpretative rule. *e* and *ai* are replaced by *i* and *o* while *au* is replaced by *u*. In case of *de3vadatta*, *devada3tta*, there is *pluta* due to 8.2.86 गुरोरनृतोऽनन्त्यस्याप्येकैकस्य प्राचाम् (*guror-anṛto- 'nantyasyāpy-ekaikasya prācām*). Therefore, *ik* replacement is not undertaken.

❖ 1.2.17 स्था घ्वोरिच्च (*sthā ghvoricca*)

The discussion in MB, KK and NY is about *it ca*. The *taparakaraṇa* in it is of no use according to *Patañjali* because 6.4.66 घुमास्थागापाजहातिसां हलि (*ghumāsthāgāpājahātisām hali*) has continuation of *ī* from 6.4.65 ईद्यति (*īdyati*). Therefore, even without *taparakaraṇa* in it, *ī* gets automatically eliminated. Hence, *hrasva i* is obvious because of *vidhānasāmarthya*. Moreover, it is not proper to assume that *taparakaraṇa* is for eliminating *pluta i* because *pluta i* is for calling from a distance as mentioned in 8.2.84 दूराद्धूते च (*dūrāddhūte ca*). A *kārikā* under 1.2.17 summarizes this:

इच्च कस्य तकरेत्त्वं दीर्घो मा भूदतेऽपि सः ।
अनन्तरे प्लुतो मा भूत् प्लुतश्च विषये स्मृतः ॥

icca kasya takārettvaṃ dīrgho mā bhūdr̥te 'pi saḥ |
anantare pluto mā bhūt plutaśca viṣaye smṛtaḥ ||

❖ 6.1.129 अप्लुतवदुपस्थिते (*aplutavadupasthite*)

KK and NY discuss the following: *upasthita* means *iti* usage in *laukika bhāṣā*. In such usage, *pluta* becomes like *apluta* according to 6.1.129 अप्लुतवदुपस्थिते (*aplutavadupasthite*). *Prakṛtibhāva* which is *plutakārya* does not take place. The example is *suślokā3 iti | suśloketi*. It was *pluta* because of 8.2.84 दूराद्धूते च (*dūrāddhūte ca*). But, with *iti*, it becomes like *apluta* and *guṇa* takes place giving the form *suśloketi*.

KK, under 6.1.129, gives another example. In case of *agnī3 iti*, even if *pluta* does the work of *aplutavat*, *agnī* is still *pragr̥hya*. Therefore, on account of it being *pragr̥hya*, *prakṛtibhāva* takes place due to 6.1.125 प्लुतप्रगृह्या अचि नित्यम् (*plutapragr̥hyā aci nityam*). *Sandhi* does not take place and it remains as *agnī3 iti* only. The *īkāra* present at the end of *agnī3* is pronounced with three *mātrās*.

❖ 7.3.101 अतो दीर्घो यञि (*ato dīrgho yañi*)

PM discusses the significance of the word *dīrgha*. Even *āt* could have sufficed. The problems in using *āt* are: In cases such as *apākṣī rodanaṃ devadatta! nanu pacāmi bhoḥ*, there would have been *pluta* by 8.2.105 अनन्त्यस्यापि प्रश्नाख्यानयोः (*anantyasyāpi praśnākhyānayoh*) if *āt* would have been used. Therefore, the term *dīrgha* is used.

❖ 8.1.55 आम एकान्तरमामन्त्रितमनन्तिके (*āma ekāntaramāmantritamanantike*)

MB, KK, NY and PM discuss the word ‘*anantika*’ in this rule. There is a difference of opinion about the meaning of this term, *anantika*. According to *Patañjali*, the term ‘*anantika*’ means ‘far’ which in turn is taken as *ekaśruti* by 1.2.33 एकश्रुति दूरात् सम्बुद्धौ (*ekaśruti dūrāt sambuddhau*). Thus, *anantika* is taken as *ekaśruti* here. In the example of *ām bho devadattā3 |*, *devadatta* is in vocative and is assigned *anudāttasvara* by 8.1.19 आमन्त्रितस्य च (*āmantritasya ca*). However, this example is *siddha* as *nighāta* does not take place as *bho*, even though follows *ām* is as if not existent due to the rule 8.1.73 नामन्त्रिते समानाधिकरणे सामान्यवचनम् (*nāmantrite samānādhikaraṇe sāmānyavacanam*). Therefore, prohibition is both for *ekaśruti* and *nighāta*. If it was only for

nighāta, then, this rule would become redundant as *nighāta* is precluded by *ekaśruti* rule, 1.2.33 एकश्रुति दूरात् सम्बुद्धौ (*ekaśruti dūrāt sambuddhau*). As *pluta udātta* is *asiddha*, the *pluta udātta* as given by 8.2.84 दूराद्धूते च (*dūrāddhūte ca*) is not prohibited and the last vowel is prolated.

Quoting MB, KK states the वार्तिक आम एकान्तरमामन्त्रितं यत् तस्य एकश्रुतेरनुदात्तस्य च प्रतिषेध इष्यते। (*vārttika āma ekāntaramāmantritaṃ yat tasya ekaśruteranudāttasya ca pratiṣedha iṣyate*). This means that there is prohibition of *ekaśruti* and *anudātta* for the *āmantrita* word which is *ekapadāntara* and follows *ām*. There is no prohibition for *pluta udātta* as it is *asiddha*. Some scholars suggest that ‘*anantika*’ means both ‘not far’ and ‘not near’. In that case, *ekaśruti* does not occur at all and thus, there are no examples for *pluta udātta*.

❖ 8.2.82 वाक्यस्य टेः प्लुत उदात्तः (*vākyasya ṭeḥ pluta udāttaḥ*)

The discussion in both BM and MB under 8.2.82 वाक्यस्य टेः प्लुत उदात्तः (*vākyasya ṭeḥ pluta udāttaḥ*) is whether the word ‘*vākyasya*’ discontinues the *anuvṛtti* of *pada*. If that was the case, then there will be problems with words such as *hanti*, *bhavantau* because *rumtva* by 8.3.7 नश्छव्यप्रशान् (*naśchavyapraśān*) becomes applicable.

The significance of the term *aplute* is shown in the rule 6.1.113 अतो रोरप्लुतादप्लुते (*ato roraplutādaplute*) by using examples such as *tiṣṭhatu paya-rum a3gnidatta* and *susrota3rum*.

Mūrdhanyādeśa prakarana

❖ 1.4.14 सुप्तिङन्तं पदम् (*suptiṅantaṃ padam*)

PM justifies the usage of the term ‘*anta*’ in 1.4.14. If *antagrahaṇa* was not considered, this would imply that the affixes, *sup* and *tiṅ*, get *padasamjñā*. If such be the case, in forms like *agniṣu*, *agni*+ *sup*, *sup* will get *padasamjñā* and there will be prohibition of *ṣatva* due to 8.3.111 सात्पदाद्योः (*sātpadādyoḥ*).

❖ 8.3.56 सहेः साडः सः (*saheḥ sāḍaḥ saḥ*)

Sāḍhaḥ saḥ would have been enough, for there is no other form *sāḍ* except this which is derived from the root *sah*. The reason for using *saheḥ* in the rule is because there is another form, *sāḍ*, not derived from *sah* || Thus, *saha ḍena varttate* = *sāḍaḥ*, *sāḍasya apatyam* = *sāḍiḥ* || He in whose name there is the

letter *ḍa* is called *saḍa*; as *mṛḍa* || “If *saḥ* were not used in the rule, there would be the possibility to replace the vowel *ā* with the consonant *ṣ* as the former is considered retroflex by Sanskrit grammarians”.³⁰¹

❖ 8.3.78 इणः षीध्वंलुङ्लिटां धोऽङ्गात् (*iṇaḥ ṣīdhvaṃluṇḍiṭāṃ dho 'ṅgāt*)

Under 3.4.106 इटोऽत् (*iṭo 't*), BM explains the absence of *mūrdhanyādeśa ḍhatva* in case of *edhiṣīdhvam*. At the stage of *edh+i ṣīdhvam*. This *ṣīdhvam* is after *i*. But, this is not a part of the *iṇṇanta aṅga*. Thus, *mūrdhanyādeśa ḍhatva* does not take place.

SK discusses the form ‘*aidhiḍhvam*’ under 7.1.5 आत्मनेपदेष्वनतः (*ātmanepadesvvanataḥ*). Bhaṭṭojidīkṣita states that some take the *iṇ* of 8.3.78 as not including the augment *iṭ* and in that view, the *dh* remains unchanged. Thus, *aidhiḍhvam* is obtained. By doubling *ḍh dh v m*, we get sixteen forms.³⁰²

MB, under 8.2.25 धि च (*dhi ca*), elaborates on the necessity of the term *luṇ* in 8.3.78 इणः षीध्वंलुङ्लिटां धोऽङ्गात् (*iṇaḥ ṣīdhvaṃluṇḍiṭāṃ dho 'ṅgāt*). Even if words like *acyoḍḍhvam*, *aploḍḍhvam* can be derived regularly by changing *s* of *sic* to *ṣ*; the *dha* following it changed to *ḍha*, and then *ṣ* changed to *ḍ* by *jaṣṭva* (8.4.53 झलां जश् झशि (*jhalām jaś jhaśi*)), there will be problems if *luṇ* is not continued in the next rule 8.3.79 विभाषेतः (*vibhāṣeṭaḥ*). Forms such as *alaviḍḍhvam* alone can be derived and *alavidhvam* cannot be derived.³⁰³

❖ 8.3.79 विभाषेतः (*vibhāṣeṭaḥ*)

Patañjali brings out the fact that the technical term ‘*aṅga*’ which applies in 8.3.78 is discontinued in 8.3.79 thus allowing for the optional *ḍh* substitution in *upadidīyidhve* and achieving the alternative correct form, *upadidīyidhve*.

MB discusses forms like *agrahīḍhvam*, *agrahīdhvam* under 7.2.37 ग्रहोऽलिति दीर्घः (*graho 'liṭi dīrghaḥ*). *īṭ* is also included in *iṭ*. Otherwise, the optional *ḍhatva* due to 8.3.79 will not take place. Thus, it is not possible to state that the term *iṭ* does not include the term *īṭ* too.

³⁰¹ Sulich-Cowley, *The Principle of Suspension (asiddhatva) in Pāṇinian Grammar*, 308.

³⁰² SK — इडभिन्न एव इणिह गृह्यते इति मते तु ऐधिध्वम् । ढधयोर्वस्य मस्य च द्वित्वविकल्पात्षोडशरूपाणि । (*iḍbhinna eva iṇiḥa grhyate iti mate tu aidhidhvam | ḍhadhayorvasya masya ca dvitvavikalpāṭṣoḍaśarūpāṇi* |) under 7.1.5.

³⁰³ MB — इदमेव रूपं स्यात् अलविड्ववम्, इदं न स्यात् अलविध्वमिति । (*idameva rūpaṃ syāt alaviḍḍhvavam, idaṃ na syāt alavidhvamiti*) under 8.2.25.

❖ 8.3.95 गवियुधिभ्यां स्थिरः (*gaviyudhibhyāṃ sthiraḥ*)

KK under 6.3.9 हलदन्तात् सप्तम्याः संज्ञायाम् (*haladantāt saptamyāḥ saṃjñāyām*), gives the example of *gaviṣṭhiraḥ*. Even though *go* does not end in a consonant, yet it retains its locative ending by virtue of 8.3.95 गवियुधिभ्यां स्थिरः (*gaviyudhibhyāṃ sthiraḥ*) which shows, by implication, that *gavi* is governed by this rule.

❖ 8.3.96 विकुशमिपरिभ्यः स्थलम् (*vikusamiparibhyah sthalam*)

In this rule, the word *śami* is shown with a short *i*, indicating thereby that when the *i* is not shortened, *mūrdhanyādeśa śatva* does not take place as in *śamīsthalam*.³⁰⁴

❖ 8.3.107 सुञः (*suñah*)

In *chandas*, *suñ* is a *nipāta*. If the conditions of the *pūrvapada* are met with when followed by *suñ*, the *sakāra* gets *mūrdhanyādeśa*. Jinendrabuddhi (NY) points out that this *suñ* could be considered as the root *ṣuñ abhiṣave*. If that is so, then *Pāṇini* would have mentioned it as *śtipā* which is a *jñāpaka*. That is the style of *Pāṇini*.³⁰⁵ Therefore, it needs to be considered as a *nipāta*.

❖ 8.3.111 सात्पदाद्योः (*sātpadādyoh*)

The term *pratyaya* in 8.3.59 आदेशप्रत्यययोः (*ādeśapratyayayoh*) is to be interpreted as *pratyayasya yaḥ sakārah*; otherwise, there would have been no necessity of excluding the *pratyaya sāt* from the operation of the rule 8.3.111 because it is not a *pratyaya* consisting of a single letter *s*.

Stutva prakarana

❖ 1.1.56 स्थानिवदादेशोऽनल्विधौ (*sthānivadādeśo 'nalvidhau*)

MB, KK and NY comment on the purpose of *vat* in the rule. If the rule was framed as *sthānyādeśo 'nalvidhau* without *vat*, then *ādeśa* will get the *saṃjñā sthānī* as the *adhikāra* of *saṃjñā* is continued. If such be the case, there will be problems in cases such as 1.3.28 आङो यमहनः (*āṅo yamahanah*). This rule

³⁰⁴ Vasu gives this explanation and example शमीस्थलम् (*śamīsthalam*) — For reference, see Vasu, *The Aṣṭādhyāyī of Pāṇini*, Book VIII, 1642.

³⁰⁵ NY — अथ 'षुञ् अभिषवे' इति धातुः कस्मान्न गृह्यते? एवं मन्यते -यत्रास्य धातोर्ग्रहणमिच्छति तत्र शितपानिर्देशं करोति। शैलीयमाचार्यस्य (*atha 'ṣuñ abhiṣave' iti dhātuḥ kasmānna gṛhryate? evaṃ manyate -yatrāsya dhātorgrahaṇamicchati tatra śtipānirddesaṃ karoti | śailīyamācāryasya*) under 8.3.107.

states that the roots *yam* and *han* get *ātmanepada pratyaya* in case of the *upsarga āñ*. 2.4.42 हनो वध लिङि (*hano vadha liṇi*) states that the root *han* gets the *vadha ādeśa*. If the rule is framed as *sthānyādeśo 'nalvidhau*, then *vadha* will get the *saṃjñā han*. In that case, as *vadha* is not present in *āhate*, there will be no *ātmanepada* form. Abhyankar further gives an example of *ghu*. The rules that apply to the *ghu saṃjñā* do not apply to the root *ghu*.³⁰⁶ In conclusion, *ādeśa* should be equivalent to the *sthānī* and *sthānī* should not be *saṃjñā* for *ādeśa*.³⁰⁷ Thus, both the *ātmanepada* forms, *āhate* and *avadhiṣṭa*, are derived.

Cartva prakarana

❖ 2.4.54 चक्षिङः ख्याञ् (*cakṣiṇaḥ khyāñ*)

PM justifies the *visarga* in the example of *naṭaḥ khyātā* under the rule 2.4.54 चक्षिङः ख्याञ् (*cakṣiṇaḥ khyāñ*). Quoting MB, the substitute *khyāñ* can begin with *kś*. The *ś* is changed optionally to *y* by the *vārttika* शस्य यो वा (*śasya yo vā*). This *vārttika* is considered to be in *tripādī* as *cartva* takes place. Due to this optional change to *y* being *asiddha*, there is *visarga* in case of *naṭaḥ khyātā*.

A discussion similar to the above one is also found under 3.4.111 लङः शाकटायनस्यैव (*laṇaḥ śākaṭāyanasyaiva*). According to MB and some grammarians, *khyā* is really *khśā* and the *ś* is changed to *y* and this *y* is *asiddha*. Therefore, in *namaḥ khyātre*, the *visarga* is not changed to the *jihvāmūlīya* by 8.3.37 कुप्वोः ँक=पौ च (*kupvoḥ =ka=pau ca*) because *kha* is considered to be followed by *ś* which is a *śar* letter and thus, the *visarga* retains its form by 8.3.35 शपरि विसर्जनीयः (*śarpāre visarjanīyaḥ*). If *khyātre* had been derived from the root *khyā*, then the application of 8.3.37 was inevitable and there would have been *jihvāmūlīya* in *namaḥ khyātre*.

❖ KK and NY discuss the term *kiti* in 7.2.11 श्रुकः किति (*śryukaḥ kiti*). Some scholars state that two *ks* are considered in this term - *g ca k ca*. *g* undergoes *praśleṣa*. If considered so, problems arise. *g* undergoes *cartva* but this *cartva* is *asiddha*. In that case, the *ru* (*visarga*) of *ukaḥ* would require that the *visarga* be changed to *u* by 6.1.114 हशि च (*haśi ca*) as *g* is *haś* resulting in the rule as

³⁰⁶ For further reference, see Abhyankar, *Vyākaraṇamahābhāṣyam* Part 1 Chapter 1 *pāda* 1, 2, 332.

³⁰⁷ KK— स्थानी आदेशस्य संज्ञा मा विज्ञायि - इति । स्वाश्रयमपि यथा स्यात् (*sthānī ādeśasya saṃjñā mā vijñāyi - iti | svāśrayamapi yathā syāt*)

śryuko kkiti. This, however, is not done. *Kāśikākāra* quotes another rule: 3.2.139 ग्लजिस्थश्च क्सुः (*glājisthaśca ksnuḥ*). The *sthā* + *ā* can be combined into *sthā* so that that the rule would apply to that *sthā* which ends in *ā* and not to that *sthā* whose final is changed to *ī* so that the form *sthāksnuḥ* is derived. The affix will be *kit* (*ksnu*) and not *git* (*gsnu*). The affix being *kit* avoids difficulty of *sandhi*. The conclusion is that *pras̥leṣa* of *g* is futile in 7.2.11.

This concludes the discussion on the relevance of words in selected rules of the *Aṣṭādhyāyī*.

Case study 4: Gaṇas of roots

Some verb roots are mentioned in a few *tripādī* rules. A verb root can be categorized in many *gaṇas*. This case study is a collection of such roots found during the cross-referencing process. The discussion proceeds as per the sequential ordering of the *tripādī* rules.

8.2.18 कृपो रो लः (*kṛpo ro laḥ*)

The root *kṛp* is found in three *gaṇas* as in: *kṛpūṃ sāmārthye* (*bhvādiḥ ātmanepadī akarmakaḥ veṭ vṛtādiḥ dyutādiḥ*); *kṛpaṃ avakalkane* (*curādiḥ ubhayapadī akarmakaḥ seṭ*); *kṛpa daurbalye* (*curādiḥ ubhayapadī akarmakaḥ seṭ*) and there is one more root *krap* (*bhvādiḥ ātmanepadī sakarmakaḥ seṭ ghaṭādiḥ bhidādiḥ*) *krapaṃ kṛpāyāṃ gatau ca*.

- MDV does not include *kṛpaṃ avakalkane*.³⁰⁸
- SK does not contain *krapaṃ kṛpāyāṃ gatau ca*. The rationale behind not including *krapaṃ kṛpāyāṃ gatau ca* is that it belongs to the *bhidādi* as per 3.3.104 षिद्धिदादिभ्योऽङ् (*ṣidbhidādibhyo 'n*) and the वार्तिक क्रपेः सम्प्रसारणं च (*vārttika krapeḥ samprasāraṇaṃ ca*) is applicable. The vocalized form is not subject to 8.2.18. SK derives *kṛpā* from the root *krap* 3.3.104 षिद्धिदादिभ्योऽङ् (*ṣidbhidādibhyo 'n*) by क्रपेः सम्प्रसारणं च (*krapeḥ samprasāraṇaṃ ca*).

³⁰⁸ For reference, see Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttiḥ*, 638.

- The forms *kṛpaṇaḥ*, *kṛpīṭaḥ* and *karpūraḥ* are derived with the help of *uṇādi* suffixes as follows:

kṛpaṇaḥ – *kṛp kvun* (3.3.1 उणादयो बहुलम् (*uṇādayo bahulam*));

kṛpīṭaḥ – *kṛp kītan* – 4.184 कृत्कृपिभ्याः कृत्तः;

karpūraḥ – *kṛp ūra* – 4.90 कर्जिपिण्जद्विभ्या उरोलौकः.

- Sulich- Cowley takes it as *kṛpūm sāmārthyē*.³⁰⁹

8.2.45 ओदितश्च (*oditaśca*)

- Under 1.3.74 णिचश्च (*ṇicaśca*), SK discusses the derivation of *laṇḍaṇaḥ*. The root being discussed here is *olaḍi* (*ulaḍi*) *utkṣepaṇe* [*olaṇḍayati /olaṇḍati*]. Some read it with a *u* while others say that *o* of *olaḍi* is just indicatory and *laṇḍaṇaḥ* is derived. MDV also gives the same information.³¹⁰

8.2.46 क्षियो दीर्घात् (*kṣiyo dīrghāt*)

- The root *kṣi* is in three *gaṇas*- *kṣi kṣaye bhvādi*, *kṣi hiṃsāyām svādi* and *kṣi nivāsagatyoh tudādi*. 8.2.46 uses the form *kṣiyah*. Therefore, *kṣi hiṃsāyām* is ruled out as *svādigāṇa* takes *śnu* (3.1.73 स्वादिभ्यः श्रुः (*svādibhyaḥ śnuḥ*)). In the other two *gaṇas*, if it is *ṇyat*, *dīrghatva* (8.2.46) does not take place. Thus, both the forms *kṣito 'yaṃ tapasvī* / *kṣīṇo 'yaṃ tapasvī* are derived.

8.2.48 अञ्चोऽनपादाने (*añco 'napādāne*)

- MB discusses the root of the word '*vyaktaṃ*'. Two possibilities are *añjū vyaktimrakṣaṇakāntigatiṣu* and *ancuṃ gatipūjanayoh*. The conclusion is that *vyaktaṃ* is from the root *añjū vyaktimrakṣaṇakāntigatiṣu*. Hence, the *niṣṭhātakāra* does not undergo *nakārādeśa* as 8.2.48 does not apply to *añjū*. *Patañjali* makes a statement: *anekārthā api dhātavo bhavantīti* i.e., roots have more than one meaning.

³⁰⁹ Sulich-Cowley, *The Principle of Suspension (asiddhatva) in Pāṇinian Grammar*, 131.

³¹⁰ For reference, see Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttiḥ*, 539-40.

8.2.55 अनुपसर्गात् फुल्लक्षीबकृशोल्लाघाः (*anupasargāt phullakṣībakṛśollāghāḥ*)

- In case of root *lāgh*, *upasargas* other than *ut* are prohibited according to KK. But, MDV indicates that *lāgh* combines with other *upasargas* as well by quoting an example, *pralāghitaḥ*.³¹¹

8.2.56 नुदविदोन्द्राघ्राहीभ्योऽन्यतरस्याम् (*nudavidondatrāghrāhrībhyo 'nyatarasyām*)

- The root *vid* is in five *gaṇas* - *vidaṃ jñāne adādiḥ*; *vid sattāyām divādi*; *vid vidḥm lābhe tudādi*; *vid vicāraṇe rudhādi* and *vid vidaṃ cetanākhyānanivāseṣu curādi*. In this case, *vida vicāraṇe* must be taken as *raudhādika* as it is in conjunction with *unda*.

There is a *vārttika*-

वेत्तेस्तु विदितो निष्ठा विद्यतेर्विन्न इष्यते। विनतेर्विन्नश्च वित्तश्च भोगवित्तश्च विन्दतेः।

vettestu vidito niṣṭhā vidyatervinna iṣyate
vinatervinnaśca vittaśca bhogavittaśca vindateḥ |

The *niṣṭhā* of *vidaṃ jñāne adādiḥ* is *vetti*/ *vid sattāyām divādi* is *vinna*:/ *vid vicāraṇe rudhādi* *vinna* as well as *vitta* and *vid vidḥm lābhe tudādi* is *vitta* in the sense of *bhoga*.

- In case of *hrī*, it is *aprāptavibhāṣā* because this *r* is with *ac*, that is *r + ī*. So, neither 8.2.42 रदाभ्यां निष्ठातो नः पूर्वस्य च दः (*radābhyāṃ niṣṭhāto naḥ pūrvasya ca daḥ*) nor 8.2.43 संयोगादेरातो धातोर्यण्वतः (*saṃyogāderāto dhātoryaṇvataḥ*) is applicable. *Pāṇini* has included this as an exception.

8.2.63 नशेर्वा (*naśervā*)

- NY and PM, quoting *Ṛgveda* 1.18.3 मा नः शंसो अरुरुषो धूर्तिः प्रणङ्गर्त्यस्य (*mā naḥ śaṃso arāruṣo dhūrtiḥ praṇaṅmartyāsya*)³¹², discuss *praṇak* under 2.4.80 मन्त्रे घसह्वरणशवृदहाद्वृक्कृगमिजनिभ्यो लेः (*mantre ghasa-hvara-ṇaśa-vṛda-hādvṛckṛ-gamijanibhyo leḥ*). The root being discussed here is *naś*. However, *Sāyaṇa* says it is from *prcīm samparke* which does not fit.³¹³ Even MDV derives it

³¹¹ For reference, see Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttiḥ*, 80.

³¹² Max Müller, ed., *Rig-Veda-Sanhita*: Volume I Mandala I, 104.

³¹³ Max Müller, ed., *Rig-Veda-Sanhita*: Volume I Mandala I, 105.

from *naś*.³¹⁴ A search was undertaken for rules containing the root *naś* resulting in the following:

- 1.3.86 बुधयुधनशजनेङ्प्रुद्रुसुभ्यो णेः (*budhayudhanaśajanēṅprudrusubhyo ṇeḥ*)
3.2.163 इण्णशिसर्तिभ्यः करप् (*iṇṇaśjisarttibhyaḥ kvarap*)
3.4.43 कर्त्रोर्जीवपुरुषयोर्नशिवहोः (*kartrorjīvapurūṣayornaśivahoḥ*)
6.4.32 जान्तनशां विभाषा (*jāntanaśām vibhāṣā*)
7.1.60 मस्जिनशोर्झलि (*maśjinaśorjhalī*)
8.2.63 नशेर्वा (*naśervā*)
8.4.36 नशेः षान्तस्य (*naśeḥ śāntasya*)

It is to be noted that only 2.4.80 मन्त्रे घस -ह्र-णश-वृदहाद्वृक्कृगमिजनिभ्यो लेः (*mantrē ghasa-hvara-ṇaśa-vṛdahādvṛckṛgamijanibhyo leḥ*) mentions the root as ‘*ṇaś*’ and not *naś*. *Pāṇini* has done it specifically because even the form *praṇak* has *ṇ* and not *n*. Moreover, the form *praṇak* is found in *Vedic* literature as seen in the example. This has to be taken as a *jñāpaka*.

8.3.60 शासिवसिघसीनां च (*śāsivasighasīnām ca*)

- When it comes to *ghas*, two options are possible: The root *ad* takes *ghas!* and there is a root known as *ghas*. MDV states that the verb *ghas! adane* is not universal (*sārvātrikaḥ*).³¹⁵ The rules by which *adam bhakṣaṇe* takes *ghas ādeśa* are: 2.4.36 अदो जग्धिर्त्यप्ति किति (*ado jagdhirlyapti kiti*), 2.4.37 लुङ्सनोर्घसू (*luṅsanorghas!*), 2.4.38 घञपोश्च (*ghaṇapośca*), 2.4.39 बहुलं छन्दसि (*bahulam chandasi*) and 2.4.40 लित्यन्यतरस्याम् (*liṭyanyatarasyām*). The rules that deal with the term *ghasa* are: 2.4.37 लुङ्सनोर्घसू (*luṅsanorghas!*), 2.4.80 मन्त्रे घसह्रणशवृदहाद्वृक्कृगमिजनिभ्यो लेः (*mantrē ghasahvara-ṇaśavṛdahādvṛckṛgamijanibhyo leḥ*), 3.2.160 सृघस्यदः क्मरच् (*srghasyadaḥ kmarac*) [In 3.2.160, both the roots are distinguished - *ghasi* and *ada*], 6.4.98 गमहनजनखनघसां लोपः किङित्यनङि (*gamahanajanakhanaghasām lopah kṇityanaṇi*), 6.4.100 घसिभसोर्झलि च (*ghasibhasorjhalī ca*) and 8.3.60 शासिवसिघसीनां च (*śāsivasighasīnām ca*).

³¹⁴ For reference, see Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttih*, 431.

³¹⁵ For reference, see Dwarikadas Shastri, ed., *Mādhavīyā dhātuvṛttih*, 178-9.

- 7.2.10 एकाच उपदेशेऽनुदात्तात् (*ekāca upadeśe 'nudāttāt*) gives a *kārikā* listing out the *aniṭ* roots that end in consonants - शकिस्तु कान्तेष्वनिडेक इष्यते घसिश्च सान्तेषु वसिः प्रसारणी॥ (*śakistu kānteṣvāṇiḍeka iṣyate ghasiśca sānteṣu vasiḥ prasāraṇī*)). In this list, *ghas* root is also mentioned.

8.3.67 स्तम्भेः/स्तम्भेः (*stanbheḥ/stambheḥ*)

- There seems to be some discussion on whether the root is *stanbh* or *stambh*. KK³¹⁶ and SK³¹⁷ have the reading of *stanbheḥ*. Böhtlingk points out that some read this *sūtra* as स्तम्भेः (*stanbheḥ*).³¹⁸
- The first four roots mentioned in 3.1.82 स्तम्भुस्तुम्भुस्कम्भुस्कुम्भुस्कुम्भ्यः श्रुश्च (*stanbhustunbhuskanbhuskunbhuskuṁbhyaḥ śnuśca*) are *sautra* roots.³¹⁹ *Sautra* roots are not listed in the *dhātupāṭha* but are mentioned only in the *sūtrapāṭha*. *Stanbh* is mentioned in 3.1.82 and it is a *sautra* root. In case of root *ṣṭabhi pratibandhe*, it is an *idit* and *numāgama* is *lākṣaṇika* and should not be considered. So, forms such as *vistambhate* are derived in which *ṣatvam* is not done. SK, under 6.4.122 तृफलभजत्रपश्च (*tṛphalabhajatrapaśca*), discusses the root *ṣṭabhi skabhi pratibandhe*, 8.3.67 applies to the root *stanbh* as exhibited there with *n*; namely to the *sautra* root that takes the *vikaraṇa śnu* by 3.1.82 स्तम्भुस्तुम्भुस्कम्भुस्कुम्भुस्कुम्भ्यः श्रुश्च (*stanbhustunbhuskanbhu-skunbhuskuṁbhyaḥ śnuśca*) and not to the root *stambh*. The reason for this is that in 8.4.61 उदः स्थास्तम्भोः पूर्वस्य (*udaḥ sthāstambhoḥ pūrvasya*), the root is exhibited as *stambh* with a labial nasal while in 8.3.67 the root *stanbh* is exhibited with a dental nasal. This is the opinion of *Mādhava*.³²⁰

³¹⁶ For reference, see Ishwar Chandra Pandit: *Kāśikāvṛtti*: Part 3, 451.

³¹⁷ For reference, see Vasu, *Siddhānta kaumudī* Volume II, 78.

³¹⁸ *Einige lesen* स्तम्भेः statt स्तम्भेः — For reference, see Otto Böhtlingk, *Pāṇini's Grammatik* (Leipzig: Verlag von H. Haessel, 1887), 461.

³¹⁹ KK states आद्याश्चत्वारो धातवः सौत्राः (*ādyāścatvāro dhātavaḥ sautrāḥ*) under this rule. *Sautra* means belonging to the *sūtra*- For reference, see Abhyankar, *A Dictionary of Sanskrit Grammar*, 402.

³²⁰ 386 *ṣṭabhi* 387 *skabhi pratibandhe* | *stambhate* | *uttambhate* | *udaḥ sthāstambhoḥ*-(*kaumudī*-118) *iti pūrvasavarṇaḥ* | *vistambhate* | *stanbheḥ*-(*kaumudī*-2272) *iti ṣatvaṁ tu na bhavati* | *śnuvidhau nirdiṣṭasya sautrasyaiva tatra grahaṇāt* | *tadbījaṁ tu udaḥ sthāstambhoḥ*-(*kaumudī*-118) *iti pavargīyopadhapāṭhaḥ*, *stanbheḥ* (*kaumudī*-2272) *iti tavargīyopadhapāṭhaśceti* | *mādhavaḥ* | - For reference, see Vasu, *Siddhānta kaumudī* Volume II, 124.

8.3.111 सात्पदाद्योः (sātpadādyoḥ)

- SK, under 6.1.64 धात्वादेः षः सः (*dhātvādeḥ ṣaḥ saḥ*), gives the example of *ṣvad* which is changed to *svad* by 6.1.64. This *s* is not changed to *ṣ* by 8.3.111 by which forms such as *anusvadate*, *sasvade* are derived.

8.4.17 नेर्गदनदपतपदघुमास्यतिहन्तियातिवातिद्रातिप्सातिवपतिवहतिशाम्यतिचिनोतिदेग्धिषु च (nergadanadapatapadaghumāsyatihantiyātivātidrātipsātivapativahatisāmyaticinoti degdhiṣu ca)

- TB points out that the root *dīño 'nukaraṇe* mentioned in 6.1.50 मीनातिमिनोतिदीङां ल्यपि च (*mīnātiminotidīṇāṃ lyapi ca*) is not *ghu* by which *ṇatva* by 8.4.17 is not applicable as seen in *pranidāta*. 6.1.50 prescribes *ākāra* to the roots *mīñ hiṃsāyām*, *ḍumiñ prakṣepaṇe* and *dīñ kṣaye* when *lyap* follows. After having undertaken this operation, the debate is about the designation *ghu* being assigned to the root *dīñ*. This discussion is also done in MB under 1.1.20 दाधा घ्वदाप् (*dādhā ghvadāp*) in which the वार्तिक दीङः प्रतिषेधः स्थाघ्वोरित्त्वे वक्तव्यः || (*vārttika dīṇaḥ pratiṣedhaḥ sthāghvorittve vaktavyaḥ ||*) is refuted by *Patañjali*. According to *Patañjali*, there is no need to prohibit *ghu* designation to the root *dīño 'nukaraṇe*. The example discussed is *upādāsta*. In this example, the prohibition of *ghusaṃjñā* is because of संनिपातलक्षणविधिः³²¹ (*saṃnipātalakṣaṇavidhiḥ*). As per this rule, there is no *ghusaṃjñā* considering *ākārānta* as *nimitta*.

8.4.18 शेषे विभाषाऽकखादावषान्त उपदेशे (śeṣe vibhāṣā'kakhādāvaṣānta upadeśe)

- *Upasarga ni* undergoes optional *ṇatva* when affixed to verbs that are neither *kakārādi*, *khakārādi* nor *ṣakārānta* as per 8.4.18. *Laṣa kānto* is a *ṣakārānta* root. Thus, there is *pratiṣedha* of *ṇatva* as in *pranilaṣati* given under 6.1.64 धात्वादेः षः सः (*dhātvādeḥ ṣaḥ saḥ*) by PM.

³²¹ Refer to Footnote on Page 241 of this dissertation.

8.4.41 ष्टुना ष्टुः (ṣṭunā ṣṭuḥ)

- NY under 6.1.3 न न्द्राः संयोगादयः (*na ndrāḥ saṃyogādayaḥ*) discusses the root *adḍa* *abhiyoge* given in the *dhātupāṭha* as *aḍḍa*. This *ḍakāra* gets converted to *ḍakāra* by 8.4.41.
- SK under 7.4.7 उर्ऋत् (*urṛt*) distinguishes the roots *aṭṭa/ ṣuṭṭa anādare* (*ayam dopadha iti*). It has the penultimate as *da*. This *da* is changed to *ṭ* by 8.4.41 and 8.4.55 as follows:

ad ṭa (*dopadha*) → *aḍ ṭa* 8.4.41 ष्टुना ष्टुः (ṣṭunā ṣṭuḥ) → *aṭṭa* 8.4.55 खरि च (*khari ca*).

The root *adṭa* with the penultimate *d* or *t* makes no difference in ordinary conjugation. It is in the reduplicated forms that the difference comes out. If it has *d* in the penultimate, then while reduplicating, this *d* will not be reduplicated because of the prohibition prescribed by 6.1.3 न न्द्राः संयोगादयः (*na ndrāḥ saṃyogādayaḥ*) but *ṭi* gets reduplicated resulting in *aṭṭiṭiṣate* or *āṭṭiṭat*. If the penultimate be *ṭ*, then it will result in undesired forms *aṭṭiṭiṣate* or *āṭṭiṭat*.

This concludes the discussion on roots.

Case study 5: *Nipātana* as a tool in application of rules

This case study has collated all the references that relate to *nipātanas*. A *nipātana* is defined as “a word given, as it appears, without trying for its derivation, in authoritative works of ancient grammarians especially *Pāṇini*”.³²² They are ready-to-use forms. It is also described as “always an irregularity or irregularities is or are involved for which *Pāṇini* would have to phrase a separate rule or separate rules. Instead of doing so, he states the finished form. *Nipātana* amounts to a derivational short-cut”.³²³ A brief literature review on the research work done is given below.³²⁴

R. M. Rishi, in his *Sanskrit* dissertation in Chapter I, introduces the concept of *nipātanas* using the discussions done in various *Sanskrit* commentaries. The absence of *prakṛti* and *pratyaya* in a *nipātana* and lack of *utsarga-apavāda* relationship in

³²² For reference, see Abhyankar, *A Dictionary of Sanskrit Grammar*, 205.

³²³ For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 244.

³²⁴ This review is limited to the works found in George Cardona, *Recent research in Pāṇinian studies* (New Delhi: Motilal Banarasiidass Pvt Ltd., 2004) and requires further research.

nipātana rules are also highlighted. He classifies the *nipātanāsūtras* based on *anubandhas*, meaning proper nouns and Vedic literature in Chapter II. A detailed analysis of the *nipātanās* in alphabetical order is undertaken in Chapter III. This includes the *prakriyā* of the *nipātana*, the rationale behind making it a *nipātana*, the views about the various Sanskrit commentators and the occurrence of the *nipātana* in various branches of Sanskrit literature. These *nipātanās* are categorized into different types based on the reasons for making them *nipātanās* in Chapter IV.³²⁵

Laddu factors in the role of intonation in Pāṇini's *nipātanās*. Five examples such as *arya* (3.1.103 अर्यः स्वामिवैश्ययोः (*aryaḥ svāmivaiśyayoh*)), *kr̥ṣṭapacya* (3.1.114 राजसूय-सूर्य-मृषोद्यरुच्य-कुप्य-कृष्टपच्याव्यथ्याः (*rājasūya-sūrya-mṛṣodya-rucya-kupya-kr̥ṣṭapacyāvyathyāḥ*)), *kuṇḍapāyya* (3.1.130 क्रतौ कुण्डपाय्यसंचायौ (*kratau kuṇḍapāyya-saṁcāyyau*)), *agnicityā* (3.1.132 चित्याग्निचित्ये च (*cityāgnicitye ca*)) and *dadhr̥ṣ* (3.2.59 ऋत्विग्दधृक्स्रदिगुष्णिगञ्चुयुजिकृञ्चां च (*ṛtvigdadhr̥ksragdiguṣṇigañcuyujikruñcām ca*)) are discussed. He quotes Renou's French work on *nipātanās* and refutes Renou's claim that some *nipātanās* are free from irregularity. His suggestion is to consider accent as one of the factors of irregularity in a *nipātana*.³²⁶

Bhīmāsīmḥā Vedālaṅkāra elaborates on the rules rejected by *Patañjali* and some of them are *nipātana* rules. The rules that are rejected by *Patañjali* are examined and the author's conclusions on each of them are presented in his book.³²⁷

In this case study, the *nipātanās* that have been found during cross-referencing involving *tripādī* rules are considered. The discussion proceeds as per sequential ordering of the *prakaraṇas* of the *tripādī*.

Vatva prakarana (8.2.9 – 8.2.17)

❖ 4.1.32 अन्तर्वत्पतिवतोर्नुक् (*antarvatpativatornuk*)

The examples are *antarvatnī garbhīṇī/ pativatnī jīvapatīḥ*. The bases, *antarvat* and *pativat*, take *nugāgama* as per this rule. KK states that these bases are *nipātanās* and the augment *nuk* is added to these resulting in the forms

³²⁵ Rishi Sharmana R. M., "The *nipātana sūtras* in the *Aṣṭādhyāyī* with special reference to primary nominal derivatives," (PhD. Thesis, University of Poona, 1975).

³²⁶ S. D. Laddu, "Pāṇini's *nipātana* and the factor of accent," *Proceedings of the International Seminar on Pāṇini* (1982): 229 -232.

³²⁷ Bhīmāsīmḥā Vedālaṅkāra, *Pātañjala mahābhāṣya meṃ pratyākhyāta sūtra eka samīkṣātmaka adhyayan* (Delhi: Parimal Publication, 1987).

antarvatn and *pativatn*.³²⁸ *Ōp* is added to make it feminine. This irregular formation of the feminine is used only when it means ‘a pregnant female’ and ‘one whose husband is living’. There is a *kārikā* that states:

अन्तर्वत्पतिवतोस्तु मतुब्बत्वे निपातनात्।
गर्भिण्यां जीवपत्यां च वा छन्दसि तु नुग्विधिः।

antarvatpativatostu matubvatve nipātanāt|
garbhīṇyām jīvapatyām ca vā chandasi tu nugvidhiḥ

MB further states: अन्तर्वत्पतिवतोस्तु मतुब् निपात्यते, वत्त्वं सिद्धम्। पतिवत्पतिवत्त्वं निपात्यते, मतुप् सिद्धः। (*antarvatitī matub nipātyate, vatvaṃ siddham| pativatitī vatvaṃ nipātyate, matup siddhaḥ*)

It is to be noted that *matup* is generally added to denote possession as given by 5.2.94 तदस्यास्त्यस्मिन्निति मतुप् (*tadasyāstyasminniti matup*). But, *antar* has the sense of location (*adhikaraṇa*) and does not have the sense of “having”. The word *antar* would not therefore take *matup*. It does so irregularly by this rule.³²⁹

❖ 8.2.12 आसन्दीवदष्टीवच्चक्रीवत्क्षीवद्रुमण्वच्चर्मण्वती (*āsandīvadaṣṭhīvaccakrīvāt-kakṣīvadrumaṇvaccarmaṇvatī*)

Āsandīvat, *aṣṭhīvat*, *cakrīvāt*, *kakṣīvāt*, *rumaṇvat* and *carmaṇvatī* are *nipātanas*. In case of *āsandīvat*, *āsandī* is a *nipātana* from *āsana*. In case of *aṣṭhīvat*, *asthi* gets *aṣṭhī ādeśa* resulting in a *nipātana*. *Aṣṭhīvān* is the name of a *ṛṣi*. If not a proper noun, the form is *asthivān*. In case of *cakrīvāt*, *cakra* gets *cakrī ādeśa*, the example being *cakrīvān rājā*. *Kakṣīvāt* is from *kakṣyā*. *y* undergoes *saṃprasāraṇa* and *i* becomes *dīrgha* because of 6.4.2 हलः (*halah*). *Kakṣīvān* is a name of a *ṛṣi*. In case of *rumaṇvat*, *lavaṇa* takes *rumaṇa ādeśa*. It is a *nipātana*. Some other teachers say that this *nipātana* is done to avoid *nalopa* and also to undertake *ṇatva*. It is also for *nuḍāgama*. In the case of *carmaṇvat*, *ṇatva* and *nalopa* are due to *nipātana*. There is a river called *carmaṇvatī*. These words have specific meanings other than the general one.

³²⁸ KK - प्रकृतिर्निपात्यते, नुगागमस्तु विधीयते। (*prakṛtirnipātyate, nugāgamastu vidhīyate*)

³²⁹ Paraphrased as in Vasu, *Siddhānta kaumudī* Volume I, 301.

❖ 8.2.13 उदन्वानुदधौ च (*udanvānudadhau ca*)

Udaka takes *udan* as a *nipātana*. There is a sage called *udanvān*. Even in the sense of an ocean, this word is used.

❖ 8.2.14 राजन्वान् सौराज्ये (*rājanvān saurājye*)

Rājanvān is used in the sense of a good government by the king.

In some of these cases, *nipātana* is used as a tool to prohibit *ṇatva* and *nalopa*.

Latva prakarana (8.2.18- 8.2.22)

❖ 3.3.70 अक्षेषु ग्लहः (*akṣeṣu glahaḥ*)

Glahaḥ is a *nipātana* when used in the sense of gambling. In this case, it is made *nipātana* for the sake of *latva*.

❖ 7.4.65 दाधर्तिदधर्ति-दधर्षि-बोभूतुतेतिक्ते-ऽलर्ष्यापनीफणत्- संसनिष्यदत्-करिक्रत्-
कनिक्रदद्भरि-भ्रद्दविध्वतो-दविद्युत-त्तरित्रतः-सरीसृपतं-वरीवृजन्मर्मृज्यागनीगन्तीति च (*dādharti-
dardharti-dardharṣibobhūtutetikte- 'larṣyāpanīphaṇat- saṁsaniṣyadat-
karikrat-kanikradad-bharibhraddavidhvatodavidyutat-
taritratatḥsarīṣpatamvarīvrjanmarmṛjyāganīgantīti ca*)

*Alārṣi*³³⁰ is from the root *ṛ* (*juhotyādi*). At the stage of *ar ar si*, the *r* of *abhyāsa* is not elided even though required by 7.4.60 हलादिः शेषः (*halādiḥ śeṣaḥ*) and this *r* is changed to *l* irregularly. There is *latva* because of *nipātana*.

Kutva prakarana (8.2.30)

❖ 5.1.59 पङ्क्तिविंशतित्रिंशत्त्वारिंशत्पञ्चाशत्षष्टिसप्तत्यशीतिनवतिशतम्

(*pañktivimśatitriṁśatcatvāriṁśatpañcāśatṣaṣṭisaptatyāśītinavatiśatam*)

Paṅkti, *viṁśati*, *triṁśat*, *catvāriṁśat*, *pañcāśat*, *ṣaṣṭiḥ*, *saptatiḥ*, *aśītiḥ*, *navatiḥ* and *śatam* are termed as *nipātanās*. In these cases, KK states that those operations that cannot be applied in the normal course of the derivations of these words, need to be considered as *siddha* using the technique of *nipātana*.³³¹ In case of *pañkti*, *ṭilopa* and *tipratyaya* are considered *siddha* due

³³⁰ अलर्षि युध्म खजकृत्युरंदर (*alārṣi yudhma khajakṛtpuraṁdara*) – For reference, see *Rgveda* 8.1.7 – Max Müller, ed., *Rig-Veda-Sanhita*: Volume III Mandalas VII to IX, 224.

³³¹ KK— यदिह लक्षणानुपपन्नं तत्सर्वं निपातनात् सिद्धम्। (*yadiha lakṣaṇānūpapannaṁ tatsarvaṁ nipātanaṁ siddham*)

to *nipātana*. In the derivation of *viṃśati*, *dvi* + *daśat* + *śatic*, *daśat* and *śatic* are considered as *nipātanas* and there is *vin ādeśa*, again due to *nipātana*. In a similar manner, *triṃśat*, *catvāriṃśat*, *pañcāśat*, *ṣaṣṭiḥ*, *saptatiḥ*, *aṣṭiḥ*, *navatiḥ* and *śatam* can also be derived. KK also further reiterates the fact that these examples are merely illustrative.

Niṣṭhātakāra prakarana (8.2.42- 8.2.61)

❖ 7.2.20 दृढः स्थूलबलयोः (*dr̥ḍhaḥ sthūlabalayoḥ*)

Pāṇini has made *dr̥ḍhaḥ* as a *nipātana*. KK lists out the processes during its derivation that are considered *nipātana*. The processes are as follows: Prohibition of *iḍāgama* when followed by *ktapratyaya*, elisions of *hakāra* and *nakāra* and *niṣṭhātakāra* takes *ḍhakāra*.³³²

dr̥ṃh kta → *dr̥h ta* → *dr̥ ta* → *dr̥ḍh su*

The rationale behind making this a *nipātana* is also stated in KK. The *asiddhatva* of *ḍhatva* would have caused problems in the derivations of forms such as *draḍhimā* / *draḍhīyān* due to non-applicability of 6.4.161 र ऋतो हलादेर्लघोः (*ra ṛto halāderlaghoḥ*).³³³ The derivation of *draḍhimā* is shown below to get a clearer picture.

दृढ इमनिच्	5.1.123 वर्णदृढादिभ्यः ष्यञ् च
द्रढ + इमन्	6.4.161 र ऋतो हलादेर्लघोः
द्रढ् + इमन्	6.4.155 टेः
द्रढिमन्	
<i>dr̥ḍha imanic</i>	<i>5.1.123 varṇadr̥ḍhādibhyaḥ syañ ca</i>
<i>draḍha + iman</i>	<i>6.4.161 ra ṛto halāderlaghoḥ</i>
<i>draḍh + iman</i>	<i>6.4.155 ṭeḥ</i>
<i>draḍhiman</i>	

❖ 7.2.21 प्रभौ परिवृढः (*prabhau parivr̥ḍhaḥ*)

In the case of *parivr̥ḍhaḥ*, the same logic as in 7.2.20 applies.

❖ 8.2.50 निर्वानोऽवाते (*nirvāṇo 'vāte*)

Nirvāṇaḥ is a *nipātana* in the sense of not *vāta*.

³³² KK — किमत्र निपात्यते? दृढेः क्तप्रत्यय इडभावः, हकारनकारयोर्लोपः, परस्य ढत्वम्। (*kimatra nipātyate? dr̥ṃheḥ ktapratyaya iḍabhāvaḥ, hakāranakārayorlopaḥ, parasya ḍhatvam*)

³³³ KK — ढलोपे हि सति तस्य पूर्वत्रासिद्धत्वाद् द्रढिमा, द्रढीयान्, द्रढयतीत्यत्र र ऋतो हलादेर्लघोः ६.४.१६१ इति रेफो न स्यात्। (*ḍhalope hi sati tasya pūrvatrāsiddhatvād draḍhimā, draḍhīyān, draḍhayatītyatra ra ṛto halāderlaghoḥ 6.4.161 iti repho na syāt*)

- ❖ 8.2.55 अनुपसर्गात् फुल्लक्षीबकृशोल्लाघाः (*anupasargāt phullakṣībakṛśollāghāḥ*)
In the example of *phulla*, *latva* of *niṣṭhātakāra* takes place. In the examples of *kṣība*, *kṛśa* and *ullāghāḥ*, the *niṣṭhātakāra* gets elided.
- ❖ 8.2.61 नसत्तनिषत्तानुत्तप्रतूर्तसूर्तगूर्तानि छन्दसि
(*nasattaniṣattānuttapratūrtasūrtagūrtāni chandasi*)
In Vedic literature, *nasatta*, *niṣatta*, *anutta*, *pratūrta*, *sūrta* and *gūrta* are made *nipātana* by avoiding *natva* of *niṣṭhātakāra*.

Kvinpratyayasya kuh (8.2.62 – 8.2.63)

- ❖ 3.2.59 ऋत्विग्दधृक्स्रग्दिगुष्णिगञ्चुयुजिकृञ्चं च
(*ṛtvigdadhr̥ksragdiguṣṇigañcuyujikruñcām ca*) lists out *nipātanas* – *ṛtvig/*
ṛtvik, *dadhr̥g/ dadhr̥k*, *srag*, *dig/dik*, *uṣṇig/ uṣṇik*. The roots *añc*, *yuj* and *kruñc* are also mentioned. In this rule, *kvinpratyaya* is continued from 3.2.58
स्पृशोऽनुदके किन् (*spr̥śo 'nudake kvin*). They are made *nipātanas* with respect to *kvinpratyaya*. *Kutva* takes place for this *pratyaya*.

Rutva prakarana (8.2.66 – 8.2.71)

- ❖ 8.2.67 अवयाःश्वेतवाःपुरोडाश्च (*avayāḥśvetavāḥpuroḍāśca*)
Avayāḥ, *śvetavāḥ*, *puroḍāḥ* etc. are made *nipātanas*, the reason for it is mentioned in KK.³³⁴ The forms of these words in the Vocative are also the same. In order to derive the same forms even for the Vocative, these words are made *nipātanas*.

Ṣatva prakarana (8.3.55 – 8.3.119)

- ❖ 3.1.123 छन्दसि निष्टर्क्य-देवहूय-प्रणीय-उन्नीय-उच्छिष्य-मर्य-स्तर्या-ध्वर्य-खन्य-खान्य-
देवयज्या-आपृच्छ्य-प्रतिषीव्य-ब्रह्मवाद्य-भाव्य-स्ताव्य-उपचाय्यपृडानि (*chandasi niṣṭarkya-*
devahūya-praṇīya-unnīya-ucchiṣya-marya-staryā-dhvarya-khanya-khānya-
devayajyā-āpṛcchya-pratiṣīvyā-brahmavādyā-bhāvya-stāvya-
upacāyyapṛḍāni)

³³⁴ KK - किमर्थं तर्हि निपातनं यावता पूर्वैर्गैव रुः सिद्धः, दीर्घत्वमपि अत्वसन्तस्य चाधातोः ६.४.१४ इति? संबुद्धौ दीर्घार्थमेते निपात्यन्ते। (*kimartham tarhi nipātanam yāvatā pūrveṇaiva ruḥ siddhaḥ, dīrghatvamapi atvasantasya cādhātoḥ 6.4.14 iti? sambuddhau dīrghārthamete nipātyante*)

This rules lists out *Vedic* words that are *nipātanas*. Amongst these *Vedic* words, the *ṣatva* of *nis* in *niṣṭarkya* and of *sīv* in *pratiṣīvyā* is due to *nipātanatva*.

- ❖ 4.2.32 द्यावापृथिवीशुनासीरमरुत्वदग्नीषोमवास्तोष्पतिगृहमेधाच्छ च (*dyāvāpr̥thivī śunāsīramarutvadagnīṣomavāstoṣpatigr̥hamedhāccha ca*)

In the example of *vāstoṣpati*, at the stage of *vāstoḥ patiḥ*, there is absence of elision of *nas-pratyaya* due to 2.4.71 सुपो धातुप्रातिपदिकयोः (*supo dhātuprātīpadikayoh*) due to *nipātanatva* and *ṣatva* is also undertaken due to *nipātanatva* giving the desired result, *vāstoṣpati*.

- ❖ 8.3.90 सूत्रं प्रतिष्ठातम् (*sūtram̐ pratiṣṭhātam̐*)

Pratiṣṭhātam is a *nipātana* when it refers to a *sūtra*. In other cases, the form is *pratisnātam*.

- ❖ 8.3.91 कपिष्ठलो गोत्रे (*kapiṣṭhalo gotre*)

Kapiṣṭhala is a *nipātana* when it is about a *gotra*.

- ❖ 8.3.92 प्रश्नोऽग्रगामिनि (*praṣṭho 'gragāmini*)

Praṣṭha is a *nipātana* when it is used in the sense of going ahead.

- ❖ 8.3.93 वृक्षासनयोर्विष्टरः (*vr̥kṣāsanayorviṣṭarah̐*) / 8.3.94 छन्दोनाम्नि च (*chandonāmni ca*)

Viṣṭarah̐ is a *nipātana* when it is used in the sense of 'tree' and 'seat'. *Viṣṭārah̐* is the name of a *chandas*.

- ❖ 8.3.95 गवियुधिभ्यां स्थिरः (*gaviyudhibhyām̐ sthiraḥ̐*)

The forms are *gaviṣṭhiraḥ̐* and *yudhiṣṭhiraḥ̐*. The locative case is *aluk* due to *nipātanatva*.

- ❖ 8.3.114 प्रतिस्तब्धनिस्तब्धौ च (*pratistabdhaniṣṭabdhau ca*)

In the forms of *pratistabdha* and *nistabdha*, *nipātanatva* prevents *ṣatva*.

Natva prakarana (8.4.1 – 8.4.39)

- ❖ *Patañjali* under 1.1.27 सर्वदीनि सर्वनामानि (*sarvādīni sarvanāmāni*) states that *natva* should have taken place by 8.4.3 पूर्वपदात् संज्ञायामगः (*pūrvapadāt samjñāyāmagah̐*) and should have been *sarvaṇāmāni*. But, it is a *nipātana*. He further elaborates – बाधकान्येव हि निपातनानि (*bādhakānyeva hi nipātanāni*)

meaning that “ready-made forms definitely set aside (the same forms as regularly derived by rule application)”.³³⁵

❖ 5.2.78 स एषां ग्रामणीः (*sa eṣāṃ grāmaṇīḥ*)

In the example of *grāmaṇī*, there is *ṇatva* due to *nipātana* as given by 5.2.78. *Grāmaṇī* is a compound obtained from *grāmam nayati*. S.D. Joshi, in the derivation of *grāmanyau* under 6.4.82 एरनेकाचोऽसंयोगपूर्वस्य (*eranekāco 'saṃyogapūrvasya*) points out that at the stage of *grāmany au*, “*ṇatva* cannot be applied since *r* belongs to the *pūrvapada* and *n* belongs to the *uttarapada* of the *upapada samāsa*. The condition *samānapada* in 8.4.1 रषाभ्यां नो णः समानपदे (*raṣābhyāṃ no ṇaḥ samānapade*) would prevent *ṇatva*. This difficulty is overcome by making *grāmaṇī* a *nipātana*”.³³⁶ There is also a वार्तिक अग्रग्रामाभ्यां नयतेर्णो वाच्यः (*vārttika agragrāmābhyāṃ nayaterṇo vācyaḥ*)³³⁷ stated in SK under 3.2.61 सत्सूद्विषदुहदुह-युजविद-भिदच्छिद-जि-नी-राजामुपसर्गेऽपि क्विप् (*satsūdviṣadruha-duhayujavida-bhidacchida-ji-nī-rājāmupasarge'pi kvip*) that prescribes *ṇatva* for *agra* and *grāma* when followed by the root *nī*.

Nipātana for intonations

- ❖ 3.3.97 ऊति-यूति-जूति-साति-हेति- कीर्तयः च (*ūti-yūti-jūti-sāti-heti- kīrtayaḥ ca*) lists out that these words are ready-made forms, even though they could have been derived by applying the rules of *Aṣṭādhyāyī*. KK elaborates on the reason for *nipātanatva* for these words, the reason being intonation.

Conclusion

Nipātanatva can be considered as a tool to avoid application of rules or to apply rules, be it to prevent intonations, *ṇatva*, *nalopa*, etc or to apply *ṇatva*, *ṣatva* amongst other rule applications.

³³⁵ For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 314.

³³⁶ Paraphrased, for reference, see Joshi S.D. and J.A. F. Roodbergen: *The Aṣṭādhyāyī of Pāṇini* Volume IX, 241.

³³⁷ This *vārttika* was not found in MB. Roodbergen in his dictionary, also mentions that this is found in SK under 3.2.61– For reference, see Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 5.

Case study 6: *Vārttikas*

The *vārttikas* that were located during the cross-referencing of the *tripādī* rules in the *sapādasaptādhyāyī* are discussed in this case study. The *vārttikas* of the *tripādī* rules are not taken into consideration here. A *vārttika* has been defined and explained in Chapter I.

This case study can be divided into three sections, namely *upasaṃkhyānavārttikas*, *vārttikas* that relate to certain operations and *vārttikas* concerning *Vedic* literature. Those examples that are relevant to *tripādī* rules are alone taken into consideration here.

Upasaṃkhyānavārttikas

Upasaṃkhyāna is defined as “addition to, inclusion in (a given *sūtra*)” *upasaṃkhyānaśabdasya pratipādanamarthaḥ* | NY on 6.4.24: the meaning of the word *upasaṃkhyāna* is (additional) mention”.³³⁸ This term *upasaṃkhyāna* is “often found at the end of the statements made by the *vārttikakāra* on the *sūtras* of *Pāṇini*”.³³⁹ *Upasaṃkhyānaṃ kartavyam* | is an oft-used phrase in MB. Some of the *upasaṃkhyānavārttikas* are discussed here.

❖ हृद्युभ्यां डेरुपसंख्यानम् (*hṛdyubhyāṃ ṇerupasaṃkhyānam*)

MB, under 6.3.9 हलदन्तात् सप्तम्याः संज्ञायाम् (*haladantāt saptamyāḥ saṃjñāyām*), mentions this *vārttika*. Elision of seventh case in case of *hṛd* and *div* does not take place as in *hṛdisprk* and *divisprk*. *Kvinkutva* and *jaśtva* are undertaken to derive the desired forms.

❖ नञ्संज्ञीककखुंस्तरुणतलुनानामुपसङ्ख्यानम् (*nañ-sañīkakkhyuṃs-taruṇa-talunānāmupasaṃkhyānam*)

This *vārttika* is given in MB under 4.1.15

टिड्ढाणञ्द्वयसज्दघ्नमात्रत्तयठक्ठक्करपः (*ṭiḍ-ḍhāṇ-añ-dvayasajdaghnañ-mātractayapṭhakṭhañkañkvarapaḥ*). This *vārttika* prescribes *nīp-pratyaya* even for some other *pratyayas* such as *nañ-sañīkak-khyun* and the words

³³⁸ Roodbergen, *Dictionary of Pāṇinian Grammatical Terminology*, 111.

³³⁹ Abhyankar, *A Dictionary of Sanskrit grammar*, 80.

taruṇa and *talunā*. In the example of *straiṇī*, *ṇatva* is undertaken when the *pratyaya nañ* is added.

❖ **अक्षादूहिन्यामुपसङ्ख्यानम् (*akṣādūhinyāmupasaṅkhyānam*)**

This *vārttika* is given in MB under 6.1.89 एत्येधत्यूत्सु (*etyedhatyūṭhsu*). *Akṣa* when followed by *ūhinī* undergoes *vṛddhyekādeśa* instead of *guṇaikādeśa* because of this *vārttika* resulting in the form *akṣauhinī*. *Ṇatva* is undertaken by 8.4.3 पूर्वपदात् संज्ञायामगः (*pūrvapadāt saṁjñāyāmagah*).

❖ **प्रादूहोढोढ्येषैष्येषु । (*prādūhoḍhoḍhyeṣaiṣyeṣu* |)**

This *vārttika* is given in MB under 6.1.89 एत्येधत्यूत्सु (*etyedhatyūṭhsu*). It prescribes *vṛddhyekādeśa* when the prefix *pra* is followed by *ūha-ūḍha-ūḍhi-eṣa-eṣya*. The example considered is *prauḍhaḥ* in which 8.2.31 हो ढः (*ho ḍhaḥ*) is applicable for *ūḍha*.

❖ **प्रवत्सतरकम्बलवसनामृणे वृद्धिर्वक्तव्या (*pravatsatarakambalavasanāmṛṇe vṛddhirvaktavyā*)/ ऋणदशाभ्यां वृद्धिर्वक्तव्या । (*ṛṇadaśābhyāṁ vṛddhirvaktavyā*)**

These *vārttikas* are given in MB under 6.1.89 एत्येधत्यूत्सु (*etyedhatyūṭhsu*). They prescribe *vṛddhyekādeśa* when *pra/vatsatara/kambala/vasana* are followed by *ṛṇa* and *ṛṇa/daśa* when followed by *ṛṇa*. The examples are *prārṇam*, *vatsatarārṇam*, *kambalārṇam*, *vasanārṇam*, *ṛṇārṇam* and *daśārṇam*. The word *ṛṇa* is a *nipātana* by 8.2.60 ऋणमाधमर्ण्ये (*ṛṇamādhamarṇye*).

❖ **शिक्षेर्जिज्ञासायामुपसंख्यानं कर्तव्यम् । (*śikṣerjijñāsāyāmupasaṅkhyānaṁ kartavyam*)**

This *vārttika* is given in MB under 1.3.21 क्रीडोऽनुसम्परिभ्यश्च (*krīḍo-'nu-sam-paribhyaśca*). This *vārttika* prescribes that the root *śak* takes the *ātmanepada pratyaya* in the sense of *jijñāsā* in the example of *vidyāsu śikṣate*. *Sakāralopa* and *ṣatva* are undertaken for this form.

Vārttikas related to operations

❖ किब्वचि-प्रच्छायतस्तु-कटपु-जु-श्रीणां दीर्घोऽसंप्रसारणं च (*kibvaci-*

pracchyāyatastu-kaṭapru-ju-śrīṇām dīrgho 'saṁprasāraṇaṁ ca)

This vārttika is given in MB under 3.2.178 अन्येभ्योऽपि दृश्यते (*anyebhyo 'pi dṛśyate*). In the example of *prāṭ/prāḍ*, this vārttika prescribes penultimate lengthening and prohibition of *saṁprasāraṇa* for roots such as *pracchi* after which *ṣatva*, *jaṣṭva* and *cartva* are undertaken.

❖ आचार्यादणत्वं च (*ācāryādaṇatvaṁ ca*)

This vārttika is given in MB under 4.1.49 इन्द्रवरुणभवशर्वरुद्रमृडहिमारण्ययवयवन-मातुलाचार्याणामानुक् (*indravaruṇabhavaśarvarudramṛḍahimāraṇyayavayavana-mātulācāryāṇāmānuk*). *Ānuk* is added to *indra*, *varuṇa*, *bhava*, *śarva*, *rudra*, *mṛḍa*, *hima*, *araṇya*, *yava*, *yavana*, *mātula* and *ācārya* before the feminine *pratyaya nīṣ*. This vārttika prescribes *aṇatva* in case of *ācārya* giving the form *ācāryānī* (*ācāryasya strī*).

❖ णत्वं पर्याख्याने (*ṇatvaṁ paryākhyāne*)/ निष्ठानत्वमाख्याते

(*niṣṭhānatvamākhyāte*)

2.4.54 चक्षिङः ख्याच् (*cakṣiṇaḥ khyāñ*) prescribes the substitution of *khyāñ* for *cakṣiṇ*. There is a vārttika णत्वं पर्याख्याने (*ṇatvaṁ paryākhyāne*) under this rule by which *ṇatvaṁ* is prohibited. In MB, the substitute begins with *kh* and is *khśāñ*. This substitute *khśāñ* assumes the form *khyāñ* also. This *khśāñ* becomes *khyāñ* by substituting *y* for *ś* under the वार्तिक असिद्धे शस्य य वचनं विभाषा। (*vārttika asiddhe śasya ya vacanaṁ vibhāṣā*). The letter *y* optionally replaces *ś* of this substitute and this *y* is *asiddha* because this vārttika is in the *asiddha* section. Thus, in *paryākhyānam*, the *ś* changed to *y* is *asiddha* and 8.4.29 कृत्यचः (*kṛtyacaḥ*) does not apply and *ṇatvaṁ* is not carried out.

Patañjali continues this discussion and lists out another reason for considering *khyāñ* as *khaśādi*. In the example of *ākhyāte*, it prohibits *niṣṭhānatva* by 8.2.43 संयोगादेरातो धातोर्यण्वतः (*saṁyogāderāto dhātor yaṇvataḥ*).

- ❖ ष ष उत्त्वं दत्तदशधासूत्ररपदादेः ष्टुत्वं च धासु वेति वाच्यम् / दुरो दाशनाशदभध्येषूत्वमुत्तरपदादेः ष्टुत्वं च (*ṣaṣa uttvam datṛ-daśa-dhāsūttarapadādeḥ ṣṭutvam ca dhāsu veti vācyam / duro dāśa-nāśa-dabhadhyeṣūtvamuttarapadādeḥ ṣṭutvam ca*)

These two *vārttikas* are given in MB under 6.3.109 पृषोदरादीनि यथोपदिष्टम् (*prṣodarādīni yathopadiṣṭam*). The first *vārttika* prescribes *utva* to *ṣaṣ* when the *uttarapada* is *datṛ*, *daśa* or *dhā*. *Ṣṭutva* also takes place to the first letter of the *uttarapada*.

ṣaḍ dantā asya → ṣaṣ dant → ṣa u ḍant → ṣoḍan

ṣaṣ daśan → ṣa u ḍaśan → ṣoḍaśa

There is optionality in case of *dhā*. The term *dhāsu* in plural indicates that the location *dhā* stands for many places and not for one place. *ṣaṣ dhā → ṣoḍhā or ṣaḍdhā*.

The second *vārttika* prescribes *utva* to *repha* of *dur* when the *uttarapada* is *dāśa* or *nāśa* or *dama* or *dhya*. *Ṣṭutva* also takes place to the first letter of the *uttarapada* resulting in the forms *dūdāśaḥ*, *dūṇāśaḥ*, *dūdabhaḥ* and *dūdhyah*.

- ❖ सुब्धातु-ष्ठिवु-ष्वष्कतीनां सत्वप्रतिषेधो वक्तव्यः (*subdhātu-ṣṭhivu-ṣvaṣkatīnām satvapraṭiṣedho vaktavyaḥ*)

This *vārttika* is given in MB under 6.1.64 धात्वादेः षः सः (*dhātvādeḥ ṣaḥ saḥ*). This *vārttika* states that for roots such as *ṣṭhivum* and *ṣvaṣk*, the *ṣ* does not get converted to *s* due to rule 6.1.64 धात्वादेः षः सः (*dhātvādeḥ ṣaḥ saḥ*) and *ṣṭutva* also does not take place.

- ❖ आहिभुवोरीट्प्रतिषेधः/ आहेर्भुवश्चेटि कर्तव्ये स्थानिवद्भावस्य प्रतिषेधः (*āhibhuvorīṭṭpratiṣedhaḥ/ āherbhuvaśceṭi kartavye sthānivadbhāvasya pratiṣedhaḥ*)

The forms being discussed in these *vārttikas* are *āttha* and *abhūt*.

आहिभुवोरीट्प्रतिषेधः (*āhibhuvorīṭṭpratiṣedhaḥ*) – This *vārttika* is given in MB under 1.1.56 स्थानिवदादेशोऽनल्विधौ (*sthānivadādeśo 'nalvidhau*). This *vārttika* prohibits *sthānivadbhāva* for *īḍāgama* in case of the roots *as* and *brū*. The root

as gets *bhū ādeśa* by 2.4.52 अस्तेर्भूः (*asterbhūḥ*) and the root *brū* gets *āh ādeśa* by 3.4.84 ब्रुवः पञ्चानामादित आहो ब्रुवः (*bruvaḥ pañcānāmādita āho bruvaḥ*). There could be *īdāgama* by 7.3.96 अस्तिसिचोऽपृक्ते (*astisico 'pṛkte*) for root *as* and by 7.3.93 ब्रुव ईट् (*bruva īṭ*) for root *brū*. This is prohibited by these two *vārttikas*.

❖ **अभावेऽवसानलक्षणे उपर्यभाववचनम्** (*abhāve-'vasāna-lakṣaṇe upary-abhāvavacanam*)

This *vārttika* is given in MB under 1.4.110 विरामोऽवसानम् (*virāmo 'vasānam*).

If *virāma* is defined as *avasāna* in the sense of *abhāva* 'absence (of speech-sound)', we must specify that the absence meant is a subsequent absence. As explained by *Patañjali*, the point is that 8.3.15 should not apply to the *r* in words like *rasa* 'juice' or *ratha* 'car', considering that this *r* comes after a preceding absence of speech-sound, that is, occurs in initial position of a sentence.³⁴⁰

Vārttikas concerning Vedic literature

❖ **रयेर्मतौ बहुलम्** (*rayermatau bahulam*)

Vārttika 6 under 6.1.37 न सम्प्रसारणे सम्प्रसारणम् (*na samprasāraṇe samprasāraṇam*) is *rayermatau bahulam*. In Vedic literature, there could be *samprasāraṇa* optionally for *rayi + matup*. The example being discussed is *revān*³⁴¹. If no *samprasāraṇa* is undertaken, then the form *rayimān* is obtained. In continuation with the same example, there is another *vārttika* 1 मतुबुदात्तत्वे रेग्रहणम् (*matubudāttatve regrahaṇam*) under 6.1.176 ह्रस्वनुडभ्यां मतुप् (*hrasvanuḍbhyāṃ matup*) that prescribes *udāttasvara* for *matup* that follows *re*. The next *vārttika* 3 त्रेश्च प्रतिषेधो वक्तव्यः (*treśca pratiṣedho vaktavyaḥ*) prohibits *udāttasvara* for *tri* as in *trivatīh*.³⁴²

Kārikā about variations possible in Vedic literature

सुप्तिङुपग्रहलिङ्गनराणां कालहलच्स्वरकर्तृयडां च।
व्यत्ययमिच्छति शास्त्रकृद्देशं सोपि च सिध्यति बाहुलकेन॥

³⁴⁰ This passage has been quoted from Joshi S. D. and J. A. F. Roodbergen: *The Aṣṭādhyāyī of Pāṇini* Volume IV (New Delhi: Sahitya Akademi, 1995), 264.

³⁴¹ *R̥gveda* 1.18.2 – For reference, see Max Müller, ed., *Rig-Veda-Sanhita*: Volume I Mandala I, 104.

³⁴² *Kāṭhakaśaṃhitā* 11.1 – For reference, see Sātavalekara, "Yajurvedīya kāṭhakaśaṃhitā", 98.

*suptinupagrahalinganarāṇām kālahalacsvarakartṛyaṇām ca|
vyatyayamicchati śāstrakṛdeṣām sopi ca sidhyati bāhulakena||*

This *kārikā* is given in MB under 3.1.85 व्यत्ययो बहुलम् (*vyatyayo bahulam*). *Patañjali* splits this rule into two and states that in Vedic literature, many variations are possible as with regard to *sup / tin /upagraha/ lin /puruṣa/ kāla /varṇa /ac /svara/ kartṛ /yaṇ*. One such example of *puruṣa* is *viyūyāḥ*³⁴³. The second person is used in place of first person in this example.

This concludes the discussion on *vārttikas* that relate to *tripādī* rules.

³⁴³ *Rgveda* 7.104.15 अधा स वीरिदशभिर्वियूयाः (*adhā sa vīrairdaśabhīrvīyūyāḥ*) – For reference, see Max Müller, ed., *Rig-Veda-Sanhita*: Volume III Mandalas VII to IX, 218.

Chapter V: Conclusion

The preservation of the *Vedas* is the fundamental reason for the development of various ancillary disciplines in the *Sanskrit* literary tradition; one such being grammar. *Pāṇini's Aṣṭādhyāyī* along with its long grammatical tradition, is the only complete representative text available to us of this branch. This rule book employs many techniques to derive the target form of the word. One such technique is the principle of *asiddhatva*. The goal of this study is to critically investigate the *asiddhatva* principle. It attempts to deconstruct this principle into smaller parts and to view it from a wider angle while comprehending the working of the *Aṣṭādhyāyī*. This research endeavours to gain insight into *Pāṇini's* thoughts and validate his ideas.

Studies that have been undertaken on this principle include the traditional interpretation of avoidance of rules or application of rules as given by आदेशलक्षणप्रतिषेधार्थमुत्सर्गलक्षणभावार्थ च। (*ādeśa-lakṣaṇa-pratiṣedhārtham-utsarga-lakṣaṇabhāvārtham ca*)), Buiskool's dissertation on *tripādī*, translations of the *tripādī* section into English and Marathi, the *siddha* theory proposed by Paul Kiparsky and discussions on *sthānivadbhāva* and *asiddhatva*.

As the research gap suggests, this principle has not been analysed systematically. The questions that have been addressed in this study are:

- ❖ Purpose of the *tripādī* section and linear order sequencing of *tripādī* rules
- ❖ Analysis of *asiddhatva* section of the *sapādasaptādhyāyī* and purpose of its creation
- ❖ Comparative analysis of both the sections and a broad perspective of the *asiddhatva* principle as a whole.

In order to be able to undertake such a study, the search engine <https://ashtadhyayi.com> has been used to locate references of the rules of the *tripādī* section in the entire *Aṣṭādhyāyī* as mentioned in some of the *Sanskrit* commentaries. The occurrences of a *tripādī* rule in the selected *Sanskrit* commentaries of the *Aṣṭādhyāyī* become the “archive” of this study. This “cross-referencing” of *tripādī* rules illuminates *Pāṇini's* thought process. Some of them are compiled into case studies in this dissertation.

Key findings

The key findings are summarized below:

A broad perspective of the *asiddhatva* principle

Considering the structure of the *Aṣṭādhyāyī* as a whole and collectively viewing all the techniques used by *Pāṇini* in the derivation of words, one conceptual underpinning of the *Aṣṭādhyāyī* appears to be the inheritance principle. This “**latency**” of properties of objects or “**implicit presence**” of objects seems to be working at different levels of the language.

- At the *varṇa* level, *Pāṇini* has created the *itsaṃjñā*. The *anubandhas* or *its* are tags that get deleted but still exist for application of rules. The properties of the tags, though elided, are still inherited for the application of rules.
- At the *pratyaya* level, the characteristics of *pratyayalakṣaṇa* come into play even when the *pratyaya* is elided. Therefore, the properties of the *pratyaya* are inherited while applying subsequent rules.
- At the *ādeśa* level, *sthānivadbhāva* takes over this principle of inheritance. All the properties of the *sthānin* are inherited by the *ādeśa*.
- At the *sūtra* or *vidhi* level, *asiddhatva* applies. The properties of *asiddhatva* are inherited during the derivational process of a word.

As can be observed, this thought process of “is there, but not there” permeates throughout the working of the *Aṣṭādhyāyī*. This hidden presence of properties is a novel technique adopted by *Pāṇini*.

As aforementioned in the literature review, S.D. Joshi points out that “*Pāṇini*’s derivative system is based on two broad principles, namely, the principle of *siddhatva/asiddhatva* and the principle of *sthānivadbhāva*”.³⁴⁴ *Sthānivadbhāva* and *asiddhatva* have been linked to each other even by traditional commentators. As per tradition, the *asiddhatva* principle works on two factors: आदेशलक्षणप्रतिषेधार्थमुत्सर्गलक्षणभावार्थं च। (*ādeśalakṣaṇapraṭiṣedhārtham-utsargalakṣaṇabhāvārtham ca*). It is to be noted that the terms, *ādeśa* and *utsarga* are associated with *sthānivadbhāva*. The *asiddhatva* principle according to tradition is restricted to the application of rules or avoidance of rules in relation to the substituend or the substitute. However, if this principle may be considered in a broader perspective, the principle of inheritance seems to fit better.

³⁴⁴ S. D. Joshi, "The functions of *asiddhatva* and *sthānivadbhāva* in *Pāṇini*’s *Aṣṭādhyāyī*," *CASS Studies* 6 (1981): 153-168.

The tripādī

The contents of *tripādī* have been analysed as follows:

- The traditional interpretation of avoidance of rules and application of rules is one of the purposes of the principle of *asiddhatva*. This principle can be perceived as a tool to resolve conflicts. A *sapādasaptādhyāyī* rule outweighs the “latent” presence of a *tripādī* rule.
- *Adhikāra* or domain of *pada* and *saṃhitā* – The operations that are required at the last stages of the derivational process of a word are put together in this section.
- *Halādeśa*- Consonants are substituted by consonants in this section. *Pāṇini* has clubbed together these substitutions and placed them in *tripādī*.
- Some words can be derived only because certain rules are included in *tripādī*.
- *Sthānivadbhāva* has been prescribed by *Pāṇini* only in case of *analvidhi*. In case of *ajādeśa*, *sthānivadbhāva* is applicable under specific conditions. Moreover, there is negation of *sthānivadbhāva* in case of an *ajādeśa* for particular operations. As already mentioned, most rules of *tripādī* are *halādeśa* and are *alvidhi*. In this manner, *Pāṇini* has grouped rules and put them together in *tripādī* by which the issue of *sthānivadbhāva* is automatically sidestepped.

The ordering of rules in tripādī

The three main factors that may determine the ordering of rules in *tripādī* are: the derivational process of a word, continuation of word or words from the earlier rule and logic. The placement of *ṇatva prakaraṇa* between *anusvāra* (8.3.23– 8.3.27) and *parasavarṇa* (8.4.58 – 8.4.62) needs special mention as it is to prevent undesired *ṇatva* as in the cases of *caranti/ prahanti*. In this manner, *Pāṇini* used the technique of ordering to achieve the desired forms of words.

Svara rules in tripādī

Svara rules are placed in *tripādī* either to overcome the generalization of all vowels being not intonated except for one *svara* in a word or to prevent loss of *svaras*. The *adhikāra* of *pada* is required for 8.2.4 – 8.2.6 and the *adhikāra* of *saṃhitā* for 8.4.66 and 8.4.67. Keeping this in mind, *Pāṇini* sandwiched all other *tripādī* rules between these *svara* rules.

Critical study of selected *prakaraṇas* of *tripādī*

A brief overview of the critical study of selected *prakaraṇas* is given below:

- The necessity of 6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पृक्तं हल् (*halṅyābbhyo dīrghāt sutisyapṛktaṁ hal*) even though 8.2.23 संयोगान्तस्य लोपः (*saṃyogāntasya lopah*) exists is justified.
- *Sakāralopa* as prescribed by 8.2.25 धि च (*dhi ca*) is not applicable exclusively for the *pratyaya* *sic*.
- 7.3.52 चजोः कु घिण्यतोः (*cajoḥ ku ghinnyatoḥ*) also suggests *kutva*. This has not been placed in *tripādī* because it has to come under the *adhikāra* of *aṅga*. 8.2.30 चोः कुः (*coḥ kuḥ*) comes under the *adhikāra* of *pada*, therefore, it is placed in *tripādī*.
- The substitution of *t* with *n* and *d* also with *n* in the *niṣṭhānatva prakaraṇa* is justified as they share the same place of articulation (*lṛtulasānām dantāḥ*). A survey of all the roots that have a *saṃyoga* at the beginning, are *ākārānta* and contain *yaṇ* was carried out and the *niṣṭhānatva* forms of these roots are given.
- *Kvinpratyaya* of *Aṣṭādhyāyī* and that of *uṇādi sūtra* are discussed.
- A survey of the words *praśān*, *pratān* and *pradān* in the Deccan College Scriptorium has been carried out and the results are shown.
- The purpose of the *anubandha u* in *ru* is justified.
- A note on *anusvāra* and *anunāsika* points out the difference between the two.
- The term *laghuprayatnatara* is surveyed in the Deccan College scriptorium.
- Rules that consider *nipāta uñ* are discussed.
- The technical term for the replacement of *visarjanīya* with a *sakāra* or *ṣakāra* is called *upācaritasandhiḥ* in the *prātiśākhya* and the *śikṣā* texts.
- The physiological aspect of *mūrdhanyādeśa* under the *adhikāra* of 8.3.57 इण्कोः (*iṅkoḥ*) is analysed. Phonetically, it is easier to pronounce *ṇa* when followed by *repha* and *ṣakāra* as they belong to the same place of articulation (*rṭuraṣāṇām mūrdhā*).
- The process of palatalization from a historical perspective is considered. The problems of placing 7.4.62 कुहोश्चुः (*kuhoścuḥ*) in *tripādī* are discussed. One such example is that *aujaḍhat* cannot be derived.

Ābhīya section

The following aspects have been considered while analysing the rules of the *ābhīya* section:

1. Traditional interpretation
2. Domain of *aṅga*
3. *sthānivadbhāva*

The interaction of the *ābhīya* rules within the *ābhīya* section and the interaction of *ābhīya* rules with the rest of the *sapādasaptādhyāyī* are highlighted. The *tripādī* and *ābhīya* sections are compared.

Āśrayāt siddhatvam – an alternative interpretation

An attempt has been made to give an alternative interpretation to the concept of *āśrayāt siddhatvam*. The *tripādī* rules prescribe consonant substitutions with consonants. However, the *sapādasaptādhyāyī* contains both vowel and consonant substitutions. Whenever a consonant had to be replaced by a vowel, *Pāṇini* switched to *sapādasaptādhyāyī*. Moreover, some rules of the *sapādasaptādhyāyī* cannot be placed under the *adhikāra* of *asiddhatva* as they may be applied in a generalized manner. In some cases, other *sapādasaptādhyāyī* rules need to be applied later. This cannot take place if the rules are considered *asiddha*. *Anuvṛtti* also played a role in deciding the placement of rules.

Sthānivadbhāva and asiddhatva

This study makes an attempt to establish a link between negation of *sthānivadbhāva*, the *ābhīya* section and the *tripādī* section. The trigger point for this research is the mention of some specific operations of the *tripādī* section in 1.1.58 न पदान्तद्विर्वचनवरेयलोपस्वर-सवर्णानुस्वारदीर्घजश्चर्विधिषु (*na padānta-dvirvacana-vareyalopa-svara-savarṇānusvāradīrghajaścarvidhiṣu*). A noteworthy result of this study is that the *ābhīya* section is also linked in the process. The negation of *sthānivadbhāva* in relation to *ajādeśa* involves the *ābhīya* section for specific operations of the *tripādī*. This is the study's key finding.

Graphical representation of linear ordering sequencing of *tripādī* using Directed Acyclic graphs and the implementation of topological sorting algorithm

The *tripādī* can be considered as a linear order relation. Directed Acyclic graphs are used to represent this linear ordering. Moreover, the rules for the derivation of a word can be considered as a poset. Generating n such posets, the topological sorting algorithm can be implemented to re-construct the linear ordering sequence of the *tripādī* section.

Case studies

The “cross-referencing” of *tripādī* rules revealed numerous additional facets of *Pāṇini*’s derivational process mechanism. Such insights are put together in case studies enhancing the relevance of this study.

Case study 1 highlights the significance of the *anubandhas* of the augments. The validity of the statement of considering *nugāgama* and *numāgama* as *anusvāra* is justified in a systematic manner. Prohibition of *guṇa* and *vṛddhi* by the process termed as “*saṃkrama*” is discussed.

Case study 2 is a study on role of *saṃjñās* in the application of rules. A few *vārttikas* that assign *saṃjñās* are also discussed. This case study brings out another novel technique used by *Pāṇini* to avoid conflicts of rules.

The significance of usage of specific words in the rules of the *Aṣṭādhyāyī* is the subject matter of Case study 3.

A study of the roots mentioned in *tripādī* rules comprises Case study 4.

Case study 5 considers *nipātana* as a tool in the application of rules.

The *vārttikas* that were located during the cross-referencing of the *tripādī* rules in the *sapādasaptādhyāyī* are discussed in case study 6.

Future directions

- The “cross-referencing” adopted for the *tripādī* section can be undertaken even for the *ābhīya* section. This might throw more light on the working of this section. A comparative study of the rules of the *ārdhadhātuka* *adhikāra* within the *ābhīya* section and that of the second chapter might be beneficial.
- The *siddha* theory proposed by Paul Kiparsky needs more investigation.

- Implementation of the topological sorting algorithm and re-constructing the *tripādī* section will be a fascinating exercise.
- The *tripādī* section is a collection of varying phonetic changes. An in-depth study of the physiological aspects involved in these substitutions can be undertaken.
- The term “*asiddham*” in the परिभाषा असिद्धम् बहिरङ्गम् अन्तरङ्गे। (*paribhāṣā asiddham bahiraṅgam antaraṅge*) requires further research. Testing the applicability of the परिभाषा पूर्व-पर-नित्य-अन्तरङ्ग-अपवादानाम् उत्तरोत्तरं बलीयः। (*paribhāṣā pūrva- para-nitya- antaraṅga- apavādānām uttarottaram balīyaḥ*) in the *Aṣṭādhyāyī* calls for additional investigation.

वाक्यकारं वररुचिं भाष्यकारं पतञ्जलिम् । पाणिनिं सूत्रकारं च प्रणतोऽस्मि मुनित्रयम् ॥

Appendix

Reference	<i>tripādī</i> rule	Source	Example
1.1.1 वृद्धिरादैच् (<i>vṛddhirādaic</i>)	8.2.40	NY	<i>vṛddhiḥ</i>
	8.4.53	N	
1.1.3 इको गुणवृद्धी (<i>iko guṇavṛddhī</i>)	8.3.13	MB	<i>avoḍhām</i>
1.1.4 न धातुलोप आर्धधातुके (<i>na dhātulopa ārdhadhātuke</i>)	8.2.39	KK /NY	<i>reḍ</i>
	8.4.53	NY	<i>preddham</i>
	8.4.54	N	<i>bobhoti</i>
	8.4.56	N	<i>reṭ</i>
1.1.5 क्ङिति च (<i>kṇiti ca</i>)	8.2.36	PM	<i>mṛṣṭaḥ</i>
	8.2.42	N	<i>bhinnaḥ</i>
	8.3.59		<i>jīṣṇu, bhūṣṇu</i>
	8.4.1		<i>trṣṇaj</i>
	8.4.41	N / NY	<i>mṛṣṭaḥ</i>
1.1.7 हलोऽनन्तराः संयोगः (<i>halo 'nantarāḥ saṃyogaḥ</i>)	8.3.29	KK /NY/PM	<i>tilāntstryāvayati</i>
1.1.9 तुल्यास्यप्रयत्नं सवर्णम् (<i>tulyāsyaprayatnaṃ savarṇam</i>)	8.2.30	BM	<i>prāṇ</i>
	8.3.36	NY	<i>aruścyotati</i>
	8.4.40	PM	
	8.4.59	N	<i>vandanāṅkaromi</i>
	8.4.64	NY	<i>Āsya</i>
1.1.10 नाज्झलौ (<i>nājjhalau</i>)	8.4.47	PM	<i>paraśśātāni</i>
1.1.16 सम्बुद्धौ शाकल्यस्येतावनार्षे (<i>sambuddhau śākalyasyetāvanārṣe</i>)	8.3.19	N	<i>bhāna iti, dhena iti</i>
		<i>Sudhā ṭikā</i>	<i>viṣṇa iti</i>
	8.3.23	N	<i>kiṃ viti / kiṃviti</i>

1.1.18 ऊँ (<i>ūṁ</i>)	8.4.59		
1.1.20 दाधा घ्वदाप् (<i>dādhā ghvadāp</i>)	8.4.17	NY	<i>praṇidadāti</i>
	8.4.55	N	<i>datta</i>
1.1.21 आद्यन्तवदेकस्मिन् (<i>ādyantavadekasmin</i>)	8.2.37	BM	<i>dhuk</i>
1.1.24 षान्ता षट् (<i>ṣṇāntā ṣaṭ</i>)	8.4.1	BM	<i>sahasrāṇi</i>
1.1.26 क्तक्तवतू निष्ठा (<i>ktaktavatū niṣṭhā</i>)	8.2.30	NY	<i>bhuktavān</i>
1.1.39 कृन्मेजन्तः (<i>kṛnmejantaḥ</i>)	8.2.30	KK	<i>vakṣe</i> (RV 5.66.3)
1.1.41 अव्ययीभावश्च (<i>avyayībhāvaśca</i>)	8.3.46	KK/ NY	<i>upapayaḥkārah,</i> <i>upapayaḥkāmaḥ</i>
1.1.46 आद्यन्तौ टकितौ (<i>ādyantau ṭakitau</i>)	8.4.2	N	<i>bhīṣaṇa</i>
1.1.47 मिदचोऽन्यात्परः (<i>midaco 'ntyātparaḥ</i>)	8.2.30	KK	<i>magnaḥ</i>
	8.2.40	N	<i>ruṇaddhi</i>
	8.2.45	N	<i>magnaḥ</i>
	8.3.24	NY	<i>maṅktā</i>
		N	<i>kampanīya</i>
	8.4.2	N	<i>ruṇaddhi</i>
	8.4.53		
	8.4.55	NY	<i>maṅktā</i>
1.1.50 स्थानेऽन्तरतमः (<i>sthāne 'ntaratamaḥ</i>)	8.3.59	N	<i>amuṣmai</i>
	8.4.55		<i>utthānam</i>
	8.4.61		
	8.4.65		
	8.4.62	N	<i>vāgghari</i>
1.1.51 उरण् रपरः (<i>uraṇ raparaḥ</i>)	8.2.24	MB	<i>pituḥ</i>

	8.2.78	N	<i>kīrtanīya</i>
	8.4.46	NY	<i>karttā harttā</i>
1.1.52 अलोऽन्त्यस्य (<i>alo 'ntyasya</i>)	8.2.72	PM	<i>paramānaḍudbhyām</i>
	8.4.47	<i>Sudhā ṭikā</i>	<i>sudhyupāsyah, madhvāriḥ</i>
1.1.54 आदेः परस्य (<i>ādeḥ parasya</i>)	8.4.55	N	<i>utthānam</i>
	8.4.61		
	8.4.65		
1.1.56 स्थानिवदादेशोऽनल्विधौ (<i>sthānivadādeśo 'nalvidhau</i>)	8.3.17	N /TB	<i>rāma iṣṭah</i>
	8.3.38	N / BM	<i>vyūḍhoraskah</i>
	8.4.41	KK / NY	<i>āvadhiṣṭa</i>
1.1.57 अचः परस्मिन् पूर्वविधौ (<i>acaḥ parasmin pūrvavidhau</i>)	8.2.41	KK	<i>ākṛāṣṭām</i>
1.1.58 न पदान्तद्विर्वचनवरेयलोपस्वरसवर्णानुस्वार दीर्घजश्चर्विधिषु (<i>na padāntadvirvacanavareyalopasvarasavarṇānusvāra dīrghajaścarvidhiṣu</i>)	8.2.25	KK / TB	<i>sagdhiḥ</i>
	8.2.39	N	
	8.2.40	KK	
	8.2.77	N /KK/ NY/ PM /BM/ TB	<i>pratidīvnā</i>
	8.3.24	N /KK /BM	<i>śiṇḍhi</i>
	8.3.60	N	<i>jakṣuḥ</i>
	8.4.54		
	8.4.41	N/ KK/NY/BM	<i>śiṇḍhi</i>
	8.4.47	N	<i>maddhvāri</i>
	8.4.53	N	<i>maddhvāri</i>
		N	<i>śiṇḍhi</i>
		KK /TB	<i>gdhi</i>

		NY	<i>cikīrṣakah, jihīrṣakah</i>
	8.4.55	N /KK/BM	<i>jakṣuḥ</i>
	8.4.58	N/ KK	<i>śiṇḍhi</i>
	8.4.65		
	8.4.64	MB	<i>ādityaḥ</i>
1.1.59 द्विर्वचनेऽचि (<i>dvirvacane 'ci</i>)	8.3.59	N	<i>dudyuṣa</i>
	8.4.54		<i>jaghnatuḥ</i>
1.1.62 प्रत्ययलोपे प्रत्ययलक्षणम् (<i>pratyayalope pratyayalakṣaṇam</i>)	8.2.37	KK /NY	<i>adhok</i>
	8.2.39		
	8.4.56	N	<i>ṣaṭ</i>
		KK/NY	<i>adhuk, adhok</i>
1.1.63 न लुमताङ्गस्य (<i>na lumatāṅgasya</i>)	8.2.36	NY	<i>mṛṣṭaḥ</i>
	8.4.41		
	8.4.54	N	<i>juhutaḥ</i>
1.1.65 अलोऽन्त्यात् पूर्व उपधा (<i>alo 'ntyāt pūrva upadhā</i>)	8.3.59	PM	<i>śiṣṭa</i>
1.1.66 तस्मिन्निति निर्दिष्टे पूर्वस्य (<i>tasminniti nirdiṣṭe pūrvasya</i>)	8.2.40	N	<i>labdha</i>
	8.4.58	N	<i>kampanīya</i>
1.1.69 अणुदित् सवर्णस्य चाप्रत्ययः (<i>aṇudit savarṇasya cāpratyayaḥ</i>)	8.4.2	N	<i>taraṇīya</i>
	8.4.64	LS/ SK	<i>saymyantā</i>
1.2.2 विज इट् (<i>vija iṭ</i>)	8.2.41	BM	<i>avrākṣīt</i>
	8.2.79	SK	<i>churyāt</i>
	8.3.13	BM	<i>tarḍhā</i>
	8.4.41	BM	<i>vavraṣṭha</i>
1.2.4 सार्वधातुकमपित् (<i>sārvadhātukamapit</i>)	8.3.24	N	<i>ṭṛmphi</i>
	8.4.58		
1.2.6 इन्धिभवतिभ्यां च (<i>indhibhavatibhyāṃ ca</i>)	8.3.65	NY	<i>pariṣasvaje</i>

1.2.7 मृडमृदगुधकुषक्लिशवदवसः क्त्वा (mr̥damṛdagudhakuṣakliśavadavasah ktvā)	8.3.60	PM	uṣitvā
1.2.8 रुदविदमुषग्रहिस्वपिप्रच्छः संश्च (rudavidamuṣagrahisvapipracchah samśca)	8.2.31	NY	jighṛkṣati
	8.2.37		
	8.2.41		
	8.4.40	NY	piprcchiṣati
1.2.10 हलन्ताच्च (halantācca)	8.2.37	KK /PM	dhipsati / bubhutsate
	8.4.55	NY	bubhutsate
1.2.11 लिङ्सिचावात्मनेपदेषु (līṅsicāvātmanepadeṣu)	8.2.26	NY	abhitta
	8.2.36	PM	yakṣīṣṭa
	8.2.37	PM	bhutsīṣṭa
	8.2.40	NY /PM	abuddha
	8.2.41	PM	yakṣīṣṭa
	8.4.41	BM	atepiṣṭa
	8.4.53	NY /PM	abuddha
1.2.12 उश्च (uśca)	8.2.27	KK /PM	akṛta
1.2.17 स्था घ्वोरिच्च (sthā ghvoricca)	8.2.27	PM	upāsthita /adita/adhita
1.2.21 उदुपधान्द्रावादिकर्मणोरन्यतरस्याम् (udupadhādbhāvādikarmaṇoranyatarasyām)	8.2.36	TB	kruṣṭa
	8.4.41		
1.2.27 ऊकालोऽज्झस्वदीर्घप्लुतः (ūkālo 'jjhrasvadīrghaplutaḥ)	8.4.40	N	pracchanīya, mlecchanīya
1.2.33 एकश्रुति दूरात् सम्बुद्धौ (ekaśruti dūrāt sambuddhau)	8.2.82	NY /PM	āgaccha bho māṇavaka devadatta3
1.2.34 यज्ञकर्मण्यजपन्यूङ्खसामसु (yajñakarmanyajapanyūṅkhasāmasu)	8.2.82	KK /NY	apām retamsi jinvato3m (RV 8.44.16)
	8.2.89	NY	jinvato3m

1.2.35 उच्चैस्तरां वा वषट्कारः (<i>uccaistarām vā vaṣaṭkārah</i>)	8.2.90	KK/ NY/PM	<i>somasya agne vīhī3ṣaṭ </i> <i>somasya agne vīhī3</i> <i>vau3ṣaṭ </i>
1.2.40 उदात्तस्वरितपरस्य सन्नतरः (<i>udāttasvaritaparasya sannatarah</i>)	8.2.66	KK	<i>mātaropah</i>
1.2.41 अपृक्त एकाल् प्रत्ययः (<i>apṛkta ekāl pratyayah</i>)	8.2.30	KK /NY	<i>ghṛtasprk, ardhabhāk</i>
	8.4.56		
	8.2.39	NY	<i>ghṛtasprk</i>
	8.2.62	NY /PM	
1.2.47 ह्रस्वो नपुंसके प्रातिपदिकस्य (<i>hrasvo napuṃsake prātipadikasya</i>)	8.4.12	BM	<i>śrīpāṇi</i>
1.2.67 पुमान् स्त्रिया (<i>pumān striyā</i>)	8.2.62	NY	<i>prāṇ</i>
1.3.4 न विभक्तौ तुस्माः (<i>na vibhaktau tusmāḥ</i>)	8.2.39	PM	<i>bhavadīyah</i>
1.3.5 आदिर्निटुडवः (<i>ādirñiṭuḍavaḥ</i>)	8.2.42	N	<i>minnaḥ</i>
1.3.14 कर्तरि कर्मव्यतिहारे (<i>kartari karmavyatihāre</i>)	8.2.25	SK/ BM	<i>vyatidhve</i>
1.3.20 आडो दोऽनास्यविहरणे (<i>āṇo do 'nāsyaviharaṇe</i>)	8.4.55	NY	<i>ādatte</i>
1.3.21 क्रीडोऽनुसम्परिभ्यश्च (<i>krīḍo 'nusamparibhyaśca</i>)	8.2.29	NY	<i>śikṣa (śikṣerjijñāsāyām)</i>
1.3.27 उद्विभ्यां तपः (<i>udvibhyām tapaḥ</i>)	8.3.102	NY	<i>niṣṭapati</i>
1.3.57 ज्ञाश्रुस्मृदशां सनः (<i>jñāśrusmṛdśām sanah</i>)	8.2.36	NY	<i>didṛkṣate</i>
	8.2.41		
	8.2.77	SK /BM	<i>susmūrṣate</i>
1.3.60 शदेः शितः (<i>śadeḥ śitah</i>)	8.2.36	BM	<i>kroṣṭa</i>
	8.2.41		<i>roḍhā</i>
	8.3.13		
	8.4.41		
1.3.62 पूर्ववत् सनः (<i>pūrvavat sanah</i>)	8.2.36	KK	<i>nivivikṣate</i>
	8.2.41	PM	

1.3.63 आम्प्रत्ययवत् कृजोऽनुप्रयोगस्य (<i>āmpratyayavat kṛñō 'nuprayogasya</i>)	8.3.23	N	<i>edhāñcakre</i>
	8.4.58		
1.3.64 प्रोपाभ्यां युजेरयज्ञपात्रेषु (<i>propābhyām yujerayajñapātreṣu</i>)	8.2.30	KK NY	<i>prayuñkate</i>
	8.4.55		
	8.4.58		
1.3.65 समः क्षणुवः (<i>samaḥ kṣṇuvaḥ</i>)	8.3.35	PM	<i>samaḥ kṣṇuvaḥ</i>
1.3.74 णिचश्च (<i>ṇicaśca</i>)	8.2.45	SK /TB	<i>laṇḍaṇaḥ</i>
1.3.77 विभाषोपपदेन प्रतीयमाने (<i>vibhāṣopapadena pratīyamāne</i>)	8.2.64	BM	<i>pratām / pratān, praśān</i>
1.3.93 लुटि च कूपः (<i>luṭi ca kūpaḥ</i>)	8.2.18	NY	<i>kalptā</i>
1.4.1 आ कडारदेका संज्ञा (<i>ā kaḍārādekā saṃjñā</i>)	8.2.39	BM	<i>dataḥ / datā / dadbhyām</i>
	8.3.17		<i>Mābhyām / mābhiḥ / māssu-māḥsu</i>
	8.3.36		<i>māssu-māḥsu</i>
	8.3.39	NY	<i>dhānuṣka</i>
	8.4.55	BM	<i>datsu</i>
1.4.2 विप्रतिषेधे परं कार्यम् (<i>vipratishedhe paraṃ kāryam</i>)	8.2.1	SK	<i>manorathaḥ</i>
	8.3.24	N	<i>caranti</i>
	8.4.58		
1.4.5 वाऽऽमि (<i>vā ' 'mi</i>)	8.4.2	N	<i>śrīṇām</i>
1.4.10 ह्रस्वं लघु (<i>hrasvaṃ laghu</i>)	8.4.55	N	<i>bhetṭr</i>
1.4.11 संयोगे गुरु (<i>saṃyoge guru</i>)	8.3.24/ 8.4.58	N	<i>kuṇḍā</i>
1.4.14 सुप्तिङन्तं पदम् (<i>suptiṇantaṃ padam</i>)	8.2.66	NY	<i>brāhmaṇāḥ</i>
1.4.15 नः क्ये (<i>naḥ kye</i>)	8.2.77	SK /BM/TB/ LSK	<i>gīryati pūryati</i>

1.4.16 सिति च (siti ca)	8.4.59	N	kaṃyu/ kayṃyu / kaṃya/ kayṃya
1.4.17 स्वादिष्वसर्वनामस्थाने (svādiṣvasarvanāmasthāne)	8.2.8	N	rājānau
1.4.18 यचि भम् (yaci bham)	8.3.59	KK/ NY/MB	manuṣvat
1.4.19 तसौ मत्वर्थे (tasau matvarthe)	8.3.59	N	viduṣmat
1.4.20 अयस्मयादीनि च्छन्दसि (ayasmayādīni cchandasi)	8.2.30	NY	ṣṛkvatā
1.4.26 पराजेरसोढः (parājerasoḍhaḥ)	8.3.13	BM	soḍhaḥ
	8.4.41		
1.4.27 वारणार्थनामीप्सितः (vāraṇārthānāmīpsitaḥ)	8.3.17	NY	yavebhyo gā vārayati
	8.3.22		
1.4.28 अन्तर्द्धौ येनादर्शनमिच्छति (antarddhau yenādarśanamicchati)	8.4.55	NY	dhatte
1.4.35 धारेरुत्तमर्णः (dhāreruttamarṇaḥ)	8.2.60	NY	uttamarṇaḥ
1.4.43 दिवः कर्म च (divaḥ karma ca)	8.2.77	NY	dīvyati
1.4.51 अकथितं च (akathitaṃ ca)	8.2.32	NY	dogdhi
	8.2.40		
	8.4.53		
1.4.59 उपसर्गाः क्रियायोगे (upasargāḥ kriyāyoge)	8.4.14	NY	praṇayati
1.4.60 गतिश्च (gatiśca)	8.3.87	KK	abhiṣiktam
	8.4.14	NY	praṇītam
1.4.65 अन्तरपरिग्रहे (antaraparigrahe)	8.4.25	PM	antarayaṇam
1.4.67 पुरोऽव्ययम् (puro 'vyayam)	8.3.40	NY/PM	puraskṛtya
1.4.71 तिरोऽन्तर्द्धौ (tiro 'ntarddhau)	8.3.42	BM	tiraskṛtya , tiraskṛtam
1.4.79 जीविकोपनिषदावौपम्ये (jīvikopaniṣadāvaupamyē)	8.3.66	PM	upaniṣad
1.4.86 हीने (hīne)	8.2.45	SK /BM	hīnaḥ

1.4.90 लक्षणेत्थम्भूताख्यानभागवीप्सासु प्रतिपर्यनवः (<i>lakṣaṇetthambhūtākhyānabhāgavīpsāsu pratiparyanavaḥ</i>)	8.3.65	NY	<i>odanaṃ pariṣiñcati</i>
1.4.91 अभिरभागे (<i>abhirabhāge</i>)	8.3.87	KK	<i>yadatramamābhiṣyāt tad dīyatām</i>
2.1.25 स्वयं क्तेन (<i>svayaṃ ktena</i>)	8.2.45	NY	<i>līnaḥ</i>
2.1.26 खट्वा क्षेपे (<i>khaṭvā kṣepe</i>)	8.3.13	NY	<i>ārūḍhaḥ</i>
	8.4.41		
2.1.28 कालाः (<i>kālāḥ</i>)	8.2.69	NY	<i>aharatisṛtāḥ</i>
2.1.32 कर्तृकरणे कृता बहुलम् (<i>karṭṛkaṇe kṛtā bahulam</i>)	8.2.44	NY	<i>Lūnavān</i>
	8.3.60		<i>uṣitaḥ</i>
2.1.40 सप्तमी शौण्डैः (<i>saptamī śauṇḍaiḥ</i>)	8.4.5	KK/ SK	<i>antarvaṇaṃ</i>
2.2.16 कर्तारि च (<i>kartari ca</i>)	8.2.36	NY	<i>sraṣṭā</i>
2.2.18 कुगतिप्रादयः (<i>kugatiprādayaḥ</i>)	8.3.41	NY	<i>duṣkṛtam iti</i>
2.2.31 राजदन्तादिषु परम् (<i>rājadantādiṣu param</i>)	8.4.4	PM	<i>agrevaṇaṃ</i>
2.3.52 अधीगर्थदयेशां कर्मणि (<i>adhīgarthadayeśāṃ karmaṇi</i>)	8.2.36	NY	<i>īṣṭe</i>
2.3.56 जासिनिप्रहणनाटक्राथपिषां हिंसायाम् (<i>jāsiniprahaṇanāṭakrāthapiṣāṃ himsāyām</i>)	8.4.17	KK/ NY	<i>caurasya praṇihanti</i>
	8.4.22	NY/ PM	<i>niprahaṇaḥ</i>
2.3.58 दिवस्तदर्थस्य (<i>divastadarthasya</i>)	8.2.77	NY	<i>dīvyati</i>
2.3.60 द्वितीया ब्राह्मणे (<i>dvitīyā brāhmaṇe</i>)	8.2.69	KK/ SK	<i>tadahaḥ</i>
2.3.61 प्रेष्यब्रुवोर्हविषो देवतासम्प्रदाने (<i>preṣyabruvorhaviṣo devatāsampradāne</i>)	8.2.91	KK/ PM	<i>preṣya</i>
2.3.65 कर्तृकर्मणोः कृति (<i>karṭṛkarmaṇoḥ kṛti</i>)	8.2.36	NY	<i>sraṣṭā</i>
2.4.29 रात्राह्नाहाः पुंसि (<i>rātrāhnāhāḥ puṃsi</i>)	8.4.7	NY	<i>pūrvāhnaḥ</i>
2.4.34 द्वितीयाटौस्वेनः (<i>dvitīyāṭausvenah</i>)	8.3.28	NY	<i>sugaṇṭsu sugaṇṭhsu</i>

2.4.36 अदो जग्धिर्ल्यप्ति किति (ado jagdhirlyapti kiti)	8.2.46	SK	<i>prakṣīṇaḥ</i>
	8.2.77	NY	<i>pradīvyā</i>
	8.4.65	KK/NY/SK/ BM/TB	<i>jagdha</i>
2.4.37 लुङ्सनोर्घसू (luṅsanorghasī)	8.4.17	BM /TB	<i>praṇihanti</i>
2.4.40 लिट्यन्यतरस्याम् (liṭyanyatarasyām)	8.3.60	NY	<i>jakṣatuḥ</i>
	8.4.55	NY/SK/BM	<i>jakṣuḥ</i>
2.4.39 बहुलं छन्दसि (bahulaṃ chandasi)	8.2.26	NY/PM	<i>sagdhiḥ</i>
2.4.44 आत्मनेपदेष्वन्यतरस्याम् (ātmanepadeṣvanyatarasyām)	8.2.27	NY	<i>āhata</i>
2.4.53 ब्रुवो वचिः (bruvo vaciḥ)	8.2.30	NY/ BM	<i>vaktā</i>
2.4.54 चक्षिङः ख्याञ् (cakṣiṇaḥ khyāñ)	8.3.6	PM/TB	<i>pumkhyānaṃ</i>
	8.3.35	PM	<i>naṭaḥ khyātā</i>
2.4.55 वा लिटि (vā liṭi)	8.4.41	TB	<i>acaṣṭa</i>
2.4.56 अजेर्व्यघञपोः (ajervyaghañapoḥ)	8.4.29	NY	<i>pravayañīyam</i>
2.4.72 अदिप्रभृतिभ्यः शपः (adiprabhṛtibhyaḥ śapaḥ)	8.4.41	N	<i>dveṣṭi</i>
	8.4.55	N/ BM	<i>atti</i>
2.4.76 बहुलं छन्दसि (bahulaṃ chandasi)	8.2.30	NY	<i>vibhakti</i>
	8.2.36	NY	<i>vivaṣṭi</i>
	8.4.41		
2.4.77 गातिस्थाघुपाभूयः सिचः परस्मैपदेषु (gātisthāghupābhūbhyaḥ sicaḥ parasmaipadeṣu)	8.2.27	NY	<i>agāsīt / apāsīt</i>
2.4.79 तनादिभ्यस्तथासोः (tanādibhyastathāsoḥ)	8.2.79	SK	<i>kurutaḥ /kurvanti</i>
2.4.80 मन्त्रे घसह्वर णश वृदहाद्वृक्कृगमिजनिभ्यो लेः (mantre ghasahvara ṇaśa vṛdahādvṛkṛgamijanibhyo leḥ)	8.2.23	NY	<i>akṣan</i>
	8.2.24	KK/NY	<i>parāvark</i>
	8.2.32	NY	<i>ādhak</i> (RV 6.61.14)

	8.2.36	KK/NY	<i>praṇaṇmarttasya</i> (RV 1.18.3)
	8.2.37	NY	<i>dhak</i>
	8.2.39	KK/NY	<i>praṇaṇmarttasya</i> (RV 1.18.3)
	8.2.63		
	8.4.56		
	8.3.60	NY	<i>akṣan</i>
	8.4.40	NY /PM	<i>ajñata</i> (<i>Aitareyabrāhmaṇa</i> 7.14.15)
	8.4.53	NY	<i>akṣan</i>
	8.4.55	NY	<i>akṣan, dhak</i>
2.4.81 आमः (<i>āmaḥ</i>)	8.4.58	N /NY	<i>edhāñcakre</i>
3.1.5 गुप्तिज्किद्वयः सन् (<i>guptijkidbhyaḥ san</i>)	8.2.30	NY	<i>titikṣate</i>
	8.4.55		
	8.3.61	PM	<i>suṣupiṣa indram</i>
3.1.6 मान्बधदान्शान्भ्यो दीर्घश्चाभ्यासस्य (<i>mānbadhadānśānbhyo dīrghaścābhyāsasya</i>)	8.2.37	NY	<i>bībhatsate</i>
3.1.7 धातोः कर्मणः समानकर्तृकादिच्छायां वा (<i>dhātoḥ karmaṇaḥ samānakartṛkādicchāyām vā</i>)	8.2.77	PM /NY	<i>cikīrṣati, jihīrṣati</i>
	8.3.59		
3.1.9 काम्यच्च (<i>kāmyacca</i>)	8.2.36	NY	<i>upayaṭkāmyati</i>
	8.4.56		
	8.3.38	BM	<i>yaśaskāmya</i>
3.1.13 लोहितादिडाज्भ्यः क्यप् (<i>lohitādiḍājbyaḥ kyaṣ</i>)	8.2.7	NY	<i>varmāyate</i>
3.1.21 मुण्डमिश्रश्लक्ष्णलवणव्रतवस्त्रहलकलकृततूस्तेभ्यो णिच् (<i>muṇḍamiśraślakṣṇalavaṇavratavastrahalakalakṛtatūstebhyo ṇic</i>)	8.3.13	NY	<i>ūḍhiḥ</i>
	8.3.63	SK	<i>abhyāṣeṇayat</i>
	8.3.64		<i>abhiṣiṣeṇayiṣati</i>

	8.3.65		<i>abhiṣeṇayati</i>
3.1.24 लुपसदचरजपजभदहदशगृभ्यो भावगर्हायाम् (<i>lupasadarajapajabhadahadaśagṛbhyo bhāvagarhāyām</i>)	8.2.20	NY	<i>nijegilyate</i>
	8.2.77	NY/ PM	<i>cañcūryate</i>
3.1.27 कण्ड्वादिभ्यो यक् (<i>kaṇḍvādibhyo yak</i>)	8.2.77	SK	<i>īryati īryate</i>
3.1.33 स्यतासी लृलुटोः (<i>syatāsī lṛluṭoḥ</i>)	8.3.59	N	<i>paṭhiṣyati</i>
3.1.34 सिब्वहुलं लेटि (<i>sibbahulam leṭi</i>)	8.3.59	NY	<i>joṣiṣat</i>
3.1.36 इजादेश्च गुरुमतोऽनृच्छः (<i>ijādeśca gurumato 'nṛcchah</i>)	8.4.58	N	<i>edhāñcakre</i>
3.1.37 दयायासश्च (<i>dayāyāsaśca</i>)	8.2.19	NY	<i>palāyāñcakre</i>
	8.3.79	LSK	<i>ayiṣīdhvam, ayiṣīdhvam</i>
3.1.38 उषविदजागृभ्योऽन्यतरस्याम् (<i>uṣavidajāgrbhyo 'nyatarasyām</i>)	8.2.41	SK/BM	<i>avikṣat</i>
	8.4.41	BM	<i>veṣṭā</i>
3.1.42 अभ्युत्सादयां प्रजनयांचिकयांरमयामकः पावयां क्रियाद्विदामकन्निति च्छन्दसि (<i>abhyutsādayām prajanayāñcikayāñramayāmakah pāvayām kriyādvīdāmakranniti cchandasi</i>)	8.2.23	KK	<i>akran</i>
3.1.44 च्लेः सिच् (<i>cleḥ sic</i>)	8.2.36	NY	<i>asprkṣat</i>
	8.2.40	PM	
3.1.45 शल इगुपधादनिटः क्सः (<i>śala igupadhādaniṭah kṣah</i>)	8.2.31	KK/ NY	<i>alikṣat</i>
	8.2.32	NY	<i>duh, adhuṣat</i>
	8.4.55		
	8.2.37		
	8.2.41	N	<i>alikṣat</i>
	8.3.59		
3.1.46 श्लिष आलिङ्गने (<i>śliṣa ālingane</i>)	8.2.41	N	<i>aślikṣat</i>
	8.3.59		
	8.4.41	BM	<i>aśliṣṭhā</i>

3.1.47 न दृशः (<i>na dṛśaḥ</i>)	8.2.30	BM	<i>pakṣyati pakṣyate</i>
	8.2.32	TB	<i>dhakṣyati</i>
	8.2.36	BM	<i>dadamṣṭha/ damṣṭa/ danṁkṣyati</i>
	8.2.37	BM/TB	<i>dhakṣyati</i>
	8.4.55		
	8.2.41	N/BM	<i>adrākṣīt</i>
	8.3.13	BM	<i>meḍhā</i>
	8.3.59	N	<i>adrākṣīt</i>
	8.4.41	N	<i>dadamṣṭha /damṣṭā</i>
3.1.48 णिश्रिद्रुसुभ्यः कर्तरि चङ् (<i>ṇisridrusrubhyaḥ kartari caṅ</i>)	8.2.28	NY	<i>adhāsīt</i>
	8.4.54	KK /NY	<i>ajīharat</i>
3.1.50 गुपेच्छन्दसि (<i>gupeśchandasi</i>)	8.2.26	NY/ PM	<i>agaupṭam</i>
3.1.51 नोनयतिध्वनयत्येलयत्यर्दयतिभ्यः (<i>nonayatidhvanayatyelayatyardayatibhyaḥ</i>)	8.2.28	NY	<i>ūnayīḥ</i> (RV 1.53.3)
3.1.52 अस्यतिवक्तिख्यातिभ्योऽङ् (<i>asyativaktikhyātibhyo 'ṅ</i>)	8.4.41	SK/BM	<i>īṭte</i>
	8.4.55		
3.1.54 आत्मनेपदेष्वन्यतरस्याम् (<i>ātmanepadeṣvanyatarasyām</i>)	8.2.26	NY /PM	<i>alīpta/ asikta</i>
	8.2.30	KK	<i>asikta</i>
3.1.56 सर्त्तिशास्त्यर्तिभ्यश्च (<i>sarttiśāstyartibhyaśca</i>)	8.3.60	N/ PM	<i>aśīṣat</i>
3.1.57 इरितो वा (<i>irito vā</i>)	8.3.59	TB	<i>siṣedha</i>
	8.3.111	SK	<i>sedhati, siṣedha, sedhitā</i>
3.1.58 जृस्तम्भुमुचुमुलुचुगुगुलुज्जुश्चिभ्यश्च (<i>jṛstambhumrucumlucugrucugluṅcuśvibhyaśca</i>)	8.2.78	SK	<i>hūrchatī, mūrchatī, sphūrccchatī</i>
	8.4.40	BM	<i>sajjati</i>

3.1.60 चिण् ते पदः (<i>ciṇ te padaḥ</i>)	8.2.36	BM	<i>sraṣṭā</i>
	8.4.17	BM/TB	<i>pranyapādi</i>
	8.4.41	SK /BM	<i>sraṣṭā</i>
3.1.61 दीप जन बुध पूरितायिष्यायिभ्योऽन्यतरस्याम् (<i>dīpa jana budha pūritāyipyāyibhyo 'nyatarasyām</i>)	8.2.32	NY	<i>adugdha</i>
3.1.64 न रुधः (<i>na rudhaḥ</i>)	8.2.26	NY	<i>aruddha</i>
	8.4.53		
3.1.69 दिवादिभ्यः श्यन् (<i>divādibhyaḥ śyan</i>)	8.2.77	NY/SK/BM/ LSK	<i>dīvyati</i>
	8.3.71	SK /BM	<i>pariṣīvyati / pariṣīṣeva</i>
3.1.73 स्वादिभ्यः श्रुः (<i>svādibhyaḥ śnuḥ</i>)	8.3.59	BM	<i>abhiṣuṇoti</i>
3.1.75 अक्षोऽन्यतरस्याम् (<i>akṣo 'nyatarasyām</i>)	8.2.41	SK	<i>akṣyati, akṣiṣyati</i>
	8.4.41	SK /BM	<i>ānaṣṭha /aṣṭā</i>
3.1.76 तनूकरणे तक्षः (<i>tanūkaraṇe takṣaḥ</i>)	8.4.41	SK /BM	<i>tataṣṭha</i>
3.1.77 तुदादिभ्यः शः (<i>tudādibhyaḥ śaḥ</i>)	8.2.45	SK /TB	<i>bhrṣṭaḥ</i>
	8.3.24	N	<i>tṛmphaṭi</i>
	8.4.58		
	8.4.40	SK	<i>bhrjjati bhrjjate</i>
	8.4.53	LSK	
3.1.78 रुधादिभ्यः श्रम् (<i>rudhādibhyaḥ śnam</i>)	8.4.41	BM	<i>deṣṭā</i>
	8.2.40	N	<i>ruṇaddhi</i>
	8.4.2		
	8.4.53		
	8.4.56	BM	<i>aruṇad, aruṇat</i>

3.1.81 क्र्यादिभ्यः श्रा (<i>kryādibhyaḥ śnā</i>)	8.4.2	N	<i>krīṇāti</i>
	8.4.15	SK	<i>pramīṇāti / pramīṇītaḥ</i>
3.1.82 स्तन्भुस्तन्भुस्कन्भुस्कुन्भुस्कुञ्भ्यः श्रुश्च (<i>stanbhustunbhuskanbhuskunbhuskuñbhyaḥ śnuśca</i>)	8.3.67	SK /BM	<i>viṣṭabhnoti, avaṣṭabhnoti</i>
3.1.83 हलः श्रः शानज्झौ (<i>halaḥ śnaḥ śānajjhau</i>)	8.4.2	N	<i>muṣāṇa</i>
3.1.85 व्यत्ययो बहुलम् (<i>vyatyayo bahulam</i>)	8.2.29	KK /MB	<i>viyūyāḥ</i>
3.1.88 तपस्तपःकर्मकस्यैव (<i>tapastapaḥkarmakasyaiva</i>)	8.2.26	PM	<i>atapta</i>
3.1.89 न दुहस्त्रुनमां यक्चिणौ (<i>na duhasnunaṁ yacṇiṇau</i>)	8.2.32	PM	<i>dugdhe</i>
3.1.90 कुषिरजोः प्राचां श्यन् परस्मैपदं च (<i>kuṣirajoḥ prācāṁ śyan parasmaipadaṁ ca</i>)	8.2.30	NY/PM	<i>raṇakṣīṣṭa</i>
	8.4.55		
	8.4.41	KK /NY	<i>koṣiṣīṣṭa</i>
3.1.109 एतिस्तुशास्वृदृजुषः क्यप् (<i>etistuśāsvṛdrjuṣaḥ kyap</i>)	8.3.60	PM	<i>śiṣya</i>
3.1.110 ऋदुपधाच्चाकूपिचृतेः (<i>ṛdupadhāccākūpicṛteḥ</i>)	8.2.18	KK/NY	<i>kalpyam</i>
	8.2.77	NY	<i>kīrtyam</i>
3.1.133 ण्वुल्तृचौ (<i>ṇvultṛcau</i>)	8.2.29	BM	<i>maṇktā</i>
	8.2.30		
	8.4.55		
	8.3.13		<i>voḍhā</i>
	8.4.41		<i>naṁṣṭā</i>
3.1.138 अनुपसर्गाल्लिम्प विन्दधारिपारिवेद्युदेजितिसातिसाहिभ्यश्च (<i>anupasargāllimpa vindadhāripāriveidyudejicetisātisāhibhyaśca</i>)	8.2.9	BM	<i>sātvanta</i>
3.2.4 सुपि स्थः (<i>supi sthaḥ</i>)	8.4.55	TB	<i>utthānam</i>
	8.4.61	KK /NY	<i>ākhūtthaḥ, śalabhotthaḥ</i>
3.2.5 तुन्दशोकयोः परिमृजापनुदोः (<i>tundaśokayoh parimṛjāpanudoh</i>)	8.2.21	BM	<i>gilah</i>
3.2.20 कृञो हेतुताच्छील्यानुलोम्येषु (<i>kṛṇo hetutācchīlyānulomyeṣu</i>)	8.3.46	NY	<i>yāśaskarī</i>

3.2.21 दिवा-विभा-निशा-प्रभा-भास्-कार-अन्त-अनन्त-आदि-बहु-नान्दी-किम्-लिपि- लिबि-बलि-भक्ति-कर्तृ-चित्र-क्षेत्र-संख्या-जङ्घा-बाहु-अहस्-यत्-तत्-धनुष्-अरुष्णु (<i>divā-vibhā-niśā-prabhā-bhās-kāra-anta-ananta-ādi-bahu-nāndī-kim-lipi-libi-bali-bhakti-karṭṛ-citra-kṣetra-saṃkhyā-jaṅghā-bāhu-ahas-yat-tat-dhanuṣ-aruṣṣu</i>)	8.2.66	NY/PM	<i>ahaskaraḥ</i>
	8.2.69	NY/ PM	
	8.3.45	NY	<i>dhanuṣkaraḥ, aruṣkaraḥ</i>
3.2.35 विध्वरुषोः तुदः (<i>vidhvaruṣoḥ tudah</i>)	8.2.23	PM/ SK	<i>aruntudaḥ</i>
	8.3.23		
	8.4.58		
3.2.39 द्विषत्परयोस्तापेः (<i>dviṣatparayostāpeḥ</i>)	8.2.23	KK	<i>dviṣantapaḥ</i>
3.2.58 स्पृशोऽनुदके किन् (<i>sprśo 'nudake kvin</i>)	8.2.39	KK /NY/ PM /SK	<i>ghṛtasprk</i>
	8.2.62	KK /NY/ PM/BM/ TB	<i>ghṛtasprk, halasprk, mantrasprk</i>
	8.2.66	SK/BM/TB	<i>pipaṭhīḥ</i>
	8.4.42	SK	<i>ṣaṇṇām</i>
	8.4.56	SK/ BM	<i>ghṛtasprk, ghṛtasprg</i>
3.2.61 सत्सूद्विषद्रुहदुहयुज विदभिदच्छिदजिनीराजामुपसर्गेऽपि क्विप् (<i>satsūdviṣadruhaduhayuja vidabhidacchidajinīrājāmupasarge 'pi kvip</i>)	8.2.30	NY	<i>aśvayuk</i>
	8.2.31	KK	<i>mitradhruk</i>
	8.2.32	NY	<i>godhuk</i>
	8.2.37	KK /NY	<i>mitradhruk</i>
	8.3.25	KK	<i>samrāt, samrād</i>
	8.3.66	BM	<i>upaniṣad</i>
	8.3.111		<i>dyusad</i>
3.2.62 भजो ण्विः (<i>bhajo ṇviḥ</i>)	8.2.30	NY	<i>ardhabhāk</i>
3.2.63 छन्दसि सहः (<i>chandasi sahaḥ</i>)	8.2.31	KK	<i>turāṣāt, jalāṣāt</i>
	8.2.39		

	8.3.56		
3.2.64 वहश्च (<i>vahaśca</i>)	8.2.39	NY	<i>prṣṭhavāt</i>
3.2.67 जनसनखनक्रमगमो विट् (<i>janasanakhanakramagamo viṭ</i>)	8.3.108	KK	<i>goṣāḥ</i>
3.2.71 मन्त्रे श्वेतवहोक्थशस्पुरोडाशो ण्विन् (<i>mantre śvetavahokthaśaspuroḍāśo ṇvin</i>)	8.2.66	NY	<i>ukthaśāḥ</i> (RV 2.39.1)
3.2.73 विजुपे छन्दसि (<i>vijupe chandasi</i>)	8.2.36	SK /BM	<i>upayaṭ</i>
	8.4.55		
	8.2.39	KK /NY	<i>upayaḍbhiḥ</i>
3.2.75 अन्येभ्योऽपि दृश्यन्ते (<i>anyebhyo 'pi dṛśyante</i>)	8.2.39	NY	<i>reḍasi</i>
3.2.76 क्विप् च (<i>kvip ca</i>)	8.2.36	KK /NY/PM	<i>vāhābhraṭ</i>
	8.2.39	NY	
	8.2.72	PM	<i>ukhāsrāt</i>
	8.4.56		
	8.4.56	KK /NY/PM	<i>vāhābhraṭ</i>
3.2.77 भ्राज भासधुर्विद्युतोर्जि पृजुग्रावस्तुवः क्विप् (<i>bhrāja bhāsadhurvidyutorji pṛjugrāvastuvaḥ kvip</i>)	8.2.76	KK /NY	<i>dhūḥ pūḥ</i>
3.2.81 बहुलमाभीक्ष्ण्ये (<i>bahulamābhīkṣṇye</i>)	8.4.11	NY	<i>sauvīrapāyīṇaḥ</i>
3.2.95 राजनि युधिकृञः (<i>rājani yudhikṛñāḥ</i>)	8.2.7	NY	<i>rājayudhvā</i>
3.2.100 अनौ कर्मणि (<i>anau karmaṇi</i>)	8.2.23	KK /BM	<i>pumanujaḥ</i>
3.2.102 निष्ठा (<i>niṣṭhā</i>)	8.2.7	NY	<i>sutvā</i>
	8.2.23	KK	<i>kṛtavān</i>
3.2.104 जीर्यतेरतृन् (<i>jīryateratrṇ</i>)	8.2.77	SK /BM	<i>jīrṇaḥ</i>
3.2.106 लिटः कानज्वा (<i>liṭaḥ kānajvā</i>)	8.3.59	NY	<i>suṣuvāṇaḥ</i>

3.2.107 कसुश्च (<i>kvasuśca</i>)	8.2.77	KK/NY	<i>tatīrvān</i>
	8.3.60	KK	<i>jakṣivān</i>
	8.4.54	NY	
3.2.104 जीर्यतेरतृन् (<i>jīryateratrñ</i>)	8.2.23	KK	<i>jaran</i>
3.2.108 भाषायां सदवसश्रुवः (<i>bhāṣāyām sadavaśruvaḥ</i>)	8.3.60	NY/ PM	<i>anūviṣān</i>
	8.3.66	SK /TB	<i>niṣeduṣīm</i>
3.2.109 उपेयिवाननाश्वाननूचानश्च (<i>upeyivānanāśvānanūcānaśca</i>)	8.2.28	NY	<i>āśīt</i>
	8.3.59		<i>upeyuṣaḥ/ upeyuṣā</i>
3.2.111 अनद्यतने लङ् (<i>anadyatane laṅ</i>)	8.2.30	KK	<i>abhukṣmahi </i>
	8.4.55	PM	
3.2.114 विभाषा साकाङ्क्षे (<i>vibhāṣā sākāṅkṣe</i>)	8.2.30	NY	<i>bhokṣyāmahe</i>
	8.4.55	PM	
3.2.122 पुरि लुङ् चास्मे (<i>puri luṅ cāsme</i>)	8.3.60	KK /NY	<i>ūṣuḥ</i>
3.2.125 सम्बोधने च (<i>sambodhane ca</i>)	8.2.8	NY	<i>he pacan</i>
3.2.126 लक्षणहेत्वोः क्रियायाः (<i>lakṣaṇahetvoḥ kriyāyāḥ</i>)	8.4.29	SK	<i>prapīyamāṇaḥ somaḥ</i>
3.2.139 ग्लाजिस्थश्च क्स्नुः (<i>glājisthaśca ksnuḥ</i>)	8.2.36	NY	<i>damkṣṇavaḥ</i>
	8.2.41		
3.2.169 विन्दुरिच्छुः (<i>vinduricchuh</i>)	8.4.40	NY	<i>icchuḥ</i>
3.2.171 आद्यगमहनजनः किकिनौ लिट् च (<i>ādṛgamahanajanaḥ kikināu liṭ ca</i>)	8.4.40	NY	<i>jajñīrbījam</i>
3.2.172 स्वपितृषोर्नजिङ् (<i>svapitrṣornajiṅ</i>)	8.2.30	NY	<i>svapnak, trṣṇak</i>
	8.4.56		

3.2.177 भ्राजभासधुर्विद्युतोर्जिपृजुग्रावस्तुवः क्विप् (<i>bhrājabhāsadhurvidyutorjipṛjugrāvastuvah kvip</i>)	8.2.24	TB	<i>ūrḱ</i>
	8.2.30		
	8.2.36	NY	<i>vibhrāt /vibhrād</i>
	8.2.39	KK /NY	
	8.4.56		
3.2.178 अन्येभ्योऽपि दृश्यते (<i>anyebhyo 'pi drśyate</i>)	8.2.36	NY	<i>śabdaprāt</i>
	8.2.39	KK	
	8.4.56		
3.2.182 दाम्नीशसयु युजस्तुतुदसिसिचमिहपतदशनहः करणे (<i>dāmnīśasayu yujastutudasīsicamihapatadaśanahaḥ karaṇe</i>)	8.2.31	NY	<i>meḍhram</i>
	8.2.34	NY	<i>naddhrī</i>
	8.2.40	NY	<i>meḍhram</i>
	8.3.13		
	8.4.41		
	8.4.53	NY	<i>naddhrī</i>
3.2.187 जीतः क्तः (<i>ñītaḥ ktaḥ</i>)	8.4.41	NY	<i>dhṛṣṭaḥ</i>
3.2.188 मतिबुद्धिपूजार्थेभ्यश्च (<i>matibuddhipūjārthebhyaśca</i>)	8.2.36	NY	<i>ākruṣṭaḥ</i>
	8.4.53	NY	<i>buddhaḥ</i>
3.3.20 परिमाणाख्यायां सर्वेभ्यः (<i>parimāṇākhyāyām sarvebhyaḥ</i>)	8.3.41	NY	<i>niṣpāva</i>
	8.4.40	NY	<i>ekā tilocchritiḥ</i>
	8.4.63	KK /NY	
3.3.32 प्रे स्तोऽयज्ञे (<i>pre stro 'yajñe</i>)	8.3.41	NY	<i>barhiṣprastaraḥ</i>
3.3.37 परिन्योर्नीणोर्द्यूताभ्रेषयोः (<i>parinyornīṇordyūtābhreṣayoḥ</i>)	8.4.14	NY	<i>pariṇāya</i>
3.3.82 करणेऽयोविद्रुषु (<i>karaṇe 'yovidruṣu</i>)	8.4.3	KK	<i>drughaṇaḥ</i>
3.3.84 परौ घः (<i>parau ghaḥ</i>)	8.2.22	KK /NY/PM	<i>palighaḥ /parighaḥ</i>

3.3.90 यजयाचयतविच्छप्रच्छरक्षो नङ् (<i>yajayācayatavicchpraccharakṣo naṅ</i>)	8.4.40	KK /NY	<i>yajñah, yācñā</i>
3.3.94 स्त्रियां क्तिन् (<i>striyām ktin</i>)	8.2.76	SK /TB	<i>cūrtiḥ</i>
3.3.104 षिद्धिदादिभ्योऽङ् (<i>ṣidbhidādibhyo 'ṅ</i>)	8.2.31	NY	<i>gūḍha</i>
	8.3.13		
	8.4.41		
3.3.108 रोगाख्यायां ण्वुल् बहुलम् (<i>rogākhyāyām ṇvul bahulam</i>)	8.2.66	KK	<i>śirortiḥ</i>
3.3.116 कर्मणि च येन संस्पर्शात् कर्तुः शरीरसुखम् (<i>karmaṇi ca yena saṁsparsāt kartuḥ śarīrasukham</i>)	8.3.65	NY	<i>pariṣvañjanam</i>
	8.4.61	KK /NY	<i>utthānam</i>
3.3.135 नानद्यतनवत् क्रियाप्रबन्धसामीप्ययोः (<i>nānadyatanavat kriyāprabandhasāmīpyayoh</i>)	8.2.26	PM	<i>ayaṣṭa</i>
	8.2.27	PM	<i>adhita</i>
	8.2.36	NY /PM	<i>ayaṣṭa /yakṣyate</i>
	8.2.41	NY /PM	<i>yakṣyate</i>
3.3.136 भविष्यति मर्यादावचनेऽवरस्मिन् (<i>bhaviṣyati maryādāvacane 'varasmin</i>)	8.2.30	KK	<i>bhokṣyāmahe</i>
3.3.151 शेषे लृडयदौ (<i>śeṣe lṛdayadau</i>)	8.2.31	NY	<i>ārokṣyati</i>
	8.2.41		
3.3.156 हेतुहेतुमतोर्लिङ् (<i>hetuhetumatorliṅ</i>)	8.2.19	PM	<i>palāyate</i>
	8.2.20	TB	<i>galah</i>
3.3.169 अर्हे कृत्यतृचश्च (<i>arhe kṛtyatr̥caśca</i>)	8.2.31	NY	<i>voḍhā</i>
	8.2.40		
3.3.172 शकि लिङ् च (<i>śaki liṅ ca</i>)	8.2.31	SK /TB	<i>voḍhum</i>
3.3.174 क्तिच्त्वौ च संज्ञायाम् (<i>kticktau ca saṁjñāyām</i>)	8.4.55	NY	<i>devadattaḥ</i>
3.4.2 क्रियासमभिहारे लोट्; लोटो हिस्वौ; वा च तद्ध्वमोः (<i>kriyāsamabhihāre loṭ; loṭo hisvau; vā ca tadhvamoh</i>)	8.2.28	NY	<i>alāvīt</i>

3.4.9 तुमर्थे से सेन सेऽसेन्सेकसेनधै अधैन्कधैकधैन्शधैशधैन्तवैतवेङ्-तवेनः (<i>tumarthe se sena se'senksekasenadhyai adhyainkadhyaikadhyainśadhyaiśadhyaintavaitaveṅtavenaḥ</i>)	8.2.30	KK	<i>vakṣe</i>
3.4.14 कृत्यार्थे तवैकेन्केन्यत्वनः (<i>kṛtyārthe tavaikenkenyatvanaḥ</i>)	8.2.36	NY	<i>didṛkṣenyaḥ</i>
	8.2.41		
3.4.43 कर्त्रोर्जीव पुरुषयोर्नशिवहोः (<i>kartrorjīva puruṣayornaśivahoḥ</i>)	8.2.31	KK/ NY	<i>puruṣeṇa ūḍhaḥ</i>
	8.2.40		
	8.3.13		
	8.4.41		
3.4.52 अपादाने परीप्सायाम् (<i>apādāne parīpsāyām</i>)	8.4.61	KK /NY	<i>śayyotthāyaṃ</i>
3.4.57 अस्यतितृषोः क्रियाऽन्तरे कालेषु (<i>asyatitṛṣoḥ kriyā'ntare kāleṣu</i>)	8.3.60	KK /NY	<i>upoṣya</i>
3.4.59 अव्ययेऽयथाभिप्रेताख्याने कृञः क्त्वाणमुलौ (<i>avyaye'yathābhipretākhyāne kṛñāḥ ktvāṇamulau</i>)	8.2.41	NY	<i>ācakṣe</i>
3.4.60 तिर्यच्यपवर्गे (<i>tiryacyapavarge</i>)	8.2.39	KK/ NY	<i>tiryakkṛtvā</i>
	8.2.62		
	8.4.55		
3.4.64 अन्वच्यानुलोम्ये (<i>anvacyānulomye</i>)	8.2.39	NY	<i>anvagbhūya</i>
3.4.68 भव्यगेय प्रवचनीयोपस्थानीयजन्त्याप्लाव्यापात्या वा (<i>bhavyageya pravacanīyopasthānīyajanyāplāvyāpātyā vā</i>)	8.3.13	TB	<i>voḍhavya</i>
	8.4.41		
3.4.72 गत्यर्थकर्मकश्लिषशीङ्स्थाऽऽसवसजनरुहजीर्यतिभ्यश्च (<i>gatyarthākarmakaśliṣaśīṅsthā''savasajanaruhaḥjīryatibhyaśca</i>)	8.2.31	NY	<i>ārūḍhaḥ</i>
	8.2.43	TB	<i>glānaḥ</i>
	8.2.77	NY /BM/TB	<i>anujīrṇaḥ</i>
	8.3.13	NY	<i>ārūḍhaḥ</i>
	8.4.41		
	8.3.60	KK/ NY	<i>anūṣitaḥ</i>

3.4.80 थासस्से (<i>thāsasse</i>)	8.2.30	NY	<i>pakṣyase</i>
	8.3.59	N	<i>paciṣe</i>
3.4.82 परस्मैपदानां णलतुसुस्थलथुसणत्वमाः (<i>parasmaipadānāṃ ṇalatususthalathusaṇalvamāḥ</i>)	8.2.30	KK	<i>papaktha</i>
3.4.84 ब्रुवः पञ्चानामादित आहो ब्रुवः (<i>bruvaḥ pañcānāmādita āho bruvaḥ</i>)	8.2.35	NY	<i>āttha</i>
	8.4.55		
3.4.94 लेटोऽडाटौ (<i>leṭo 'dāṭau</i>)	8.3.59	NY	<i>joṣiṣat</i>
3.4.100 इतश्च (<i>itaśca</i>)	8.2.23	BM	<i>abhavan</i>
		KK/ N	<i>apaṭhan</i>
	8.3.59	N	<i>apaṭhiṣyam</i>
3.4.101 तस्थस्थमिपां तांतंतामः (<i>tasthasthamipāṃ tāmtamtāmaḥ</i>)	8.2.26	NY	<i>apāktām</i>
3.4.102 लिङ्-स्सीयुट् (<i>liṅassīyut</i>)	8.2.30	NY	<i>pakṣīṣṭa</i>
	8.3.59	N	<i>labhsīṣṭa</i>
	8.4.41		<i>lapsīṣṭa</i>
	8.4.55		
3.4.104 किदाशिषि (<i>kidāśiṣi</i>)	8.2.29	KK/ NY	<i>ucyāt /iṣyāt</i>
3.4.105 झस्य रन् (<i>jhasya ran</i>)	8.4.55	N	<i>lapsīran</i>
3.4.106 इटोऽत् (<i>iṭo 't</i>)	8.4.41	BM	<i>edhiṣīṣṭa / edhiṣīṣṭhāḥ</i>
	8.4.55	N	<i>lapsīya</i>
3.4.109 सिजभ्यस्तविदिभ्यश्च (<i>sijabhyastavidibhyaśca</i>)	8.3.59	N	<i>akārṣuḥ</i>
3.4.110 आतः (<i>ātaḥ</i>)	8.2.23	BM	<i>abhūvan</i>
3.4.111 लङः शाकटायनस्यैव (<i>laṅaḥ śākaṭāyanasyaiva</i>)	8.3.35	SK /BM/TB	<i>namaḥ khyātre</i>
	8.4.17	BM	<i>praṇimāti / pranimāti</i>
	8.4.18		

3.4.112 द्विषश्च (<i>dviṣaśca</i>)	8.2.37	BM	<i>dhukṣe</i>
	8.3.13		<i>leḍhā</i>
	8.4.41		
	8.4.17	BM/TB	<i>praṇidegdhi</i>
	8.4.41		<i>caṣṭe</i>
	8.4.55	BM	<i>dhokṣi</i>
4.1.1 ऊयाप्रातिपदिकात् (<i>nyāpprātipadikāt</i>)	8.3.46	N /MB	<i>ayaskumbha</i>
	8.4.2	KK/ NY/SK	<i>hariṇī /hariṇitarā</i>
4.1.6 उगितश्च (<i>ugitaśca</i>)	8.2.72	BM	<i>ukhāsrāt</i>
4.1.8 पादोऽन्यतरस्याम् (<i>pādo 'nyatarasyām</i>)	8.3.41	N	<i>catuṣpadī</i>
4.1.9 टाबृचि (<i>tābṛci</i>)	8.3.41	N	<i>catuṣpadā</i>
4.1.15 टिड्ढाणञ्द्वयसज्दघ्नज्मात्रत्तयठक्ठञ्कञ्करपः (<i>ṭiddhāṇañdvayasajdaghnāñmātractayapṭhakṭhañkvarapah</i>)	8.3.23	N	<i>stanamdhayī</i>
	8.4.59		<i>stanandhayī</i>
	8.4.2		<i>straiṇī</i>
4.1.17 प्राचां ष्फ तद्धितः (<i>prācām ṣpha taddhitah</i>)	8.4.2	N	<i>gārgyāyaṇī</i>
4.1.18 सर्वत्र लोहितादिकतन्तेभ्यः (<i>sarvatra lohitādikatantebhyah</i>)	8.4.2	N	<i>bābhavyāyaṇī</i>
4.1.19 कौरव्यमाण्डूकाभ्यां च (<i>kauravyamāṇḍūkābhyām ca</i>)	8.4.2	N	<i>kauravyāyaṇī</i>
4.1.28 अन उपधालोपिनोन्यतरस्याम् (<i>ana upadhālopinonyatarasyām</i>)	8.4.40	N	<i>bahurājñī</i>
4.1.29 नित्यं संज्ञाछन्दसोः (<i>nityam sañjñāchandasoh</i>)	8.4.40	N	<i>surājñī</i>
4.1.41 षिद्धौरादिभ्यश्च (<i>ṣidgaurādibhyaśca</i>)	8.4.1	N	<i>takṣṇī</i>
4.1.42 जानपद-कुण्ड-गोण-स्थल-भाज-नाग-काल-नील-कुश-कामुक- कबराद्वृत्त्यमत्रापनाकृत्रिमाश्राणास्थौल्यवर्णानाच्छादनायोविकारमैथुनेच्छाकेशवेशेषु (<i>jānapada-kunḍa-goṇa-sthala-bhāja-nāga-kāla-nīla-kuśa-kāmuka-</i>	8.2.43	NY/ BM	<i>śrāṇā</i>

<i>kabarādvṛtṭyamatrāvapanākṛtrimāśrāṇāsthauḷyavarṇānācchādanāyo vikāramaithecchākeśaveśeṣu</i>)			
4.1.48 पुंयोगादाख्यायाम् (<i>puṁyogādākhyāyām</i>)	8.3.92	KK /NY	<i>praṣṭhaḥ</i>
4.1.49 इन्द्र वरुण भव शर्व रुद्र मृड हिमरण्य यव यवन मातुलाचार्याणामानुक् (<i>indra varuṇa bhava śarva rudra mṛḍa himāraṇya yava yavana mātulācāryāṇāmānuk</i>)	8.4.2	SK /BM	<i>indrāṇī /śarvāṇī rudrāṇī</i>
	8.4.3		<i>brahmāṇī</i>
	8.4.39	NY/ PM	<i>ācāryāṇī</i>
4.1.52 बहुव्रीहेश्चान्तोदात्तात् (<i>bahuvrīheścāntodāttāt</i>)	8.2.44	NY	<i>keśalūnī</i>
4.1.53 अस्वाङ्गपूर्वपदाद्वा (<i>asvāṅgapūrvapadādvā</i>)	8.2.40	NY	<i>sāraṅgajagdhī</i>
	8.4.65		
4.1.60 दिक्पूर्वपदान्डीप् (<i>dikpūrvapadānṇīp</i>)	8.2.45	NY	<i>prāṇamukhī</i>
4.1.85 दित्यदित्यादित्यपत्युत्तरपदाण्यः (<i>dityadityādityapatyuttarapadāṇnyaḥ</i>)	8.4.64	N /TB	<i>ādityaḥ</i>
4.1.87 स्त्रीपुंसाभ्यां नञ्स्रजौ भवनात् (<i>strīpuṁsābhyāṁ nañsrañau bhavanāt</i>)	8.2.23	PM /MB	<i>paumsna</i>
	8.3.23		
	8.4.2	N	<i>straiṇa</i>
4.1.133 ढकि लोपः (<i>dhaki lopah</i>)	8.3.84	KK	<i>paitṛṣvaseyaḥ</i>
4.1.152 सेनान्तलक्षणकारिभ्यश्च (<i>senāntalakṣaṇakāribhyaśca</i>)	8.3.99	KK/NY	<i>kāriṣeṇyaḥ, hāriṣeṇyaḥ</i>
4.1.158 वाकिनादीनां कुक् च (<i>vākinādīnāṁ kuk ca</i>)	8.2.7	NY/ MB	<i>cārmikāyaṇiḥ, vārmikāyaṇiḥ</i>
4.2.24 सास्य देवता (<i>sāsya devatā</i>)	8.2.42	NY	<i>samarṇa</i>
4.2.32 द्यावापृथिवी शुनासीरमरुत्वदग्नीषोमवास्तोष्पतिगृहमेधाच्छ च (<i>dyāvāpṛthivī śunāsīramarutvadagnīṣomavāstoṣpatigrhamedhāccha ca</i>)	8.3.53	N/ NY	<i>vāstoṣpati</i>
	8.3.82	N /NY	<i>agnīṣoma</i>
4.2.55 सोऽस्यादिरिति च्छन्दसः प्रगाथेषु (<i>so 'syādiriti cchandasaḥ pragātheṣu</i>)	8.4.29	PM	<i>prāgāṇāt</i>
4.2.65 सूत्राच्च कोपधात् (<i>sūtrācca kopadhāt</i>)	8.3.101	NY	<i>cātuṣṭayaḥ</i>

4.2.82 वरणादिभ्यश्च (<i>varaṇādibhyaśca</i>)	8.2.23	TB	<i>vetasvān</i>
4.2.104 अव्ययात्त्यप् (<i>avyayātyap</i>)	8.3.101	KK/ NY	<i>niṣtyaḥ caṇḍālādiḥ</i>
4.2.114 वृद्धाच्छः (<i>vṛddhācchah</i>)	8.2.39	TB	<i>bhavadīyaḥ</i>
4.2.115 भवतष्ठक्छसौ (<i>bhavataṣṭhakchasau</i>)	8.2.39	NY/ PM	<i>bhavadīyaḥ</i>
4.3.23 सायंचिरम्प्राह्णेप्रगे ऽव्ययेभ्यष्ट्युत्थुलौ तुट् च (<i>sāyaṃciramprāhṇeprage 'vyayebhyaṣṭyutṭhulau tuṭ ca</i>)	8.3.23	N	<i>sāyantana</i>
	8.4.58		
4.3.24 विभाषा पूर्वाह्णापराह्णाभ्याम् (<i>vibhāṣā pūrvāhṇāparāhṇābhyām</i>)	8.4.7	NY	<i>pūrvāhṇetanam parāhṇetanam paurvāhṇikam āparāhṇikam saṃvoḍhuh</i>
4.3.120 तस्येदम् (<i>tasyedam</i>)	8.3.13	BM	<i>saṃvoḍhuh</i>
	8.4.41		
4.4.44 परिषदो ण्यः (<i>pariṣado ṇyaḥ</i>)	8.3.66	PM	<i>pariṣat</i>
4.4.12 वेतनादिभ्यो जीवति (<i>vetanādibhyo jīvati</i>)	8.3.39	BM	<i>dhānuṣka</i>
	8.4.55	N	<i>upaniṣatka</i>
4.4.57 प्रहरणम् (<i>praharaṇam</i>)	8.3.39	N	<i>dhānuṣka</i>
	8.3.59		
4.4.67 श्राणामांसौदनाट्टिठन् (<i>śrāṇāmāṃsaudanāṭṭiṭhan</i>)	8.2.43	PM	<i>śrāṇā</i>
4.4.77 धुरो यङ्कुः (<i>dhuro yaṅkuḥ</i>)	8.2.79	SK /LSK	<i>dhuryaḥ</i>
4.4.78 खः सर्वधुरात् (<i>khaḥ sarvadhurāt</i>)	8.4.2	N	<i>sarvadhurīṇaḥ</i>
4.4.112 रेवतीजगतीहविष्याभ्यः प्रशस्ये (<i>revatījagatīhaviṣyābhyah praśasye</i>)	8.4.64	N/ KK	<i>haviṣya</i>
4.4.117 घच्छौ च (<i>ghacchau ca</i>)	8.4.40	N	<i>ghacchau</i>
4.4.119 बर्हिषि दत्तम् (<i>barhiṣi dattam</i>)	8.3.59	N	<i>barhiṣya</i>

4.4.128 मत्वर्थे मासतन्वोः (matvarthe māsatanvoḥ)	8.2.30	NY	śukra (taittirīyasamhitā 1.4.14.1)
5.1.1 प्राक् क्रीताच्छः (prāk krītācchaḥ)	8.2.23	NY	prāñ
	8.2.62		prāk
5.1.11 माणवचरकाभ्यां खञ् (māṇavacarakābhyāṃ khan)	8.4.2	N	cārakīṇa
5.1.54 द्विगोः ष्ठंश्च (dvigoḥ ṣṭhaṃśca)	8.3.7	N	ṣṭhaṃśca
	8.4.40		
5.1.59 पङ्क्तिर्विंशतिर्त्रिंशत्त्वत्वारिंशत्पञ्चाशत्षष्टिसप्तत्यशीतिनवतिशतम् (paṅkti viṃśati triṃśatcatvāriṃśatpañcāśatṣaṣṭisaptatyasītinavatiśatam)	8.2.30	PM	paṅkati
	8.3.24/ 8.4.58	N	
	8.4.41	N	ṣaṣṭi
5.1.65 शीर्षच्छेदाद्यच्च (śīrṣacchedādyacca)	8.4.40	N	śīrṣacchedya / śairṣacchedika
5.1.115 तेन तुल्यं क्रिया चेद्वतिः (tena tulyaṃ kriyā cedvatiḥ)	8.3.23	N	pumvat
5.1.120 आ च त्वात् (ā ca tvāt)	8.3.2	N	pumstva
	8.3.4		
	8.3.6		
5.1.126 सख्युर्यः (sakhyuryaḥ)	8.4.55	N	vaṇiktva
5.1.136 ब्रह्मणस्त्वः (brahmaṇastvaḥ)	8.3.59	BM	toṣṭūyate
5.2.5 सर्वचर्मणः कृतः खखञौ (sarvacarmaṇaḥ kṛtaḥ khakhañau)	8.4.2	N	sarvacarmīṇa /sārvacarmīṇa
5.2.18 गोष्ठात् खञ् भूतपूर्वे (goṣṭhāt khañ bhūtapūrve)	8.3.97	KK /NY	goṣṭham
5.2.23 अद्यश्वीनाऽवष्टब्धे (adyaśvīnā 'vaṣṭabdhe)	8.3.68	SK /BM/TB	avaṣṭabdha
5.2.26 तेन वित्तश्चुच्चुप्चणपौ (tena vittaścuñcupcaṇapau)	8.2.58	TB	vittaḥ
5.2.42 संख्याया अवयवे तयप् (saṃkhyāyā avayave tayap)	8.3.34	N /NY	catuṣṭaya
	8.3.101		

	8.4.42	N	ṣaṭtaya
5.2.77 तावतिथं ग्रहणमिति लुग्व (tāvatithaṃ grahaṇamiti luvā)	8.3.34	N/NY	catuṣka
	8.3.41		
	8.4.55	N /NY/PM	ṣaṭka
5.2.78 स एषां ग्रामणीः (sa eṣāṃ grāmaṇīḥ)	8.4.55	N	tvatka /matka
5.2.94 तदस्यास्त्यस्मिन्निति मतुप् (tadasyāstyasminniti matup)	8.2.9	N /NY	vṛkṣavān
	8.3.59	N	viduṣmat
5.2.95 रसादिभ्यश्च (rasādibhyaśca)	8.2.9	N	rasavān
5.2.96 प्राणिस्थादातो लजन्यतरस्याम् (prāṇisthādāto lajanyaatarasyām)	8.2.9	N	cūḍāvān
	8.2.66	KK/ SK	cūḍālo 'sti
5.2.97 सिध्मादिभ्यश्च (sidhmādibhyaśca)	8.2.9	N	sidhmavān
5.2.112 रजःकृष्यासुतिपरिषदो वलच् (rajaḥkṛṣyāsutipariṣado valac)	8.3.66	NY/PM	pariṣat
5.2.105 देशे लुबिलचौ च (deśe lubilacau ca)	8.2.9	N	sikatāvān
5.2.109 केशाद्वोऽन्यतरस्याम् (keśādvō 'nyatarasyām)	8.2.10	PM	keśavat
5.2.115 अत इनिठनौ (ata iniṭhanau)	8.2.9	N	daṇḍavān, balavān
5.2.124 वाचो ग्मिनिः (vāco gminiḥ)	8.2.39	N	vāggmin
5.2.138 कंशंभ्यां बभयुस्तितुतयसः (kaṃśambhyāṃ babhayustitutayasaḥ)	8.3.23/ 8.4.59	N /NY	kaṃba, kamba/ kaṃbha kambha /kaṃyu, kayṃyu/ kaṃti, kanti/kaṃtu, kantu/kaṃta, kanta/ kaṃya, kayṃya/śaṃba śaṃba, /śaṃbha śaṃbha/ śaṃyu śayṃyu, /śaṃti śanti, /śaṃtu śantu, /śaṃta śanta, /śaṃya śayṃya

5.2.140 अहंशुभमोर्युस् (<i>ahaṁśubhamoryus</i>)	8.3.23/ 8.4.59	N	<i>ahamyuḥ, ahaymyuḥ</i> <i>śubhamyuḥ, śubhaymyuḥ</i>
5.3.4 एतेतौ रथोः (<i>etetau rathoh</i>)	8.2.39 8.4.55	N	<i>ittham</i>
5.3.7 पञ्चम्यास्तसिल् (<i>pañcamyāstasil</i>)	8.2.80	N	<i>amutaḥ</i>
5.3.10 सप्तम्यास्त्रल् (<i>saptamyāstral</i>)	8.2.80	N	<i>amutra</i>
5.3.22 सद्यःपरुत्परार्यैषमःपरेद्यव्यद्यपूर्वेद्युरन्येद्युरन्यतरेद्युरितरेद्युरपरेद्युरधरेद्युरुभयेद्यु युरुत्तरेद्युः (<i>sadyaḥparutparāryaiṣamaḥparedyavyadyapūrvedyuranyedyuranyata redyuritaredyuraparedyuradharedyurubhayedyuruttaredyuh</i>)	8.3.59	N	<i>aiṣamaḥ</i>
5.3.30 अञ्जेलुक् (<i>añcerluk</i>)	8.2.30 8.2.39	N	<i>prāg</i>
5.3.35 एनबन्यतरस्यामदूरेऽपञ्चम्याः (<i>enabanyatarasyāmadūre 'pañcamyāḥ</i>)	8.4.2	N	<i>uttareṇa /adhareṇa</i>
5.3.57 द्विवचनविभज्योपपदे तरबीयसुनौ (<i>dvivacanavibhajyopapade tarabīyasunau</i>)	8.2.23	KK	<i>paṭīyān</i>
5.3.66 प्रशंसायां रूपप् (<i>praśamsāyām rūpap</i>)	8.3.39	SK /BM	<i>yajuṣkalpam</i>
5.3.68 विभाषा सुपो बहुच् पुरस्तात्तु (<i>vibhāṣā supo bahuc purastāttu</i>)	8.3.111	PM	<i>bahusecauḥ, bahusecaḥ</i>
5.3.72 कस्य च दः (<i>kasya ca dah</i>)	8.4.56	N	<i>dhakid dhakit /hirakut hirakud pṛthakat pṛthakat</i>
5.3.83 ठाजादावूर्ध्वं द्वितीयादचः (<i>ṭhājādāvūrdhvaṁ dvitīyādacaḥ</i>)	8.2.30	NY	<i>vāgāśīḥ</i>
5.3.66 प्रशंसायां रूपप् (<i>praśamsāyām rūpap</i>)	8.3.38	BM	<i>yaśaskalpa</i>
5.4.7 अषडक्षाशितङ्ग्वलंकर्मालम्पुरुषाध्युत्तरपदात् खः (<i>aṣaḍakṣāṣitaṅgvalaṅkarmālampuruṣādhyyuttarapadāt khaḥ</i>)	8.4.2	N SK/ TB	<i>aṣaḍakṣīṇa māṭṛbhogīṇaḥ</i>

	8.4.58	N	<i>alaṅkarma /alaṅkarmīṇa/ āśitaṅgavīna</i>
5.4.11 किमेतिङव्ययघादाम्ब्रव्यप्रकर्षे (<i>kimettiṇavyayaghādāmadvavyaprakarṣe</i>)	8.3.23/ 8.4.59	N	<i>kiṁtarām, kintarām</i>
5.4.15 अणिनुणः (<i>aṇinuṇaḥ</i>)	8.3.23/ 8.4.59	N	<i>sāṁkūṭinam sāṅkūṭinam</i>
	8.4.2		<i>sāṁrāviṇam</i>
5.4.16 विसारिणो मत्स्ये (<i>visāriṇo matsye</i>)	8.4.2	N	<i>vaisāriṇaḥ matsyaḥ</i>
5.4.17 संख्यायाः क्रियाभ्यावृत्तिगणने कृत्वसुच् (<i>saṁkhyāyāḥ kriyābhyāvṛttigaṇane kṛtvasuc</i>)	8.2.39	N	<i>ṣaṭkṛtvaḥ</i>
	8.4.55		
5.4.19 एकस्य सकृच्च (<i>ekasya sakṛcca</i>)	8.2.23	PM	<i>sakṛt</i>
5.4.36 तद्युक्तात् कर्मणोऽण् (<i>tadyuktāt karmaṇo 'ṇ</i>)	8.3.106	KK/ PM/MB	<i>ānuṣūkaḥ</i>
	8.4.2	N	<i>kārmaṇa</i>
5.4.39 मृदस्तिकन् (<i>mṛdastikan</i>)	8.4.55	N	<i>mṛttikā</i>
5.4.52 विभाषा साति कात्स्न्ये (<i>vibhāṣā sāti kārtsnye</i>)	8.2.39	N	<i>śuklasād</i>
	8.3.111		<i>agnisād</i>
	8.4.56		<i>śuklasāt</i>
5.4.74 ऋक्पूरब्धुःपथामानक्षे (<i>ṛkpūrabdhūḥpathāmānakṣe</i>)	8.2.30	NY	<i>anṛk /bahṛk</i>
	8.2.76	N	<i>akṣadhūḥ</i>
5.4.80 श्वसो वसीयःश्रेयसः (<i>śvaso vasīyaḥśreyasaḥ</i>)	8.3.36	N	<i>śvaḥśreyasa / śvaśreyasa</i>
	8.4.40		
5.4.87 अहः-सर्व-एकदेश-सङ्ख्यात-पुण्यात् च रात्रेः (<i>ahaḥ-sarva-ekadeśa- saṅkhyāta-puṇyāt ca rātreḥ</i>)	8.2.69	N /NY/ BM	<i>ahorātra</i>
	8.3.13	PM	<i>nīrātraḥ</i>
5.4.92 गोरतद्धितलुकि (<i>gorataddhitaluki</i>)	8.2.39	N	<i>ṣaḍgavamaya</i>

5.4.99 नावो द्विगोः (<i>nāvo dvigoḥ</i>)	8.2.39	N	<i>ṣaḍnāvapriya</i>
5.4.107 अव्ययीभावे शरत्प्रभृतिभ्यः (<i>avyayībhāve śaratprabhṛtibhyaḥ</i>)	8.4.59	N	<i>sampatha, sampatha</i>
5.4.118 अज्नासिकायाः संज्ञायां नसं चास्थूलात् (<i>añnāsikāyāḥ sañjñāyām nasam cāsthūlāt</i>)	8.4.3	KK	<i>drūṇasaḥ, vāddhrīṇasaḥ</i>
5.4.119 उपसर्गाच्च (<i>upasargācca</i>)	8.4.28	KK /BM	<i>praṇasaḥ</i>
5.4.141 वयसि दन्तस्य दत् (<i>vayasi dantasya datṛ</i>)	8.2.23	KK	<i>dvidan</i>
5.4.148 उद्विभ्यां काकुदस्य (<i>udvibhyām kākudasya</i>)	8.4.56	NY	<i>utkākut, vikākut</i>
5.4.151 उरःप्रभृतिभ्यः कप् (<i>uraḥprabhṛtibhyaḥ kap</i>)	8.2.34	PM	<i>upānad/ upānat/ upanaddhā</i>
	8.3.38	BM /TB	<i>vyūḍhoraskaḥ</i>
	8.3.39	SK	<i>priyasarpīṣka</i>
5.4.152 इनः स्त्रियाम् (<i>inaḥ striyām</i>)	8.2.7	NY	<i>bahudaṇḍikaḥ</i>
	8.2.39	BM	<i>vāggmin</i>
5.4.154 शेषाद्विभाषा (<i>śeṣādvibhāṣā</i>)	8.3.38	BM	<i>mahayaśaska</i>
5.4.160 निष्प्रवाणिश्च (<i>niṣpravāṇiśca</i>)	8.4.29	PM	<i>pravāṇī</i>
	8.4.3	BM	
6.1.3 न न्द्राः संयोगादयः (<i>na ndrāḥ saṃyogādayaḥ</i>)	8.4.19/ 8.4.20	KK	<i>prāṇiṇiṣati</i>
6.1.4 पूर्वोऽभ्यासः (<i>pūrvō 'bhyāsaḥ</i>)	8.4.54	KK /NY	<i>juhoti</i>
6.1.6 जक्षित्यादयः षट् (<i>jakṣityādayaḥ ṣaṭ</i>)	8.2.39	SK /BM	<i>gubbhyām</i>
6.1.8 लिटि धातोरनभ्यासस्य (<i>liṭi dhātoranabhyāsasya</i>)	8.2.31	KK	<i>saṃmimikṣuḥ</i> (RV 1.165.1)
	8.2.41		
6.1.9 सन्यङोः (<i>sanyaṇoḥ</i>)	8.2.37	SK /BM/ TB	<i>bībhatsate</i>
	8.4.55		
	8.3.59	<i>Sudhā ṭikā</i>	<i>pipaṭhiṣati</i>

	8.4.53	BM	<i>rābdhā</i>
	8.4.54	N	<i>bobhūya</i>
6.1.12 दाश्वान् साह्वान् मीढ्वांश्च (<i>dāśvān sāhvān mīḍhvāmśca</i>)	8.3.1	PM	<i>mīḍhvastokāya</i>
6.1.15 वचिस्वपियजादीनां किति (<i>vacisvapīyajādīnām kiti</i>)	8.2.30	PM	<i>uktaḥ</i>
	8.2.31	KK	<i>ūḍhaḥ</i>
	8.2.36	NY/ PM/ BM	<i>iṣṭaḥ</i>
	8.2.45	KK /NY	<i>śūnaḥ</i> <i>śūnavān</i>
	8.3.13	NY /PM/	<i>ūḍhaḥ</i>
	8.4.41	BM	
	8.3.60	KK/ NY	<i>uṣita</i>
	8.4.17	BM	<i>pranyavāpsīt</i>
	8.4.41	NY	<i>iṣṭaḥ</i> / <i>ūḍhaḥ</i>
6.1.16 ग्रहिज्यावयिव्यधिवष्टिविचतिवृश्चतिपृच्छतिभृज्जतीनां डिति च (<i>grahijyāvayivyadhivaṣṭivicitivṛśchatiṣcatipṛcchatibhr̥jjatīnām ṇiti ca</i>)	8.2.36	NY	<i>uṣṭaḥ</i>
	8.4.41		
	8.2.44	KK	<i>jīnaḥ</i> <i>jīnavān</i>
	8.4.40	KK	<i>bhr̥jjati</i>
	8.4.53	KK	<i>bhr̥jjau</i>
6.1.24 द्रवमूर्तिस्पर्शयोः श्यः (<i>dravamūrtisparśayoḥ śyaḥ</i>)	8.2.47	KK	<i>śīnaḥ</i> / <i>śīnam ghṛtam</i>
6.1.25 प्रतेश्च (<i>prateśca</i>)	8.2.47	BM	<i>pratiśīnaḥ</i>
6.1.26 विभाषाऽभ्यवपूर्वस्य (<i>vibhāṣā 'bhyavapūrvasya</i>)	8.2.47	KK	<i>abhiśīnam abhiśyānam</i> <i>avaśīnam, avaśyānam</i>
6.1.28 प्यायः पी (<i>pyāyaḥ pī</i>)	8.2.45	KK /NY	<i>pīnam</i>
6.1.32 ह्रः सम्प्रसारणम् (<i>hvaḥ samprasāraṇam</i>)	8.4.54	KK/ NY	<i>juhāvayīṣati</i>

6.1.47 स्फुरतिस्फुलत्योर्घञि (<i>sphuratisphulatyorgañi</i>)	8.3.76	KK/NY	<i>visphāraḥ visphālaḥ viṣphāraḥ viṣphālaḥ</i>
6.1.50 मीनातिमिनोतिदीडां ल्यपि च (<i>mīnātiminotidīṇāṃ lyapi ca</i>)	8.2.45	SK /TB	<i>ḍīnaḥ ḍīnavān</i>
6.1.58 सृजिदृशोर्झल्यमकिति (<i>srjidrśorjhalyamakiti</i>)	8.2.36	NY	<i>adrākṣīt</i>
	8.2.41		
	8.2.62	PM	<i>rajjusṛḍbhyām, devadrḡgbhyām</i>
	8.3.59	NY	<i>adrākṣīt</i>
	8.4.41	BM	<i>dadraṣṭha</i>
6.1.61 ये च तद्धिते (<i>ye ca taddhite</i>)	8.2.39	BM	<i>dadbhyām /datsu</i>
6.1.63 पद्मत्रोमास्त्रिशसन्धोषन्यकञ्चकनुदन्नासञ्चस्प्रभृतिषु (<i>paddannomāshrnniśasanyūṣandoṣanyakañchakannudannāsañchaspr abhṛtiṣu</i>)	8.2.39	N	<i>dadbhyām /datsu</i>
	8.2.66		<i>nobhyām</i>
	8.3.22		<i>mābhyām</i>
	8.3.29		<i>niṭsu, niṭtsu</i>
	8.3.36		<i>nassu /māssu</i>
	8.4.1		<i>yūṣṇaḥ</i>
	8.4.55		<i>patsu /datsu</i>
6.1.64 धात्वादेः षः सः (<i>dhātvādeḥ ṣaḥ saḥ</i>)	8.2.41	MB	<i>pekṣyati</i>
	8.3.59	N /KK/ NY/MB	<i>siṣeva</i>
6.1.65 णो नः (<i>ṇo naḥ</i>)	8.4.14	N	<i>praṇamyā</i>
6.1.67 वेरपृक्तस्य (<i>verapṛktasya</i>)	8.2.30	NY	<i>ghṛtasprk ardhabhāk</i>
	8.2.62	NY /PM	

6.1.68 हल्ङ्याब्भ्यो दीर्घात् सुतिस्पृक्तं हल् (<i>halṅyābbhyo dīrghāt sutisyapṛktaṃ hal</i>)	8.2.24	KK/ NY/ PM/ TB / MB	<i>abibhaḥ</i>
	8.4.54	N	
	8.2.72	PM	<i>ukhāsrāt</i>
	8.2.74	BM	<i>abhinad/abhinat</i>
	8.2.75		<i>abhinaḥ</i>
6.1.70 शेषछन्दसि बहुलम् (<i>śeṣchandasī bahulam</i>)	8.2.7	NY	<i>viśvā</i>
6.1.73 छे च (<i>che ca</i>)	8.2.39	N	<i>svacchāyā</i>
	8.4.40		
	8.4.55		
	8.4.47		<i>svajjchāyā /svacchāyā</i>
	8.4.54		<i>cicchidatuḥ</i>
	8.4.65		<i>svajjchāyā /svacchāyā</i>
6.1.75 दीर्घात् (<i>dīrghāt</i>)	8.4.40	N	<i>mlecchanīya</i>
	8.4.54	SK /BM	<i>cecchidyate</i>
6.1.76 पदान्ताद्वा (<i>padāntādvā</i>)	8.2.39	N	<i>lakṣmīcchāyā</i>
	8.4.40		
	8.4.55		
	8.3.34	LSK	<i>viṣṇustrātā</i>
6.1.85 अन्तादिवच्च (<i>antādivacca</i>)	8.3.19	KK	<i>asyā aśvaḥ</i>
6.1.86 षत्वतुकोरसिद्धः (<i>ṣatvatukorasiddhaḥ</i>)	8.2.24	PM	<i>bhrātuṣputra</i>
	8.2.66	SK	<i>ko 'sīcat</i>
6.1.89 एत्येधत्यूत्सु (<i>etyedhatyūṭṣu</i>)	8.2.31	BM	<i>prauḍhaḥ</i>
	8.2.36	PraudaM	<i>vibhrāt</i>

	8.2.60	KK SK	<i>prārṇam vatsatarārṇam kambalārṇam vasanārṇam ṛṇārṇam daśārṇaḥ deśaḥ</i>
	8.3.13	BM	<i>prauḍhaḥ</i>
	8.4.41		
	8.3.92	SK /BM	<i>praṣṭhauhaḥ /praṣṭhavāt</i>
	8.4.3	N	<i>akṣauhiṇī</i>
	8.4.49	TB	<i>vatsatarārṇama</i>
	8.4.54	BM	<i>aididhata</i>
6.1.92 वा सुप्यापिशलेः (<i>vā supyāpiśaleḥ</i>)	8.4.49	TB/PraudaM	<i>prārṣabhīyati</i>
6.1.98 अव्यक्तानुकरणस्यात इतौ (<i>avyaktānukaraṇasyāta itau</i>)	8.2.39	N/ PM/ PraudaM	<i>śrad</i>
6.1.100 नित्यमाम्रेडिते डाचि (<i>nityamāmreḍite ḍāci</i>)	8.4.40	N	<i>chamacchamā</i>
6.1.103 तस्माच्छसो नः पुंसि (<i>tasmācchaso naḥ puṁsi</i>)	8.4.37	N	<i>rāmān, vṛkṣān, pitṛn</i>
6.1.104 नादिचि (<i>nādicī</i>)	8.2.84	BM	<i>ehi susrota3 atra snāhi</i>
	8.3.17		<i>devā atra</i>
	8.3.19		
6.1.108 सम्प्रसारणाच्च (<i>samprasāraṇācca</i>)	8.4.41	N	<i>iṣṭa</i>
6.1.112 ख्यत्यात् परस्य (<i>khyatyāt parasya</i>)	8.2.44	N/ KK/ NY	<i>lūnyuḥ</i>
6.1.113 अतो रोरप्लुतादप्लुते (<i>ato roraplutādaplute</i>)	8.2.74	N	<i>ahinotra</i>
6.1.114 हशि च (<i>haśi ca</i>)	8.2.66	<i>Sudhā ṭikā</i>	<i>śivo vandyah</i>
6.1.116 अव्यादवद्यादव क्रमुरव्रतायमवन्त्ववस्युषु च (<i>avyādavadyādava kramuravratāyamavantvavasyuṣu ca</i>)	8.2.29	KK/ NY	<i>avyāt</i>

6.1.130 ई३ चाक्रवर्मणस्य (<i>ī3 cākravarmaṇasya</i>)	8.2.93	KK	<i>astu hī3 iti</i>
	8.2.104	NY	
6.1.127 इकोऽसवर्णे शाकल्यस्य ह्रस्वश्च (<i>iko 'savarṇe śākalyasya hrasvaśca</i>)	8.4.46	<i>Sudhā ṭikā</i>	<i>gauryau</i>
6.1.132 एतत्तदोः सुलोपोऽकोरनञ्समासे हलि (<i>etattadoḥ sulopo 'koranaṅsamāse hali</i>)	8.4.40	N	<i>asaśśivaḥ</i>
6.1.134 सोऽचि लोपे चेत् पादपूरणम् (<i>so 'ci lope cet pādapūraṇam</i>)	8.3.17/ 8.3.19	N	<i>sa idu</i>
6.1.138 समवाये च (<i>samavāye ca</i>)	8.3.71	SK / BM	<i>paryaṣkāṛṣīt paryaskāṛṣīt</i>
6.1.141 हिंसायां प्रतेश्च (<i>hiṁsāyām prateśca</i>)	8.2.77	NY	<i>pratiskīrṇam</i>
6.1.157 पारस्करप्रभृतीनि च संज्ञायाम् (<i>pāraskaraprabhṛtīni ca saṁjñāyām</i>)	8.2.26	TB	<i>adāgdhām</i>
	8.3.79	SK /TB	<i>lilihidhve / lilihidhve </i>
	8.4.55	SK /BM	<i>taskaraḥ</i>
6.1.160 उञ्छादीनां च परिष्टुत् (<i>uñchādīnām ca pariṣṭut</i>)	8.3.106	KK/ PM	<i>pariṣṭut</i>
	8.4.41		
6.1.161 अनुदात्तस्य च यत्रोदात्तलोपः (<i>anudāttasya ca yatrodāttalopaḥ</i>)	8.2.32	NY	<i>dhukṣātām</i>
	8.4.55		
6.1.171 ऊडिदम्पदाद्यप्पुम्रैद्युभ्यः (<i>ūḍidampadādyappumraidyubhyaḥ</i>)	8.2.39	NY	<i>adbhiḥ</i>
6.1.176 ह्रस्वनुङ्भ्यां मतुप् (<i>hrasvanuḍbhyām matup</i>)	8.2.16	KK	<i>akṣaṇvantāḥ</i>
6.1.193 लिति (<i>liti</i>)	8.2.77	N	<i>cikīrṣaka</i>
	8.3.59		
6.1.195 अचः कर्तृयकि (<i>acaḥ karṭryaki</i>)	8.2.77	NY	<i>stīryate</i>
6.1.206 शुष्कधृष्टौ (<i>śuṣkadhr̥ṣṭau</i>)	8.4.41	NY	<i>dhr̥ṣṭaḥ</i>
6.1.221 ईवत्याः (<i>īvatyāḥ</i>)	8.2.11	KK /PM/NY	<i>ahīvatī kṛṣīvatī munīvatī </i>
6.2.1 बहुव्रीहौ प्रकृत्या पूर्वपदम् (<i>bahuvrīhau prakṛtyā pūrvapadam</i>)	8.3.75	KK	<i>brahmacāri pāriskandaḥ</i>

6.2.37 कार्तिकौजपादयश्च (<i>kārtakaujapādayaśca</i>)	8.2.57	KK/ PM	<i>matta</i>
6.2.39 क्षुल्लकश्च वैश्वदेवे (<i>kṣullakaśca vaiśvadeve</i>)	8.4.60	NY	<i>kṣullaḥ</i>
6.2.42 कुरुगार्हपतरिक्तगुर्वसूतजरत्यश्लीलदृष्टरूपापारेवडवातैतिलकद्रुःपण्यकम्बलो दासीभाराणां च (<i>kurugārhapatariktagurvasūtajaratyāślīladṛṣṭarūpāparevadhavātaitilakadrūhpaṇyakambalo dāsībhārāṇām ca</i>)	8.2.18	KK	<i>kapilakaḥ kapiṛakaḥ</i>
6.2.47 प्रवृद्धादीनां च (<i>pravṛddhādīnām ca</i>)	8.3.41	NY	<i>punarniṣkṛtaḥ</i>
6.2.52 अनिगन्तोऽञ्चतौ वप्रत्यये (<i>aniganto 'ñcatau vapratyaye</i>)	8.2.23	KK/ NY	<i>prāñ</i>
	8.2.62		
	8.4.40	N	<i>prāñcau, prāñcaḥ</i>
6.2.76 शिल्पिनि चाकृजः (<i>śilpini cākṛñḥ</i>)	8.3.34	KK	<i>ayaskāraḥ</i>
6.2.117 सोर्मनसी अलोमोषसी (<i>sormanasī alomoṣasī</i>)	8.2.72	PM	<i>susrat / sudhvat</i>
6.2.121 कूलतीरतूलमूलशाला ऽक्षसममव्ययीभावे (<i>kūlatīratūlamūlaśālā 'kṣasamamavyayībhāve</i>)	8.3.88	KK /PM	<i>suṣamam viṣamam niṣamam /suṣamam</i>
6.2.126 चेलखेटकटुककाण्डं गर्हायाम् (<i>celakheṭakatukakāṇḍam garhāyām</i>)	8.2.34	NY	<i>upānad upānat</i>
	8.4.56		
6.2.139 गतिकारकोपपदात् कृत् (<i>gatikārapapadāt kṛt</i>)	8.2.18	NY	<i>kalpanaḥ</i>
6.2.146 संज्ञायामनाचितादीनाम् (<i>saññāyāmanācitādīnām</i>)	8.2.30	NY	<i>niruktam</i>
6.2.147 प्रवृद्धादीनां च (<i>pravṛddhādīnām ca</i>)	8.3.13	NY	<i>khaṭvārūḍhaḥ</i>
6.2.155 नञो गुणप्रतिषेधे सम्पाद्यर्हहितालमर्थास्तद्धिताः (<i>naño guṇapraṭiṣedhe sampādyarhahitālamarthāstaddhitāḥ</i>)	8.3.13	NY	<i>voḍhā</i>
	8.4.41		
6.2.178 वनं समासे (<i>vanam samāse</i>)	8.4.5	KK	<i>pravaṇe yaṣṭavyam nirvaṇe prañidhīyate </i>
6.2.179 अन्तः (<i>antaḥ</i>)	8.4.5	KK	<i>antarvaṇo deśaḥ</i>
6.3.2 पञ्चम्याः स्तोकादिभ्यः (<i>pañcamyāḥ stokādibhyaḥ</i>)	8.4.65	TB	<i>abānddhām, abāndhām</i>

6.3.6 आत्मनश्च पूरणे (<i>ātmanaśca pūraṇe</i>)	8.4.41	NY	<i>śaṣṭhaḥ</i>
6.3.9 हलदन्तात् सप्तम्याः संज्ञायाम् (<i>haladantāt saptamyāḥ saṁjñāyām</i>)	8.2.39	NY	<i>spṛg</i>
	8.2.62		<i>hṛdisprk</i>
	8.3.95	KK	<i>yudhiṣṭhiraḥ, gaviṣṭhiraḥ</i>
	8.4.56	NY	<i>hṛdisprk /divisprk</i>
6.3.17 घकालतनेषु कालनाम्नः (<i>ghakālataneṣu kālanāmnah</i>)	8.4.7	NY	<i>pūrvāhṇatare</i> <i>pūrvāhṇetame</i>
6.3.20 स्वे च भाषायाम् (<i>sthe ca bhāṣāyām</i>)	8.3.106	KK	<i>ākhaṛeṣṭhaḥ</i>
6.3.21 षष्ठ्या आक्रोशे (<i>ṣaṣṭhyā ākrośe</i>)	8.2.80	BM	<i>amuṣya</i>
6.3.23 ऋतो विद्यायोनिसम्बन्धेभ्यः (<i>ṛto vidyāyonisambandhebhyah</i>)	8.2.24	NY	<i>hotuḥ</i>
6.3.24 विभाषा स्वसृपत्योः (<i>vibhāṣā svasṛpatyoh</i>)	8.3.84/ 8.3.85	KK SK	<i>mātuḥśvasā / mātuḥśvasā /</i> <i>mātrṣvasā, pituḥśvasā/</i> <i>pituḥśvasā /pitṛśvasā</i>
6.3.27 ईदग्नेः सोमवरुणयोः (<i>īdagneḥ somavaruṇayoh</i>)	8.3.82	KK	<i>agnīśomau</i>
6.3.30 दिवसश्च पृथिव्याम् (<i>divasaśca pṛthivyām</i>)	8.2.39	BM	<i>vāktviṣam</i>
6.3.35 तसिलादिष्वाकृत्वसुचः (<i>tasilādiṣvākṛtvasucaḥ</i>)	8.2.39	TB	<i>bhavadīyā</i>
6.3.46 आन्महतः समानाधिकरणजातीययोः (<i>ānmahataḥ samānādhikaraṇajātīyayoh</i>)	8.3.82	PM	<i>agnīśomau māṇavakau</i>
6.3.47 द्व्यष्टनः संख्यायामबहुव्रीह्यशीत्योः (<i>dvyasṭanaḥ saṁkhyāyāmabahuvrīhyaśītyoh</i>)	8.4.41	TB	<i>ṣoḍan</i>
6.3.67 अरुद्विषदजन्तस्य मुम् (<i>arurdviṣadajantasya mum</i>)	8.2.23	KK	<i>aruntudaḥ</i>
	8.2.72	PM	<i>vidvanmanyah</i>
	8.4.45	NY	

6.3.70 कारे सत्यागदस्य (<i>kāre satyāgadasya</i>)	8.2.21	KK/ NY/SK/TB	<i>timīṅgilah</i>
6.3.75 नभ्राण्नपान्नवेदानासत्यानमुचिनकुलनखनपुंसकनक्षत्रनक्रनाकेषु प्रकृत्या (<i>nabhrāṇnapānnavedānāsatyānamucinakulanakhanapumsakanakṣatr anakranākeṣu prakṛtyā</i>)	8.2.36	PM	<i>nabhrāṭ</i>
	8.2.39		
	8.4.56		
6.3.76 एकादिश्वैकस्य चादुक् (<i>ekādiścaikasya cāduk</i>)	8.4.45	NY	<i>ekānnaviṃśatiḥ</i>
6.3.89 दृग्दृशवतुषु (<i>dr̥gdr̥śavatuṣu</i>)	8.2.62	KK/NY	<i>sadr̥k</i>
6.3.91 आ सर्वनाम्नः (<i>ā sarvanāmnah</i>)	8.2.39	SK	<i>dr̥k /dr̥g/ tādr̥k</i>
	8.2.62	BM	
	8.4.56	LSK	
6.3.92 विष्वग्देवयोश्च टेरद्यञ्जतावप्रत्यये (<i>viṣvagdevayośca ṭeradryañcatāvapratyaye</i>)	8.2.23	KK /NY	<i>viṣvadryañ</i>
	8.2.62		
	8.3.46	KK	<i>ayaskārah</i>
6.3.94 तिरसस्तिर्यलोपे (<i>tirasastiryalope</i>)	8.4.40	N	<i>tiraścaḥ</i>
6.3.108 पथि च च्छन्दसि (<i>pathi ca cchandasi</i>)	8.2.30	BM/ TB	<i>prāgbhiḥ</i>
6.3.111 द्रलोपे पूर्वस्य दीर्घोऽणः (<i>ḍhralope pūrvasya dīrgho 'ṇah</i>)	8.2.31	BM	<i>tr̥ḍhaḥ vr̥ḍhaḥ</i>
	8.4.41		
	8.2.37	SK/BM/ TB	<i>ajarghāḥ</i>
	8.2.39		
	8.2.40	N	<i>gūḍha</i>
	8.2.66	Sudhā ṭikā	<i>harī ramyaḥ /śambhū rājate</i>
	8.2.75	SK /BM	<i>ajarghāḥ</i>
	8.3.13	N /BM/ TB/ Sudhā ṭikā	<i>ūḍhaḥ</i>

	8.3.14	NY	<i>nīraktam</i>
6.3.112 सहिवहोरोदवर्णस्य (<i>sahivahorodavarṇasya</i>)	8.3.13	N	<i>soḍhā</i>
	8.4.41		
6.3.116 नहिवृति वृषिव्यधिरुचिसहितनिषु कौ (<i>nahivṛti vṛṣivvyadhirucisahitaniṣu kvau</i>)	8.2.31	BM	<i>ṛtīṣaṭ</i>
	8.2.34	PM/ BM	<i>upānad upānat</i>
	8.4.14	NY	<i>parīṇat</i>
6.3.126 छन्दसि च (<i>chandasi ca</i>)	8.2.30	NY	<i>nīruk</i>
	8.2.34	NY	<i>upānad upānat</i>
6.3.117 वनगिर्योः संज्ञायां कोटरकिंशुलकादीनाम् (<i>vanagiryoh saṃjñāyām koṭarakimśulakādīnām</i>)	8.4.4	KK	<i>koṭaravaṇam miśrakāvaṇam sighrakāvaṇam sārīkāvaṇam </i>
6.3.119 मतौ बह्वचोऽनजिरादीनाम् (<i>matau bahvaco 'najirādīnāma</i>)	8.2.11	KK	<i>udumbarāvatī maśakāvatī vīraṇāvatī puṣkarāvatī amarāvatī</i>
6.3.120 शरादीनां च (<i>śarādīnām ca</i>)	8.2.11	KK	<i>śarāvatī vaṃśāvatī</i>
6.3.128 विश्वस्य वसुराटोः (<i>viśvasya vasurāṭoḥ</i>)	8.2.36	KK/ NY PM /BM	<i>viśvārāṭ</i>
	8.2.39		
	8.4.56		
6.3.133 ऋचि तुनुघमक्षुतङ्कुत्रोरुष्याणाम् (<i>rci tunughamakṣutaṅkutroruṣyāṇām</i>)	8.4.27	PM	<i>uruṣyā ṇo (RV 1.91.15)</i>
6.3.134 इकः सुनि (<i>ikaḥ suñi</i>)	8.2.77	NY	<i>nitīrṇam</i>
	8.3.107	KK	<i>abhī ṣu ṇaḥ sakhīnām ūrdhva ū ṣu ṇa ūtaye (RV 1.36.13)</i>
	8.4.27	SK	
6.3.135 द्व्यचोऽतस्तिङः (<i>dvyaco 'tastinaḥ</i>)	8.2.41	KK/ PM	<i>vakṣi yakṣi (RV 5.26.1)</i>

6.4.1 अङ्गस्य (<i>aṅgasya</i>)	8.2.44	NY/ PM	<i>jīnaḥ</i>
6.4.2 हलः (<i>halah</i>)	8.2.26	SK	<i>abānddhām</i>
	8.2.37	SK/ BM/	<i>bhantsyati</i>
	8.4.55	TB	
6.4.6 नृ च (<i>nṛ ca</i>)	8.2.23	SK	<i>gamul</i>
	8.2.76		
6.4.7 नोपधायाः (<i>nopadhāyāḥ</i>)	8.2.7	NY	<i>pañcānām</i>
	8.4.40	SK /BM	<i>priyapañcā</i>
6.4.8 सर्वनामस्थाने चासम्बुद्धौ (<i>sarvanāmasthāne cāsambuddhau</i>)	8.4.41	BM	<i>kroṣṭṛ</i>
6.4.10 सान्तमहतः संयोगस्य (<i>sāntamahataḥ saṃyogasya</i>)	8.3.24	N	<i>payāṃsi</i>
		BM	<i>māṃsa</i>
6.4.12 इन्हन्यूषार्यम्णां शौ (<i>inhanpūṣāryamṇām śau</i>)	8.4.22	PraudaM	<i>vṛtrahaṇaḥ</i>
6.4.13 सौ च (<i>sau ca</i>)	8.4.22	SK	<i>vṛtrahaṇau vṛtrahaṇaḥ</i> <i>vṛtrahaṇam vṛtrahaṇau</i>
6.4.14 अत्वसन्तस्य चाधातोः (<i>atvasantasya cādhātoḥ</i>)	8.2.23	BM	<i>dhīmān</i>
6.4.15 अनुनासिकस्य किञ्जलोः किङ्ति (<i>anunāsikasya kvijhaloḥ kṇiti</i>)	8.2.64	KK/ NY/PM	<i>praśān/ pratān/ pradān</i>
	8.3.24/ 8.4.58	N	<i>śānta</i>
6.4.16 अज्झनगमां सनि (<i>ajjhanagamām sani</i>)	8.2.77	NY	<i>cikīrṣati</i>
	8.4.54	BM	<i>jighāṃsati</i>
6.4.18 क्रमश्च क्त्वि (<i>kramaśca kṭvi</i>)	8.3.24/ 8.4.58	N	<i>krāntvā</i>
6.4.19 च्छोः शूडनुनासिके च (<i>cchvoḥ śūḍanunāsike ca</i>)	8.2.36	NY/ PM	<i>śabdapraṭ</i>
	8.2.39		
	8.4.56		

	8.4.41	N/ NY	<i>prṣṭa</i>
6.4.20 ज्वर त्वर स्रिव्यविमवामुपधायाश्च (<i>jvara tvara srivyavimavāmupadhāyāśca</i>)	8.2.42	KK/ NY	<i>tūrṇaḥ</i>
6.4.21 राल्लोपः (<i>rāllopaḥ</i>)	8.2.57	KK	<i>mūrttaḥ</i>
6.4.22 असिद्धवदत्राभात् (<i>asiddhavadatrābhāt</i>)	8.3.59	N	<i>papuṣaḥ</i>
	8.3.108	PM	<i>paśuśāḥ</i>
	8.4.54	N	<i>babhūva</i>
6.4.23 श्रान्नलोपः (<i>śnānnalopaḥ</i>)	8.4.39	NY	<i>nandinandanaśabdau</i>
	8.4.41	SK	<i>śinaṣṭi</i>
	8.4.53	BM	<i>śiṇḍhi</i>
	8.4.58		
	8.4.65		
6.4.24 अनिदितां हल उपधायाः किङ्किति (<i>aniditāṃ hala upadhāyāḥ kṇiti</i>)	8.2.23	SK/ BM/	<i>prāṇ</i>
	8.2.62	LSK	
	8.4.40	BM	<i>prāñcau, prāñcaḥ</i>
6.4.25 दंशसञ्जस्वञ्जां शपि (<i>daṃśasañjasvañjāṃ śapi</i>)	8.3.65	SK /BM	<i>abhiṣvajate pariṣvajate </i> <i>abhyaṣvajata </i>
	8.3.71		<i>paryaṣvajata</i>
	8.4.55		<i>svaṅktā</i>
6.4.26 रञ्जेश्च (<i>rañjeśca</i>)	8.3.73	SK	<i>pariṣvajate /pariṣasvañje</i>
6.4.30 नाञ्चेः पूजायाम् (<i>nāñceḥ pūjāyām</i>)	8.2.23	KK/ NY	<i>prāṇ</i>
	8.2.30	SK	<i>kruṇ</i>
	8.3.28	SK /BM	<i>prāṅkṣu</i>
	8.4.56	SK/ BM/TB	<i>suvṛṭ suvṛḍ</i>
6.4.31 क्तिव स्कन्दिस्यन्दोः (<i>ktvi skandisyandoḥ</i>)	8.4.55	N	<i>skanttvā, skantvā</i>
	8.4.65		

6.4.32 जान्तनशां विभाषा (<i>jāntanaśāṃ vibhāṣā</i>)	8.2.30	KK/ SK	<i>bhaktivā</i>
	8.2.36	NY/ N	<i>naṣṭvā</i>
	8.3.24	N	<i>bhañktivā / naṣṭvā</i>
	8.4.41	N/ NY	<i>naṣṭvā, naṣṭvā</i>
	8.4.55	N	<i>bhaktivā bhañktivā</i>
	8.4.58		
6.4.34 शास इदङ्हलोः (<i>śāsa idanhaloḥ</i>)	8.2.76	NY	<i>āryaśīḥ mitraśīḥ</i>
6.4.35 शा हौ (<i>śā hau</i>)	8.2.73	BM	<i>aśād</i>
	8.2.74		<i>aśāḥ</i>
	8.4.56		<i>aśāt</i>
6.4.36 हन्तेर्जः (<i>hanterjah</i>)	8.2.23	BM	<i>ahan</i>
6.4.41 विड्वनोरनुनासिकस्यात् (<i>viḍvanoranunāsikasyāt</i>)	8.2.39	NY /TB	<i>abjāḥ</i>
	8.3.108	KK	<i>goṣāḥ</i>
	8.4.56	SK /TB	<i>reḍ/ reṭ</i>
6.4.42 जनसनखनां सञ्झलोः (<i>janasanakhanām sañjhaloḥ</i>)	8.3.108	KK	<i>sisaniṣati</i>
	8.4.40	BM	<i>jajñati</i>
6.4.47 भ्रस्जो रोपधयोः रमन्यतरस्याम् (<i>bhrasjo ropadhayoḥ ramanyatarasyām</i>)	8.2.36	NY	<i>bhraṣṭā</i>
	8.4.40		<i>bhrajjanam</i>
	8.4.41	N BM	<i>bhraṣṭum bharṣṭum babharṣṭha</i>
6.4.48 अतो लोपः (<i>ato lopah</i>)	8.2.65	SK /BM	<i>caḥṣaṇvahe</i>
6.4.52 निष्ठायां सेटि (<i>niṣṭhāyām seṭi</i>)	8.2.45	SK /BM/TB	<i>śūnaḥ śūnavān</i>
	8.3.13	BM/ TB	<i>gūḍha</i>
	8.4.41		
6.4.60 निष्ठायामण्यदर्थे (<i>niṣṭhāyāmaṇyadarthe</i>)	8.2.46	KK	<i>ākṣīṇaḥ, prakṣīṇaḥ, parikṣīṇaḥ</i>

6.4.61 वाक्रोशदैन्ययोः (vākrośadainyayoh)	8.2.46	KK	kṣitāyuredhi, kṣīṇāyuredhi
6.4.62 स्यसिच्सीयुट्तासिषु भावकर्मणोरुपदेशेऽज्जनग्रहदृशां वा चिण्वदिट् च (syasicsīyuttāsiṣu bhāvakarmanorupadeśe 'jjhanagrahadṛśāṃ vā ciṇvadiṭ ca)	8.2.36	KK/ NY/ PM	drakṣyate
	8.2.41		
	8.3.59		
6.4.66 घुमास्थागापाजहातिसां हलि (ghumāsthāgāpājahātisāṃ hali)	8.2.25	BM	adhyaiḍhvam
	8.4.17	TB	praṇiyāti
	8.4.41	BM	adhyagīṣṭa
6.4.68 वाऽन्यस्य संयोगादेः (vā 'nyasya saṃyogādeḥ)	8.2.45	SK	vānam
	8.3.64	BM	tiṣṭhati /adhiṣṭhāta
	8.3.65		
	8.4.17		praṇiyacchati
6.4.71 लुङ्लङ्लृङ्क्ष्वडुदात्तः (luṅlaṅlṛṅkṣvaḍudāttah)	8.3.59	N	apaṭhiṣyat
	8.4.40	N	samagacchata / aicchat
6.4.72 आडजादीनाम् (āḍajādīnām)	8.2.28	NY	aubjīt / aubhīt
	8.3.59	N	aikṣiṣṭa / aikṣiṣyata
	8.4.41		aikṣiṣṭa
6.4.73 छन्दस्यपि दृश्यते (chandasyapi dṛśyate)	8.2.30	NY	āyunak / ānak
	8.4.55		
6.4.74 न माङ्योगे (na māṇyoge)	8.2.26	NY	abhitthāḥ
	8.4.41	NY	janiṣṭhāḥ
6.4.75 बहुलं छन्दस्यमाङ्योगेऽपि (bahulaṃ chandasyamāṇyoge 'pi)	8.2.28	NY	ūnayīt, ardayīt
6.4.81 इणो यण् (iṇo yaṇ)	8.2.23	NY / N	āyan
6.4.83 ओः सुपि (oḥ supi)	8.4.60	KK/ NY	sakṛllū
6.4.84 वर्षाभ्वश्च (varṣābhvaśca)	8.3.24/ 8.4.58	SK /BM	dṛmbhūḥ

6.4.87 हुश्रुवोः सार्वधातुके (<i>huśnuvoḥ sārva dhātuke</i>)	8.3.79	SK /BM	<i>siṣmiyidhve siṣmiyidhve</i>
	8.4.17	SK / BM/ TB	<i>praṇimayate</i>
	8.4.54	N	<i>juhvati</i>
6.4.88 भुवो वुग्लुङ्लितोः (<i>bhuvo vugluṅliṭoḥ</i>)	8.2.23	N/ NY	<i>abhūvan</i>
	8.4.54	N	<i>babhūva</i>
6.4.89 ऊदुपधाया गोहः (<i>ūdupadhāyā gohaḥ</i>)	8.2.31	KK	<i>nigoḍhā</i>
	8.2.37	BM	<i>jughukṣe</i>
	8.2.40	NY	<i>nigoḍhā</i>
	8.3.13	NY/ BM	<i>nigoḍhā, jugoḍha</i>
	8.4.41		
6.4.93 चिण्णमुलोर्दीर्घो ऽन्यतरस्याम् (<i>ciṇṇamulordīrgho 'nyatarasyām</i>)	8.2.77	BM	<i>pratidīvna</i>
	8.4.53	BM	<i>gdhi</i>
	8.4.55		<i>jakṣatuḥ</i>
6.4.98 गमहनजनखनघसां लोपः किङित्यनङि (<i>gamahanajanakhanaghasāṃ lopah knityanani</i>)	8.2.23	NY	<i>akṣan</i>
	8.3.60	KK/ NY/PM	<i>jakṣatuḥ</i>
	8.4.40	N	<i>jajñire</i>
	8.4.54		<i>jaghnuḥ / cakhnathuḥ / jakṣa</i>
	8.4.55		<i>jakṣa</i>
6.4.100 घसिभसोर्हलि च (<i>ghasibhasorhali ca</i>)	8.2.40	NY	<i>sagdhiḥ / babdhām</i>
	8.4.53	NY	<i>sagdhiḥ</i>
	8.4.55		<i>bapsati</i>
6.4.101 हुज्जल्भ्यो हेर्धिः (<i>hujhalbhyo herdhiḥ</i>)	8.3.24/ 8.4.58	N	<i>bhinddhi</i>

	8.4.54		<i>juhudhi</i>
	8.4.65		<i>bhindhi</i>
6.4.102 श्रु-शृणु-पृ-कृ-वृभ्यश्छन्दसि (<i>śru-śṛṇu-pṛ-kṛ-vṛbhyaśchandasi</i>)	8.2.77	KK/ NY/SK	<i>pūrd̥dhi</i>
	8.3.34	KK/ NY/PM	<i>uparuṇaskṛdhi /</i>
	8.4.27		<i>rāyaspūrdhi</i>
6.4.103 अङितश्च (<i>aṇitaśca</i>)	8.2.39	BM	<i>agnimadbhyām</i>
6.4.104 चिणो लुक् (<i>ciṇo luk</i>)	8.3.70	BM	<i>pariṣevate</i>
	8.4.64	TB	<i>mavyyāt / mavyāt</i>
6.4.106 उतश्च प्रत्ययादसंयोगपूर्वात् (<i>utaśca pratyayādasamyogapūrvāt</i>)	8.2.31	SK/BM	<i>jaghākṣe</i>
	8.2.37	BM /TB	
	8.3.13	BM/ TB	<i>jaghāḍhve</i>
	8.3.79	SK /BM	<i>jagāhiḍhve / jagāhidhve</i>
	8.4.41	BM	<i>jaghāḍhva</i>
6.4.108 नित्यं करोते: (<i>nityaṃ karoteḥ</i>)	8.2.79	N / KK	<i>kurmaḥ</i>
6.4.109 ये च (<i>ye ca</i>)	8.2.27	SK	<i>akṛta</i>
	8.2.79	N	<i>kuryāt</i>
6.4.110 अत उत् सार्वधातुके (<i>ata ut sārva dhātuke</i>)	8.2.79	BM	<i>kurvan / vidāṅkurutām</i> <i>vidāṅkurvanti</i>
6.4.111 श्रसोरल्लोपः (<i>śnasorallopaḥ</i>)	8.2.40	N/ NY	<i>runddhaḥ, rundhaḥ</i>
	8.3.24		
	8.4.58		
	8.4.65		
6.4.112 श्राऽभ्यस्तयोरातः (<i>śnā'bhystayorātaḥ</i>)	8.2.73	TB	<i>acakād</i>
	8.4.2	N	<i>krīṇanti</i>

	8.4.53	BM	<i>cakāddhi</i>
6.4.113 ई हल्यघोः (<i>ī halyaghoḥ</i>)	8.4.2	N	<i>krīṇītaḥ</i>
	8.4.54	NY	<i>dhattaḥ</i>
	8.4.55	NY	<i>dattaḥ</i>
6.4.114 इद्दरिद्रस्य (<i>iddaridrasya</i>)	8.2.28	KK	<i>adaridrāsīt</i>
6.4.115 भियोऽन्यतरस्याम् (<i>bhiyo 'nyatarasyām</i>)	8.4.54	N	<i>bibhitaḥ</i>
6.4.116 जहातेश्च (<i>jahāteśca</i>)	8.4.54	N	<i>jahitaḥ jahītaḥ</i>
6.4.117 आ च हौ (<i>ā ca hau</i>)	8.4.54	N	<i>jahāhi jahihi, jahīhi</i>
6.4.118 लोपो यि (<i>lopo yi</i>)	8.4.17	BM /TB	<i>praṇidadāti</i>
	8.4.54	N	<i>jahyāt</i>
6.4.122 तृफलभजत्रपश्च (<i>tṛphalabhajatrapaśca</i>)	8.3.24/ 8.4.58	SK /BM	<i>skambhate</i>
	8.4.61		<i>uttambhate</i>
6.4.124 वा जृभ्रमुत्रसाम् (<i>vā jṛbhramutrasām</i>)	8.2.31	SK /BM	<i>soḍhā</i>
	8.3.13		
6.4.125 फणां च सप्तानाम् (<i>phaṇām ca saptānām</i>)	8.3.69	SK	<i>viṣvaṇati avaṣvaṇati </i>
6.4.127 अर्वणस्त्रसावनञः (<i>arvaṇastrasāvanañḥ</i>)	8.3.23/ 8.4.58	KK	<i>arvantau</i>
6.4.131 वसोः सम्प्रसारणम् (<i>vasoḥ samprasāraṇam</i>)	8.2.23	SK	<i>sedivān</i>
	8.2.72	SK /LSK	<i>vidvadbhyām</i>
	8.3.59	N	<i>viduṣā</i>
	8.4.56	SK/ BM	<i>dhvat dhvad</i>
6.4.134 अल्लोपोऽनः (<i>allopo 'naḥ</i>)	8.4.40	N	<i>rājñā</i>
6.4.135 षपूर्वहन्तृतराज्ञामणि (<i>ṣapūrvahandhṛtarājñāmaṇi</i>)	8.4.1	N	<i>pauṣṇa</i>
6.4.137 न संयोगाद्वमन्तात् (<i>na saṃyogādvamantāt</i>)	8.2.77	NY	<i>pratidivnā</i>

6.4.143 टेः (ṭeḥ)	8.4.56	N/ BM	anyad anyat
6.4.149 सूर्यतिष्यागस्त्यमत्स्यानां य उपधायाः (sūryatiṣyāgastyamatsyānām ya upadhāyāḥ)	8.3.106	KK	antiṣat
7.1.5 आत्मनेपदेष्वनतः (ātmanepadeṣvanataḥ)	8.2.25	BM	aidhidhvam
	8.3.24/ 8.4.58	N	arundhata
	8.3.78	SK	aidhiḍhvam
	8.4.41	SK	aidhiṣṭhāḥ
7.1.6 शीडो रुट् (śīṇo ruṭ)	8.3.59	N	śayīṣyante
7.1.12 टाङ्सिङ्सामिनात्स्याः (tāṇasiṇasāminātsyāḥ)	8.2.39	N	rāmāt, rāmād
	8.4.56		
	8.4.2		rāmeṇa
7.1.19 नपुंसकाच्च (napuṃsakācca)	8.4.2	N	vārīṇī
7.1.20 जश्शसोः शिः (jaśśasoḥ śiḥ)	8.3.24	N	payāṃsi
	8.4.2		vārīṇī
7.1.21 अष्टाभ्य औश् (aṣṭābhya auś)	8.2.37	SK	bhut bhud
7.1.22 षड्भ्यो लुक् (ṣaḍbhyo luk)	8.2.39	N	ṣaḍ, ṣaṭ
	8.4.55		
7.1.25 अद्ङ डतरादिभ्यः पञ्चभ्यः (add ḍatarādibhyaḥ pañcabhyaḥ)	8.4.56	N	anyad anyat
7.1.29 शसो न (śaso na)	8.2.23	SK	yuṣmān asmān
7.1.36 विदेः शतुर्वसुः (videḥ śaturvasuḥ)	8.3.24	N	vidvāṃsau
7.1.38 क्त्वाऽपि छन्दसि (ktvā'pi chandasi)	8.4.62	KK/ NY	uddhṛtya
7.1.40 अमो मश् (amo maś)	8.2.28	KK/ NY	vadhīm (RV 1.165.8)
7.1.41 लोपस्त आत्मनेपदेषु (lopasta ātmanepadeṣu)	8.2.40	NY	dugdhām
	8.4.53		

7.1.45 तप्तनप्तनथनाश्च (<i>taptanaptanathanāśca</i>)	8.2.38	NY	<i>dadhātana</i> (RV 10.101.5)
	8.4.53	NY	<i>dhattaḥ</i>
	8.4.55		
7.1.52 अमि सर्वनाम्नः सुट् (<i>āmi sarvanāmnah suṭ</i>)	8.3.59	N / BM	<i>sarveṣām /yeṣām</i>
7.1.53 त्रेस्तयः (<i>trestrayaḥ</i>)	8.4.2	N	<i>trayāṇām</i>
7.1.54 ह्रस्वनद्यापो नुट् (<i>hrasvanadyāpo nuṭ</i>)	8.4.2	N	<i>gauriṇām /bhrūṇām</i>
7.1.55 षट्चतुर्भ्यश्च (<i>ṣaṭcaturbhyaśca</i>)	8.2.7	NY	<i>pañcānām</i>
	8.2.39	N/ NY/PM	<i>ṣaṇṇām</i>
	8.4.1	N	<i>caturṇām</i>
	8.4.40	NY	<i>priyapañcā</i>
	8.4.41	N	<i>ṣaṇṇām</i>
	8.4.46	N/ BM PraudaM	<i>caturṇām , caturṇṇām , caturṇāmm, caturṇṇāmm</i>
	8.4.65		<i>caturṇām</i>
7.1.58 इदितो नुम् धातोः (<i>idito num dhātoḥ</i>)	8.3.24	N	<i>vand</i>
	8.4.58	SK	<i>skundate</i>
7.1.59 शे मुचादीनाम् (<i>śe mucādīnām</i>)	8.2.10	TB	<i>garutmān</i>
	8.3.11		<i>bhuvastasya svatāvām pāyurāgne</i>
	8.3.24	N	<i>muñcati</i>
	8.4.58		
	8.4.40	BM	<i>majjati</i>
7.1.60 मस्जिनशोर्झलि (<i>maṣjinaśorjhalī</i>)	8.2.29	KK	<i>magnaḥ</i>
	8.2.36	N/ NY/ BM	<i>naṁṣṭavya /naṣṭvā naṁṣṭvā</i>

	8.2.45	N	<i>magnaḥ</i>
	8.3.24	N	<i>maṅkṭṛ /naṃṣṭavya /naṃṣṭvā</i>
	8.4.58		
	8.4.40	NY	<i>majjanam</i>
	8.4.41	N/ NY/ BM	<i>naṃṣṭavya /neṣṭā/nanaṃṣṭha</i>
	8.4.53	NY	<i>majjanam</i>
	8.4.55	SK /BM/N	<i>maṅktā</i>
7.1.61 रधिजभोरचि (<i>radhijabhoraci</i>)	8.2.40	NY	<i>raddhā</i>
	8.3.24	N	<i>randhanīya / rarandha /jambhitavya/ jambhate randhaka</i>
	8.4.58		
	8.3.63	SK /BM	<i>vyāṣṭobhiṣṭa</i>
	8.3.65	SK /BM	<i>viṣṭobhata</i>
	8.4.53	NY	<i>raddhā</i>
7.1.62 नेत्यलिटि रधे: (<i>netyaliṭi radheḥ</i>)	8.3.24	N	<i>rarandhitha</i>
	8.4.58		
	8.3.59		<i>radhiṣyati</i>
7.1.63 रभेरशब्लिटो: (<i>rabheraśabliṭoḥ</i>)	8.3.24	N	<i>ārambha /ārambhi</i>
	8.4.58		
7.1.64 लभेश्च (<i>labheśca</i>)	8.3.24	N	<i>lambhanīya /lambhi</i>
	8.4.58		
7.1.65 आङो यि (<i>āṅo yi</i>)	8.3.24	N	<i>ālambhya</i>
	8.4.58		
7.1.66 उपात् प्रशंसायाम् (<i>upāt praśaṃsāyām</i>)	8.3.24	N	<i>upalambhya</i>
	8.4.58		

7.1.67 उपसर्गात् खल्जोः (<i>upasargāt khalghañoh</i>)	8.2.39	N	<i>īṣatpralambha /pralambha</i>
	8.4.55		
	8.4.60		<i>īṣallabha</i>
7.1.68 न सुदुर्भ्यां केवलाभ्याम् (<i>na sudurbhyām kevalābhyām</i>)	8.3.24	N	<i>supralambha</i>
	8.4.58		<i>duṣpralambha</i>
	8.3.41		
7.1.69 विभाषा चिण्णमुलोः (<i>vibhāṣā ciṇṇamuloḥ</i>)	8.3.24	N	<i>alambhi alabhi</i>
	8.4.58		<i>prālabhi</i>
7.1.70 उगिदचां सर्वनामस्थानेऽधातोः (<i>ugidacāṃ sarvanāmasthāne 'dhātoḥ</i>)	8.2.9	SK /BM	<i>maghavān</i>
	8.2.23	KK	<i>prāñ</i>
	8.2.39	BM	<i>maghavadbhyām</i>
	8.2.62	N /KK/ NY/PM	<i>prāñ</i>
	8.2.72	PM	<i>ukhāsrāt</i>
	8.4.56	NY	
	8.3.24	N/ TB	<i>bhavantau /paṭhantaḥ / gavāñci</i>
	8.4.58		
7.1.71 युजेरसमासे (<i>yujerasamāse</i>)	8.2.23	SK	<i>yuñ</i>
	8.2.77	BM	<i>dīvyati</i>
7.1.72 नपुंसकस्य झलचः (<i>napuṃsakasya jhalacah</i>)	8.3.24	N	<i>jaganti /payāṃsi/ paṭhanti</i>
	8.4.58		
	8.4.40		<i>gavāñci</i>
7.1.73 इकोऽचि विभक्तौ (<i>iko 'ci vibhaktau</i>)	8.2.8	PM	<i>he trapun</i>
	8.4.2	N	<i>vārīṇi</i>
7.1.75 अस्थिदधिसक्थक्षणामनङुदात्तः (<i>asthidadhisakthyakṣṇāmananudāttah</i>)	8.4.1	N	<i>akṣṇām</i>

7.1.76 छन्दस्यपि दृश्यते (<i>chandasypaḥ dr̥śyate</i>)	8.2.16	KK	<i>akṣaṇvantah</i>
7.1.79 वा नपुंसकस्य (<i>vā napuṃsakasya</i>)	8.4.56	SK/ BM	<i>tudat</i>
7.1.80 आच्छीनद्योर्नुम् (<i>ācchīnadyorṇum</i>)	8.4.56	SK /BM	<i>bhāt</i>
7.1.81 शप्श्यनोर्नित्यम् (<i>śapśyanornityam</i>)	8.3.58	LSK	<i>dhanūṃṣi </i>
7.1.82 सावनदुहः (<i>sāvanaḍuḥ</i>)	8.2.23	KK	<i>anaḍvān</i>
7.1.83 दृक्स्ववस्वतवसां छन्दसि (<i>dr̥kṣvavassvatavasāṃ chandasi</i>)	8.2.23	NY	<i>īdr̥ṇ, kīdr̥ṇ</i>
	8.2.62		
7.1.86 इतोऽत् सर्वनामस्थाने (<i>ito 't sarvanāmasthāne</i>)	8.4.2	N	<i>ṛbhukṣāṇam</i>
7.1.88 भस्य टेलोपः (<i>bhasya ṭerlopah</i>)	8.2.8	BM	<i>he carma he carman</i>
7.1.89 पुंसोऽसुङ् (<i>pumso 'suṅ</i>)	8.2.23	NY	<i>pumān</i>
	8.3.23	SK /BM	<i>pum̐s</i>
7.1.93 अनङ् सौ (<i>anaṅ sau</i>)	8.2.7	NY	<i>sakhā</i>
7.1.94 ऋदुशनस्पुरुदंसोऽनेहसां च (<i>r̥duśanaspurudaṃso 'nehasāṃ ca</i>)	8.2.8	KK	<i>he uśana</i>
7.1.100 ऋत इद्धातोः (<i>ṛta iddhātoḥ</i>)	8.2.42	N	<i>śīrṇah</i>
	8.2.77		
	8.4.1		
	8.2.77	NY/PM	<i>āstīrṇam</i>
7.1.101 उपधायाश्च (<i>upadhāyāśca</i>)	8.2.18	BM	<i>kalpayati</i>
	8.2.78	N /SK / BM	<i>kīrtayati</i>
7.1.102 उदोष्ठ्यपूर्वस्य (<i>udoṣṭhyapūrvasya</i>)	8.2.42	N	<i>pūrtah</i>
	8.2.57	KK	
	8.2.77	N	<i>pūrtah</i>
		SK/BM	<i>pipūrtah</i>
7.2.1 सिचि वृद्धिः परस्मैपदेषु (<i>sici vṛddhiḥ parasmaipadeṣu</i>)	8.2.28	KK /NY	<i>acaiṣīt anaiṣīt</i>
	8.2.45	SK /BM/TB	<i>sphurnāvān</i>

	8.3.59	N /NY	<i>akārṣīt</i>
7.2.2 अतो ल्रान्तस्य (<i>ato lrāntasya</i>)	8.2.29	SK	<i>ṣṭhīvyāt</i>
	8.2.77		
	8.4.41	BM	<i>tiṣṭheva /ṭiṣṭheva</i>
7.2.3 वदव्रजहलन्तस्याचः (<i>vadavrajahalantasyācaḥ</i>)	8.2.26	NY /PM	<i>avoḍhām</i>
	8.2.30	KK/ NY	<i>apākṣīt</i>
	8.2.31	KK/ NY	<i>avoḍhām</i>
	8.3.13	KK /NY/ PM /MB	<i>udavoḍhām</i>
	8.4.41		
	8.4.55	NY	<i>abhaitṣīt</i>
7.2.5 ह्यन्तक्षण श्वसजागृणिश्येदिताम् (<i>hmyantakṣaṇa śvasajāgrṇiśvyeditām</i>)	8.4.56	SK /BM	<i>cud/ cut</i>
7.2.6 ऊर्णोतिर्विभाषा (<i>ūrṇotervibhāṣā</i>)	8.3.63	SK	<i>abhyaṣīt</i>
	8.3.71		<i>paryaṣīt / paryastīt</i>
7.2.9 तितुत्रतथसिसुसरकसेषु च (<i>titutratathasisusarakaseṣu ca</i>)	8.2.34	BM/ TB	<i>naddhrī</i>
	8.2.40		
	8.3.13	TB	<i>meḍhram</i>
	8.4.41		
	8.4.53	TB	<i>naddhrī</i>
7.2.10 एकाच उपदेशेऽनुदात्तात् (<i>ekāca upadeśe 'nudāttāt</i>)	8.2.31	KK /NY	<i>meḍhā</i>
	8.2.34	NY	<i>naddhā</i>
	8.2.36	KK /NY PM	<i>deṣṭā draṣṭā daṃṣṭā āmrāṣṭā, āmarṣṭā spraṣṭā, sparṣṭā reṣṭā roṣṭā kroṣṭā praveṣṭā leṣṭā </i>

			<i>praṣṭā bhraṣṭā, bharṣṭā yaṣṭā sraṣṭā mārṣṭā </i>
	8.2.40	NY	<i>degdhā, dogdhā</i>
	8.4.53		
	8.4.41	NY	<i>meḍhā / āroḍhā /voḍhā</i>
7.2.11 श्रुकः किति (<i>śryukaḥ kiti</i>)	8.2.44	KK /NY	<i>lūnaḥ lūnavān </i>
7.2.12 सनि ग्रहगुहोश्च (<i>sani grahaguhośca</i>)	8.2.31	KK /NY	<i>jighṛkṣati</i>
	8.2.37	PM	
	8.2.41		
	8.3.59	<i>Sudhā ṭīkā</i>	<i>bubhūṣati</i>
	8.4.54		
7.2.14 श्रीदितो निष्ठायाम् (<i>śvīdīto niṣṭhāyām</i>)	8.2.30	KK /NY	<i>lagnaḥ</i>
	8.2.45	KK/ NY	<i>śūnaḥ śūnavān lagnaḥ lagnavān udvignaḥ udvignavān</i>
7.2.15 यस्य विभाषा (<i>yasya vibhāṣā</i>)	8.2.30	SK	<i>vṛkṇaḥ</i>
	8.4.39	TB	<i>nṛnamanaḥ</i>
	8.4.40	BM	<i>vṛkṇaḥ</i>
7.2.16 आदितश्च (<i>āditaśca</i>)	8.2.42	KK/ NY	<i>minnaḥ minnavān / kṣviṇṇaḥ kṣviṇṇavān </i>
		PM	<i>svinnaḥ</i>
7.2.33 सोमे ह्वरितः (<i>some hvaritaḥ</i>)	8.2.37	BM	<i>dhruk</i>
	8.4.56		
7.2.36 सुक्रमोरनात्मनेपदनिमित्ते (<i>snukramoranātmanepadanimitte</i>)	8.4.41	KK /NY	<i>prasnoṣṭṣṭa</i>

7.2.37 ग्रहोऽलिति दीर्घः (<i>graho 'liṭi dīrghaḥ</i>)	8.3.79	KK/NY/ PM	<i>agrahīḍhvam,</i> <i>agrahīdhvam</i>
7.2.38 वृत्तो वा (<i>vṛto vā</i>)	8.2.77	SK	<i>tīryāt</i>
7.2.41 इट् सनि वा (<i>iṭ sani vā</i>)	8.2.77	SK /BM/TB	<i>titīrṣati</i>
7.2.43 ऋतश्च संयोगादेः (<i>ṛtaśca saṃyogādeḥ</i>)	8.3.5	PM	<i>saṃskṛṣīṣṭa</i>
7.2.45 रधादिभ्यश्च (<i>radhādibhyaśca</i>)	8.2.33	NY	<i>drogdhā mogdhā snogdhā,</i>
	8.2.36	NY	<i>naṃṣṭā</i>
	8.2.40	NY	<i>drogdhā mogdhā snogdhā,</i>
	8.4.53		
	8.4.41	NY	<i>naṃṣṭā</i>
7.2.46 निरः कुषः (<i>niraḥ kuṣaḥ</i>)	8.2.19	KK	<i>nilayanam</i>
	8.4.39	SK	<i>kṣubhnāti</i>
7.2.48 तीषसहलुभरुषरिषः (<i>tīṣasahalubharuṣariṣaḥ</i>)	8.4.41	NY	<i>soḍhā</i>
7.2.49 सनीवन्तर्धभ्रस्जदम्मुश्रिस्व्यूर्णुभरज्ञपिसनाम् (<i>sanīvantardhabhbrasjadambhuśrisvryūrṇubharajñapisanām</i>)	8.2.29	KK /NY	<i>bibhrakṣati</i>
	8.2.30	NY	<i>bibharkṣati</i>
	8.2.36	KK	<i>bibhrakṣati</i>
	8.2.41	NY	
	8.2.77	NY	<i>susvūrṣati</i>
	8.3.59	KK/ NY	<i>bibhrakṣati</i>
	8.4.40	BM	<i>bibhrajjiṣati</i>
	8.4.53		
	8.4.63	KK	<i>ucchiśrayiṣati, ucchiśrīṣati</i>
7.2.50 क्लिशः क्त्वानिष्ठयोः (<i>kliśaḥ ktvāniṣṭhayoḥ</i>)	8.2.36	KK /NY	<i>kliṣtvā kliṣṭaḥ</i>
7.2.52 वसतिक्षुधोरिट् (<i>vasatikṣudhoriṭ</i>)	8.3.60	KK/ NY / PM/ BM	<i>uṣitvā</i>

7.2.57 सेऽसिचि कृतचृतच्छृदतृदनृतः (<i>se'sici kṛtacṛtacchṛdatṛdanṛtaḥ</i>)	8.2.45	SK /TB	<i>prasūnam</i>
	8.2.77	SK /BM	<i>jīryati</i>
7.2.58 गमेरिट् परस्मैपदेषु (<i>gameriṭ parasmaipadeṣu</i>)	8.4.41	KK /NY	<i>saṅgaṃsīṣṭa</i>
	8.4.55	BM	<i>sasaṅktha /saṅktā</i>
7.2.59 न वृद्ध्यश्चतुर्भ्यः (<i>na vṛdbhyaścaturbhyaḥ</i>)	8.4.55	NY	<i>vivṛtsati /vartsyati</i>
7.2.60 तासि च कूपः (<i>tāsi ca kūpaḥ</i>)	8.2.18	NY	<i>kalptā</i>
7.2.62 उपदेशेऽत्वतः (<i>upadeśe'tvataḥ</i>)	8.2.36	KK/ NY/	<i>yaṣṭā /iyaṣṭha</i>
	8.4.41	PM	<i>iyaṣṭha / iyaṣṭa</i>
7.2.65 विभाषा सृजिदृशोः (<i>vibhāṣā srjidrśoḥ</i>)	8.2.36	KK/ NY/PM	<i>sasraṣṭha /dadraṣṭha</i>
7.2.67 वस्वेकाजादघसाम् (<i>vasvekājādghasām</i>)	8.2.23	KK/ NY	<i>ādivān āśivān</i>
	8.3.60		<i>jakṣivān</i>
	8.4.55		
	8.4.54		<i>jakṣiva</i>
7.2.71 अङ्गेः सिचि (<i>aṅgeḥ sici</i>)	8.2.28	KK/ SK	<i>āṅjīt</i>
7.2.73 यमरमनमातां सक् च (<i>yamaramanamātām sak ca</i>)	8.2.28	BM	<i>adhāsīt</i>
	8.4.41		<i>adhāsiṣṭām</i>
7.2.74 स्मिपूङ्खञ्जशां सनि (<i>smipūṅkhañjvaśām sani</i>)	8.2.36	BM	<i>prṣṭaḥ</i>
	8.3.65	SK /BM	<i>pariṣiṣikṣati</i>
	8.4.21	SK	<i>prāṇiṇiṣati</i>
	8.4.40	BM	<i>uccheḥ</i>
7.2.75 किरश्च पञ्चभ्यः (<i>kiraśca pañcabhyaḥ</i>)	8.2.20	SK	<i>jigariṣati jigaliṣati</i>
	8.2.77	SK /BM	<i>uddidhīṛṣuḥ</i>
7.2.76 रुदादिभ्यः सार्वधातुके (<i>rudādibhyaḥ sārva dhātuke</i>)	8.4.19	KK/ NY/PM	<i>prāṇiti</i>
7.2.78 ईडजनोर्ध्वे च (<i>īḍajanordhve ca</i>)	8.2.25	BM	<i>ādhvam /īṣṭe</i>
	8.3.23	SK /BM	<i>nīmste nīmṣse</i>

	8.4.41	BM	<i>īṣṭe</i>
	8.4.55	NY	<i>nīṅktā</i>
7.2.101 जराया जरसन्यतरस्याम् (<i>jarāyā jarasanyatarasyām</i>)	8.3.24/ 8.4.58	N	<i>atijarāṃsi</i>
7.2.102 त्यदादीनामः (<i>tyadādīnāmaḥ</i>)	8.2.23	KK	<i>bhavān</i>
	8.2.81	BM	<i>amī</i>
7.2.104 कु तिहोः (<i>ku tihoh</i>)	8.2.81	TB	<i>amuṣmāt</i>
7.2.106 तदोः सः सावनन्त्ययोः (<i>tadoḥ saḥ sāvanantya-yoh</i>)	8.3.59	N	<i>eṣaḥ</i>
7.2.110 यः सौ (<i>yaḥ sau</i>)	8.2.30	BM /TB	<i>vāc vāk</i>
	8.2.39	SK /BM	<i>srak srag</i>
	8.4.56	TB	<i>vāk vāg</i>
	8.2.62	BM	<i>srāk</i>
	8.3.59		<i>eṣaḥ</i>
7.2.114 मृजेर्वृद्धिः (<i>mṛjervṛddhiḥ</i>)	8.2.36	NY	<i>mārṣṭi</i>
	8.4.41	N/ BM/ TB	<i>mārṣṭi /mṛṣṭa /mṛḍḍhi</i>
	8.4.53	BM/TB	<i>mṛḍḍhi</i>
	8.4.56	BM	<i>amārḍ,amārṭ</i>
7.2.118 किति च (<i>kiti ca</i>)	8.4.64	BM	<i>āditya</i>
7.3.5 न्यग्रोधस्य च केवलस्य (<i>nyagrodhasya ca kevalasya</i>)	8.2.39	NY	<i>nyagrodhaḥ</i>
	8.2.62		
7.3.28 प्रवाहणस्य ढे (<i>pravāhaṇasya ḍhe</i>)	8.4.30	KK/ NY	<i>pravāhaṇa</i>
7.3.32 हनस्तोऽचिण्णलोः (<i>hanasto'ciṇṇaloh</i>)	8.3.71	SK /TB	<i>nyaṣavīt</i>
7.3.33 आतो युक् चिण्कृतोः (<i>āto yuk ciṅkrtoḥ</i>)	8.2.20	SK	<i>agāridhvam agarīdhvam agaridhvam </i>

			<i>agālidhvam agalīdhvam agalidhvam</i>
	8.2.77	SK /BM	<i>agīrdhvam</i>
	8.3.78	SK	<i>agīrḍhvam</i>
	8.4.46		<i>agīrḍhḍhvam agīrḍhvam</i>
7.3.35 जनिवध्योश्च (<i>janivadhyośca</i>)	8.2.34	SK	<i>naddhā /nanaddha</i>
7.3.36 अर्तिहीव्लीरीक्नूयीक्ष्माय्यातां पुङ्णौ (<i>artihīvlīrīknūyīkṣmāyyātām puṇṇau</i>)	8.4.18	BM	<i>praṇicayati pranicayati</i>
7.3.45 न यासयोः (<i>na yāsayoḥ</i>)	8.2.36	NY	<i>aṣṭakā</i>
	8.4.41		
7.3.51 इसुसुक्तान्तात् कः (<i>isusuktāntāt kaḥ</i>)	8.3.39	N	<i>sārpiṣka /dhānuṣka</i>
	8.3.44	NY	<i>sarpiṣkaḥ</i>
	8.3.60	KK/ NY/PM	<i>āśiṣikaḥ auṣikaḥ</i>
7.3.53 न्यङ्कादीनां च (<i>nyaṅkvādīnām ca</i>)	8.4.53	KK /NY	<i>madguḥ</i>
7.3.55 अभ्यासाच्च (<i>abhyāsācca</i>)	8.4.54	NY	<i>jighāṃsati</i>
7.3.57 सन्लिटोर्जेः (<i>sanliṭorjeḥ</i>)	8.2.78	SK	<i>ūrvati /tutūrva /gūrvati</i>
7.3.70 घोरलोपो लेटि वा (<i>ghorlopo leṭi vā</i>)	8.2.23	NY	<i>dadān</i>
7.3.71 ओतः श्यनि (<i>otaḥ śyani</i>)	8.3.63	SK	<i>abhyaṣyad</i>
	8.3.65		<i>abhiṣyati</i>
	8.4.17	TB	<i>praṇidātā</i>
7.3.72 क्सस्याचि (<i>ksasyāci</i>)	8.2.37	NY	<i>adhukṣātām adhukṣāthāmi</i>
	8.3.59		
	8.4.55		
	8.2.31	KK/ NY/PM	<i>alīḍha</i>

7.3.73 लुग्वा दुहदिहलिहगुहामात्मनेपदे दन्त्ये (<i>lugvā duhadihalihaguhāmātmanepade dantye</i>)	8.2.32	KK/NY	<i>adugdha</i>
	8.2.37	BM	<i>aghukṣatām</i>
	8.2.40	KK	<i>adugdha</i>
	8.4.53	NY	
	8.2.41	NY	<i>apukṣata</i>
	8.3.13	SK/ TB	<i>agūḍha</i>
7.3.74 शमामष्टानां दीर्घः श्यनि (<i>śamāmaṣṭānām dīrghaḥ śyani</i>)	8.2.65	TB	<i>cakṣaṇvahe</i>
7.3.78 पाग्राध्मास्थाम्नादाण्टश्यर्तिसर्तिसदसदां पिबजिघ्रधमतिष्ठमन यच्छपश्यर्च्छधौशीयसीदाः (<i>pāghrādhmāsthāmnādāṇḍṛśyarttisarttisadasadām pibajighradhamatiṣṭhamana yacchapaśyarcchadhauśīyasīdāḥ</i>)	8.3.66	SK	<i>niṣīdati nyaṣīdat</i>
7.3.79 ज्ञाजानोर्जा (<i>jñājanorjā</i>)	8.4.40	BM	<i>jajñe</i>
7.3.80 प्वादीनां ह्रस्वः (<i>pvādīnām hrasvaḥ</i>)	8.2.77	SK /BM	<i>stīryāt /astarīṣṭa/ avūrṣṭa</i>
7.3.82 मिदेर्गुणः (<i>miderguṇaḥ</i>)	8.4.39	BM/ TB	<i>kṣubhnāti</i>
7.3.85 जाग्रोऽविचिण्णल्लित्सु (<i>jāgro 'viciṇṇalñitsu</i>)	8.2.23	KK/ NY	<i>jajāgrvān</i>
7.3.87 नाभ्यस्तस्याचि पिति सार्वधातुके (<i>nābhyastasyāci piti sārva dhātuke</i>)	8.2.26	SK	<i>babdhaḥ</i>
	8.2.30	NY	<i>nenekti</i>
	8.2.41	BM /SK	<i>vevekṣi</i>
	8.2.77	SK /BM	<i>tutūrtaḥ</i>
	8.4.41	SK	<i>veveṣṭi /veviṣṭhaḥ / veviṣṭha/ vevīḍdhi</i>
	8.4.54	BM	<i>babhasti</i>
7.3.88 भूसुवोस्तिडि (<i>bhūsuvostini</i>)	8.4.41	NY	<i>bhaviṣṭa</i>
7.3.92 तृणह इम् (<i>tṛṇaha im</i>)	8.2.31	KK/ NY	<i>tṛṇeḍhi</i>
	8.2.39	KK /NY	<i>atrṇeḍ, atrṇeṭ</i>

	8.4.56		
	8.2.40	NY	<i>ṛṇedhi</i>
	8.2.41	PM	<i>ṛṇekṣi</i>
	8.3.13	KK	<i>ṛṇedhi</i>
	8.3.24	NY	<i>ṛṇḍhaḥ</i>
	8.4.58		
7.3.94 यङो वा (<i>yaṅo vā</i>)	8.2.65	SK	<i>jaṅganvaḥ</i>
	8.2.75	SK	<i>apāspāḥ</i>
	8.2.76	SK /TB	<i>cañcūrti</i>
	8.2.77	SK	<i>cañcūrtah</i>
	8.3.14		<i>apāspāḥ</i>
	8.3.59	<i>Sudhā ṭikā</i>	<i>bobhaviṣyati</i>
	8.4.41	NY/ BM	<i>ṛṇedhi /ṛṇḍha</i>
	8.4.54	N	<i>bobhavīti bobhoti</i>
	8.4.65	SK /TB	<i>pāspardhi</i>
7.3.96 अस्तिसिचोऽपृक्ते (<i>astisico 'prkte</i>)	8.2.28	NY	<i>alāvīt</i>
	8.3.59	N	<i>akārṣīt</i>
7.3.97 बहुलं छन्दसि (<i>bahulaṃ chandasi</i>)	8.2.24	PM	<i>akṣāḥ</i>
	8.3.17	SK	<i>sarvamā idam (sarvam ā idam)</i>
	8.3.19		
7.3.98 रुदश्च पञ्चभ्यः (<i>rudaśca pañcabhyaḥ</i>)	8.4.19	NY	<i>prānīt</i>
7.3.99 अङ्गार्ग्यगालवयोः (<i>aḍgārgyagālavayoh</i>)	8.3.88	SK /BM	<i>susuṣvāpa</i>
7.3.101 अतो दीर्घो यञि (<i>ato dīrgho yañi</i>)	8.2.23	KK/NY	<i>bhavavān</i>
7.3.103 बहुवचने झल्येत् (<i>bahuvacane jhalyet</i>)	8.2.39	SK/BM	<i>rāmāt, rāmād</i>

	8.4.56		
	8.3.59	N	<i>rāmeṣu</i>
7.3.115 विभाषा द्वितीयातृतीयाभ्याम् (<i>vibhāṣā dvitīyātṛtīyābhyām</i>)	8.2.66	SK /BM	<i>nobhyām</i>
7.3.119 अच्च घेः (<i>acca gheḥ</i>)	8.3.59	BM	<i>hariṣu</i>
7.3.120 आङो नाऽस्त्रियाम् (<i>āṇo nā 'striyām</i>)	8.2.80	KK /NY	<i>amunā</i>
7.4.2 नाग्लोपिशास्वृदिताम् (<i>nāglopiśāsvṛditām</i>)	8.4.54	KK/NY	<i>aḍuḍhaukat</i>
7.4.5 तिष्ठतेरित् (<i>tiṣṭhaterit</i>)	8.4.41	<i>Sudhā ṭikā</i>	<i>atiṣṭhipat</i>
	8.4.54		
7.4.6 जिघ्रतेर्वा (<i>jighratervā</i>)	8.2.78	SK /BM/TB	<i>acikīrtat</i>
7.4.7 उर्ऋत् (<i>urṛt</i>)	8.2.18	TB	<i>acīklṛpat acīkṛpat</i>
	8.4.41	SK/ BM	<i>ātṭiṭat</i>
7.4.19 पतः पुम् (<i>pataḥ pum</i>)	8.4.17	SK	<i>pranyapaptat</i>
7.4.24 एतेर्लिङि (<i>eterlini</i>)	8.2.29	NY	<i>udiyāt</i>
7.4.27 रीङ् ऋतः (<i>rīṇ ṛtaḥ</i>)	8.2.20	KK	<i>nijegilyate</i>
	8.2.77	NY/ PM	<i>cekīryate</i>
7.4.41 शाच्छोरन्यतरस्याम् (<i>śācchoranyatarasyām</i>)	8.2.20	NY	<i>galaḥ</i>
7.4.43 जहातेश्च क्त्वि (<i>jahāteśca kṭvi</i>)	8.4.65	SK/ TB	<i>jagdhvā</i>
7.4.45 सुधितवसुधितनेमधित धिष्वधिषीय च (<i>sudhitavasudhitanemadhita dhiṣvadhiṣīya ca</i>)	8.2.38	KK/ NY	<i>dhiṣva</i> (RV 8.33.15)
7.4.46 दो दद् घोः (<i>do dad ghoḥ</i>)	8.2.39	NY/ PM/ TB	<i>dattaḥ</i>
7.4.48 अपो भि (<i>apo bhi</i>)	8.2.8	BM	<i>ahan</i>
	8.2.39	KK	<i>adbhiḥ</i>
	8.4.65	NY	
	8.2.62	SK /BM	<i>dik dṛk</i>
	8.2.66	SK/	<i>sajūḥ</i>

	8.2.76	BM	
	8.2.81	BM	<i>amuyoḥ</i>
	8.3.17	BM	<i>dīrghāhā māsaḥ</i>
	8.3.60	SK /BM	<i>āśīḥ āśīṣau āśīṣaḥ</i>
	8.4.22	TB	<i>bahuvṛtrahāṇ</i>
	8.4.40	BM	<i>bahūrñji</i>
	8.4.56	BM /TB	<i>dig dik</i>
7.4.49 सः स्याद्धधातुके (<i>saḥ syārdhdhādātuke</i>)	8.2.30	NY	<i>vakṣyati</i>
7.4.53 यीवर्णयोर्दीधीवेव्योः (<i>yīvarṇayordīdhīvevyoḥ</i>)	8.2.23	BM	<i>asasan</i>
	8.2.73	BM/TB	<i>asad,asat</i>
	8.2.74		<i>asaḥ</i>
	8.3.24	SK	<i>saṁstti, saṁsti</i>
	8.4.65		
	8.4.41	BM	<i>vaṣṭi</i>
	8.4.53		<i>sanddhi</i>
	8.4.56		<i>avaḍ, avaṭ</i>
7.4.54 सनि मीमाघुरभलभशकपतपदामच इस् (<i>sani mīmāghurabhalabhaśakapatapadāmac is</i>)	8.4.55	KK/ NY/PM	<i>ālipsate</i>
7.4.55 आज्ञाप्यधामीत् (<i>āpjñāpyrdhāmīt</i>)	8.4.54	NY	<i>arddidhiṣati</i>
	8.4.55	KK/ NY	<i>īrtsati</i>
7.4.56 दम्भ इच्च (<i>dambha icca</i>)	8.2.77	SK /BM	<i>bubhūrṣati</i>
	8.2.78		<i>susvūrṣati</i>
	8.4.55	KK/ NY	<i>dhipsati</i>
7.4.57 मुचोऽकर्मकस्य गुणो वा (<i>muco 'karmakasya guṇo vā</i>)	8.2.30	NY/ PM	<i>mokṣate / mumukṣate</i>
	8.3.59		

7.4.58 अत्र लोपोऽभ्यासस्य (<i>atra lopo 'bhyāsasya</i>)	8.4.40	BM	<i>bibhrajjiṣati</i>
7.4.62 कुहोश्चुः (<i>kuhoścuḥ</i>)	8.2.77	KK/ NY/ PM	<i>jihīrṣati</i>
	8.4.54	N/ NY	<i>jahāti</i>
7.4.68 व्यथो लिटि (<i>vyatho liṭi</i>)	8.3.69	SK / BM	<i>viṣvaṇati avaṣvaṇati </i>
7.4.72 अश्रोतेश्च (<i>aśnoteśca</i>)	8.2.36	BM	<i>aṣṭā</i>
	8.4.39	SK	<i>ṭṛpnoti</i>
	8.4.41	BM	<i>aṣṭā</i>
7.4.73 भवतेरः (<i>bhavateraḥ</i>)	8.4.54	N	<i>babhūva</i>
7.4.82 गुणो यङ्लुकोः (<i>guṇo yaṅlukoh</i>)	8.4.41	<i>Sudhā ṭikā</i>	<i>abobhūyiṣṭa</i>
7.4.85 नुगतोऽनुनासिकान्तस्य (<i>nugato 'nunāsikāntasya</i>)	8.4.58	KK/ NY	<i>jaṅgamyate jaṅgamīti</i>
7.4.87 चरफलोश्च (<i>caraphalośca</i>)	8.2.77	KK/ NY/PM	<i>cañcūryate / cañcūrīti</i>
7.4.88 उत् परस्यातः (<i>ut parasyātaḥ</i>)	8.2.77	KK	<i>cañcūryate</i>
7.4.90 रीगृदुपधस्य च (<i>rīgrdupadhasya ca</i>)	8.4.39	SK	<i>narīnṛtyate</i>
7.4.92 ऋतश्च (<i>rtaśca</i>)	8.2.36	TB	<i>praṣṭa</i>
	8.2.37	SK	<i>ajarghatar</i>
	8.2.39		
	8.4.54		
	8.2.75	SK	<i>avarvāḥ</i>
	8.3.14		
7.4.97 ई च गणः (<i>ī ca gaṇaḥ</i>)	8.2.18	BM/ TB	<i>kṛpayati</i>
	8.2.53	SK /TB	<i>kṣā mavān /kṣāmimān</i>
8.1.1 सर्वस्य द्वे (<i>sarvasya dve</i>)	8.4.41	KK/ NY/MB	<i>drogdhā- drogdhā droḍhā- droḍhā</i>

	8.4.19	NY	<i>prāṇiṇiṣati</i>
	8.4.59	PM	<i>kiṅkim</i>
8.1.8 वाक्यादेरामन्त्रितस्यासूयासम्मतिकोपकुत्सनभर्त्सनेषु (<i>vākyāderāmantritasyaśūyāsammatikopakutsanabhartsaneṣu</i>)	8.2.103	KK	<i>māṇavakā 3 māṇavaka abhirūpakā 3 abhirūpaka riktam te ābhirūpyam </i> <i>māṇavakā 3 māṇavaka abhirūpakā 3 abhirūpaka śobhanaḥ khalvasi </i> <i>māṇavakā 3 māṇavaka avinītakā 3 avinītaka idānīm jñāsyasi jālma </i>
	8.2.95		<i>śaktike 3 śaktike yaṣṭike 3 yaṣṭike riktā te śaktiḥ </i> <i>caura caurā 3 vṛṣala vṛṣalā 3 ghātayiṣyāmi tvā, bandhayiṣyāmi tvā</i>
8.1.12 प्रकारे गुणवचनस्य (<i>prakāre guṇavacanasya</i>)	8.2.66	NY	<i>anyo 'nyam</i>
8.1.51 गत्यर्थलोटा लृण्ण चेत् कारकं सर्वान्यत् (<i>gatyarthaloṭā lṛṇṇa cet kāraḥ sarvānyat</i>)	8.2.36	NY	<i>drakṣyasi</i>
	8.2.41		
8.1.56 यद्धितुपरं छन्दसि (<i>yaddhituparam chandasi</i>)	8.3.14	KK	<i>jāye svo rohāvaihi / jāye svā rohāvaihi</i>
8.1.65 एकान्याभ्यां समर्थाभ्याम् (<i>ekānyābhyāṃ samarthābhyām</i>)	8.4.55	KK	<i>atti</i>
8.1.66 यद्वृत्तान्नित्यं (<i>yadvṛttānnityam</i>)	8.2.23	KK	<i>yadryaṇ</i>
	8.2.62	NY	

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