

vyākaraṇa-praveśaḥ

An introduction to traditional Sanskrit grammar



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Contents

Preface to the print edition	4
0 Introduction	5
0.1 About our guide	6
0.2 A summary of Sanskrit	11
0.3 An overview of the <i>Aṣṭādhyāyī</i>	16
1 Sounds	19
1.1 Introduction	20
1.2 The Shiva Sutras	26
1.3 <i>savarṇa</i> sounds	31
1.4 <i>it</i> letters	38
1.5 <i>vidhi</i> rules	44
1.6 <i>ac</i> sandhi	50
1.7 The <i>asiddha</i> section	58
1.8 <i>hal</i> sandhi	63
1.9 <i>ṣatva</i> and <i>ṇatva</i>	69
1.10 Review	73
2 <i>tiñanta</i>	77
2.1 Introduction	78
2.2 <i>dhātu</i>	82
2.3 <i>lakāra</i>	90
2.4 <i>tiñ-pratyāhāra</i>	97
2.5 <i>parasmaipada</i> and <i>ātmanepada</i>	103
2.6 <i>tiñ-siddhi</i>	108
2.7 <i>vikaraṇa</i>	112
2.8 <i>guṇa</i>	119
2.9 <i>prakriyā</i>	126
2.10 Review	135
3 <i>subanta</i>	136
3.1 Introduction	137
3.2 <i>prātipadika</i>	140
3.3 <i>sup-pratyāhāra</i>	142

3.4	<i>kāraka</i>	145
3.5	<i>vibhakti</i>	151
3.6	Forms of <i>nau</i>	156
3.7	<i>avyaya</i>	158
3.8	Review	161
4	<i>kṛt</i>	162
4.1	Introduction	163
4.2	<i>kṛtya</i>	169
4.3	<i>ghañ</i>	174
4.4	<i>kta</i>	177
4.5	<i>śatṛ</i> and <i>śānac</i>	182
4.6	Review	187
5	<i>taddhita</i>	188
5.1	Introduction	189
5.2	<i>apatya</i>	194
5.3	<i>atiśāyana</i>	197
5.4	<i>matuṣṭ</i>	200
5.5	Review	202
6	<i>samāsa</i>	203
6.1	Introduction	204
6.2	<i>avyayībhāva</i>	207
6.3	<i>tatpuruṣa</i>	210
6.4	<i>bahuvrīhi</i>	214
6.5	<i>dvandva</i>	216
6.6	Review	217

Preface to the print edition

This is the print edition of the *vyākaraṇa-praveśaḥ* guide hosted at learnsanskrit.org. This PDF contains all of the same content as our online guide.

We generated this PDF document on 4 June 2022 by processing our website with a special program. This program is not perfect, and its output does not always look clean and professional. Even so, we hope that you find this PDF useful for your needs.

If you have any questions or comments about the material, please reach out to us at learnsanskrit.org/contact.

Introduction

About our guide

This guide describes the fundamentals of the *Aṣṭādhyāyī*, the core text of the Pāṇinian school of Sanskrit grammar.

At heart, the *Aṣṭādhyāyī* is a practical system that serves a practical need: to decide which Sanskrit expressions are valid and which are not. In this guide, we focus on *how* the system works and avoid digressions into theory and minute details. We discuss all of the text's major systems, including nominal and verbal derivation, the root and nominal suffix systems, and compounding.

Our guide expects a basic familiarity with Sanskrit grammatical concepts. But interested beginners will still be able to follow along with a bit of extra work.

If you have never studied grammar before, or if you just want a general overview of Sanskrit grammar, please use our [Sanskrit for Beginners](#) guide instead.)

Origins of the Pāṇinian school

The **Vedas**, the oldest of all Sanskrit compositions, have been passed down through a continuous oral tradition that is thousands of years old.

As time passed and cultures changed, six disciplines called the *vedāṅga* evolved to protect the Vedas in their structure and function. There is *śikṣā*, the study of speech sounds and their correct pronunciation; *chandas*, the study of meter and poetic form; *nirukta*, the study of etymological interpretation; *jyotiṣa*, the study of timekeeping and the stars; *kalpa*, the study of correct ritual; and *vyākaraṇa*, the most prestigious of the six, which is the study of grammar and linguistic analysis.

Though there have been many schools of *vyākaraṇa*, there is only one that is truly pre-eminent. That is *pāṇinīya-vyākaraṇa*, the tradition of the grammarian **Pāṇini**. Pāṇini lived sometime around the 5th century BCE, and we know little about his life beyond that. But what we *do* have is the system he developed and perfected. Pāṇini's treatment of Sanskrit is so thorough and so precise that no

older schools of *vyākaraṇa* survive. Evidently, they were no longer worth retaining.

The core of the Pāṇinian system is the *Aṣṭādhyāyī* (“the eight chapters”), a list of around 4000 rules divided into eight chapters. Together, these rules generate grammatically valid Sanskrit expressions. And if an expression is *not* grammatically valid, then it cannot be generated by the system of rules.

The *Aṣṭādhyāyī* is so comprehensive that essentially all later Sanskrit literature is consistent with its model of Sanskrit. Perhaps Pāṇini's greatest achievement is that he “froze” Sanskrit and preserved the form it has today.

The later tradition

The *Aṣṭādhyāyī* is the core of the system, but it depends on a number of secondary texts, including:

- the *Dhātupāṭha*, which is a list of all basic verb roots with their meanings;
- the *Gaṇapāṭha*, which is a “list of lists” of various words and stems;
- the *Uṇāḍipāṭha*, which contains rules for ad-hoc derivations

In addition, there are important texts later in the tradition that clarify the overall system and fix omissions and oversights from the original text. The most important of these are the *Vārttika* by Kātyāyana and the *Mahābhāṣya* by Patañjali. These two texts are so vital that Pāṇini, Kātyāyana, and Patañjali are together called the *munitraya* (“the triad of sages”) responsible for the tradition.

This is not to mention the centuries of commentary and exposition that followed later, most notably in the *Kāśikāvṛtti* and the *Vaiyākaraṇasiddhāntakaumudī*.

In this guide, however, we focus squarely on the *Aṣṭādhyāyī* with occasional reference to the *Dhātupāṭha* and the *Gaṇapāṭha*.

Why study the *Aṣṭādhyāyī*?

The *Aṣṭādhyāyī* has an obvious appeal to anyone who is intellectually curious. If you are interested in linguistics, mathematics, computer science, information theory, philosophy of language, Indian intellectual traditions, or all of the above: welcome! Feel free to skip to the next section below.

There is also an obvious appeal to those who want to preserve traditional Indian practices and knowledge systems. If this applies to you, we think you should proceed in the traditional way and find a teacher, perhaps through the classes from [Vyoma-Samskrta-Pāthaśālā](#).

Otherwise, the common-sense reason to study the *Aṣṭādhyāyī* is that it will improve your Sanskrit. But is that actually true?

It's true if you are an advanced learner who wants to understand subtle points of usage and become an authority on correct Sanskrit. Then the *Aṣṭādhyāyī* will be of tremendous value to you.

But for beginning and intermediate learners, we do not think that studying the *Aṣṭādhyāyī* will meaningfully improve your Sanskrit. Research on second language acquisition is clear: we acquire proficiency in a language by hearing or listening to meaningful content. Engaging with meaningful content is much more important, and much more effective, than studying grammar rules. (See our [resources page](#) for tips on where to find such content.)

Entering the *Aṣṭādhyāyī*

The *Aṣṭādhyāyī* is exceptionally difficult to understand without help. This is for several reasons:

- It follows the **sutra** style, which is aphoristic, terse, and only truly accessible through expert commentaries. (The advantage of the sutra style is that its texts are compact and easier to memorize.)
- It uses highly technical Sanskrit that is more like a computer program than a piece of natural language. Even someone fluent in Sanskrit will struggle to understand it.

- Its core rules are often mutually dependent: to know one, we must understand several others.

It is only natural, then, that an entire tradition of Sanskrit commentaries has arisen to make the *Aṣṭādhyāyī* accessible. Even so, the true beginner finds these texts complex and overwhelming. And of course, they presume a thorough knowledge of Sanskrit.

There are also translations and non-Sanskrit commentaries available. But these, too, are often too complex to be useful to the novice. Likewise, the various popular resources are often too vague or basic to say anything useful about how the system really works.

Our approach

The *Aṣṭādhyāyī* constantly raises fascinating theoretical questions. But at its core, it is a practical system that serves a practical need: to decide which expressions are valid Sanskrit and which are not. Our approach is likewise a practical one that builds up the Pāṇinian system from scratch.

Each lesson starts with a specific problem that we need to address. Then, the lesson introduces the specific rules and concepts that the Pāṇinian system uses to solve the problem. By solving one problem, we often catch sight of another, which we address in the next lesson. In this way, we work through the system as a whole.

Our guide is split into different **units**, each of which focuses on a major component of Sanskrit grammar. Within each unit, we focus on different functional areas of the text. We cover each area with enough detail to give a useful sense of what it is like, but not in so much detail that the reader is lost in minor exceptions.

Here is what the units ahead contain:

1. We start with the problem of modeling different sounds and sound rules. In the process, we learn about some of the core devices that the *Aṣṭādhyāyī* uses to stay expressive and concise.

2. Once we have a clear high-level view of the system, we look at the principles of verb derivation. Starting from an initial set of semantic conditions, we apply the rules of the system to create complete words.
3. We then do the same for nominal derivation. We also take a detour into how the *Aṣṭādhyāyī* handles the semantics of sentences.
4. Next, we investigate the root suffixes (*kṛt*) that create various verbal nouns and adjectives.
5. As follow-up, we investigate the nominal suffixes (*taddhita*) that extend and modify nominal stems.
6. Finally, we investigate the compound system.

Digressions

These blue boxes contain extra discussion on a specific point of interest. These discussions are solely for your interest, and you can skip them entirely if you so choose.

Our hopes for this guide

If you want to deepen your Sanskrit knowledge, we hope our guide will provide a smooth and useful entrance into the world of *vyākaraṇa*. If you are curious about the *Aṣṭādhyāyī* itself, we hope our guide will reveal the core of the system and give you a sense of how its ancient creators approached the world of word and language.

Not everyone can master the *Aṣṭādhyāyī*, but everyone can appreciate its profound and ingenious design. We hope that our guide will make it easier than ever to do so.

A summary of Sanskrit

If you know **zero** Sanskrit, you can still follow along with our series. But it certainly helps to have a basic sense of what Sanskrit is like and how it works. That's what we hope to give you here.

The alphabet

We're still adding audio to our website. For now, you can listen to all of these sounds through [this resource](#) from the University of British Columbia.

Sanskrit is written phonetically. Each sound has one symbol, and each symbol corresponds to one sound. The sounds below are provided in both the usual Devanagari script (संस्कृतम्) and in romanized Sanskrit (*saṃskṛtam*). All Devanagari in our lessons will be displayed next to its romanized version.

These sounds are colored according to where in the mouth they are pronounced. We will explain this system in the lessons to come.

अ आ इ ई उ ऊ
a ā i ī u ū

ऋ ॠ ऌ
ṛ ṝ ḷ

ए ऐ ओ औ
e ai o au

अं अः
aṁ aḥ

क ख ग घ ङ
ka kha ga gha ṅa

च छ ज झ ञ
ca cha ja jha ṇa

ट ठ ड ढ ण
ṭa ṭha ḍa ḍha ṇa

त थ द ध न
ta tha da dha na

प फ ब भ म
pa pha ba bha ma

य
ya

र
ra

ल
la

व
va

श
śa

ष
ṣa

स
sa

ह
ha

Given all of these sounds, we have the first question that the *Aṣṭādhyāyī* aims to answer: *which phonetic distinctions are relevant to grammar?*

Sandhi

In every spoken language, native speakers make subconscious changes to their speech so that they can speak more quickly and fluently. For example, some native English speakers might drop the final “g” of words like “running” or “drinking.” These kinds of changes are called **sandhi**.

Sanskrit sandhi changes are extensive, and they are almost always written down. These changes occur both within words and between words, and they depend both on specific sounds and on the semantics of different words and suffixes.

Given these sandhi changes, we have a second question: *which sandhi changes apply in which contexts?*

Basic words

Roughly, Sanskrit has three types of words. These are **nominal** words (nouns, adjectives, participles, and the like), **verbs**, and a broad third category we can call **uninflected words**. The example below uses each of these three word types:

रामो न जगाम ।

rāmo na jagāma.

Rama didn't go.

Sanskrit also relies on something called **inflection**. Inflection is when we change part of a word to express a new meaning. English uses inflection in a limited way: we have one *cat* but two *cats*. Or perhaps you *ate* yesterday but will *eat* today. But Sanskrit nominals and verbs use inflection much more extensively:

नयसि

nayasi

You lead

नीयेरन्

nīyeran

They might be led.

नेष्यताम्

neṣyatām

of those about to lead

निनीषन्तः

ninīṣantaḥ

those who want to lead

गजाय

gajāya

for the elephant

गजेषु

gajeṣu

among the (many) elephants

and in much more elaborate patterns, with multiple sandhi changes:

लभे

labhe

I obtain.

रुणध्मि

ruṇadhmi

I obstruct.

This raises a third question: *Which inflectional patterns apply in which contexts, and with what semantics?*

Sentences

Because Sanskrit words are highly inflected, Sanskrit does not usually depend on a specific word order. For example, the two sentences below have the same semantics:

रामो रावणं हन्ति

rāmo rāvaṇaṃ hanti

Rama kills Ravana.

रावणं रामो हन्ति

rāvaṇaṃ rāmo hanti

Rama kills Ravana.

Since word order is relatively unimportant in Sanskrit, the *Aṣṭādhyāyī* focuses instead on a fourth question: *how do words with different semantics combine to express sentence-level semantics?*

The human constraint

Finally, we should remember that the *Aṣṭādhyāyī* is part of a culture that values oral tradition and memorization. So a fifth question it tries to address is a pragmatic one: *how can this system be compressed to the smallest possible form, so that it is easy to memorize and easy to recall?*

With this basic framing, we are ready to begin.

An overview of the *Aṣṭādhyāyī*

Feel free to skip this lesson and come back to it later.

The shape of the text

Adult learners of the *Aṣṭādhyāyī* often think that the text's rules have an unusual or unintuitive ordering. Why do the rules of the *Aṣṭādhyāyī* have the ordering that they do? There are two basic factors that are responsible.

The first factor is that the *Aṣṭādhyāyī* is part of a long oral tradition. This fact has several important implications:

- In traditional Sanskrit education, students chant and memorize several works by rote. Many students don't even understand what they're chanting! So there is less reason to make the rules follow an intuitive order.
- Older students begin to study and unlock the *contents* of what they have memorized with the help of a skilled teacher. At every point in the education process, the student can rely on an expert who has memorized and understood the entire text.
- A memorized rule can be recalled at a moment's notice regardless of where it is in the text, so there is less pressure to rearrange rules into a specific order.
- Oral compositions tend to be more fluid than written compositions: they borrow heavily from past works, and they generally change over the generations.

The second factor is that the *Aṣṭādhyāyī* aims for overall concision (*lāghava*) in its total length. Again, this fact has several important implications:

- Two rules that share a similar context might be grouped together even if the operations they describe are conceptually different.
- Two rules that are conceptually quite similar might be split apart if their contexts are different enough.

- Some interpretations of the text would make a rule purposeless (*vyartha*), which contradicts the general spirit of *lāghava*. On this basis, an interpretation of the system is invalid if it makes a rule purposeless.
- Likewise, rules are usually stated the way they are for a specific reason. Often, that reason is an indicator (*jñāpaka*) of a critical principle of interpretation.

To some extent, these factors are in tension. The *Aṣṭādhyāyī*'s origin in an oral tradition means that a particular rule's ordering is relatively less important. But the *Aṣṭādhyāyī*'s emphasis on overall concision means that a rule's ordering can be vitally important.

Sections of rules

In practice, the result is that the *Aṣṭādhyāyī* is a set of **sections**, where the specific ordering of sections is not very important but the ordering of rules *within* a section is highly important.

Likewise, the eight chapters of the *Aṣṭādhyāyī* generally follow a logical flow:

1. Definitions and rules of interpretation.
2. The compound system.
3. Root suffixes: verb endings, derived roots (*sanādi*), suffixes that make nominal bases (*kṛt*), and auxiliary suffixes (*vikaraṇa*) inserted between the root and the verb suffix.
4. Nominal suffixes (part 1).
5. Nominal suffixes (part 2).
6. Duplication (*dvitva*), vowel sandhi, and accent.
7. Various suffix substitutions, as well as sound changes caused by suffixes.
8. Various sandhi rules.

So although there are some exceptions, the derivation of a specific word usually flows smoothly from book 1 to book 8.

More specifically, the derivation often follows this basic structure:

1. Add and define the base of the derivation. For verbs, this is a verb root. For nominals, this is a nominal stem. (Chapters 1 and 2)
2. Add any suffixes needed in the derivation. (Chapters 3, 4, and 5)
3. Apply sound changes caused by the specific suffixes. (Chapters 6 and 7)
4. Apply sandhi changes to merge all terms together into a single expression. (Chapter 8)

Sounds

Introduction

Sanskrit words and sentences undergo many different kinds of **sound changes**. Vowels might combine or become consonants. Consonants might shift from one class to another. And even more extensive transformations are possible. Together, these sound changes are called **sandhi**.

Many Sanskrit students learn a basic version of sandhi in the course of their studies. But Pāṇini is not content with modeling the basics. Instead, his goal is to model *all* of Sanskrit's sandhi rules as fully as he can. And to do so, he creates several devices that let him express these rules clearly and concisely.

In this unit, we will learn about the specific techniques and devices that Pāṇini uses to model Sanskrit's sounds and sandhi rules. Starting from scratch, we will build up his core system step by step. And by the end, we will have a simple but complete system that contains most of the *Aṣṭādhyāyī*'s essential components. Once we have that basic system in hand, we can explore the rest of the grammar and see how the Pāṇinian system works in practice.

Sounds for beginners

The notes below provide a summary of the Sanskrit sound system. If you know Sanskrit already, you can continue to the next lesson.

Most Sanskrit sounds are pronounced with five **places of articulation** within the mouth. You can see these five points marked in the image below:



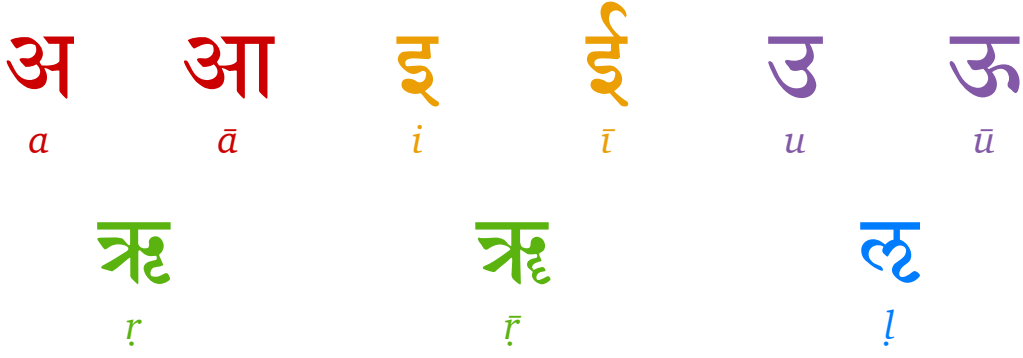
From right to left, these five points are:

- the **soft palate**
- the **hard palate**
- the **alveolar ridge**
- the base of the teeth
- the lips

All of the sounds below are colored according to which place of articulation they use. Sounds that use multiple places of articulation, or that use places of articulation other than the five above, are left black.

The colors below differ from the ones used in the image. The image uses red, orange, yellow, green, and blue. Respectively, we use red, orange, green, blue, and purple below.

First are the **vowels**. The first nine vowels are called **simple vowels**:



And the others are called **compound vowels** since they are made from combinations of the simple vowels:



Of these vowels, five (*a*, *i*, *u*, *ṛ*, *ḷ*) are called **short**. The others are called **long** and are pronounced for twice the duration of the short vowels. There is also a third length, **pluta** (prolonged), that is much longer and much rarer.

All Sanskrit vowels can take one of three **accents**: **udātta** (high), **anudātta** (low), and **svarita** (mixed). And they can be either nasal or non-nasal. So each of the vowels above has $3 \times 2 = 6$ variants.

Next, we have the first twenty-five consonants.

क <i>ka</i>	ख <i>kha</i>	ग <i>ga</i>	घ <i>gha</i>	ङ <i>ṅa</i>
च <i>ca</i>	छ <i>cha</i>	ज <i>ja</i>	झ <i>jha</i>	ञ <i>ña</i>
ट <i>ṭa</i>	ठ <i>ṭha</i>	ड <i>ḍa</i>	ढ <i>ḍha</i>	ण <i>ṇa</i>
त <i>ta</i>	थ <i>tha</i>	द <i>da</i>	ध <i>dha</i>	न <i>na</i>
प <i>pa</i>	फ <i>pha</i>	ब <i>ba</i>	भ <i>bha</i>	म <i>ma</i>

This is a grid with five rows and five columns. Each row in the grid uses a different place of articulation, and each column encodes different properties:

- The first two columns (*ka*, *kha*) are **unvoiced** sounds, meaning that we pronounce them without using our vocal cords. (Compare “p” and “b” in English.) All the others are **voiced**. Vowels are also voiced.
- The second and fourth columns (*kha*, *gha*) are **aspirated** sounds, meaning that we pronounce them with an extra puff of air. All the others are **unaspirated**.
- The fifth column (*ṅa*) contains **nasal** consonants, and the other columns contain **stop** consonants.

Next are the **semivowels**, which have a close relationship to the vowel sounds. All of them are voiced:

य
ya

र
ra

ल
la

व
va

(Technically, *va* uses two points of pronunciation. But this is a minor detail, and it can essentially be treated as if pronounced only with the lips.)

Finally, we have the **sibilants**. *ha* is voiced, but the rest are unvoiced:

श
śa

ष
ṣa

स
sa

ह
ha

Sandhi for beginners

When sounds are pronounced continuously, they can change each other's pronunciation. *Sandhi* is the name for these sound changes.

Most sandhi changes are between two sounds that appear next to each other in continuous speech. Here are some examples of common sandhi changes:

इ + उ → यु
 $i + u \rightarrow yu$

अ + इ → ए
 $a + i \rightarrow e$

क् + अ → ग
 $k + a \rightarrow ga$

Some sandhi changes are optional and are applied at the speaker's preference. Also, sandhi changes might be allowed or blocked in different environments, such as:

- at the end of a word
- at the end of a word that expresses the dual number

- at the end of specific words
- at the end of a verb prefix

In other words, sandhi changes are not purely phonetic. We must also understand *what* is being said so that we can apply sandhi changes correctly.

The Shiva Sutras

Many of Sanskrit's sandhi rules apply only to specific groups of sounds. Some might apply only to simple vowels. Others might apply only to consonants that are neither semivowels nor nasals. And still others apply to more specific groups.

So as we begin to create our system, we must answer a vital and fundamental question: *How might we refer to different groups of sounds concisely?*

Let's enter the Pāṇinian system by seeing how it answers this question.

A list of sounds

Suppose we visit a fruit shop that sells different kinds of fruits. Perhaps it sells the following:

- mangoes
- coconuts
- jackfruit
- oranges
- apples
- lychee fruits
- papayas

Suppose that we want to buy mangoes, coconuts, jackfruit, and oranges. One way to ask for these fruits would be to just name each fruit we want. That would be fine, but it would take a long time to say the name of each fruit.

If the clerk at the store knows the list above, however, we can just say “mangoes to oranges” to get the fruits we want. Doing so is faster and more convenient.

In contrast, suppose instead that we want to buy just mangoes, jackfruit, and papayas. These items are spread out far apart in our list. Now we can't say something like “mangoes to papayas” because that would include too many fruits that we don't want.

What we see from this simple exercise is that the *ordering* of fruits in our list is important. If we order our list well, we ensure that we can quickly make the requests we care about. If we order it poorly, we create extra work for ourselves (and for the poor clerk).

Pāṇini organizes the Sanskrit sounds in a similar way to this list of fruits. By ordering the Sanskrit sounds carefully, he can easily and efficiently make the groups he needs. And if we know how to use his list, we can use it to concisely refer to different groups of Sanskrit sounds.

First, here is the list:

अ इ उ ण्

a i u ṇ

ऋ ल् क्

ṛ ḷ k

ए ओ ङ्

e o ṅ

ऐ औ च्

ai au c

ह य व र ट्

ha ya va ra ṭ

ल ण्

la ṇ

ज म ङ ण न म्

ña ma ṅ ṇa na m

झ भ ञ्

jha bha ñ

घ ढ ध ष्

gha ḍha dha ṣ

ज ब ग ङ द श्

ja ba ga ḍa da ś

ख फ छ ठ थ च ट त व्

kha pha cha ṭha tha ca ṭa ta v

क प य्

ka pa y

श ष स र्

śa ṣa sa r

ह ल्

ha l

Some say that this arrangement was inspired by the beat of Shiva's drum. So these rules are often called the **Shiva Sutras**. But how do the Shiva Sutras actually work?

How the Shiva Sutras work

Each rule in this list has two parts. The black letters are ordinary sounds. And the red letters at the end of each rule are special letters called *its*. These *it* letters are not part of our list of sounds. Instead, they just mark the end of each rule.

Suppose that we want to refer to all of the vowels. We start by choosing the first item we want, which is *a*. Then we choose one of the *it* letters to mark the end of our list. So we would choose *c*, since *c* follows the last vowel in the list. The combination of these two is *ac*. So that is the name for all of the Sanskrit vowels: **ac**.

Likewise, we can quickly refer to other groups of sounds:

अल्

al

all letters

हल्

hal

all consonants

झश्

jhaś

all voiced stop consonants

झष्

jhaṣ

all voiced aspirated stop consonants

खर्

khar

all unvoiced sounds

But before we continue, perhaps you've noticed a few strange features of this list:

- *The vowels ā, ī, ū, and ṛ are missing.* We will explain this in the next lesson. For now, just know that *a* refers to both the short vowel *a* and the long vowel *ā*. Likewise for the other vowels.
- *ha appears twice.* The second *ha* makes it easier to quickly refer to the four sibilant sounds (śal). And when we use this list, any new name we create must include more than one sound. So *hal* will always refer to all consonants, and never to just the sound *ha*.
- *ṇ ends two different rules.* This is a real ambiguity, and we must rely on context and commentaries to make the usage clear. Perhaps Pāṇini ran out of *it* letters and was forced to reuse one.

Review

Overall, the Shiva Sutras give us a clean and concise way to refer to different groups of Sanskrit sounds. How well does it actually work for the rest of the Pāṇinian system? [According to one mathematician](#), this arrangement is mathematically optimal.

Even so, we still have some important open questions:

- In the Shiva Sutras, why does the sound *a* refer to both short *a* and long *ā*?
- What is an *it* letter, really?

The next two lessons will answer each of these questions in turn.

savarṇa sounds

The previous lesson described how the Shiva Sutras let us refer to different sound groups concisely. But we still have some important open questions:

- In the Shiva Sutras, why does the sound *a* refer to both short *a* and long *ā*?
- What is an *it* letter, really?

This lesson will answer the first question, and the next lesson will answer the second question. As we answer these questions, we will also see some actual rules from the *Aṣṭādhyāyī* and enter the system more deeply.

A new problem

To start the discussion, here is a small sandhi change:

सीता अश्वम् इच्छति → सीताश्वम् इच्छति

sītā aśvam icchati → *sītāśvam icchati*

Sita wants a horse.

The vowels *ā* and *a* combine to a single shared vowel *ā*. And there are other combinations possible, too:

अ + अ → आ

a + a → ā

अ + आ → आ

a + ā → ā

आ + आ → आ

ā + ā → ā

All four of these combinations are part of the same general idea: if any two “a” vowels combine, the result is *ā*:

अ/आ + अ/आ → आ

a/ā + a/ā → ā

How can we refer to the category of “a” vowels concisely? More generally, some sounds are *similar* to each other in an important way. *How can we concisely refer to similar sounds?*

Our first rule

To address the question above, we need several rules. Pāṇini starts by introducing this rule:

तुल्यास्यप्रयत्नं सवर्णम्। १.१.९

tulyāsyaprayatnaṁ savarṇam ([1.1.9](#))

tulya-āsyā-prayatnaṁ savarṇam

[Sounds with] the same *āsyā* (place of articulation) and *prayatna* (articulatory effort) are called *savarṇa* (similar).

This is the first rule we've seen from the *Aṣṭādhyāyī*, so let's dwell on it for a moment:

- The numbers *1.1.9* mean that this is chapter 1, part 1, rule 9. The *Aṣṭādhyāyī* has eight chapters, and each chapter has four parts. You can click on these numbers to see the rule's traditional interpretation and commentary, as collected on [ashtadhyayi.com](#).
- First, we show the original rule in Devanagari and Roman script.
- Next, we show the rule with its sandhi changes removed and with its compound separated, so that it is easier to understand. To save space on your screen, we've written this version in just Roman script.
- In the translation, the words in (parentheses) are short translations of the Sanskrit terms they follow.
- In the translation, the words in [brackets] are not explicitly in the rule and must be provided from context. Context may come either from prior rules or from our prior knowledge of the system.

Now, what does this rule actually mean?

- *āsyā* refers to one of the places of articulation in the mouth: the soft palate (where we pronounce *ka*), the hard palate (*ca*), the alveolar ridge (*ṭa*), the teeth (*ta*), or the lips (*pa*).

- *prayatna* refers to how these sounds are pronounced: with full contact between places of articulation (as with *ka*), with partial contact (*ya*), or with no contact (*a*).

So, sounds with the same *āśya* and *prayatna* are called **savarṇa**, which means “similar.” This rule defines the term *savarṇa*, which can then be used in the rest of the system. Rules that define a term are called **saṃjñā** (“designation”) rules.

However, this rule is too general. By 1.1.9, the sounds *i* and *ś* could be counted as *savarṇa* with each other. This definition will cause many problems later. Has Pāṇini made a mistake?

Counteracting a rule

Pāṇini has not made a mistake. In the *Aṣṭādhyāyī*, it is common for one rule to state a general principle and for another to counteract it. To counteract the overapplication of 1.1.9, we have rule 1.1.10:

नाज्झलौ । १.१.१०

nājjhalau ([1.1.10](#))

na ac-halau

But vowels and consonants are not [*savarṇa* with each other].

Notice that the phrase “*savarṇa* with each other” is inferred from the context of rule 1.1.9 above. This extension of context from one rule to another is called **anuvṛtti**. There are specific principles that we can use to define *anuvṛtti*. But for now, let's just focus on understanding this rule.

Rule 1.1.10 refers to *ac* and *hal*, which we learned about in the previous lesson: *ac* refers to all vowels, and *hal* refers to all consonants.

With the extra context and these two definitions in mind, the meaning of the rule is clear. Rule 1.1.10 prevents sounds like *i* and *śa* from being *savarṇa* with each other. Together, 1.1.9 and 1.1.10 give us a complete definition of the term *savarṇa*.

Defining groups of sounds

Now that we have a complete definition of *savarṇa*, we can return to our original problem: *how can we concisely refer to similar sounds?*

Pāṇini's solution is to provide these two rules:

स्व रूपं शब्दस्याशब्दसंज्ञा । १.१.६८

svaṃ rūpaṃ śabdasyāśabdasamjñā (1.1.68)

svam rūpam śabdasya a-śabda-samjñā

A word [denotes] its own form if it is not a definition (*samjñā*).

अणुदित् सवर्णस्य चाप्रत्ययः । १.१.६९

aṇudit savarṇasya cāpratyayaḥ (1.1.69)

aṇ-udit savarṇasya ca a-pratyayaḥ

The *aṇ* sounds and *udit* [sounds] also [denote] their *savarṇa* [sounds], if they are not *pratyaya* (suffixes).

Rule 1.1.68 does not define a term or counteract a rule. Instead, it is an instruction for *us* as we read the grammar. Such rules are called ***paribhāṣā*** (“explanation”) rules. *paribhāṣā* rules usually apply throughout the entire system, so it's important to understand them well.

What does rule 1.1.68 actually mean? We can make the rule clear with an example. Suppose that we see some rule about the word *agni*, which means “fire.” The point of rule 1.1.68 is that such a rule is about the specific form *agni*, and *not* about any other word that means “fire.”

Rule 1.1.69 then borrows this context to define another *paribhāṣā*. (That is, it inherits some context by *anuvṛtti* from rule 1.1.68). Rule 1.1.69 also uses two interesting terms:

- *aṇ* has two interpretations, as we learned in the previous lesson. Here, it is the *aṇ* that includes all vowels and semivowels.
- *udit* will be explained in the next lesson. For now, treat “*udit* sounds” as meaning “sounds followed by *u*.”

With these terms defined, we can see what 1.1.69 does for us:

- In the grammar, *a* will refer to both itself and *ā*, which is *savarṇa* to it. Likewise for *i*, *u*, and so on.
- In the grammar, *kụ* will refer to both *ka* and the four sounds *kha*, *ga*, *gha*, and *ṇa*, all of which are *savarṇa* to *ka*. And likewise for *cụ*, *ṭụ*, *tụ*, and *pụ*. (*ụ* is a nasal *u*. Why is this vowel nasal? We'll explain in the next lesson.)

So with these four rules, we can now refer to similar sounds simply and concisely. But this system also creates a new problem. What if we want to refer to short *a* but not long *ā*? It seems that we can't do that anymore. Has Pāṇini made a mistake?

Referring to short and long vowels

Pāṇini has not made a mistake. We have one more rule to consider:

तपरस्तत्कालस्य । १.१.७०

taparastatkālasya ([1.1.70](#))

ta-paraḥ tat-kālasya

[A sound] bordered by *t* [refers to the sound] with that duration.

Rule 1.1.70 follows right after rule 1.1.69, which we saw above. Note that it continues to use context provided from 1.1.69.

What does this rule actually mean? It means that *at* refers to the short vowel *a* but not to *ā*. Similarly, it means that *āt* refers to *ā* but not to the short vowel *a*. With this new rule, we can always tell these vowels apart.

This rule also explains part of the term *udit*, which we saw in 1.1.69 above. *udit* is *ut-it*: a term that has the vowel *ut* (short *u*) as an *it* letter. (But what is an *it* letter, really? We will answer that question soon.)

Different kinds of vowels

As a closing thought, perhaps you are wondering if rule 1.1.70 is worth the extra effort. Is this rule really necessary?

Yes. Sanskrit vowels make many important distinctions. They can differ in length:

ऊकालो ऽज्झस्वदीर्घप्लुतः । १.२.२७

ūkālo 'jjhrasvadīrghaplutaḥ ([1.2.27](#))

ū-kālaḥ ac hrasva-dīrgha-plutaḥ

The three lengths *u*, *ū*, and *ū*3 [are called] *hrasva* (short), *dīrgha* (long), and *pluta* (prolated, overlong).

अचश्च । १.२.२८

acaśca ([1.2.28](#))

acaḥ ca

And they occur in the context of vowels.

accent:

उच्चैरुदात्तः । १.२.२९

uccairudāttaḥ ([1.2.29](#))

uccaiḥ udāttaḥ

[In the context of vowels], a high [tone is called] *udātta* (acute accent);

नीचैरनुदात्तः । १.२.३०

nīcairanudāttaḥ ([1.2.30](#))

nīcaiḥ anudāttaḥ

a low [tone is called] *anudātta* (grave accent);

समाहारः स्वरितः । १.२.३१

samāhāraḥ svaritaḥ ([1.2.31](#))

samāhāraḥ svaritaḥ

and a mix [of the two is called] *svarita* (circumflex),

तस्यादित उदात्तमर्धह्रस्वम् । १.२.३२

tasyādita udāttamardhahrasvam ([1.2.32](#))

tasya āditaḥ udāttam ardha-hrasvam

of which the beginning is *udātta* for half the length of a short [vowel].

And nasality:

मुखनासिकावचनो ऽनुनासिकः । १.१.८

mukhanāsikāvacano 'nunāsikaḥ (1.1.8)

mukha-nāsikā-vacanaḥ anunāsikaḥ

An utterance [made with] the mouth and nose is called *anunāsika* (nasal).

So in the context of grammar, *a* refers to *eighteen* variants (three lengths × three accents × two options for nasality). And even *at* refers to six variants (3 accents × 2 nasality options).

Review

With the Shiva Sutras and the rules above, we now have a powerful framework for referring to different Sanskrit sounds.

But there is still an important open question: what is an *it* letter, really? The next lesson answers this question and starts to explain the core of the Pāṇinian system.

it letters

Before we talk about *it* letters, let's first understand one of the problems that Pāṇini was facing. Since we are not ancient grammarians, let's put the problem in simple and concrete terms.

Suppose we run a clothing store that sells all kinds of shirts and saris. And when our customers arrive, they want to find exactly what they're looking for. How might we organize this store?

One obvious idea is to group similar items together: shirts with shirts, large items with large items, and so on. Pāṇini uses a similar device to organize lists of verb roots, lists of pronouns, and various other terms.

But one problem with this approach is that there is a limit to how much information it can easily convey. For example, which shirts must be washed in cold water? Which have been imported? Which are on sale? It can be difficult to manage all of these different groupings.

One elegant solution is to add a paper *tag* to each item we sell. This small tag can tell us about the price, the country of origin, and whatever other information we need to know. The tag is not part of the shirt; it's just a label that tells us what the shirt is like.

Pāṇini probably didn't run a clothing store, but he certainly faced a similar problem. He wanted to organize all of the terms in Sanskrit grammar so that their roles and functions were clear. Most of these terms are grouped in large lists, just as we might group shirts together in our store. But there are too many important properties that need to be conveyed. Some of these properties are:

- whether certain verbs are allowed specific suffixes
- whether certain suffixes cause any unusual sound changes
- whether certain terms have any unusual accents

Just as we might add tags to items in our store, Pāṇini adds tags to the different terms in the grammar. These tags are not part of the terms they attach to; they're just labels that tell us what the term is like.

And since the *Aṣṭādhyāyī* is part of an oral tradition, it's only fitting that these tags are other sounds. The technical term for these sounds is *it*.

In eight rules, Pāṇini defines which sounds are *it* and which are not. These rules are so critical to the rest of the grammar that we will list all eight of them here. If you know some Sanskrit, we recommend memorizing them.

Nasal vowels

उपदेशे ऽजनुनासिक इत्। १.३.२

upadeśe 'janunāsika it (1.3.2)

upadeśe ac anunāsikaḥ it

In *upadeśa*, nasal vowels are [called] *it*.

The term *upadeśa* (“instruction, teaching”) here refers to the teaching context of *vyākaraṇa* and the Pāṇinian system. Specifically, it refers to the technical language used within the system. So within this technical context, nasal vowels are called *it*.

With this rule, we can better understand the term *udit* that was used in the previous lesson. For example, we learned previously that *ku* refers to the five sounds *ka*, *kha*, *ga*, *gha*, and *ṇa*. More properly, this is *kụ* with a nasal *ụ* vowel.

By rule 1.3.2, *kụ* is the consonant *k* with the vowel *u* as an *it*. By rule 1.1.70, the short vowel *u* is called *ut*. So, we can say that *k* is *udit* (*ut-it*, “having *u* as an *it*”). And since *k* is *udit*, it is in scope for rule 1.1.69 (*aṇudit savarṇasya cāpratyayaḥ*), which lets us concisely refer to *savarṇa* (similar) sounds.

Final consonants

हलन्त्यम्। १.३.३

halantyaṃ (1.3.3)

hal antyaṃ

Final consonants [are called *it* in *upadeśa*].

With this rule, we can better understand the terms from the Shiva Sutras. In the term *ac*, for example, the final *c* is an *it* sound. Then we can apply rule 1.1.71, which we haven't seen yet. First, we bring in rule 1.1.68 for context:

स्वं रूपं शब्दस्याशब्दसंज्ञा । १.१.६८

svaṃ rūpaṃ śabdasyāśabdasaṃjñā (1.1.68)

svam rūpam śabdasya a-śabda-saṃjñā

A word [denotes] its own form if it is not a definition (*saṃjñā*).

Then, we can define rule 1.1.71:

आदिरन्त्येन सहेता । १.१.७१

ādirantyena sahetā (1.1.71)

ādīḥ antyena saha itā

An initial [item denotes its own form and intermediates] up to the final *it*.

Rule 1.1.71 defines the basic mechanism of the Shiva Sutras: an initial term is paired with an *it* and includes all of the terms between them:

अण् → अ इ उ

aṇ → *a i u*

इक् → इ उ ऋ लृ

ik → *i u ṛ ṝ*

Terms that follow this mechanism are called *pratyāhāras*, and we will see more of them in later lessons.

Minor rules

For our current needs, the next five rules are minor, and we've left only minor comments on them. Notice the context that carries over from one rule to the next. The order of rules here is *not* arbitrary; it is arranged to express as much as possible in as little space as possible.

न विभक्तौ तुस्माः । १.३.४

na vibhaktau tasmāḥ ([1.3.4](#))

na vibhaktau tu-s-māḥ

The *tu* sounds, *s*, and *m* are not [called *it* in *upadeśa*] when they are in a *vibhakti* (verb or nominal ending).

This rule applies to the inflectional endings that we use for verbs and nominals. It will be useful later, but not right now.

आदिर्णिट्ठवः । १.३.५

ādirñiṭṭavah ([1.3.5](#))

ādiḥ ñi-tu-ḍavaḥ

Initial *ñi*, *tu*, and *ḍu* [are called *it* in *upadeśa*].

These rules are mainly found on verb roots and usually allow specific suffixes. The new word *ādiḥ* (“initial”) cancels the force of *na* (“not”) from rule 1.3.4.

Interpreting *tu*

Notice that *tu* here literally refers to the sound *tu*, not to the five sounds *ṭa*, *ṭha*, *ḍa*, *ḍha*, and *ṇa* that we would get from rule 1.1.69. How do we know that *tu* here doesn't refer to these five sounds? Part of the reason is that if it did, then the *tu* in rule 1.3.7 below would become pointless.

The sutra style is concise and compact; nothing is said carelessly. If we know and remember this fact, then we can reason more clearly about what rules mean and what they do.

षः प्रत्ययस्य । १.३.६

ṣaḥ pratyayasya ([1.3.6](#))

ṣaḥ pratyayasya

The [initial] *ṣ* of a *pratyaya* (suffix) [is called *it* in *upadeśa*].

Much of the *Aṣṭādhyāyī* focuses on *pratyayas* and their properties. We will explore the various *pratyayas* later on.

चुट् । १.३.७

cuṭū ([1.3.7](#))

cu-ṭū

The [initial] *cu* sounds and *ṭu* sounds [of a *pratyaya* are called *it* in *upadeśa*].

cu refers to the five sounds *ca*, *cha*, *ja*, *jha*, and *ña*, and likewise for *ṭu*. For the interpretation of *ṭu*, see our note above on rule 1.3.5.

लशक्वतद्धिते । १.३.८

laśakvataddhite ([1.3.8](#))

la-śa-kuṣa-taddhite

The [initial] *l*, *ś*, and the *kuṣ* sounds [of a *pratyaya* are called *it* in *upadeśa*] when not in a *taddhita* (nominal suffix).

A *taddhita* suffix is used to create nominal stems. We will revisit this rule later.

lopa

Finally, we see what happens to these *it* letters:

तस्य लोपः । १.३.९

tasya lopah ([1.3.9](#))

tasya lopah

That [i.e. any *it* letter] undergoes *lopa*.

And what is *lopa*?

अदर्शनं लोपः । १.१.६०

adarśanam lopah ([1.1.60](#))

a-darśanam lopah

Disappearance is [called] *lopa*.

Rule 1.3.9 emphasizes a simple fact: these *it* letters are just a helpful notation. They are not “real” Sanskrit and have no meaning outside the technical world of the Pāṇinian system. In our clothing store, a tag's role is to tell us something about the clothes it is attached to; and in the world of grammar, an *it* letter's role is to tell us something about the terms it is attached to.

Review

With the rules above, we have cleaned up some of the loose ends that earlier lessons left behind. We now have a complete and compact system for defining different groups of Sanskrit sounds.

With this system in hand, we can now turn to the task of using it. In the next lesson, we will see how this system can model sandhi changes clearly and concisely. We will also learn about substitution rules, which are the last major piece of the system's formal language.

vidhi rules

In the previous lessons, we defined a simple, concise, and expressive system for defining various groups of Sanskrit sounds. But our system is missing something obvious: a way to use the terms we've defined. It's as if we have a gourmet kitchen with the finest tools, the freshest ingredients, the most wonderful patrons — and no chef.

So in this lesson and the two that follow, we'll apply our system to a real problem: how to model and describe Sanskrit's sandhi changes. We'll do so by learning how to apply basic *vidhi* rules. And by learning how to do this, we will complete our small system and be ready to examine the rest of the *Aṣṭādhyāyī*.

vidhi literally means “rule” or “command.” Unlike *saṃjñā* rules that merely assign a label, or *paribhāṣā* rules that help us interpret rules correctly, *vidhi* rules are the core operations of the grammar. They add, remove, and modify different terms. And by applying them in the correct sequence, we create a correct Sanskrit expression.

How do we apply *vidhi* rules in the correct sequence? This simple question is surprisingly deep and profound, and we cannot give a proper answer to it for some time. A good rule of thumb is that we should apply the most specific rule we can.

But for now, let's focus on more concrete matters: what *vidhi* rules are, how we define them, and how we can use them to define sandhi rules.

Conditions for sandhi

As a reminder, *sandhi* is the name for Sanskrit's various sound changes. Sandhi occurs only in specific circumstances:

परः संनिकर्षः संहिता । १.४.१०९

paraḥ saṃnikarṣaḥ saṃhitā ([1.4.109](#))

paraḥ saṃnikarṣaḥ saṃhitā

Extremely close contact [of sounds] is called *saṃhitā*.

संहितायाम् । ६.१.७२

saṃhitāyām (6.1.72)

saṃhitāyām

In *saṃhitā*, ...

Rule 1.4.109 is a simple *saṃjñā* rule. But rule 6.1.72 is a new and different kind of rule. What does this rule do? Simply, it adds extra context for the rules that follow it. Such rules are called **adhikāra** (“government”) rules.

How many rules does an *adhikāra* apply to? Each *adhikāra* has a specific scope, which we can usually determine from context or from the rule itself. When in doubt, we can rely on expert commentaries to help us.

And as a quick note, perhaps you're wondering: how many different rule types are there? Different authors classify them in different ways, but in this series, we will use just five basic types: *vidhi* (operation), *saṃjñā* (definition), *adhikāra* (government), *paribhāṣā* (interpretation), and a fifth type called *atideśa* (analogy) that we will use later on.

Our first sandhi rule

Let's start the discussion with some small sandhi changes:

द्रौपदी अश्वम् इच्छति → द्रौपद्यश्वम् इच्छति

draupadī aśvam icchatī → draupadyaśvam icchatī

Draupadi wants a horse.

मधु अस्ति → मध्वस्ति

madhu asti → madhvasti

There is honey.

The basic idea is that if two non-similar vowels are in close contact (*saṃhitā*), then the first vowel should become a semivowel.

How might we capture this change? Pāṇini offers the following rule, but it is difficult to understand:

इको यणचि । ६.१.७७

iko yaṇaci ([6.1.77](#))

ikaḥ yaṇ aci

Of *ik*, there is *yaṇ* in *ac* [in *saṃhitā*].

Let's start with what we do know. We know that *ik*, *yaṇ*, and *ac* are all *pratyāhāras*:

- *ik* refers to one of the vowels *i*, *u*, *ṛ*, and *ḷ*, and to any vowels similar to these four.
- *yaṇ* refers to one of the four semivowels: *y*, *v*, *r*, and *l*.
- *ac* refers to any vowel.

We also know that Sanskrit words express meanings through *inflection*. All three of these *pratyāhāras* are Sanskrit nouns, and they express different **grammatical cases** through different noun endings. (Roughly, a noun's case is the role it plays in the sentence.) So we have:

- the sixth case (*ik-aḥ*), which can be translated as “of.”
- the first case (*yaṇ*), which is usually the subject of a sentence.
- the seventh case (*ac-i*), which can be translated as “in.”

Because we know what the rule *should* be, we can guess what the rule is trying to express. But this guesswork doesn't feel satisfying. It feels like something crucial is missing.

How to interpret cases in formal grammar

The solution is to rely on three new *paribhāṣā* rules. Together, they describe how we should interpret these cases in the context of formal grammar:

षष्ठी स्थानेयोगा । १.१.४९

ṣaṣṭhī sthāneyogā ([1.1.49](#))

ṣaṣṭhī sthāne-yogā

The sixth case can signify *sthāne* (in the place of).

तस्मिन्निति निर्दिष्टे पूर्वस्य । १.१.६६

tasminniti nirdiṣṭe pūrvasya ([1.1.66](#))

tasmin iti nirdiṣṭe pūrvasya

When the seventh case is specified, [substitution is] of the previous.

तस्मादित्युत्तरस्य । १.१.६७

tasmādityuttarasya ([1.1.67](#))

tasmāt iti uttarasya

When the fifth case [is specified, substitution is] of the next.

What do these rules mean? It's simple. In the context of a substitution:

- the sixth case marks the term that will be replaced
- the fifth case marks the term that must appear before the substitution
- the seventh case marks the term that must appear after it

And by normal Sanskrit semantics, the first case will define the replacement. With these principles in mind, we can reinterpret the case semantics in rule 6.1.77:

- *ik* is in the sixth case (*ikaḥ*), so it will be replaced.
- *yaṇ* in the first case (*yaṇ*), so it is the substitute.
- *ac* in the seventh case (*aci*), so it follows the substitution.

Now rule 6.1.77 has a clearer meaning:

इको यणचि । ६.१.७७

iko yaṇaci ([6.1.77](#))

ikaḥ yaṇ aci

An *ik* vowel is replaced with *yaṇ* when a vowel follows [in *saṃhītā*].

Substitution with two lists

There is still a subtle problem with rule 6.1.77 above: which *yaṇ* sound do we use? We know that *y* is the right choice, but the rule does not say so explicitly. So it would be legal to produce this incorrect result:

द्रौपदी अश्वम् इच्छति → * द्रौपद्रश्वम् इच्छति

draupadī aśvam icchati → * *draupadraśvam* icchati

Draupadi wants a horse.

Our rule is too loose. How do we fix this?

Pāṇini offers several rules for performing a substitution correctly, but just one is relevant to us here:

यथासंख्यमनुदेशः समानाम् । १.३.१०

yathāsaṁkhyamanudeśaḥ samānām (1.3.10)

yathā-saṁkhyam anudeśaḥ samānām

Substitution of [items with] the same [size] is according to their relative number.

More plainly, rule 1.3.10 states that if a rule says to replace one list (call it A) with another (call it B) of the same size, what it really means is that we replace the item 1 of A with item 1 of B, item 2 of A with item 2 of B, and so on for the rest of the list.

Now rule 6.1.77 has a clear, consistent meaning:

इको यणचि । ६.१.७७

iko yaṇaci (6.1.77)

ikaḥ yaṇ aci

An *ik* vowel is replaced by its respective *yaṇ* sound when a vowel follows [in *saṁhitā*].

If we return to our original example, we know that *ik* denotes the four vowels *i*, *u*, *ṛ*, and *ḷ*. And we know that *yaṇ* denotes the four semivowels *y*, *v*, *r*, and *l*. So by rule 1.3.10, we see what the correct replacements are:

इ → य्

i → *y*

उ → व्

u → *v*

ऋ → र्

$r \rightarrow r$

लृ → ल्

$l \rightarrow l$

Therefore, the replacement for *i* is *y*, and we get our desired result:

द्रौपदी अश्वम् इच्छति → द्रौपद्यश्वम् इच्छति

draupadī aśvam icchati → *draupadyaśvam icchati*

Draupadi wants a horse.

Review

Understanding rule 6.1.77 took a lot of work and several extra rules. But these new rules give us a precise and concise way to define different operations. We will use these rules over and over as we continue to explore the *Aṣṭādhyāyī*.

There's just one small catch: rule 6.1.77 has an important flaw. In the next lesson, we will fix this flaw and build a basic model for vowel sandhi.

ac sandhi

ac sandhi is the general name for sandhi changes that involve two vowels. For example, the rule we studied in the previous lesson is an example of *ac sandhi*:

इको यणचि। ६.१.७७

iko yaṇaci (6.1.77)

ikaḥ yaṇ aci

An *ik* vowel is replaced by its respective *yaṇ* sound when a vowel follows [in *saṃhitā*].

ac sandhi has many rules of varying importance. Some are truly minor, and others are important general patterns. Here, we will focus on the important general patterns and complete our basic picture of *ac sandhi*.

But there is also an important issue we should address: rule 6.1.77 has a serious flaw. In Sanskrit, two similar vowels should combine and become long:

द्रौपदी इन्द्रम् अपश्यत् → द्रौपदीन्द्रम् अपश्यत्

draupadī indram apaśyat → *draupadīndram apaśyat*

Draupadi saw Indra.

But rule 6.1.77 will produce an error:

द्रौपदी इन्द्रम् अपश्यत् → * द्रौपद्यिन्द्रम् अपश्यत्

draupadī indram apaśyat → * *draupadyindram apaśyat*

Draupadi saw Indra.

So in addition to completing our basic picture of *ac sandhi*, we will also ensure that our system handles the example above correctly.

As in the previous lesson, the rules below will borrow context from the *adhikāra* rule 6.1.72:

संहितायाम् । ६.१.७२

saṃhitāyām (6.1.72)

saṃhitāyām

In *saṃhitā*, ...

ec as first vowel

Once we understand rule 6.1.77 (*iko yaṇaci*), we can easily understand 6.1.78:

एचो ऽयवायावः । ६.१.७८

eco 'yavāyāvaḥ (6.1.78)

ecaḥ ay-av-āy-āvaḥ

An *ec* vowel becomes *ay*, *av*, *āy*, or *āv*, respectively [when a vowel follows in *saṃhitā*].

So we get sandhi changes like this:

ने + अ → नय

ne + a → naya

lead

भो + अ → भव

bho + a → bhava

become

Rule 6.1.78 is nice and simple. Now let's turn to the rules where *a* is first:

a as first vowel

In Sanskrit, *a* will combine with most vowels to form a compound vowel:

सीता इन्द्रम् अपश्यत् → सीतेन्द्रम् अपश्यत्

sītā indram apaśyat → sītendram apaśyat

Sita saw Indra.

Here, one vowel (*e*) replaces two vowels (*ā* and *i*). How might we model this behavior with our rules?

Pāṇini approaches this problem by creating a new *adhikāra* rule:

एकः पूर्वपरयोः । ६.१.८४

ekaḥ pūrvaparayoḥ ([6.1.84](#))

ekaḥ pūrva-parayoḥ

A single [term] is substituted for the previous and following.

What does this rule mean? Recall that we represent “previous” terms with the fifth case and “following” terms with the seventh. So, this rule means that in the scope of this *adhikāra* rule, terms in the fifth and seventh case are both replaced by a single term.

With this context in place, we can model what happens when *a* is the first vowel. In general, the change is simple. With the help of a new term:

अदेङ्गुणः । १.१.२

adeṅguṇaḥ ([1.1.2](#))

at-eṅ guṇaḥ

The vowels *a*, *e*, and *o* are called *guṇa*.

we can define our rule:

आद्गुणः । ६.१.८७

ādguṇaḥ ([6.1.87](#))

āt guṇaḥ

a [and the following vowel] become [a single] *guṇa* [in *saṃhitā*].

But if the second vowel is a compound vowel, we use a slightly different rule. Again, we define a new term:

वृद्धिरादैच् । १.१.१

vṛddhirādaic ([1.1.1](#))

vṛddhiḥ āt-aic

The vowels *ā*, *ai*, and *au* are called *vṛddhi*.

And use it in our rule:

वृद्धिरेचि। ६.१.८८

vṛddhireci (6.1.88)

vṛddhiḥ eci

[a and the following] *ec* vowel become [a single] *vṛddhi* [in *saṃhitā*].

The terms *guṇa* and *vṛddhi* are important and will be used throughout the grammar. We will return to them later on.

Some notes on rule 1.1.1

Let's pause on rule 1.1.1 for a moment. This is the first rule of the entire *Aṣṭādhyāyī*. And to understand it, we must understand all of the following:

- the Shiva Sutras
- the definition of a *pratyāhāra*
- the fact that *a* (in the *pratyāhāra*) refers to both short *a* and long *ā*
- the definition of *t* when it follows a vowel

This is part of why it is so difficult to enter into the Pāṇinian system and understand how it works. (If we have made it easier, please do [let us know](#).)

Substitution with the closest option

Unfortunately, rules 6.1.87 and 6.1.88 have a problem that we've seen before: these rules don't tell us which specific vowel to use. We know what the correct result should be, but these rules allow some clearly incorrect results. For example, we could apply rule 6.1.87:

सीता इन्द्रम् अपश्यत् → * सीतोन्द्रम् अपश्यत्

sītā indram apaśyat → * *sītondram apaśyat*

Sita saw Indra.

To prevent such results, Pāṇini offers this rule to help us perform the correct substitution:

स्थाने ऽन्तरतमः । १.१.५०

sthāne 'ntaratamaḥ ([1.1.50](#))

sthāne antaratamaḥ

In substitution, the closest [is preferred].

Roughly, “closeness” refers to properties like places of articulation, semantics, and so on. Since these rules are about sounds, the closest replacement is the one that matches the places of articulation of the sounds being replaced.

If we return to our example above:

सीता इन्द्रम् अपश्यत् → ???

sītā indram apaśyat → ???

Sita saw Indra.

We must choose which *guṇa* vowel to use, per 6.1.87 (*ādguṇaḥ*). Since *ā* is pronounced at the soft palate and *i* is pronounced at the hard palate, we just need to find which sound is the best match:

- short *a* uses just one of these places of articulation, so it is not a good match.
- *e* uses both of these places of articulation, so it is a good match.
- *o* uses the soft palate, but it uses the lips instead of the hard palate. So *o* is not a good match.

Thus *e* is the best option:

अ + इ → ए

a + i → e

And likewise, *o* is better if the combination is *a* and *u*:

अ + उ → ओ

a + u → o

Addition of *r*

The rules above seem to work as intended. But if we test this rule against our Sanskrit knowledge, we find another problem. In Sanskrit, *ṛ* has no compound vowel. Instead, it combines with *a* with some help from the semivowel *r*:

सीता ऋच्छति → सीतर्च्छति

sītā ṛcchati → *sītarcchati*

Sita goes.

But with our current system, rule 6.1.87 (*ādgūṇaḥ*) can hardly function. *at* seems like the closest *guṇa* vowel, but this produces a bad result:

सीता ऋच्छति → * सीतच्छति

sītā ṛcchati → * *sītacchati*

Sita goes.

The fix is another *paribhāṣā* about how to perform a substitution:

उरण्रपरः । १.१.५१

uraṇraparaḥ ([1.1.51](#))

uḥ aṇ ra-paraḥ

[In substitution,] an *aṇ* vowel that replaces an *ṛ* is followed by *r*.

And with this rule in hand, we can perform the substitution correctly and get the desired result.

Two similar vowels

Finally, we can return to the example from the start of this lesson and complete our basic picture of vowel sandhi. Recall the example we wish to model:

द्रौपदी इन्द्रम् → द्रौपदीन्द्रम्

draupadī indram → *draupadīndram*

To handle this special case, we just need a new rule:

अकः सवर्णे दीर्घः । ६.१.१०१

akaḥ savarṇe dīrghaḥ (6.1.101)

akaḥ savarṇe dīrghaḥ

ak and a following *savarṇa* [vowel] become a *dīrgha* (long) [in *saṃhitā*].

The meaning of this rule is clear. And with rule 1.1.50 (*sthāne'ntaratamaḥ*), it is also clear what the result should be for each vowel:

अ + अ → आ

$a + a \rightarrow \bar{a}$

इ + इ → ई

$i + i \rightarrow \bar{i}$

उ + उ → ऊ

$u + u \rightarrow \bar{u}$

ऋ + ऋ → ॠ

$\bar{r} + \bar{r} \rightarrow \bar{\bar{r}}$

Review

With just a few short rules, we have fully characterized the basic patterns of *ac* sandhi. This is the power the Pāṇinian system gives us. As a quick review, here are the main rules of vowel sandhi:

इको यणचि । ६.१.७७

iko yaṇaci (6.1.77)

ikaḥ yaṇ aci

An *ik* vowel is replaced by its respective *yaṇ* sound when a vowel follows [in *saṃhitā*].

आहुणः । ६.१.८७

ādguṇaḥ (6.1.87)

āt guṇaḥ

a [and the following vowel] become [a single] *guṇa* [in *saṃhitā*].

वृद्धिरेचि । ६.१.८८

vṛddhireci ([6.1.88](#))

vṛddhiḥ eci

[a and the following] *ec* vowel become [a single] *vṛddhi* [in *saṃhitā*].

अकः सवर्णे दीर्घः । ६.१.१०१

ak aḥ savarṇe dīrghaḥ ([6.1.101](#))

ak aḥ savarṇe dīrghaḥ

ak and a following *savarṇa* [vowel] become a *dīrgha* (long) [in *saṃhitā*].

In the next lesson, we will explore a critical problem with our current system and learn how Pāṇini decides to solve it.

The *asiddha* section

Most of the *Aṣṭādhyāyī*'s sandhi rules are in an unusual section of the text. To understand that section, we must first understand how the Pāṇinian system works at a high level. We'll then discuss a major problem with its approach and how Pāṇini solves it.

prakriyā

When we use the *Aṣṭādhyāyī*, we start with an incomplete expression. We then apply one rule at a time. The output of one rule is the input to the next. And as we keep applying rules, our result gets closer and closer to a valid Sanskrit expression.

This full process, including the rules we apply and the results we get, is called a *prakriyā* (“procedure”, “derivation”). When we use the *Aṣṭādhyāyī*, we must know not only what rules mean but also how to apply them to generate a correct *prakriyā*.

What do we mean by a “correct” *prakriyā*? At each step in the *prakriyā*, multiple rules could apply, and we must choose which one to use. There are a few basic principles that help us here. (For example, we should prefer more specific rules to less specific rules.) And **when we can no longer apply any rules**, the *prakriyā* is complete.

Finishing a *prakriyā*

Let's focus on the phrase “*when we can no longer apply any rules.*” What does this mean? For example, we might have this incomplete expression that has had no sandhi rules applied:

ते इच्छन्ति

te icchanti

They want.

If we use rule 6.1.78 from the previous lesson:

एचो ऽयवायावः । ६.१.७८

eco 'yavāyāvaḥ (6.1.78)

ecaḥ ay-av-āy-āvaḥ

An *ec* vowel becomes *ay*, *av*, *āy*, or *āv*, respectively [when a vowel follows in *saṃhitā*].

then we can create a new result:

ते इच्छन्ति → तय् इच्छन्ति

te icchanti → *tay icchanti*

But if you know Sanskrit, you know that this isn't the typical result. The *e* at the end of a word usually becomes *a* when it is followed by a vowel. There is a *vidhi* rule that makes the appropriate change. And by applying that rule, we get the correct result:

तय् इच्छन्ति → त इच्छन्ति

tay icchanti → *ta icchanti*

A serious problem

The problem is that the *prakriyā* is not actually complete, because another rule can now be applied. Specifically, it's rule 6.1.87, which we saw in the previous lesson:

आहुणः । ६.१.८७

āduṇaḥ (6.1.87)

āt guṇaḥ

a [and the following vowel] become [a single] *guṇa* [in *saṃhitā*].

6.1.87 *can* apply, and there is no other rule that takes priority over it. So it *must* and *will* apply, which gives us a bad result:

त इच्छन्ति → * तेच्छन्ति

ta icchanti → * *tecchanti*

It is as if a good man and a thief both come to us to ask for food. We want to give our food to the good man and not to the thief. But if we give our food to the good man, the thief will beat him and steal it. We must ensure that once we give our food to the good man, the thief will not be able to take it from him.

Pāṇini's solution

Pāṇini's solution to this problem is to offer this rule:

पूर्वत्रासिद्धम्। ८.२.१

pūrvatrāsiddham ([8.2.1](#))

pūrvatra a-siddham

... is *asiddha* (inert) in the previous [area].

Rule 8.2.1 is an *adhikāra* that lasts until the very end of the *Aṣṭādhyāyī*. So, all rules that follow rule 8.2.1 will be in its scope. But what does rule 8.2.1 mean, and what does it do?

Understanding rule 8.2.1

First, let's understand the two words *pūrvatra* and *asiddham*.

pūrvatra literally means “in the previous (area).” Here, it refers to all previous rules in the grammar. Every rule after 8.2.1 will inherit the word *pūrvatra*. So for each of these rules, *every* rule before it is *pūrvatra*.

asiddham literally means “not accomplished” or “not enacted.” Here, it essentially means that the rule cannot be used.

We can update our translation like so:

पूर्वत्रासिद्धम्। ८.२.१

pūrvatrāsiddham ([8.2.1](#))

pūrvatra a-siddham

... is disabled with respect to prior rules.

What does this mean? Let's return to the example of the good man and the thief. Once we give our food to the good man, it is as if he becomes invisible. Try as he might, the thief cannot find him.

But rule 8.2.1 also has an interesting implication: we must apply the rules of the *asiddha* section in order. If we have two rules A and B, and if A comes before B, then once we apply A, we can no longer apply B.

Rule 8.2.1 for programmers

If you are familiar with computer programs, rule 8.2.1 is straightforward. All prior rules are a kind of *event-driven programming*, where we select the rules that best match our current context. Then rule 8.2.2 is the start of an *iterative program*, where we apply each rule in sequence.

As far as we can tell, this observation was first made by [Professor Amba Kulkarni](#) in 2008, in her presentation titled *Pāṇini's Aṣṭādhyāyī: A Computer Scientist's viewpoint*.

The practical meaning of rule 8.2.1

Rules after 8.2.1 should be applied in order, and they should be applied after all other rules. This means that all of our *prakriyās* should have this structure:

1. First, we apply rules before 8.2.1.
2. Then, we apply rules after 8.2.1. But these rules must be applied in order; we cannot go back and apply an earlier rule.

To return to our example above, the *vidhi* rule that changes *te* to *ta* is after rule 8.2.1. So once we apply it, we cannot go back and apply 6.1.78 (*ād guṇaḥ*). We thus get the result we were aiming for:

ते इच्छन्ति → त इच्छन्ति
te icchanti → ta icchanti

and our *prakriyā* is complete.

Occasional exceptions to the *asiddha* section

A very small number of rules can be applied after the rules in the *asiddha* section. How is this possible?

Simply, these are rules that would be purposeless (*vyartha*) otherwise. As for why they are stated outside of the *asiddha* section, that is part of a much longer discussion about rule inference (*anuvṛtti*) and concision (*lāghava*) in the *Aṣṭādhyāyī*.

hal sandhi

hal sandhi is the general name for sandhi changes where the first sound is a consonant. Here are some simple examples:

क् + अ → ग

$k + a \rightarrow ga$

ष् + त → ष्ट

$\dot{s} + ta \rightarrow \dot{s}ta$

Many of the rules of *hal sandhi* appear after rule 8.2.1 (*pūrvatrāsiddham*), so they are *asiddha* with respect to prior rules. In plain English, this means that we must apply these rules in order.

hal sandhi is much more extensive than *ac sandhi*, and there is no simple picture of it we can provide. Instead, we will focus on four kinds of changes that we will see repeatedly throughout this series. These are:

- changes involving the *anusvāra*
- changes involving the *visarga*
- changes of *s* to *ṣ*
- changes of *n* to *ṇ*

This lesson will focus on the first two.

adhikāra rules

We have this new *adhikāra*:

पदय्स । ८.१.१६

padaysa ([8.1.16](#))

padaysa

Of a *pada* (word), ...

The rules below also inherit the word *saṃhitāyām* (“in *saṃhitā*”) by *anuvṛtti* from an earlier rule.

Changes involving the *anusvāra*

Generally, the *anusvāra* is a sound that appears only due to sandhi. In the *Aṣṭādhyāyī*, the sound *m* and *n* become the *anusvāra* under different conditions.

First is a general rule about *m* at the end of a word. This rule inherits the term *hali* (“when a consonant follows”) from the rule before it:

मो ऽनुस्वारः । ८.३.२३

mo 'nusvāraḥ (8.3.23)

maḥ anusvāraḥ

m becomes the *anusvāra* [at the end of a *pada* in *saṃhitā* when a consonant follows].

By this rule, we get results like this:

नगरम् गच्छामि → नगरं गच्छामि

nagaram gacchāmi → *nagaraṃ gacchāmi*

I go to the city.

We also have a second rule about *m* and *n* when they are not at the end of a *pada*:

नश्चापदान्तस्य झलि । ८.३.२४

naścāpadāntasya jhali (8.3.24)

naḥ ca a-pada-antasya jhali

[*m*] and *n* [become the *anusvāra* in *saṃhitā*] if not at the end of a *pada*, when followed by a *jhal* consonant.

By this rule, we get results like these:

मन्स्यसे → मंस्यसे

mansyase → *maṃsyase*

You will think.

रम्स्यसे → रंस्यसे

ramsyase → *raṃsyase*

You will delight.

But the *anusvāra* itself might be changed by later rules. These rules appear after the scope of 8.1.16 (*padasya*) has ended:

अनुस्वारस्य ययि परसवर्णः । ८.४.५८

anusvārasya yayi parasavarṇaḥ (8.4.58)

anusvārasya yayi para-savarṇaḥ

[In *saṃhitā*], the *anusvāra* becomes *savarṇa* to the following [sound] when followed by a *yay* sound,

वा पदान्तस्य । ८.४.५९

vā padāntasya (8.4.59)

vā pada-antasya

[but] optionally at the end of a *pada*.

yay includes all consonants except for the sibilants (ś, ṣ, s, h). So the following changes are mandatory by rule 8.4.58:

अंकित → अङ्कित

aṃkita → *aṅkita*

रुंधन्ति → रुन्धन्ति

ruṃdhanti → *rundhanti*

And the following changes are optional, by rule 8.4.59:

नगरं गच्छामि → नगरं गच्छामि , नगरङ् गच्छामि

nagaraṃ gacchāmi → *nagaraṃ gacchāmi* , *nagaraṅ gacchāmi*

अहम् पृच्छामि → अहं पृच्छामि , अहम् पृच्छामि

aham pṛcchāmi → *aham pṛcchāmi* , *aham pṛcchāmi*

There are two ideas worth noting here. First, 8.4.59 is the first rule we've seen where we can choose whether to apply the rule or not. Many rules in the *Aṣṭādhyāyī* are optional, though certain choices do tend to become conventions over time.

Second, notice how the word *rundhanti* is treated by these rules. Since we must apply these rules in order, we have a derivation like this, where *rundhanti* is first changed by rule 8.3.23:

रुन्धन्ति → रुंधन्ति
rundhanti → *ruṁdhanti*

and then converted back to its original form by rule 8.4.58:

रुंधन्ति → रुन्धन्ति
ruṁdhanti → *rundhanti*

This kind of behavior is common in the *asiddha* section.

A note on *anusvāra* usage

The *Aṣṭādhyāyī* is clear that rule 8.4.58 is mandatory. Printed texts, however, will occasionally use the *anusvāra* rather than laboriously write out the correct nasal sound.

Rules that use the *visarga*

Like the *anusvāra*, the *visarga* is also a sound that appears only due to sandhi. In the *Aṣṭādhyāyī*, the sounds *s* and *r* become the *visarga* under different conditions.

Let's focus on how *s* changes, since those changes are more common. Our first rule is still in the scope of 8.1.16 (*padasya*) above:

ससजुषो रुः । ८.२.६६

sasajuṣo ruḥ (8.2.66)

sa-sajuṣoḥ ruḥ

The *s* [at the end of a *pada*] and the [last letter of the word] *sajuṣ* are replaced with *ruḥ*.

sajuṣ is a rare word that we can set aside. *ruḥ*, meanwhile, is a temporary symbol that we will replace in later rules. For example, it might be replaced by rule 8.3.15 below:

रो रि। ८.३.१४

ro ri (8.3.14)

raḥ ri

The *r* [at the end of a *pada* is replaced with *lopa*] when *r* follows.

खरवसानयोर्विसर्जनीयम्। ८.३.१५

kharavasānayorvisarjanīyam (8.3.15)

khar-avasānayoḥ visarjanīyam

[The *r* at the end of a *pada*] is replaced with the *visarjanīya* (*visarga*) when *khar* or *avasāna* follows.

Let's discuss both of these rules in more detail. Rule 8.3.14 accounts for changes like the following:

द्वार् रोहिता → द्वा रोहिता

dvār rohitā → *dvā rohitā*

The door is red.

And the *raḥ* of rule 8.3.14 also includes *ru*.

What are *khar* and *avasāna*? *khar* is a *pratyāhāra* that refers to any unvoiced consonant. And *avasāna* is defined in rule 1.4.110:

विरामोऽवसानम्। १.४.११०

virāmo'vasānam (1.4.110)

virāmaḥ avasānam

Cessation [of speech] is called *avasāna*.

So *r* becomes the *visarga* when at the end of an utterance or when followed by an unvoiced consonant:

राम स् → राम रँ → रामः

rāma s → *rāma ru* → *rāmaḥ*

रामस् खादति → राम रँ खादति → रामः खादति

rāmas khādati → *rāma ru'khādati* → *rāmaḥ khādati*

Rama eats.

Review

In addition to describing some common changes, the rules above also give a clearer idea of how rules in the *asiddha* section work. In the next lesson, we will finish our tour through sounds and sandhi by learning about two common changes that occur within a single word.

ṣatva and ṇatva

In the previous lesson, we learned about various small changes involving the *anusvāra* and the *visarga*. These changes also gave a clearer demonstration of how rules in the *asiddha* section work.

Here, we will take a quick look at two common changes that we will use repeatedly throughout our series. These are:

- the change of *s* to *ṣ*. This is commonly called **ṣatva** (*ṣa*-ness).
- the change of *n* to *ṇ*. This is commonly called **ṇatva** (*ṇa*-ness).

Both *ṣatva* and *ṇatva* have many exceptions and minor rules. So as usual, we will focus on just the common patterns.

Change of *s* to *ṣ*

The consonant *s* can become *ṣ* in several different circumstances. Here we'll look at just one. To understand this rule, we must first consider four rules that are either *adhikāra* rules or rules that establish *anuvṛtti*:

अपदान्तस्य मूर्धन्यः । ८.३.५५

apadāntasya mūrdhanyaḥ (8.3.55)

a-pada-antasya mūrdhanyaḥ

Of a non-word-final, ... a retroflex.

सहेः साडः सः । ८.३.५६

saheḥ sāḍaḥ saḥ (8.3.56)

saheḥ sāḍaḥ saḥ

[The non-word-final] *s* [of *saḥ* in the form *sāḍ*] becomes a retroflex [*ṣa* in *saṃhitā*]. (This rule is minor, but the term *saḥ* will continue through *anuvṛtti*.)

इण्कोः । ८.३.५७

iṇkoḥ (8.3.57)

iṇ-koḥ

After the letters *iṇ* (*i*, *u*) or *ku* (*k*, *kh*, *g*, *gh*, *ṇ*), ...

नुम्बिसर्जनीयशर्व्ववायेऽपि । ८.३.५८

numvisarjanīyaśarvyavāye'pi (8.3.58)

nuṁ-visarjanīya-śar-vyavāye api

Even if separated by *nuṁ*, the *visarjanīya*, or *śar*, ...

Rule 8.3.59 is our focus:

आदेशप्रत्यययोः । ८.३.५९

ādeśapratyayayoḥ (8.3.59)

ādeśa-pratyayayoḥ

[The non-word-final *s* that follows *iṇ* or *kuṣ* becomes a retroflex *ṣa* in *samhitā*] when it is of an *ādeśa* (substitution) or *pratyaya* (suffix) [even if separated by *nuṁ*, the *visarjanīya*, or a *śar* sound].

Rule 8.3.59 inherits different pieces from each of the four rules before it. So in addition to teaching us a useful rule, rule 8.3.59 shows how much the *Aṣṭādhyāyī* relies on the context of prior rules.

Now, what does rule 8.3.59 actually mean? For now, let's set aside certain pieces of this rule. We will return to *ādeśa* in a future lesson, and likewise for *nuṁ*. So, let's work with this simplified version of the rule:

आदेशप्रत्यययोः । ८.३.५९

ādeśapratyayayoḥ (8.3.59)

ādeśa-pratyayayoḥ

In *samhitā*, the non-final *s* of a *pratyaya* (suffix) becomes *ṣ* when it follows *iṇ* or *kuṣ*, even if separated by the *viśarga* or a *śar* sound.

The interpretation of this rule is quite clear. We get changes like the following:

अग्नि + सु → अग्निषु

agni + su → agniṣu

गुरु + सु → गुरुषु

guru + su → guruṣu

वाक् + सु → वाक्षु

vāk + su → vākṣu

Even if certain other sounds intervene:

हविः + सु → हविःषु

haviḥ + su → haviḥṣu

Change of *n* to *ṇ*

Similarly, we have this change of *n* to *ṇ*:

रषाभ्यां नो णः समानपदे। ८.४.१

raṣābhyāṃ no ṇaḥ samānapade (8.4.1)

ra-ṣābhyāṃ naḥ ṇaḥ samāna-pade

When following *r* or *ṣ* in the same *pada* (word), *n* becomes *ṇ* [in *saṃhitā*],

अट्कुप्वाङ्मुव्यवायेऽपि। ८.४.२

aṭkupvāṅmuvyavāye'pi (8.4.2)

aṭ-kuṣṭ-puṣṭ-āṇ-nuṁ-vyavāye api

even if they are separated by *aṭ* sounds, *kuṣṭ* and *puṣṭ* sounds, *āṇ*, or *nuṁ*.

Rule 8.4.1 is straightforward. And rule 8.4.2 includes all kinds of sounds:

- the *pratyāhāra* *aṭ* (*a*, *ā*, *i*, *ī*, *u*, *ū*, *r*, *ṛ*, *l*, *e*, *ai*, *o*, *au*, *h*, *y*, *v*, *r*)
- *kuṣṭ* or *puṣṭ* (*k*, *kh*, *g*, *gh*, *ṇ*, *p*, *ph*, *b*, *bh*, *m*);
- the word *ā*, which is called *āṇ* in the *Aṣṭādhyāyī*. *ā* is the prefix used in words like *āgacchati*, but it has other uses as well.
- *nuṁ* will be discussed in a later lesson.

If rule 8.3.59 (*ādeśapratyayayoḥ*) shows the power of *anuvṛtti*, rule 8.4.2 shows the power of Pāṇini's notation. Pāṇini describes a complex set of conditions in just 8 syllables. And by applying these rules, we get changes like the following:

रामेन → रामेण

rāmena → rāmeṇa

By Rama

पत्त्रानि → पत्त्राणि

pattrāni → *pattrāṇi*

The leaves

Review

The other sandhi rules follow the same principles we've seen already. Studying more sandhi rules might be interesting for its own sake, but it won't teach us anything fundamental about the Pāṇinian system.

Therefore, now is a good time for us to review what we've learned and consolidate our knowledge. Once we've done so, we'll be ready to explore the rest of the Pāṇinian system.

Review

In this unit, we built up the basics of the Pāṇinian system from scratch. These fundamental rules and concepts apply to nearly every part of the *Aṣṭādhyāyī* and will serve as an invaluable foundation as we go forward.

Before we move on, let's take a moment to review what we've learned.

We learned about *it* letters, which let us concisely add extra information to terms in the grammar:

उपदेशे ऽजनुनासिक इत् । १.३.२

upadeśe 'janunāsika it ([1.3.2](#))

upadeśe ac anunāsikaḥ it

In *upadeśa*, nasal vowels are [called] *it*.

हलन्त्यम् । १.३.३

halantyaṃ ([1.3.3](#))

hal antyaṃ

Final consonants [are called *it* in *upadeśa*].

न विभक्तौ तुस्माः । १.३.४

na vibhaktau tasmāḥ ([1.3.4](#))

na vibhaktau tu-s-māḥ

The *tu* sounds, *s*, and *m* are not [called *it* in *upadeśa*] when they are in a *vibhakti* (verb or nominal case ending).

आदिर्जितुडवः । १.३.५

ādirñiṭuḍavaḥ ([1.3.5](#))

ādiḥ ñi-tu-ḍavaḥ

Initial *ñi*, *tu*, and *ḍu* [are called *it* in *upadeśa*].

षः प्रत्ययस्य । १.३.६

ṣaḥ pratyayasya ([1.3.6](#))

ṣaḥ pratyayasya

The [initial] *ṣ* of a *pratyaya* (suffix) [is called *it* in *upadeśa*].

चुट् । १.३.७

cutū (1.3.7)

cu-ṭū

The [initial] *cu* sounds and *ṭu* sounds [of a *pratyaya* are called *it* in *upadeśa*].

लशक्तद्धिते । १.३.८

laśakvataddhite (1.3.8)

la-śa-ku a-taddhite

The [initial] *l*, *ś*, and the *ku* sounds [of a *pratyaya* are called *it* in *upadeśa*] when not in a *taddhita* (nominal suffix).

तस्य लोपः । १.३.९

tasya lopaḥ (1.3.9)

tasya lopaḥ

It [i.e. any *it* letter] undergoes *lopa*.

By using these *it* sounds, we can then create *pratyāhāras* and define a simple notation for describing *savarṇa* letters:

तुल्यास्यप्रयत्नं सवर्णम् । १.१.९

tulyāsyaprayatnaṁ savarṇam (1.1.9)

tulya-āsyaprayatnaṁ savarṇam

[Sounds with] the same *āsyā* (place of articulation) and *prayatna* (articulatory effort) are called *savarṇa* (similar).

नाज्झलौ । १.१.१०

nājḥhalau (1.1.10)

na ac-halau

But vowels and consonants are not [*savarṇa* with each other].

स्वं रूपं शब्दस्याशब्दसंज्ञा । १.१.६८

svaṁ rūpaṁ śabdasyāśabdasaṁjñā (1.1.68)

svam rūpaṁ śabdasya a-śabda-saṁjñā

A word [denotes] its own form if it is not a definition (*saṁjñā*).

अणुदित् सवर्णस्य चाप्रत्ययः । १.१.६९

aṇudit savarṇasya cāpratyayaḥ (1.1.69)

aṇ-udit savarṇasya ca a-pratyayaḥ

The *aṇ* sounds and *udit* [sounds] also [denote] their *savarṇa* [sounds], if they are not *pratyaya* (suffixes).

तपरस्तत्कालस्य । १.१.७०

taparastatkālasya (1.1.70)

ta-paraḥ tat-kālasya

[A sound] bordered by *t* [refers to the sound] with that duration.

We then created a variety of sandhi rules by applying these fundamental *paribhāṣā* rules:

षष्ठी स्थानेयोगा । १.१.४९

ṣaṣṭhī sthāneyogā (1.1.49)

ṣaṣṭhī sthāne-yogā

The sixth case can signify *sthāne* (in the place of).

स्थाने ऽन्तरतमः । १.१.५०

sthāne 'ntaratamaḥ (1.1.50)

sthāne antaratamaḥ

In substitution, the closest [is preferred].

उरण्रपरः । १.१.५१

uraṇraparaḥ (1.1.51)

uḥ aṇ ra-paraḥ

[In substitution,] an *aṇ* vowel that replaces an *ṛ* is followed by *r*.

तस्मिन्निति निर्दिष्टे पूर्वस्य । १.१.६६

tasminniti nirdiṣṭe pūrvasya (1.1.66)

tasmin iti nirdiṣṭe pūrvasya

When the seventh case is specified, [substitution is] of the previous.

तस्मादित्युत्तरस्य । १.१.६७

tasmādityuttarasya ([1.1.67](#))

tasmāt iti uttarasya

When the fifth case [is specified, substitution is] of the next.

यथासंख्यमनुदेशः समानाम् । १.३.१०

yathāsaṅkhyamanudeśaḥ samānām ([1.3.10](#))

yathā-saṅkhyam anudeśaḥ samānām

Substitution of [items with] the same [size] is according to their relative number.

We also learned about the basic types of rules: *vidhi* (operation), *saṃjñā* (definition), *adhikāra* (government), *paribhāṣā* (interpretation), and a fifth type called *atideśa* (analogy) that we will use later on.

Finally, we learned about the basics of a *prakriyā* and how we should choose which rules to apply during the derivation. We will learn much more about this in the lessons to come.

tiñanta

Introduction

In the previous unit, we started from scratch and built up a basic version of the *Aṣṭādhyāyī*'s core. We first learned about *it* sounds, *pratyāhāras*, and other devices that let us refer to sounds concisely. We then applied that knowledge by defining various sandhi rules.

Now that we have a basic understanding of the Pāṇinian system, we can explore the rest of the *Aṣṭādhyāyī*. We'll start by exploring how the *Aṣṭādhyāyī* creates different words. Sanskrit words can be classified in many different ways, but the *Aṣṭādhyāyī* uses a simple system:

सुप्तिङन्तं पदम् । १.४.१४

suptiṅantaṃ padam ([1.4.14](#))

sup-tiṅ-antam padam

That which ends in *sup* or *tiṅ* [is called] a *pada* (word).

sup and *tiṅ* are both *pratyāhāras* that refer to different word endings. *tiṅ* refers to the endings used for verbs. So in the Pāṇinian system, verbs are called *tiṅ-anta* (“ending in a *tiṅ* suffix”).

In this unit, we will learn how the *Aṣṭādhyāyī* creates *tiṅantas*. We will also create complete *prakriyās* (derivations) for a variety of basic verbs.

Basics of *tiṅanta-prakriyā*

At a high level, here is what a *tiṅanta-prakriyā* is like. We start with the specific semantics we wish to express. Perhaps we want the semantics of the root *bhū* in the present tense as applied to a single third-person entity. Based on those semantic conditions, we can follow the rules of the grammar to introduce specific terms:

भू + लट्

bhū + laṭ

Here, *laṭ* is an abstract suffix that usually expresses the present tense. Based on our semantic conditions, we then replace with a specific ending:

भू + ति

bhū + ti

This suffix allows other operations to apply. For example, here we should introduce a new affix *a* between the root and the ending:

भू + अ + ति

bhū + a + ti

Then we should apply the sound changes that are conditioned by the affix:

भो + अ + ति

bho + a + ti

Finally, we apply normal sandhi changes and get a complete word:

भवति

bhavati

(He) becomes.

Of course, this isn't the full *prakriyā* for the word *bhavati*. There are several small but important steps that we've left out. But in the lessons to come, we will learn how to create a complete and correct *prakriyā* for *bhavati* and for many other verbs.

Verbs for beginners

The notes below provide a summary of the Sanskrit verb system. If you know Sanskrit already, you can continue to the next lesson.

Verbs usually describe some kind of action, such as running, thinking, or deciding. Sanskrit verbs express many different kinds of information at once, and their underlying structure is complex.

Sanskrit verbs start with a basic **verb root**. Here are some example verb roots:

नी

nī

lead

कृ

kr

do, make

By adding prefixes and suffixes to this root, we create different verbs forms. Here are some examples:

नेष्यति

neṣyati

(Someone) will lead.

कुर्याम्

kuryām

I might do.

Sanskrit verbs are highly expressive. They can express three different **persons** (third person, second person, first person), three different **numbers** (singular, dual, plural), and ten different **tense-mood** combinations.

Sanskrit verbs also express something called **prayoga**, which loosely corresponds to the active/passive voice distinction in English. We have **kartari prayoga** (“agent usage,” similar to the active voice), **karmaṇi prayoga** (“object usage”, similar to the passive voice), and **bhāve prayoga** (“stative usage”, used only by intransitive verbs).

For a given *prayoga*, we have 3 persons × 3 numbers × 10 tense-moods = 90 standard forms. But in addition, we can use certain verb suffixes to create derived roots:

नी → निनीष

nī → ninīṣa

lead → want to lead

कृ → कारि

kr̥ → kārī

do → make do

And these derived roots can themselves be used in different persons, numbers, tenses, and *prayogas*:

निनीष → निनीषसि

ninīṣa → ninīṣasi

want to lead → you want to lead

कारि → कारयेयुः

kārī → kārayeyuh

make do → they might make (someone) do

dhātu

Our *prakriyā* begins with a **dhātu** (“element,” “verb root”). If we think of the *Aṣṭādhyāyī* as a factory that makes metal sculptures, then *dhātus* are like the ores and metals that enter the factory. We then apply various procedures to convert the *dhātu* into the shape we desire.

Here is how *dhātus* are defined:

भूवादयो धातवः । १.३.१

bhūvādayo dhātavaḥ ([1.3.1](#))

bhū-ādayaḥ dhātavaḥ

The items *bhū*, etc. [are called] *dhātu*.

The word *bhūvādayaḥ* refers to a list of items starting with *bhū*. But where do we find that list?

The *Dhātupāṭha*

The *Dhātupāṭha* is one of the secondary texts that we use with the *Aṣṭādhyāyī*. It is a list of roughly 2000 different *dhātus*, and it also contains a small number of extra rules that describe these *dhātus*.

Each *dhātu* is listed with its basic meaning:

भू सत्तायाम् । १.१

bhū sattāyām ([1.1](#))

bhū in the sense of existing

This is the first entry we've seen from the *Dhātupāṭha*, so let's dwell on it for a moment. First is the *dhātu* (*bhū*). Next is its meaning, given as an abstract noun (*sattā*) in the seventh case. The 1.1 means that this is the first root of the first *gaṇa* (“collection”) of the text. There are ten *gaṇas* in all, and each corresponds to a different class of Sanskrit verb.

You can click on the 1.1 to see this *dhātu*'s entry on ashtadhyayi.com. There, you can see many of the forms that derive from this *dhātu*, and you can click on a form to view a computer-generated *prakriyā*.

The *dhātus* in the *Dhātupāṭha* are provided in their *upadeśa* forms. *bhū* above is also an *upadeśa*, and it looks quite simple. But other *upadeśas* might seem especially strange:

डुकृञ् करणे । ८.१०

ḍukṛñ karaṇe ([8.10](#))

kṛ in the sense of doing

षह् मर्षणे । १.१८८

ṣahaṁ marṣaṇe ([1.188](#))

sah in the sense of enduring

णीञ् प्रापणे । १.१०४९

ṇīñ prāpaṇe ([1.1049](#))

nī in the sense of obtaining or leading

वदिँ अभिवादनस्तुत्योः । १.११

vadiṁ abhivādanastutyoh ([1.11](#))

vand in the sense of greeting or praising

An *upadeśa* may look strange, but it has a deliberate design and conveys plenty of useful information. In the sections below, we will convert these *upadeśas* into their more recognizable forms. Along the way, we will learn more about why these *upadeśas* have the strange forms they do.

it sounds

Do you remember where we first saw the word *upadeśa*? It was a part of rule 1.3.2 (*upadeśe'janunāsika it*), which defines which sounds are *it* and which are not. By applying the rules from this section, we can remove the *its* from the *dhātus* above and create more recognizable forms:

ḍukṛñ

<i>kṛ</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.5</u> <i>ādirñiṭṭḍavaḥ</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>

Although it is incomplete, this is our first look at a *prakriyā*. When we write a *prakriyā*, the left side shows the result and the right side shows which rules we applied to get that result. As usual, you can click on the numbers for some rule to see some information about that rule on ashtadhyayi.com.

The root *kṛ* has the *it* sounds *ḍu* and *ñ*. In other words, we can say that it is *ḍvit* (“having *ḍu* as an *it*”) and *ñit*. *ḍvit* roots are allowed to use the *-tri* nominal suffix, which is minor and rare. And *ñit* roots have a special function that we will study in our lesson on *parasmaipada* and *ātmanepada* endings.

Not all *it* letters have some special meaning. For example:

<i>ṣhaṅ</i>	
<i>ṣah</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>

If *aṅ* were absent, then the last *h* of *ṣah* would become an *it* sound by 1.3.3 (*halantyaṃ*). So we use *aṅ* to protect the root's last consonant sound.

As for *ñit*, it is *ñit* just like *kṛ*:

<i>ñit</i>	
<i>ñi</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>

and *vadi* is *idit* (“having short *i* as an *it*”), which we will discuss further below:

vadiṅ

vad 1.3.2 upadeśe'janunāsika it
1.3.9 tasya lopah

Even after applying these rules, the roots *ṣah*, *ṇī*, and *vad* still seem strange. Let's apply some more rules to convert them to a more recognizable form.

satva and *natva*

We can handle *ṣah* and *ṇī* by using these two rules:

धात्वादेः षः सः । ६.१.६४

dhātvādeḥ ṣaḥ ṣaḥ ([6.1.64](#))

dhātu-ādeḥ saḥ saḥ

The ṣ that begins a *dhātu* is replaced with s;

णो नः । ६.१.६५

$\eta_0 n a \hbar$ ([6.1.65](#))

ṇaḥ ṇaḥ

and likewise, η with n .

The replacement of \mathfrak{s} with s is sometimes called ***satva*** (“sa-ness”), and likewise for ***natva***. We can cause *satva* for *ṣah*:

<i>ṣaha</i> ³	
<i>ṣah</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.9</u> <i>tasya lopah</i>
<i>sah</i>	6.1.64 <i>dhātvādeh ṣah sah</i>

and *natva* for *ṇī*:

$\eta\tilde{n}$	
$\eta\bar{i}$	<u>1.3.3</u> <i>halantya</i>
	<u>1.3.9</u> <i>tasya lopah</i>
$n\bar{i}$	6.1.65 <i>no nah</i>

But why were these roots stated in such a strange way in the first place? To answer that question, let's return to a rule from the previous unit:

आदेशप्रत्यययोः । ८.३.५९

ādeśapratyayayoḥ (8.3.59)

ādeśa-pratyayayoḥ

[The non-word-final *s* that follows *iṇ* or *ku* becomes a retroflex *ṣa* in *samhitā*] when it is of an *ādeśa* (substitution) or *pratyaya* (suffix) [even if separated by *nuṁ*, the *visarjanīya*, or a *śar* sound].

The *ādeśa* in this rule refers to the result of a rule like 6.1.64 (*dhātvādeḥ ṣaḥ saḥ*). If the first *s* of a *dhātu* was created by rule 6.1.64, then we can apply rule 8.3.59 to make changes like this:

वि सङ् → विषङ्

vi saḥ → viṣaḥ

But several roots don't make this kind of change, even though they start with *s*. In order to distinguish which roots are which, Pāṇini thought of a clever way to concisely split the roots that start with *s* into two classes:

- If a *dhātu*'s first *s* is able to become *ṣ*, replace the *s* with *ṣ* in the *upadeśa*.
- If a *dhātu*'s first *s* is *not* able to become *ṣ*, do nothing.

With this split, some of these roots will be in scope for rule 8.3.59 and some of these roots won't. A similar line of thought applies for the change from *ṇ* to *n*.

nuṁ

Last but not least, here is how we handle *idit* roots:

इदितो नुं धातोः । ७.१.५८

idito nuṁ dhātoḥ (7.1.58)

it-itaḥ nuṁ dhātoḥ

Roots that are *idit* take *nuṁ* as a substitute.

nuṁ is stated as an *upadeśa*. Once we apply 1.3.2 (*upadeśe'janunāsika it*) and 1.3.3 (*halantya*) to it, all that we are left with is *n*. *u* has no special meaning here, but *m* does:

आद्यन्तौ टकितौ । १.१.४६

ādyantau ṭakitau (1.1.46)

ādi-antau ṭa-kitau

[Substitutes that are] *ṭit* or *kit* are placed before and after [the substitution], respectively.

मिदचोऽन्त्यात् परः । १.१.४७

midaco'ntyāt paraḥ (1.1.47)

mit acaḥ antyāt paraḥ

[Substitutes that are] *mit* are placed after [the substitution's] last vowel.

What does rule 1.1.47 mean? It means that when the grammar asks us to replace a term with *nuṁ*, what we really do is insert an *n* after the term's last vowel. You can see this insertion in the *prakriyā* below. Note the use of rules 8.3.24 and 8.4.58, which are from the *asiddha* section of the *Aṣṭādhyāyī*:

vadi

vad

1.3.2 *upadeśe'janunāsika it*

1.3.9 *tasya lopaḥ*

va nuṁ d

7.1.58 *idito nuṁ dhātoḥ*

1.1.47 *midaco'ntyātparaḥ*

va n d

1.3.2 *upadeśe'janunāsika it*

1.3.3 *halantya*

1.3.9 *tasya lopaḥ*

va ṁ d

8.3.24 *naścāpadāntasya jhali*

va n d

8.4.58 *anusvārasya yayi parasavarṇaḥ*

Why do we use *nuṁ* at all? Ultimately, it is for reasons similar to why we use *ṣ* and *ṇ* in our roots.

sanādyanta-dhātus

On the subject of *dhātus*, there is one more type of *dhātu* worth knowing about:

सनाद्यन्ता धातवः । ३.१.३२

sanādyantā dhātavaḥ (3.1.32)

san-ādi-antāḥ dhātavaḥ

Terms ending with [the suffixes] *san* etc. are [also] called *dhātu*.

This rule refers to various “derived” *dhātus* that we create by adding suffixes to the basic *dhātus* we discussed above. Specifically, the rule refers to various suffixes listed from rules 3.1.5 to rules 3.1.31. These suffixes include *san*, which usually creates verbs that express “wanting” to do something:

नी + सन् → निनीष → निनीषति

nī + san → ninīṣa → ninīṣati

He wants to lead.

पा + सन् → पिपास → पिपासति

pā + san → pipāsa → pipāṣati

He wants to drink.

and *ṇic*, which usually creates causal verbs:

नी + णिच् → नायि → नाययति

nī + ṇic → nāyi → nāyayati

He makes (someone) lead.

Once we add such suffixes, we can treat the result like any other root. That is why these results are called *dhātu* as well.

Review

In this lesson, we learned how to read roots in the *Dhātupāṭha* and convert a root's raw *upadeśa* form into a form we can more easily recognize and understand:

ṇīñ

$\bar{n}\bar{t}$	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya loṇaḥ</i>
$n\bar{t}$	<u>6.1.65</u> <i>ṇo naḥ</i>

Now that we have our *dhātu*, it's time to start using it. In the next lesson, we will begin the process of verb derivation by adding a verb suffix to our root.

lakāra

In the previous lesson, we learned about the *dhātus* in the *Dhātupāṭha* and how to convert their *upadeśa* forms into something more usable. But to create a verb, a *dhātu* alone is not enough. We must also add a suffix to express the semantics we have in mind.

The verb suffixes in the *Aṣṭādhyāyī* have names like *laṭ*, *liṅ*, and so on. And because all of these suffixes start with the sound *l*, they are called the *la-kāras* (“the letters *la*”).

The rules below describe some of the basic semantics associated with each *lakāra*. Most of these *lakāras* have special uses outside of the basic ones here. But rather than getting lost in details right now, let's focus on the bigger picture.

adhikāra rules

All of the *lakāras* are defined under the following *adhikāra* rules:

प्रत्ययः । ३.१.१

pratyayaḥ ([3.1.1](#))

pratyayaḥ

... is a *pratyaya* (suffix).

परश्च । ३.१.२

paraśca ([3.1.2](#))

paraḥ ca

... and [it is inserted] after [the base].

धातोः । ३.१.९१

dhātoḥ ([3.1.91](#))

dhātoḥ

After a *dhātu* ...

कृदतिङ् । ३.१.९३

kr̥datiṅ ([3.1.93](#))

kr̥t a-tiṅ

... is called *kr̥t* (a kind of nominal suffix), excepting the *tiṅ* suffixes.

In other words, a *lakāra* is a *pratyaya* that is inserted after a *dhātu*. And since a *lakāra* will later be replaced by a *tiṅ* suffix, it will not be called *kr̥t*. (*kr̥t* is a suffix that combines with *dhātus* to make nominal stems.)

Since we have a *dhātu*, let's select the right *lakāra* to use. Six of the *lakāras* refer to specific tenses (*kāla*), and four refer to specific moods (*arthas*).

The six *kālas*

Generally, *luṅ*, *laṅ*, and *liṭ* describe the past tense:

भूते । ३.२.८४

bhūte ([3.2.84](#))

bhūte

In *bhūta* (the past tense), ...

लुङ् । ३.२.११०

luṅ ([3.2.110](#))

luṅ

[The *pratyaya*] *luṅ* [is added after a *dhātu* in the sense of past action]

अनद्यतने लङ् । ३.२.१११

anadyatane laṅ ([3.2.111](#))

anadyatane laṅ

[The *pratyaya*] *laṅ* [is added after a *dhātu* in the sense of past action] that did not occur today.

परोक्षे लिट् । ३.२.११५

parokṣe liṭ ([3.2.115](#))

parokṣe liṭ

[The *pratyaya*] *liṭ* [is added after a *dhātu* in the sense of past action] that was unwitnessed.

laṭ describes the present tense:

वर्तमाने लट् । ३.२.१२३

vartamāne laṭ (3.2.123)

vartamāne laṭ

[The *pratyaya*] *laṭ* [is added after a *dhātu*] in the sense of present action.

And *lṛṭ* and *luṭ* describe the future tense. Rule 3.3.13 here inherits the word *bhaviṣyati* (“in the future”) from a prior rule:

लृट् शेषे च । ३.३.१३

lṛṭ śeṣe ca (3.3.13)

lṛṭ śeṣe ca

[The *pratyaya*] *lṛṭ* [is added after a *dhātu* in the sense of future action], and in the other [minor senses described in previous rules].

अनद्यतने लुट् । ३.३.१५

anadyatane luṭ (3.3.15)

anadyatane luṭ

[The *pratyaya*] *luṭ* [is added after a *dhātu* in the sense of future action] that will not occur today.

Here are examples of all six *kālas*, as well as their meanings within the Pāṇinian system:

अभूत्

abhūt

He was. (*luṇ*)

अभवत्

abhavat

He (before yesterday) was. (*laṇ*)

बभूव

babhūva

He (long ago) was. (*liṭ*)

भवति

bhavati

He is or becomes. (*laṭ*)

भविष्यति

bhaviṣyati

He will be. (*lṛṭ*)

भविता

bhavitā

He will (eventually) be. (*luṭ*)

The four *arthas*

lṛṇ has the sense of “would” or “would have”. Rule 3.3.139 below has the word *bhaviṣyati* (“in the future”) through *anuvṛtti*:

लिङ्गिमित्ते लृङ्क्रियातिपत्तौ । ३.३.१३९

liṅnimitte lṛṇkriyātipattau (3.3.139)

liṅ-nimitte lṛṇ kriyā-atipattau

[The *pratyaya*] *lṛṇ* [is added after a *dhātu*] in a cause-effect relationship [*liṅ-nimitta*] in the future [*bhaviṣyati*] when the action is not accomplished.

भूते च । ३.३.१४०

bhūte ca (3.3.140)

bhūte ca

and [likewise] in the past.

This complex description is easier to understand with an example:

दक्षिणेन चेद् आयास्यन् न शकटं पर्याभविष्यत्

dakṣiṇena ced āyāsyān na śakaṭaṃ paryābhaviṣyat

If he **would come** by the southern road, the cart **would not overturn**.

liṅ and *loṭ* have several senses in common:

विधिनिमन्त्रणामन्त्रणाधीष्टसंप्रश्नप्रार्थनेषु लिङ् । ३.३.१६१

vidhinimantraṇāmantraṇādhīṣṭasampraśnaprārthaneṣu liṅ ([3.3.161](#))

vidhi-nimantraṇa-āmantraṇa-adhīṣṭa-sampraśna-prārthaneṣu liṅ

[The *pratyaya*] *liṅ* [is added after a *dhātu*] in the sense of *vidhi* (injunction), *nimantraṇa* (pressing invitation), *āmantraṇa* (permission), *adhīṣṭa* (respectful or ceremonial request), *sampraśna* (courteous questioning), and *prārthanā* (supplication),

लोट् च । ३.३.१६२

loṭ ca ([3.3.162](#))

loṭ ca

as is *loṭ*.

This overlap has a counterpart in English. For example, depending on the context, we might say either “Eat!” or “You should eat.” The second statement is softer than the first one, but it often expresses the same semantics:

खाद्

khāda

eat! (*loṭ*)

खादेः

khādeḥ

You should (or could, or might) eat. (*liṅ*)

liṅ has many different senses, but here are two more worth knowing about:

शकि लिङ् । ३.३.१७२

śaki liṅca ([3.3.172](#))

śaki liṅ ca

[The *pratyayas*] *liṅ* and [some suffixes from an earlier rule are added after a *dhātu*] in the sense of *śak* (be able to).

आशिषि लिङ्लोटौ । ३.३.१७३

āśiṣi liṅloṭau (3.3.173)

āśiṣi liṅ-loṭau

[The *pratyayas*] *liṅ* and *loṭ* [are added after a *dhātu*] in the sense of *āśiṣ* (blessing or benediction).

In the sense of *āśiṣ*, *liṅ* uses special forms. Usually, we say that these forms use ***āśīr-liṅ*** (“*liṅ* in the sense of *āśiṣ*”) as opposed to the regular ***vidhi-liṅ*** (“*liṅ* in the sense of *vidhi*”):

भवेत्

bhavet

He might be. (*vidhi-liṅ*)

भूयात्

bhūyāt

May you be. (*āśīr-liṅ*)

Finally, we have *leṭ*, which is used only in Vedic compositions. *leṭ* has a meaning similar to *liṅ*:

लिङर्थे लेट् । ३.४.७

liṅarthe leṭ (3.4.7)

liṅ-arthe leṭ

[The *pratyaya*] *leṭ* [is added after a *dhātu*] in the sense of *liṅ*.

Review

By adding a *lakāra* to the end of our *dhātu*, we continue the process of deriving our verb:

ṇīñ

ṇī

1.3.3 *halantyaṃ*

1.3.9 *tasya lopaḥ*

nī

6.1.65 *ṇo naḥ*

nī laṭ

3.2.123 *vartamāne laṭ*

A *lakāra* is abstract, and we need to convert it into a suffix we can recognize and understand. In the next lesson, we will learn how to do so and get one step closer to completing our *prakriyā*.

tiṅ-pratyāhāra

In the previous lesson, we learned about the abstract verb endings called *lakāras*. If we use the *laṭ-lakāra*, which usually implies action in the present tense, we can extend our example *prakriyā* one more step:

ṇīñ	
ṇī	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopah</i>
nī	<u>6.1.65</u> <i>ṇo naḥ</i>
nī laṭ	<u>3.2.123</u> <i>vartamāne laṭ</i>

Since *laṭ* is an *upadeśa*, we can apply rules 1.3.2 (*upadeśe'janunāsika it*) and 1.3.3 (*halantyaṃ*) to remove its *it* sounds:

nī l	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopah</i>

We could also remove *l* by 1.3.8 (*laśakvataddhite*), but this will make it difficult to use rule 3.4.77 later:

लस्य। ३.४.७७

lasya ([3.4.77](#))

lasya

la is replaced by ...

So we keep this *l* and don't apply rule 1.3.8.

Avoiding rule 1.3.8

Why can't we apply 1.3.8 (*laśakvataddhite*) and remove *l*?

If we do, we will no longer be able to use rule 3.4.77 above. Rule 3.4.77 would thus become a useless rule, and we would not be able to derive any verbs. So we should avoid deleting *l*.

This is part of an important principle when using the *Aṣṭādhyāyī*: if a certain approach to *prakriyā* would make a rule useless, that approach is invalid. Every rule in the *Aṣṭādhyāyī* is present for a reason.

tiñ-pratyāhāra

लस्य । ३.४.७७

lasya (3.4.77)

lasya

la is replaced by ...

तिप्तस्झिसिप्थस्थमिप्वस्मस्-तातांझथासाथांध्वमिड्वहिमहिङ् ।

३.४.७८

tiptasjhisipthasthamipvasmas-tātāmjhathāsāthāmdhvamidvahirimahin

(3.4.78)

tip-tas-jhi-sip-thas-tha-mip-vas-mas-ta-ātām-jha-thās-āthām-dhvam-id-vahir-mahin

[the *pratyayas*] *tip*, *thas*, *jhi*, *sip*, *thas*, *tha*, *mip*, *vas*, *mas*, *ta*, *ātām*, *jha*, *thās*, *āthām*, *dhvam*, *iṭ*, *vahi*, and *mahin*.

The *ñ* at the end of *mahin* is present just so we can make a *pratyāhāra*. If we take the first term and use *ñ*, we have ***tiñ***, the set of all verb endings in Sanskrit.

We can also make some minor observations about these *tiñ* suffixes:

- Many of these endings are marked with various *it* sounds. *ñ* lets us create the *pratyāhāra*. *p* causes vowel changes for certain kinds of verb stems. And the *ṭ* on *iṭ* is so that we can more easily refer to this specific ending later.
- We also notice the strange endings *jhi* and *jha*. *jh* has a special role that we will discuss two lessons from now. For the time being, rest assured that these will become the more regular endings *nti* and *nta*.

More importantly, however, notice that there are eighteen endings to choose from. It is not obvious which one we should choose for our verb. How do we choose the correct one?

We do so by adding different *saṃjñās* (designations) to these suffixes. Each of these *saṃjñās* implies different semantics. Based on the semantics we wish to express, we can then choose the correct suffix.

***adhikāra* rules**

These *saṃjñās* are defined under the following *adhikāra*:

आ कडारादेका संज्ञा । १.४.१

ā kaḍārādekā saṃjñā ([1.4.1](#))

ā kaḍārāt ekā saṃjñā

Up to the *kaḍāra* rule (rule 2.2.38), one *saṃjñā* [is allowed].

And the following *paribhāṣā*:

विप्रतिषेधे परं कार्यम् । १.४.२

vipratīṣedhe paraṃ kāryam ([1.4.2](#))

vipratīṣedhe param kāryam

In matters of conflict, the later [rule] should be applied.

The idea of the first rule is that if one *saṃjñā* is a subset of another, only one of these two *saṃjñās* applies. We will see a concrete example of this further below.

puruṣa* and *vacana

First, we have distinctions of *puruṣa* (person) and *vacana* (number):

तिङ्स्त्रीणि त्रीणि प्रथममध्यमोत्तमाः । १.४.१०१

tiṅstrīṇi trīṇi prathamamadhyamottamāḥ ([1.4.101](#))

tiṅaḥ trīṇi trīṇi prathama-madhyama-uttamāḥ

Taken three by three, the *tiṅ* [suffixes] are called *prathama* (first), *madhyama* (middle), and *uttama* (last).

तान्येकवचनद्विवचनबहुवचनान्येकशः । १.४.१०२

tānyekavacanadvivacanabahuvacanānyekaśaḥ (1.4.102)

tāni ekavacana-dvivacana-bahuvacanāni ekaśaḥ

They [i.e. these triples] are called *ekavacana* (singular), *dvivacana* (dual), and *bahuvacana* (plural) when taken one by one.

सुपः । १.४.१०३

supaḥ (1.4.103)

supaḥ

[*ekavacana*, *dvivacana*, and *bahuvacana* also apply for the triples] of *sup* (i.e. the nominal endings).

विभक्तिश्च । १.४.१०४

vibhaktiśca (1.4.104)

vibhaktiḥ ca

And [these triples are each called] *vibhakti*.

Before we move on, note that rule 1.4.104 is vital. Normally, we would remove the final *s* and *m* sounds of all of the *tiṅ* suffixes by rule 1.3.3 (*halantyaṃ*). But if these endings are called *vibhakti*, then rule 1.3.4 (*na vibhaktau tusmāḥ*) blocks rule 1.3.3 and leaves our endings intact.

Now: what are the semantics of *prathama*, *madhyama*, and *uttama*? They are defined in next few rules:

युष्मद्युपपदे समानाधिकरणे स्थानिन्यपि मध्यमः । १.४.१०५

yuṣmadyupapade samānādhikaraṇe sthāninyapi madhyamaḥ (1.4.105)

yuṣmadi upapade samāna-adhikaraṇe sthānini api madhyamaḥ

When *yuṣmad* (you) is coreferent with the verb, even if implicitly so, *madhyama* [is used].

अस्मद्युत्तमः । १.४.१०७

asmadyuttamaḥ (1.4.107)

asmadi uttamaḥ

When *asmad* (I, we) [is coreferent with the verb, even if implicitly so,] *uttama* [is used].

शेषे प्रथमः। १.४.१०८

śeṣe prathamah (1.4.108)

śeṣe prathamah

Otherwise, *prathama* [is used].

And what are the semantics of *vacana*? These two rules define them:

बहुषु बहुवचनम्। १.४.२१

bahuṣu bahuvacanam (1.4.21)

bahuṣu bahu-vacanam

In the sense of many, *bahuvacana* [is used].

द्वेकयोर्द्विवचनैकवचने। १.४.२२

dvyekayordvivacanaikavacane (1.4.22)

dvi-ekayoḥ dvivacana-ekavacane

In the sense of two or one, *dvivacana* and *ekavacana* [are used, respectively].

By choosing a *puruṣa*, we narrow down eighteen endings to six. By choosing a *vacana*, we narrow down six endings to two. That leaves us with one last distinction to make:

parasmaipada and *ātmanepada*

लः परस्मैपदम्। १.४.९९

laḥ parasmaipadam (1.4.99)

laḥ parasmaipadam

[The replacements for] *laḥ* are called *parasmaipada*.

तङानावात्मनेपदम्। १.४.१००

taṇānāvātmanepadam (1.4.100)

taṇ-ānau ātmanepadam

The *taṇ* suffixes and (the suffix) *āna* are called *ātmanepada*.

taṇ is a *pratyāhāra* formed with the tenth *tiṇ* suffix *ta*. By 1.4.1 (*ā kaḍārādekā saṃjñā*) and 1.4.2 (*vipratīṣedhe paraṃ kāryam*), the first nine *tiṇ* suffixes are called *parasmaipada* and the rest are called *ātmanepada*.

The terms *parasmaipada* and *ātmanepada* refer to a concept that is more complicated than *puruṣa* or *vacana*. Since it's hard to convey in a concise way, let's continue our discussion in the next lesson.

Review

In the next lesson, we will discuss *parasmaipada* and *ātmanepada* properly and finally choose an ending for our verb.

parasmaipada and *ātmanepada*

There are eighteen *tiṅ* suffixes in total. By choosing a particular person (*prathama*, *madhyama*, or *uttama*), we reduce eighteen to six. And by choosing a particular number (*ekavacana*, *dvivacana*, or *bahuvacana*), we reduce six to two.

To finally choose an ending, there is one last distinction we should make: whether to use a *parasmaipada* ending or an *ātmanepada* ending.

There are two important questions we should answer here:

1. What does it mean for an ending to be *parasmaipada* or *ātmanepada*?
2. How do we decide which of these types to use?

The first question has a complex answer. *parasmai-pada* literally means “word for another,” and *ātmane-pada* literally means “word for oneself.” So a naive guess is that *parasmaipada* endings are used for general actions and *ātmanepada* endings are used for self-interested actions.

But although this may have been true at one point in time, it is only half-true in the *Aṣṭādhyāyī*. While some verbs do express the idea of self-interested action, many verbs use *ātmanepada* endings with no special semantics at all. And in later Sanskrit, the distinction is almost entirely absent.

The second question is a little easier. To decide which ending to use, we can refer to a specific section of the *Aṣṭādhyāyī*, which starts at rule 1.3.12. Based on those rules and the semantics we want to express, here are the outcomes we might have:

Outcome 1: only *ātmanepada*

अनुदात्तङित आत्मनेपदम् । १.३.१२

anudāttaṅita ātmanepadam ([1.3.12](#))

anudātta-ṅitaḥ ātmanepadam

ātmanepada is used [after a *dhātu* that is] either *anudāttet* (i.e. having *anudātta* on an *it* vowel) or *ṅit*.

anudātta is one of the three vowel accents, along with *udātta* and *svarita*. Here, it refers to the accent an *it* vowel has in the *upadeśa*. *ñit*, meanwhile, refers to roots with *ñ* as an *it*.

Accents in the *Aṣṭādhyāyī*

Originally, the *Aṣṭādhyāyī* and its secondary texts were all accented. They used *udāttas*, *anudāttas*, and *svaritas* extensively to encode different kinds of information. But we no longer have these texts in an accented form.

Thankfully, the many commentaries on the *Aṣṭādhyāyī* clarify where the original accents were placed. With the help of these commentaries, we still have the information we need.

Note that rule 1.3.12 does not imply any special semantics; there is no sense of “for oneself” being implied. But there are other conditions where we might use *ātmanepada* endings with a clearer semantic difference:

भावकर्मणोः । १.३.१३

bhāvakarmaṇoḥ ([1.3.13](#))

bhāva-karmaṇoḥ

[*ātmanepada* is used after a *dhātu*] in *bhāve* [*prayoga*] or *karmaṇi* [*prayoga*].

कर्तारि कर्मव्यतिहारे । १.३.१४

kartari karmavyatihāre ([1.3.14](#))

kartari karma-vyatihāre

[*ātmanepada* is used after a *dhātu*] in *kartari* [*prayoga*] in the sense of mutual action,

न गतिहिंसार्थेभ्यः । १.३.१५

na gatihiṃsārthebhyaḥ ([1.3.15](#))

na gati-hiṃsā-arthebhyaḥ

but not [in the sense of mutual action] after [*dhātus*] that denote motion or violence,

इतरेतरान्योन्योपपदाच्च । १.३.१६

itaretarānyonyopapadācca ([1.3.16](#))

itaretara-anyonya-upapadāt ca

nor when the words *itaretara* (each other) or *anyonya* (each other) are *upapadas* (i.e. used with the verb).

Here are examples of rules 1.3.13 and 1.3.14:

त्वया सुष्यते

tvayā supyate

You sleep. (*bhāve*: “There is sleeping by you.”)

कटः क्रियते

kaṭaḥ kriyate

The mat is being made.

व्यतिलुनते

vyatilunate

They cut each other.

After rule 1.3.16, the *Aṣṭādhyāyī* continues with a list of small exceptions, usually for specific combinations of verbs and prefixes:

नेर्विशः । १.३.१७

nerviśaḥ ([1.3.17](#))

neḥ viśaḥ

[*ātmanepada* is used after *dhātu*] *viś* with the prefix *ni* [in *kartari prayoga*].

Since these exceptions are quite minor, let's skip them and consider the second outcome we could have:

Outcome 2: optional *ātmanepada*

A select number of roots can use *ātmanepada* optionally. And when they do so, they express extra semantics:

स्वरितजितः कर्त्रभिप्राये क्रियाफले । १.३.७२

svaritañītaḥ kartrabhiprāye kriyāphale (1.3.72)

svarita-ñītaḥ karṭṛ-abhiprāye kriyā-phale

[*ātmanepada* is used after a *dhātu* that is either] *svaritet* (i.e. having *svarita* on an *it* vowel) or *ñit* when the fruit of the action serves the intention of the *karṭṛ* (agent).

The distinction, in theory, is that if the agent performs the action for their own benefit, we may optionally use *ātmanepada* for certain roots. Here is the classic example:

देवदत्त ओदनं पचति ।

devadatta odanaṃ pacati.

Devadatta cooks rice (for others).

देवदत्त ओदनं पचते ।

devadatta odanaṃ pacate.

Devadatta cooks rice (for himself).

This is why roots like *ṇīñ* and *ḍukṛñ* are marked with *ñ* as an *it*. Because they are *ñit*, they can use *ātmanepada* endings per rule 1.3.72.

Rule 1.3.72 is again followed by some minor exceptions. So let's skip them and consider the third outcome we could have:

Outcome 3: Only *parasmaipada*

All other roots use *parasmaipada* by default:

शेषात् कर्तरि परस्मैपदम् । १.३.७८

śeṣāt kartari parasmaipadam (1.3.78)

śeṣāt kartari parasmaipadam

After any other [*dhātu*] in *kartari* [*prayoga*], *parasmaipada* [is used].

For example, the first root in the *Dhātupāṭha* is *bhū*. *bhū* is neither *anudātta* nor *svarita*, and it has no *it* sounds attached to it. So by rule 1.3.78, it uses *parasmaipada* endings.

Review

By considering person and number, we narrow eighteen endings down to just two. And by applying the procedure above, we can finally select the right ending.

For our example root $\eta\tilde{n}$, we have two choices. We can either reject rule 1.3.72 and use a *parasmaipada* ending by rule 1.3.78 (*śeṣāt kartari parasmaipadam*):

$\eta\tilde{n}$	
$\eta\tilde{t}$	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
$n\tilde{t}$	<u>6.1.65</u> <i>ṇo naḥ</i>
$n\tilde{t} laṭ$	<u>3.2.123</u> <i>vartamāne laṭ</i>
$n\tilde{t} tip$	<u>1.3.78</u> <i>śeṣāt kartari parasmaipadam</i>
	<u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
$n\tilde{t} ti$	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>

Or we can accept rule 1.3.72 and use an *ātmanepada* ending:

$\eta\tilde{n}$	
$\eta\tilde{t}$	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
$n\tilde{t}$	<u>6.1.65</u> <i>ṇo naḥ</i>
$n\tilde{t} laṭ$	<u>3.2.123</u> <i>vartamāne laṭ</i>
$n\tilde{t} ta$	<u>1.3.72</u> <i>svaritañitaḥ kartrabhiprāye kriyāphale</i>
	<u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>

But if you know some Sanskrit, perhaps you've noticed a small problem. For the *ātmanepada* form, we should expect *nayate*, but the *prakriyā* above looks like it will give us the incorrect **nayata* instead. How do we ensure that our *prakriyā* give us the correct result? In the next lesson, we will learn about the rules that help us do so.

tiṅ-siddhi

In the previous lesson, we noticed a small problem with one of our *prakriyās*. When using an *ātmanepada* suffix, what we expect is *te*, but what we actually receive is *ta*. This ending will give us the incorrect **nayata* instead of the correct *nayate*.

How do we ensure that our ending is correct? The answer is a set of rules near the end of chapter 3 of the *Aṣṭādhyāyī*. These rules transform the basic endings in the *tiṅ pratyāhāra* to suit the specific semantics we wish to express. We can call the process of applying these rules ***tiṅ-siddhi*** (“*tiṅ* completion”).

As you read the rules below, keep this critical *paribhāṣā* in mind:

स्थानिवदादेशो ऽनल्विधौ । १.१.५६

sthānivadādeśo 'nalvidhau ([1.1.56](#))

sthānivat ādeśaḥ an-al-vidhau

An *ādeśa* (replacement) is [treated] like its *sthānin* (replaced term) [in terms of the properties it inherits, etc.], excluding rules that concern a single sound.

This is an ***atideśa*** (“analogy,” “extension”) rule. The idea is that even if the suffix *ta* replaces *laṭ*, *ta* should still be treated as if it were *laṭ*.

Creating *laṭ ātmanepada* suffixes

Using rule 1.1.56 (*sthānivadādeśo'nalvidhau*) above, we can transform the basic endings in the *tiṅ pratyāhāra* into the form we expect. First, we have this *adhikāra*, which we saw earlier:

लस्य । ३.४.७७

lasya ([3.4.77](#))

lasya

la is replaced by ...

To convert our *ātmanepada* suffixes to the right form, we need to first define a new term:

अचोऽन्त्यादि टि । १.१.६४

aco'ntyādi ṭi ([1.1.64](#))

acaḥ antya-ādi ṭi

From the last vowel onward [is called] *ṭi*.

Now we can use this term to create the changes we need:

टित आत्मनेपदानां टेरे । ३.४.७९

ṭita ātmanepadānām ṭere ([3.4.79](#))

ṭitaḥ ātmanepadānām ṭeḥ e

For the *ātmanepada* endings of a *la* that is *ṭit*, *ṭi* is replaced by *e*,

थासस्से । ३.४.८०

thāsasse ([3.4.80](#))

thāsaḥ se

[but] *thās* is replaced by *se*.

Simply, rule 3.4.79 means that for each *ṭit* ending, we replace all letters from the last vowel onward with *e*. Rule 3.4.80 is an exception for the ending *thās*.

laṭ is *ṭit* by rule 1.3.3 (*halantyaṃ*). And even if *laṭ* has been replaced by *ta*, rule 3.4.79 still applies due to rule 1.1.56 (*sthānivadādeśo'nalvidhau*).

By applying rules 3.4.79 and 3.4.80, we get the following results:

त आताम् झ थास् आथाम् ध्वम् इट् वहि महिङ्

ta ātām jha thās āthām dhvam iṭ vahi mahiṅ

(default endings)

→ ते आते ज्ञे से आथे ध्वे ए वहे महे

→ *te āte jhe se āthe dhve e vahe mahe*

(after 3.4.79 and 3.4.80)

Rule 3.4.81 to 3.4.112 are all transformation rules similar to the ones above. We don't have any plans to cover them, but if you are interested, [let us know](#) and we'll add them.

Some extra *saṃjñās*

At the end of this section, there are four rules that add some extra *saṃjñās* to our endings:

तिङ्शित्सार्वधातुकम् । ३.४.११३

tiṅśitsārvadhātukam ([3.4.113](#))

tiṅ-śit sārvadhātukam

tiṅ suffixes and *śit* (with *ś* as an *it*) *kṛt* suffixes are called *sārvadhātuka*.

आर्धधातुकं शेषः । ३.४.११४

ārdhadhātukaṃ śeṣaḥ ([3.4.114](#))

ārdhadhātukam śeṣaḥ

All others are called *ārdhadhātuka*.

लिट् च । ३.४.११५

liṭ ca ([3.4.115](#))

liṭ ca

And *liṭ* [is also called *ārdhadhātuka*],

लिङाशिषि । ३.४.११६

liṅāśiṣi ([3.4.116](#))

liṅ āśiṣi

[as well as] *liṅ* in the sense of *āśiḥ* (benediction).

Like *parasmaipada* and *ātmanepada*, *sārvadhātuka* and *ārdhadhātuka* refer to complex concepts that are hard to summarize concisely. So let's pause our discussion here and continue in the next lesson.

Review

The rules in this section of the *Aṣṭādhyāyī* transform our basic set of verb endings into the precise endings we need for our specific *lakāra*.

In the next lesson, we will examine what the term *sārvadhātuka* means and what implications it has for our *prakriyā*.

vikaraṇa

In the previous lesson, we continued our *prakriyā* by replacing *laṭ* with the ending *ti*:

<i>ṇāñ</i>	
<i>ṇī</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>nī</i>	<u>6.1.65</u> <i>ṇo naḥ</i>
<i>nī laṭ</i>	<u>3.2.123</u> <i>vartamāne laṭ</i>
<i>nī tip</i>	<u>1.3.78</u> <i>śeṣāt kartari parasmaipadam</i>
<i>nī ti</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>

This *ti* ending is called *sārvadhātuka* by 3.4.113 (*tiñśitsārvadhātukam*). And a *sārvadhātuka* ending can cause various kinds of changes to the term before it.

One common change is that a *sārvadhātuka* causes a new *pratyaya* to be added to the derivation. It is through these *pratyayas* that we get the various **classes** of Sanskrit verbs. In the examples below, you can see an example of each verb class in the present tense:

भू → भवति

bhū → *bhavati*

अद् → अत्ति

ad → *atti*

हु → जुहोति

hu → *juhoti*

दिक् → दीव्यति

div → *dīvyati*

सु → सुनोति

su → *sunoti*

तुद् → तुदति

tud → *tudati*

रुध् → रुणद्धि

rudh → *ruṇaddhi*

तन् → तनोति

tan → *tanoti*

क्री → क्रीणाति

krī → *krīṇāti*

चुर् → चोरयति

cur → *corayati*

These affixes are commonly called ***vikaraṇas***. In this lesson, we will learn how to continue our *prakriyā* by adding the appropriate *vikaraṇa* after the root.

***adhikāra* rules**

The rules below are within the scope of these *adhikāra* rules:

प्रत्ययः । ३.१.१

pratyayaḥ (3.1.1)

pratyayaḥ

... is a *pratyaya* (suffix).

परश्च । ३.१.२

paraśca (3.1.2)

paraḥ ca

... and [it is inserted] after [the base].

The *vikaraṇas*

We start with the general case:

सार्वधातुके यक् । ३.१.६७

sārvadhātuke yak (3.1.67)

sārvadhātuke yak

[The *kṛt pratyaya*] *yak* [is added after the *dhātu*] when a *sārvadhātuka* [suffix] follows.

कर्तरि शप् । ३.१.६८

kartari śap (3.1.68)

kartari śap

[The *kṛt pratyaya*] *śap* [is added] in *kartari-prayoga* (agentive usage) [after the *dhātu* when a *sārvadhātuka* suffix follows].

Rule 3.1.68 is a restriction on rule 3.1.67. We use *śap* by default in *kartari prayoga*, and we use *yak* in the other *prayogas*.

The rules that follow add further restrictions to the rules above. For example, this rule defines the correct *vikaraṇa* for *div* and some other roots:

दिवादिभ्यः श्यन् । ३.१.६९

divādibhyaḥ śyan (3.1.69)

div-ādibhyaḥ śyan

[The *kṛt pratyaya*] *śyan* [is added in *kartari-prayoga* after the *dhātus*] in the list beginning with *div* [when a *sārvadhātuka* suffix follows].

How do we know which roots are in the *div* list? Ultimately, we must consult the *Dhātupāṭha*. When we do, we see that *div* is the first rule of the fourth major list (*gaṇa*):

दिवुँ क्रीडाविजिगीषाव्यवहारद्युतिस्तुतिमोदमदस्वप्नकान्तिगतिषु ।
४.१

divuṁ kṛḍāvijigīṣāvyavahāradhyutistutimodamadasvapnakāntigatiṣu (4.1)

div in the senses of: *kṛḍā* (play), *vijigīṣā* (desire to win), *vyavahāra* (transaction), *dyuti* (glowing or shining), *stuti* (praising), *moda* (pleasing), *mada* (boasting), *svapna* (sleeping), *kānti* (desiring), or *gati* (motion)

So, all of the roots in the *div* list will use the *vikaraṇa śyan* instead of *śap*.

Next we have the *su* class:

स्वादिभ्यः श्रुः । ३.१.७३

svādibhyaḥ śnuḥ (3.1.73)

su-ādibhyaḥ śnuḥ

[The *kṛt pratyaya*] *śnu* [is added in *kartari-prayoga* after the *dhātus*] in the list beginning with *su* [when a *sārvadhātuka* suffix follows].

श्रुवः शृ च । ३.१.७४

śruvaḥ śṛ ca (3.1.74)

śruvaḥ śṛ ca

And [likewise] of *śru* [which becomes] *śṛ*.

The *tud* class:

तुदादिभ्यः शः । ३.१.७७

tudādibhyaḥ śaḥ (3.1.77)

tud-ādibhyaḥ śaḥ

[The *kṛt pratyaya*] *śa* [is added in *kartari-prayoga* after the *dhātus*] in the list beginning with *tud* [when a *sārvadhātuka* suffix follows].

And the *rudh* class:

रुधादिभ्यः श्रम् । ३.१.७८

rudhādibhyaḥ śnam (3.1.78)

rudh-ādibhyaḥ śnam

[The *kṛt pratyaya*] *śnam* [is added in *kartari-prayoga* after the *dhātus*] in the list beginning with *rudh* [when a *sārvadhātuka* suffix follows].

Note that the *rudh* roots use the *vikaraṇa śnam*. The actual suffix is *na*, which is *śit* and *mit*. By rule 1.1.47 (*midaco'ntyātparaḥ*), *na* will be inserted after the last vowel of the root:

रुध् → रु न ध्

rudh → *ru na dh*

Next we have the *tan* class:

तनादिकृञ्भ्य उः । ३.१.७९

tanādikṛñbhya uḥ (3.1.79)

tan-ādi-kṛñbhyaḥ uḥ

[The *kṛt pratyaya*] *u* [is added in *kartari-prayoga* after the *dhātus*] in the list beginning with *tan*, and also after *kṛ*, [when a *sārvadhātuka* suffix follows].

And the *krī* class:

क्र्यादिभ्यः श्ना । ३.१.८१

kryādibhyaḥ śnā (3.1.81)

krī-ādibhyaḥ śnā

[The *kṛt pratyaya*] *śnā* [is added in *kartari-prayoga* after the *dhātus*] in the list beginning with *krī* [when a *sārvadhātuka* suffix follows].

The *ad*, *hu*, and *cur* classes

The other three classes use a slightly different approach.

The *ad* class replaces *śap* with **luk**, which causes *lopa*. In the rule below, *luk* is available through *anuvṛtti* from a previous rule:

अदि-प्रभृतिभ्यः शपः । २.४.७२

adi-prabhṛtibhyaḥ śapaḥ (2.4.72)

adi-prabhṛtibhyaḥ śapaḥ

[*luk*] replaces *śap* when it follows [the *dhātus* in the list] starting with *ad*.

The *hu* class uses the suffix **ślu**, which causes *lopa* and also causes the root sound to be doubled (*hu* → *juhu*):

जुहोत्यादिभ्यः श्लुः । २.४.७५

juhotyādibhyaḥ śluḥ (2.4.75)

juhoti-adibhyaḥ śluḥ

[The deletion suffix] *ślu* replaces *śap* when it follows [the *dhātus* in the list] starting with *hu*.

The *cur* class, meanwhile, uses the suffix *ṇic*, which will come before *śap*. This is the same suffix used by causal verbs:

सत्यापपाशरूपवीणातूलश्लोकसेनालोमत्वचवर्मवर्णचूर्णचुरादिभ्यो
णिच्। ३.१.२५

satyāpapāśarūpaviṇātūlaślokaśenālomatvacavarmavarṇacūrṇacurādibhyo
ṇic (3.1.25)

satyāpa-pāśa-rūpa-viṇā-tūla-śloka-senā-loma-tvaca-varma-varṇa-cūrṇa-
curādibhyaḥ ṇic

[The suffix] *ṇic* is added after *satyāpa*, *pāśa*, *rūpa*, *viṇā*, *tūla*, *śloka*, *senā*, *loma*, *tvaca*, *varma*, *varṇa*, *cūrṇa*, and [the *dhātus* in the list] starting with *cur*;

हेतुमति च। ३.१.२६

hetumati ca (3.1.26)

hetumati ca

and likewise in the sense of causal action.

Review

We can now continue our *prakriyā* a few more steps:

<i>ṇñ</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>ṇī</i>	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>nī</i>	<u>6.1.65</u> <i>ṇo naḥ</i>
<i>nī laṭ</i>	<u>3.2.123</u> <i>vartamāne laṭ</i>
<i>nī l</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>nī tip</i>	<u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī ti</i>	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>nī śap ti</i>	<u>3.4.113</u> <i>tiṅśitsārvadhātukam</i>
	<u>3.1.68</u> <i>kartari śap</i>

nī a ti

1.3.3 *halantyaṃ*

1.3.8 *laśakvataddhite*

1.3.9 *tasya lopaḥ*

3.4.113 *tiñśitsārvadhātukam*

(Note that *śap* is called *sārvadhātuka* by rule 3.4.113 because it has *ś* as an *it*.)

Our verb is almost ready. In the next lesson, we will learn the last few rules we need to complete the *prakriyā* and get our finished verb.

guṇa

Now that our suffixes are in place, it is time to apply any rules that are conditioned by these suffixes. For *sārvadhātuka* suffixes specifically, there is one particular operation we should learn about: the replacement of the root vowel with its *guṇa* form. Here is an example:

नी अ ते → ने अ ते

nī a te → ne a te

In this lesson, we will learn more about *guṇa* and some of the rules that use it.

The first six rules

The first six rules of the *Aṣṭādhyāyī* are all about *guṇa* and *vṛddhi*. The first two rules define the terms *guṇa* and *vṛddhi*, and the next four then define how *guṇa* and *vṛddhi* interact with other terms:

वृद्धिरादैच्। १.१.१

vṛddhirādaic ([1.1.1](#))

vṛddhiḥ āt-aic

The vowels *ā*, *ai*, and *au* are called *vṛddhi*.

अदेङ्गुणः। १.१.२

adeṅguṇaḥ ([1.1.2](#))

at-eṅ guṇaḥ

The vowels *a*, *e*, and *o* are called *guṇa*.

इको गुणवृद्धी। १.१.३

iko guṇavṛddhī ([1.1.3](#))

ikaḥ guṇa-vṛddhī

guṇa and *vṛddhi* replace the *ik* vowels,

न धातुलोप आर्धधातुके। १.१.४

na dhātulopa ārdhādadhātuke (1.1.4)

na dhātulope ārdhādadhātuke

but not when followed by an *ārdhādadhātuka* that causes [partial] *lopa* of the *dhātu*,

क्विति च। १.१.५

knīti ca (1.1.5)

k-nīti ca

or when followed by [terms that are] *kit* or *nīti*,

दीधीवेवीटाम्। १.१.६

dīdhīvevīṭām (1.1.6)

dīdhī-vevī-iṭām

or when applied to [the roots] *dīdhī* and *vevī*, or [the augment] *iṭ*.

Let's set some of these rules aside. We saw rules 1.1.1 and 1.1.2 in a previous lesson, so we don't need to dwell on them further. And rules 1.1.4 and 1.1.6 are minor, so we can set them aside as well. That leaves us with rules 1.1.3 and 1.1.5.

Rule 1.1.3 defines the basic function of *guṇa* and *vṛddhi* vowels: they replace the *ik* vowels (*i*, *u*, *ṛ*, *ḷ*). And rule 1.1.5 restricts this substitution: the substitution is blocked if the following term is *nīti* or *kit*.

Which kinds of terms are *kit* or *nīti*? As a small example, the common suffix *-ta* is stated as ***kta*** in the *Aṣṭādhyāyī*. Because *kta* is *kit*, it will not cause *guṇa* or *vṛddhi* changes.

Interpreting rule 1.1.5

The traditional interpretation of rule 1.1.5 is that it refers not only to *kit* and *nīti* but also to *git*, which is hidden by sandhi. This interpretation is part of a series of small changes that fixes one of the incorrect words that the *Aṣṭādhyāyī* would otherwise produce.

Here, we use the more straightforward interpretation. *git* is a minor point, and there are also strong arguments that Pāṇini did not intend to imply *git* here.

ñittva

There are also several suffixes that are treated *as if* they are *ñit* suffixes. Those suffixes are defined in the following four *atideśa* (“analogy”, “extension”) rules. All of these rules are useful, but rule 1.2.4 is our focus here:

गाङ्कुटादिभ्योऽङ्गिन्डित् । १.२.१

gāṅkuṭāḍibhyo'ñṇinnit (1.2.1)

gāṅ-kuṭ-āḍibhyaḥ a-ñ-ṇit ñit

The following are *ñit*: [a term] after *gāṅ* and the root list starting with *kuṭ*, if the term is not *ñit* or *ṇit*;

विज इट् । १.२.२

vija iṭ (1.2.2)

vijaḥ iṭ

the *iṭ* after the [root] *vij*;

विभाषोर्णोः । १.२.३

vibhāṣorṇoḥ (1.2.3)

vibhāṣā ūṇoḥ

optionally, [the *iṭ* after the root] *ūṇu*;

सार्वधातुकमपित् । १.२.४

sārvadhātukamapit (1.2.4)

sārvadhātukam a-pit

and *sārvadhātuka* [suffixes] that are not *pit*.

More plainly: a *sārvadhātuka* affix that is not *pit* will be treated as *ñit*. And since it is treated as *ñit*, it will not be able to cause any *guṇa* changes to the root sound.

Since *śap* is *pit*, rule 1.2.4 will not apply to it, and it will still be able to cause *guṇa* changes by rule 7.3.84, which we discuss further below.

adhikāra rules

There is one relevant *adhikāra* here:

अङ्गस्य । ६.४.१

aṅgasya ([6.4.1](#))

aṅgasya

Of an *aṅga*, ...

And what is an *aṅga*?

यस्मात् प्रत्ययविधिस्तदादि प्रत्ययेऽङ्गम् । १.४.१३

yasmāt pratyayavidhistadādi pratyaye'ṅgam ([1.4.13](#))

yasmāt pratyaya-vidhiḥ tat-ādi pratyaye aṅgam

If a rule introduces a *pratyaya* after some specific term, everything from that term up to the *pratyaya* [is called] an *anga*.

So if a *pratyaya* is introduced after a *dhātu*, that *dhātu* is called *aṅga* with respect to the *pratyaya*.

Replacement by *guṇa*

Rule 7.3.84 contains the word *guṇa* by *anuvṛtti* from a previous rule:

सार्वधातुकार्धधातुकयोः । ७.३.८४

sārvadhātukārdhadhātukayoḥ ([7.3.84](#))

sārvadhātuka-ārdhadhātukayoḥ

[An *aṅga* is replaced with *guṇa*] when followed by a *sārvadhātuka* or *ārdhadhātuka* suffix.

But to properly understand this rule, we must refer to two other rules. First, we know from rule 1.1.3 (*iko guṇavṛddhī*) that *guṇa* and *vṛddhi* sounds can replace only an *ik* vowel. But which *ik* vowel do we replace? We can decide which vowel to replace by referring to a new *paribhāṣā*:

येन विधिस्तदन्तस्य । १.१.७२

yena vidhistadantasya ([1.1.72](#))

yena vidhiḥ tat-antasya

[A term] by which a rule [is specified refers to an item that] ends in that [term].

In other words, the rule applies to the final sound of the *aṅga*. If we use rules 1.1.3 and 1.1.72, we can properly understand rule 7.3.84:

सार्वधातुकार्धधातुकयोः । ७.३.८४

sārvadhātukārdhadhātukayoḥ ([7.3.84](#))

sārvadhātuka-ārdhadhātukayoḥ

[An *aṅga*'s last *ik* vowel is replaced with *guṇa*] when followed by a *sārvadhātuka* or *ārdhadhātuka* suffix.

Then we can continue with our *prakriyā*:

nī a ti

[1.3.3](#) *halantyam*

[1.3.8](#) *laśakvataddhite*

[1.3.9](#) *tasya lopaḥ*

ne a ti

[7.3.84](#) *sārvadhātukārdhadhātukayoḥ*

laghu and guru

There is another important instance where *guṇa* can apply. If we define the terms *laghu*:

हलोऽनन्तराः संयोगः । १.१.७

halo'nantarāḥ saṃyogaḥ ([1.1.7](#))

halaḥ anantarāḥ saṃyogaḥ

Consonants without an interval between them are called *saṃyoga* (conjunct).

ह्रस्वं लघु। १.४.१०

hrasvaṃ laghu ([1.4.10](#))

hrasvam laghu

A *hrasva* (short vowel) is called *laghu*,

संयोगे गुरु। १.४.११

saṃyoge guru ([1.4.11](#))

saṃyoge guru

but it is called *guru* when followed by *saṃyoga*.

दीर्घं च। १.४.१२

dīrghaṃ ca ([1.4.12](#))

dīrgham ca

And *dīrgha* is also [called *guru*].

and *upadhā*:

अलोऽन्त्यात् पूर्व उपधा। १.१.६५

alo'ntyāt pūrva upadhā ([1.1.65](#))

alaḥ antyāt pūrvaḥ upadhā

The sound before the last sound is called *upadhā* (penultimate).

Then we can understand rule 7.3.86, which follows rule 7.3.84 (*sārvadhātukārdhadhātukayoḥ*):

पुगन्तलघूपधस्य च। ७.३.८६

pugantalaghūpadhasya ca ([7.3.86](#))

puḥ-anta-laghu-upadhasya ca

And [the last *ik* vowel of an *aṅga*] ending with *puḥ* or whose *upadhā* (penultimate sound) is *laghu* (a light syllable) [is replaced with *guṇa* when followed by a *sārvadhātuka* or *ārdhadhātuka* suffix].

Let's set aside *puḥ*, since it is a minor point. Then the rule has a plain meaning: if the penultimate sound of the *aṅga* is *laghu*, then we can replace that sound with its *guṇa*.

Together, rules 7.3.84 and 7.3.86 cause *guṇa* in a variety of roots:

नी + शप् → ने अ

nī + śap → ne a

भू + शप् → भो अ

bhū + śap → bho a

शुच् + शप् → शोच् अ

śuc + śap → śoc a

and leave others alone:

निन्द् + शप् → निन्द् अ

nind + śap → nind a

(*upadhā* is not a vowel.)

जीव् + शप् → जीव् अ

jīv + śap → jīv a

(*upadhā* is long.)

Review

We now have all of the essential components we need to complete our *prakriyā*. In the next lesson, we will generate all eighteen forms of the root *nī* in the present tense (*laṭ*) with *kartari prayoga*.

prakriyā

At last, we are ready to complete our *prakriyā*. Using everything we've learned in the previous lessons, we can now fully derive the word *nayati*. And with the help of three new rules, we can derive all eighteen of the forms of *nī* in *kartari prayoga* with *laṭ-lakāra*.

Here are the basic steps we will follow:

1. Choose a *dhātu* from the *Dhātupāṭha*.
2. Choose the right *lakāra*.
3. Determine whether the root uses *parasmaipada* or *ātmanepada* endings.
4. Replace the *lakāra* with the appropriate *tiṅ* ending.
5. Add a *vikaraṇa* as needed.
6. Apply *guṇa* changes as needed.
7. Apply sandhi rules.

Our first *prakriyā*

We wish to express the idea of *leading* someone. We want to express this for some third-party agent and express a sense of the present tense.

Based on these meaning conditions, we select a root. We start with the *dhātu* *ṇīṅ* as given in the *Dhātupāṭha*:

णीञ् प्रापणे । १.१०४९

ṇīṅ prāpaṇe ([1.1049](#))

nī in the sense of obtaining or leading

We then apply rules to remove the *it* letters and obtain *natva* of the initial *ṇ*:

<i>ṇīṅ</i>	1.3.1 <i>bhūvādayo dhātavaḥ</i>
<i>ṇī</i>	1.3.3 <i>halantyam</i>
	1.3.9 <i>tasya lopah</i>
<i>nī</i>	6.1.65 <i>ṇo naḥ</i>

<i>nī</i>	<u>6.1.65</u> ṇo naḥ
<i>nī laṭ</i>	<u>3.2.123</u> vartamāne laṭ
<i>nī l</i>	<u>1.3.2</u> upadeśe'janunāsika it
	<u>1.3.3</u> halantyaṃ
	<u>1.3.9</u> tasya lopaḥ
<i>nī tip</i>	<u>3.4.78</u> tiptasjhisipthasthamibvasmastātāmjhathāsāthā...
<i>nī ti</i>	<u>1.3.3</u> halantyaṃ
	<u>1.3.9</u> tasya lopaḥ
<i>nī śap ti</i>	<u>3.4.113</u> tiñśitsārvadhātukam
	<u>3.1.68</u> kartari śap
<i>nī a ti</i>	<u>1.3.3</u> halantyaṃ
	<u>1.3.8</u> laśakvataddhite
	<u>1.3.9</u> tasya lopaḥ
<i>ne a ti</i>	<u>7.3.84</u> sārvadhātukārdhadhātukayoḥ
<i>nayati</i>	<u>6.1.78</u> eco'yavāyāvaḥ

A more experienced grammarian will skip the low-level steps and use something like this:

<i>ṇīñ</i>	<u>1.3.1</u> bhūvādayo dhātavaḥ
<i>nī laṭ</i>	<u>3.2.123</u> vartamāne laṭ
<i>nī ti</i>	<u>3.4.78</u> tiptasjhisipthasthamibvasmastātāmjhathāsāthā...
<i>nī śap ti</i>	<u>3.1.68</u> kartari śap
<i>ne a ti</i>	<u>7.3.84</u> sārvadhātukārdhadhātukayoḥ
<i>nayati</i>	<u>6.1.78</u> eco'yavāyāvaḥ

Some miscellaneous rules

Here are a few miscellaneous rules that we will refer to further below. First, a simple one:

लोपो व्योर्वलि। ६.१.६६

lopo vyorvali (6.1.66)

lopaḥ v-yoḥ vali

The letters *v* and *y* are replaced with *lopa* when followed by a *val* sound (i.e. any consonant except *y*).

Next, a rule that depends on several terms from *anuvṛtti*:

- *ekaḥ pūrvaparayoḥ* (“A single replaces the previous and following”)
- *apadāntāt* (“non-word-final”)
- *para-rūpam* (“the form of the second”)
- *aci* (“when a vowel follows”)

अतो गुणे। ६.१.९७

ato guṇe (6.1.97)

ataḥ guṇe

[Non-word-final] *a* and a following *guṇa* [vowel] are both replaced with the *guṇa* (i.e. the *a* is deleted).

Then rule 7.1.3, which replaces the *jh* in *jhi* and *jha*. Rule 7.1.3 uses *pratyayādīnām* (“of the beginning of a *pratyaya*”) by *anuvṛtti*:

झोऽन्तः। ७.१.३

jho'ntaḥ (7.1.3)

jhaḥ antaḥ

The [initial] *jh* [of a *pratyaya*] is replaced with *ant*.

Why does Pāṇini use *jh* in the first place? It is because some verbs will use replacements other than *ant*. But for now, that's a minor point.

Finally, we have two rules that inherit *sārvadhātuke* (“when a *sārvadhātuka* follows”) by *anuvṛtti* and *aṅasya* (“of an *aṅa*”) from an *adhikāra* rule. Rule 7.2.81 also inherits *ataḥ* (“after *a*”) by *anuvṛtti*:

आतो ङितः । ७.२.८१

āto ñitaḥ ([7.2.81](#))

ātaḥ ñitaḥ

[After *a*], the *ā* [of a following] *ñit* [*sārvadhātuka* is replaced with *iy*].

अतो दीर्घो यञि । ७.३.१०१

ato dīrgho yañi ([7.3.101](#))

ataḥ dīrghaḥ yañi

The final *a* of an *aṅga* is replaced with *dīrgha* (long) when followed by a *yañ* sound.

For the specific usages of these two rules, see the *prakriyās* further below.

***nī* and *laṭ* (*parasmaipada*)**

Now let's derive the other eight forms of *nī* in *laṭ* with *parasmaipada* endings.

nayataḥ is like *nayati*, with some extra sandhi rules from the *asiddha* section:

<i>nī tas</i>	3.4.78 <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī śap tas</i>	3.4.113 <i>tiñśitsārvadhātukam</i>
	3.1.68 <i>kartari śap</i>
<i>nī a tas</i>	1.3.3 <i>halantyaṃ</i>
	1.3.8 <i>laśakvataddhite</i>
	1.3.9 <i>tasya lopah</i>
<i>ne a tas</i>	7.3.84 <i>sārvadhātukārdhadhātukayoḥ</i>
<i>nay a tas</i>	6.1.78 <i>eco'yavāyāvaḥ</i>
<i>nayata ru̐</i>	8.2.66 <i>sasajuṣo ruḥ</i>
<i>nayataḥ</i>	8.3.15 <i>kharavasānayorvisarjanīyaḥ</i>

nayanti is like *nayati*, but there are some extra rules to modify *jhi*. Rule 6.1.97 (*ato guṇe*) deletes the extra *a*. Note the rules from the *asiddha* section, which apply then revert a sandhi change:

<i>nī jhi</i>	3.4.78 <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
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<i>nī śap jhi</i>	<u>3.4.113</u> <i>tiñśitsārvadhātukam</i>
	<u>3.1.68</u> <i>kartari śap</i>
<i>nī a jhi</i>	<u>1.3.3</u> <i>halantya</i>
	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>nī a anti</i>	<u>7.1.3</u> <i>jho'ntaḥ</i>
<i>ne a anti</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>nay a anti</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>
<i>nay anti</i>	<u>6.1.97</u> <i>ato guṇe</i>
<i>nay aṃti</i>	<u>8.3.24</u> <i>naścāpadāntasya jhali</i>
<i>nayanti</i>	<u>8.4.58</u> <i>anusvārasya yayi parasavarṇaḥ</i>

nayasi is like *nayati*, *nayathaḥ* like *nayataḥ*, and *nayatha* like *nayati* again. Then we come to *nayāmi*, which lengthens the vowel of the *aṅga*:

<i>nī mip</i>	<u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī mi</i>	<u>1.3.3</u> <i>halantya</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>nī śap mi</i>	<u>3.4.113</u> <i>tiñśitsārvadhātukam</i>
	<u>3.1.68</u> <i>kartari śap</i>
<i>nī a mi</i>	<u>1.3.3</u> <i>halantya</i>
	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>ne a mi</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>nay a mi</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>
<i>nayāmi</i>	<u>7.3.101</u> <i>ato dīrgho yañi</i>

nayāvaḥ is like *nayāmi*, with some extra sandhi rules from the *asiddha* section:

<i>nī vas</i>	<u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī śap vas</i>	<u>3.4.113</u> <i>tiñśitsārvadhātukam</i>
	<u>3.1.68</u> <i>kartari śap</i>

<i>nī a vas</i>	<u>1.3.3</u> <i>halantyaṃ</i> <u>1.3.8</u> <i>laśakvataddhite</i> <u>1.3.9</u> <i>tasya lopaḥ</i>
<i>ne a vas</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>ne ā vas</i>	<u>7.3.101</u> <i>ato dīrgho yañi</i>
<i>nay ā vas</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>
<i>nay ā va rụ</i>	<u>8.2.66</u> <i>sasajuṣo ruḥ</i>
<i>nayāvaḥ</i>	<u>8.3.15</u> <i>kharavasānayorvisarjanīyaḥ</i>

And *nayāmaḥ* is like *nayāvaḥ*.

***nī* and *laṭ* (ātmanepada)**

The *prakriyās* with *ātmanepada* endings are similar:

<i>nī ta</i>	<u>1.3.72</u> <i>svaritañitaḥ kartrabhiprāye kriyāphale</i> <u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī te</i>	<u>3.4.79</u> <i>ṭita ātmanepadānām ṭere</i>
<i>nī śap te</i>	<u>3.4.113</u> <i>tiñśitsārvadhātukam</i> <u>3.1.68</u> <i>kartari śap</i>
<i>nī a te</i>	<u>1.3.3</u> <i>halantyaṃ</i> <u>1.3.8</u> <i>laśakvataddhite</i> <u>1.3.9</u> <i>tasya lopaḥ</i>
<i>ne a te</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>nayate</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>

For *nayete*, the rules 7.2.81 (*āto nitaḥ*) and 6.1.66 (*lopo vyorvali*) apply to change *āte* to *ite*:

<i>nī ātām</i>	<u>1.3.72</u> <i>svaritañitaḥ kartrabhiprāye kriyāphale</i> <u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī āte</i>	<u>3.4.79</u> <i>ṭita ātmanepadānām ṭere</i>
<i>nī śap āte</i>	<u>3.4.113</u> <i>tiñśitsārvadhātukam</i> <u>3.1.68</u> <i>kartari śap</i>

<i>nī a āte</i>	<u>1.3.3</u> <i>halantyam</i> <u>1.3.8</u> <i>laśakvataddhite</i> <u>1.3.9</u> <i>tasya lopah</i>
<i>nī a iṃ te</i>	<u>7.2.81</u> <i>āto ñitaḥ</i>
<i>nī a i te</i>	<u>6.1.66</u> <i>lopo vyorvali</i>
<i>ne a i te</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>nay a i te</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>
<i>nayete</i>	<u>6.1.87</u> <i>ādguṇaḥ</i>

nayante is like *nayanti*, but with an *ātmanepada* ending instead. For *nayase*, we replace the ending with 3.4.80 (*thāsasse*) then continue as normal:

<i>nī thās</i>	<u>1.3.72</u> <i>svaritañitaḥ kartrabhiprāye kriyāphale</i> <u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī se</i>	<u>3.4.80</u> <i>thāsasse</i>
<i>nī śap se</i>	<u>3.4.113</u> <i>tiñśitsārvadhātukam</i> <u>3.1.68</u> <i>kartari śap</i>
<i>nī a se</i>	<u>1.3.3</u> <i>halantyam</i> <u>1.3.8</u> <i>laśakvataddhite</i> <u>1.3.9</u> <i>tasya lopah</i>
<i>ne a se</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>nayase</i>	<u>6.1.87</u> <i>ādguṇaḥ</i>

nayethe is like *nayete*, and *nayadhve* is like *nayate*. *naye* is a little trickier and requires the application of rule 6.1.97 (*ato guṇe*):

<i>nī iṭ</i>	<u>1.3.72</u> <i>svaritañitaḥ kartrabhiprāye kriyāphale</i> <u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī i</i>	<u>1.3.3</u> <i>halantyam</i> <u>1.3.9</u> <i>tasya lopah</i>
<i>nī e</i>	<u>3.4.79</u> <i>ṭita ātmanepadānām ṭere</i>
<i>nī śap e</i>	<u>3.4.113</u> <i>tiñśitsārvadhātukam</i> <u>3.1.68</u> <i>kartari śap</i>

<i>nī a e</i>	<u>1.3.3</u> <i>halantyaṃ</i> <u>1.3.8</u> <i>laśakvataddhite</i> <u>1.3.9</u> <i>tasya lopaḥ</i>
<i>ne a e</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>nay a e</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>
<i>naye</i>	<u>6.1.97</u> <i>ato guṇe</i>

nayāvahe is like *nayāvaḥ* but without the *asiddha* rules:

<i>nī vahi</i>	<u>3.4.78</u> <i>tiptasjhisipthasthamibvasmastātāmjhathāsāthā...</i>
<i>nī vahe</i>	<u>3.4.79</u> <i>ṭita ātmanepadānām ṭere</i>
<i>nī śap vahe</i>	<u>3.4.113</u> <i>tiṅśitsārvadhātukam</i> <u>3.1.68</u> <i>kartari śap</i>
<i>nī a vahe</i>	<u>1.3.3</u> <i>halantyaṃ</i> <u>1.3.8</u> <i>laśakvataddhite</i> <u>1.3.9</u> <i>tasya lopaḥ</i>
<i>ne a vahe</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>ne ā vahe</i>	<u>7.3.101</u> <i>ato dīrgho yañi</i>
<i>nayāvahe</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>

And *nayāmahe* is like *nayāvahe*.

Review

In this unit, we applied our basic system to the task of deriving Sanskrit verbs.

We saw that the process has a few basic steps:

1. Choose a *dhātu* from the *Dhātupāṭha*.
2. Choose the right *lakāra*.
3. Determine whether the root uses *parasmaipada* or *ātmanepada* endings.
4. Replace the *lakāra* with the appropriate *tiṅ* ending.
5. Add a *vikaraṇa* as needed.
6. Apply *guṇa* changes as needed.
7. Apply sandhi rules.

This unit focused on verbs created with *laṭ-lakāra*, but all verbs will follow this basic framework.

Index of rules

Rules	Topic
1.3.12 - 1.3.93	Use of <i>parasmaipada</i> and <i>ātmanepada</i>
3.1.5 - 3.1.32	Use of <i>san-ādi</i> suffixes, which create derived <i>dhātus</i>
3.4.77 - 3.4.117	<i>tiṅ-siddhi</i>

subanta

Introduction

In the previous unit, we built on our basic system and learned about how to use the *Aṣṭādhyāyī* to create different *tiñantas* (verbs). As a reminder, *tiñantas* are one of the two major word types in the *Aṣṭādhyāyī*:

सुप्तिङन्तं पदम् । १.४.१४

suptiñantaṃ padam ([1.4.14](#))

sup-tiñ-antam padam

That which ends in *sup* or *tiñ* [is called] a *pada* (word).

We know already that *tiñ* is a *pratyāhāra* that refers to different verb endings. *sup*, meanwhile, is a *pratyāhāra* that refers to different nominal endings. So in the Pāṇinian system, nominals are called **sub-anta** (“ending in a *sup* suffix”).

In this unit, we will learn how the *Aṣṭādhyāyī* creates *subantas*. We will also create complete *prakriyās* for a variety of basic nominal words.

What is a *subanta*?

The term *subanta* refers to a wide variety of different words, including nouns, adjectives, and pronouns:

रामः

rāmaḥ

Rama

शुक्ल

śuklā

white

अहम्

aham

I

But perhaps more surprisingly, it also refers to indeclinable words:

अपि

api
also

च

ca
and

मन्दम्

mandam
slowly

Our main focus in this unit will be on nouns and adjectives. But at the end of this unit, we will return to why indeclinables are considered *subantas* and how this decision makes sense within the Pāṇinian system.

Basics of *subanta-prakriyā*

Roughly, we derive a *subanta* as follows. We start with the specific semantics we wish to express. For example, perhaps we want to express that Rama is acting as the subject of our sentence.

Based on the meaning we want to express, we choose a stem and an ending:

राम + स्

rāma + s

We then apply extra substitution rules as needed. (For the example above, no extra rules are necessary.) Then we combine the stem and the ending and apply normal sandhi rules. The result is a complete Sanskrit word:

रामः

rāmaḥ

Choosing a stem is simple, and we already know how to apply sandhi rules. But what is more interesting here is how we decide which ending to choose. To choose an ending, we must understand how the *Aṣṭādhyāyī* models the meanings

of different words. In the lessons to come, that is where we will focus our time and energy.

Nominals for beginners

The notes below are a brief summary of the Sanskrit nominal system. If you know Sanskrit already, you can continue to the next lesson.

Sanskrit nominals have two main parts: a **stem** and an **ending**. The stem carries the word's basic meaning, and the ending modifies that basic meaning to create a complete word.

Sanskrit nominals are highly expressive. They can express three different **genders** (masculine, feminine, and neuter) and three different **numbers** (singular, dual, plural). In Western terms, they also express eight different **cases** (nominative, accusative, instrumental, dative, ablative, genitive, locative, and vocative).

Sanskrit nouns generally use a single fixed gender. So for a given noun, we usually have $3 \text{ numbers} \times 8 \text{ cases} = 24$ different forms.

What we call “case” in English does not have a counterpart in *vyākaraṇa*. Instead, *vyākaraṇa* uses the two concepts of *kāraka* and *vibhakti*, which we will explore in the next few lessons.

prātipadika

Our *prakriyā* begins with a ***prātipadika*** (“pre-word,” “nominal stem”). We then find an appropriate ending for the *prātipadika*, apply any necessary operations, and obtain our final word.

How do we define a *prātipadika*? First, we should remember this important *paribhāṣā*:

येन विधिस्तदन्तस्य । १.१.७२

yena vidhistadantasya ([1.1.72](#))

yena vidhiḥ tat-antasya

[A term] by which a rule [is specified refers to an item that] ends in that [term].

We previously used this rule to define *guṇa* substitutions of the last vowel of an *aṅga*:

नी + अ → ने अ

nī + a → ne a

But here, we will use it to refer to different suffixes instead:

अर्थवदधातुरप्रत्ययः प्रातिपदिकम् । १.२.४५

arthavadadhāturapratyayaḥ prātipadikam ([1.2.45](#))

arthavat a-dhātuḥ a-pratyayaḥ prātipadikam

A meaningful [term] that is neither a *dhātu* (verb root) nor a *pratyaya* (suffix), [nor a term ending in a *pratyaya*, is called] *prātipadika*,

कृत्तद्धितसमासाश्च । १.२.४६

kṛttaddhitasamāsāśca ([1.2.46](#))

kṛt-taddhita-samāsāḥ ca

and [terms ending with] *kṛt* or *taddhita* [suffixes], as well as *samāsas* (compounds), [are called] *prātipadika*].

kṛt suffixes attach to verb roots (as in *man* + *tra* → *mantra*), **taddhita** suffixes attach to other *prātipadikas* (*amṛta* + *tva* → *amṛtatva*), and *samāsas* are just compounds.

As a reminder, Sanskrit noun stems all express a certain gender, and the nominal endings we use with that stem should match the stem's gender. For example, if we want to use the masculine stem *rāma*, we should not apply endings associated with the feminine gender. But how do we know the gender associated with the *prātipadika*?

In some instances, we don't have enough information to decide. But in general, we can look at the different *pratyayas* that were used to create the *prātipadika*. Based on these affixes, we can determine which gender is associated with the *prātipadika* and which endings to use.

Review

In the next lesson, we will continue the process of creating a *subanta*.

sup-pratyāhāra

In the previous lesson, we learned about the *prātipadika*. By combining a *prātipadika* with one of the *sup* suffixes, we create a complete *subanta*.

In this lesson, we'll learn about the basic *sup* endings.

adhikāra rules

The *sup* endings are defined in the scope of three *adhikāra* rules. The first two are familiar:

प्रत्ययः । ३.१.१

pratyayaḥ ([3.1.1](#))

pratyayaḥ

... is a *pratyaya* (suffix).

परश्च । ३.१.२

paraśca ([3.1.2](#))

paraḥ ca

... and [it is inserted] after [the base].

And the last is new:

न्याप्रतिपदिकात् । ४.१.१

nyāprātipadikāt ([4.1.1](#))

nī-āp-prātipadikāt

After [the suffixes] *nī* or *āp*, or after a *prātipadika* (stem), ...

nī and *āp* are *pratyayas* that create feminine bases, and we can set them aside for now.

sup-pratyāhāra

Here are the endings in the *sup pratyāhāra*:

स्वौजसमौड्छाभ्यांभिस्ङेभ्याम्भ्यस्ङसिभ्याम्भ्यस्ङसोसाम्ङ्योस्सुप् ।

४.१.२

svaujasamauṭchaṣṭābhyāmbhisñebhyāmbhyasñasibhyāmbhyasñasosāmnyossup

(4.1.2)

*su̐au-jas-am-auṭ-śas-ṭā-bhyām-bhis-ñe-bhyām-bhyas-ñasi̐-bhyām-bhyas-
ñas-os-ām-ñi-os-sup*

su̐, au, jas, am, auṭ, śas, ṭā, bhyām, bhis, ñe, bhyām, bhyas, ñasi̐, bhyām, bhyas, ñas, os, ām, ñi, os, and sup.

There are several points worth noticing here.

First, notice that many of these endings have *it* sounds attached to them:

- Some of these *it* letters are for the sake of making *pratyāhāras*. For example, *suṭ* uses the *ṭ* of *auṭ* to refer to just the first five of these endings. Likewise, *sup* uses the *su* from *su̐* and the *p* of the final *sup* to refer to all twenty-one of these endings.
- Some are labeled systematically. For example, the *ñit* endings — that is, the endings with *ñ* as an *it* — are often replaced, depending on the *prātipadika* and its gender.
- Some of these *it* letters are for the sake of easier pronunciation, or they have other miscellaneous functions. Thus we have *su̐*, *ñasi̐*, and the like.

Second, notice that these endings are not the standard endings we would use for a stem like *rāma*. Pāṇini examined many different nominal ending patterns and chose this set to represent what they have in common. Then we can apply various *vidhi* rules to get the endings we need, as we did for the *tiñ* endings.

How do we choose which ending to use? In part, we can reuse these rules from when we studied the *tiñ* endings:

तिङ्स्त्रीणि त्रीणि प्रथममध्यमोत्तमाः । १.४.१०१

tiṅastrīṇi trīṇi prathamamadhyamottamāḥ (1.4.101)

tiṅaḥ trīṇi trīṇi prathama-madhyama-uttamāḥ

Taken three by three, the *tiñ* [suffixes] are called *prathama* (first), *madhyama* (middle), and *uttama* (last).

तान्येकवचनद्विवचनबहुवचनान्येकशः । १.४.१०२

tānyekavacanadvivacanabahuvacanānyekaśaḥ ([1.4.102](#))

tāni ekavacana-dvivacana-bahuvacanāni ekaśaḥ

They [i.e. these triples] are called *ekavacana* (singular), *dvivacana* (dual), and *bahuvacana* (plural) when taken one by one.

सुपः । १.४.१०३

supaḥ ([1.4.103](#))

supaḥ

[*ekavacana*, *dvivacana*, and *bahuvacana* also apply for the triples] of *sup* (i.e. the nominal endings).

विभक्तिश्च । १.४.१०४

vibhaktiśca ([1.4.104](#))

vibhaktiḥ ca

And [these triples are each called] *vibhakti*.

By choosing a specific *vacana* (number), we narrow twenty-one endings down to seven. That leaves us with a very important distinction to make:

vibhakti

The different *sup vibhaktis* don't have any special names. They are simply called *prathamā* (first), *dvitīyā* (second), and the like:

सु औ जस्

su au jas

(*prathamā*)

अम् औट् शस्

am auṭ śas

(*dvitīyā*)

How do we choose which *vibhakti* to use? As you might guess, these *vibhaktis* imply different semantics. But the route we take from semantics to a specific *vibhakti* is an interesting one. The next two lessons will focus on this process.

kāraka

The Pāṇinian school assumes that sentences have a basic structure. There is a verb, like *gacchati* (“goes”), that describes some action. And there are different components involved in this action:

रामः सीतायै वने मार्गेण कुट्या मृगं गच्छति ।

rāmaḥ sītāyai vane mārgēṇa kuṭyā mṛgaṃ gacchati.

Rama **goes** to the deer in the forest from the hut via the path for Sita.

The different components of some action are called **kāra**kas. Roughly, you can think of a *kāraka* as an intermediate idea between the meaning we want to express and the actual *sup* ending we use.

For more information on *kāraka*, see the “Further reading” section of our Review lesson.

adhikāra rules

The *Aṣṭādhyāyī* describes six main *kāra*kas and does so within the scope of these two rules, which we've seen before:

आ कडारादेका संज्ञा । १.४.१

ā kaḍārādekā saṃjñā ([1.4.1](#))

ā kaḍārāt ekā saṃjñā

Up to the *kaḍāra* rule (rule 2.2.38), one *saṃjñā* [is allowed].

विप्रतिषेधे परं कार्यम् । १.४.२

vipratīṣedhe paraṃ kāryam ([1.4.2](#))

vipratīṣedhe paraṃ kāryam

In matters of conflict, the later [rule] should be applied.

The *kāraka* section then begins with this *adhikāra*:

कारके । १.४.२३

kārake ([1.4.23](#))

kārake

In the context of a *kāraka*, ...

The six *kāra*kas

Below, we present the basic semantics of the six *kāra*kas. We also include some common secondary semantics. Most of these six *kāra*kas can convey several other kinds of semantics, but we have omitted them here to keep this lesson at a reasonable length.

The first *kāraka* is ***apādāna***, which is usually expressed by the fifth (“ablative”) case:

ध्रुवमपाये ऽपादानम् । १.४.२४

dhruvamapāye 'pādānam ([1.4.24](#))

dhruvam apāye apādānam

In the sense of movement away, [a *kāraka* that is] the fixed point is called *apādāna* (ablation).

भीत्रार्थानां भयहेतुः । १.४.२५

bhītrārthānām bhayahetuḥ ([1.4.25](#))

bhī-trā-arthānām bhaya-hetuḥ

For [roots] meaning *bhī* (to fear) or *trā* (to protect), [a *kāraka* that is] the source of fear [is called *apādāna*].

Here are some examples of these two rules:

नरो वनाद् ग्रामं गच्छति ।

naro vanād grāmaṃ gacchati.

The man goes **from the forest** to the village.

रावणो रामाद् भीतः ।

rāvaṇo rāmād bhītaḥ.

Ravana is afraid **of Rama**.

रामः सीतां राक्षसात् त्रायते ।

rāmaḥ sītāṃ rākṣasāt trāyate.

Rama protects Sita from a rakshasa.

Next is **sampradāna**, which is usually expressed by the fourth (“dative”) case:

कर्मणा यम् अभिप्रैति स सम्प्रदानम् । १.४.३२

karmaṇā yam abhipraiti sa sampradānam (1.4.32)

karmaṇā yam abhipraiti sa sampradānam

[A *kāraka* that is] whom one aims to benefit with the action is called *sampradāna* (beneficiary).

रुच्यर्थानां प्रीयमाणः । १.४.३३

rucyarthānāṃ prīyamāṇaḥ (1.4.33)

ruci-arthānāṃ prīyamāṇaḥ

For [roots] meaning *ruc* (please), [a *kāraka* that is] the one being pleased [is called *sampradāna*].

श्लाघह्नुंस्थशपां ज्ञीप्स्यमानः । १.४.३४

ślāghahnuṁsthāśapāṃ jñīpsyamāṇaḥ (1.4.34)

ślāgha-hnuṁ-sthā-śapāṃ jñīpsyamāṇaḥ

For the roots *ślāgh* (praise), *hnu* (hide), *sthā* (stay, stand), and *śap* (vow, curse), [a *kāraka* that is] the one whom one wishes to be informed [of the action is called *sampradāna*].

Here are some examples of these three rules:

देवदत्ताय फलं ददाति

devadattāya phalaṃ dadāti

He gives a fruit to Devadatta. (1.4.32)

देवदत्ताय रोचते फलम् ।

devadattāya rocate phalam.

Devadatta likes the fruit. (1.4.33)

देवदत्ताय श्लाघते

devadattāya ślāghate

He praises **Devadatta**. (1.4.34)

Next is **karaṇa**, which is usually expressed by the third (“instrumental”) case:

साधकतमं करणम् । १.४.४२

sādhakatamaṃ karaṇam ([1.4.42](#))

sādhakatamaṃ karaṇam

[A *kāraka* that is] the most effectual means [is called] *karaṇa* (means).

And an example:

रामो धनुषा रावणं हन्ति ।

rāmo dhanuṣā rāvaṇaṃ hanti.

Rama kills Ravana **with his bow**.

Then **adhikaraṇa**, which is usually expressed by the seventh (“locative”) case:

आधारो ऽधिकरणम् । १.४.४५

ādhāro 'dhikaraṇam ([1.4.45](#))

ādhāraḥ adhikaraṇam

[A *kāraka* that is] the locus of action [is called] *adhikaraṇa* (locus).

And an example:

अर्जुनः क्षेत्रे युध्यते ।

arjunaḥ kṣetre yudhyate.

Arjuna fights **in the field**.

Then **karma**, which is usually expressed by the second (“accusative”) case:

कर्तुरीप्सिततमं कर्म । १.४.४९

karturīpsitatamaṃ karma ([1.4.49](#))

kartuḥ īpsitatamaṃ karma

[A *kāraka* that is] what the agent most desires [is called] *karma* (object),

तथायुक्तं चानीप्सितम्। १.४.५०

tathāyuktaṃ cānīpsitam (1.4.50)

tathā-yuktaṃ ca an-īpsitam

and likewise for what is not desired but similarly related [to what is most desired].

What does rule 1.4.50 mean? To help us understand, here is an ancient example:

ओदनं भुञ्जानो विषं भुङ्क्ते

odanam bhuñjāno *viṣam* bhuñkte

While eating **rice**, he eats **poison**.

Here, *odanam* (“rice”) is what the eater desires by his action, so it is *karma* by rule 1.4.49. *viṣam* (“poison”) is not desired; perhaps the eater doesn't know that the poison is present. So *viṣam* is out of scope in rule 1.4.49. However, *viṣam* has a similar relation to *odanam*, since it is connected with *odanam* by being mixed with it. Thus *viṣam* can be called *karma* by rule 1.1.50.

Our last *kāraka* is **karṭṛ**, which is usually expressed in either the first (“nominative”) or the third (“instrumental”) case, depending on the verb's *prayoga*:

स्वतन्त्रः कर्ता। १.४.५४

svatantraḥ kartā (1.4.54)

sva-tantraḥ kartā

[A *kāraka* that is] independent [is called] *karṭṛ* (agent),

तत्प्रयोजको हेतुश्च। १.४.५५

tatprayojako hetuśca (1.4.55)

tat-prayojakaḥ hetuḥ ca

[A *kāraka* that is] the instigator of that [action is called *karṭṛ*] as well as *hetu* (cause).

Here are some examples of these rules:

देवदत्त ओदनम् पचति।

devadatta *odanam* *pacati*.

Devadatta cooks rice.

राम ओदनं देवदत्तेन पाचयति ।

rāma odanaṃ devadattena pācayati.

Rama makes Devadatta cook rice.

Review

kāraka is a complex concept, but we hope the rules above give you some intuition for what it represents. Even so, we're still left with two questions:

- How do we map a *kāraka* to a specific ending?
- What if we want to express something that isn't a *kāraka*?

In the next lesson, we will answer these questions and finally select a *vibhakti*.

vibhakti

Sanskrit resources written in English often say that Sanskrit nominals use eight different **cases**. Roughly, the English concept of *case* is like a combination of two Sanskrit categories: *kāraka* and *vibhakti*.

vibhakti is simply a group of three endings, as we saw previously. The *sup* *pratyāhāra* has twenty-one endings, so it has seven *vibhaktis* in total.

A given *vibhakti* can express multiple *kāra*kas, and it can also express relationships that aren't *kāra*kas. By using the rules below, we can pick the right *vibhakti* for our *prātipadika* and get one step closer to our completed word.

adhikāra rules

There is only one *adhikāra* we should consider here, but it is a significant one:

अनभिहिते । २.३.१

anabhihite ([2.3.1](#))

anabhihite

When not otherwise expressed, ...

The idea is that the rules below can only be applied if their information has not been expressed already. To understand what this means, we can start by examining the use of the second *vibhakti*:

The second *vibhakti*

The first rule after rule 2.3.1 (*anabhihite*) is about the second *vibhakti*:

कर्मणि द्वितीया । २.३.२

karmaṇi dvitīyā ([2.3.2](#))

karmaṇi dvitīyā

[When not otherwise expressed,] the second [*vibhakti* is used] in the sense of *karma*.

Suppose the verb in our sentence is *gacchati* (“goes”). *gacchati* is in *kartari prayoga*, which means that expresses the *kāraka* of *kartr*. *gacchati* does not ex-

press any information about the *karma*, so we can apply rule 2.3.2 and create a valid sentence:

ग्रामं गच्छति

grāmaṃ gacchati

He goes to the village.

But suppose that the verb in our sentence is *gamyate* (“is gone to”). *gamyate* is in *karmaṇi prayoga*, which means that it expresses the *kāraka* of *karma*. Since *karma* is already expressed, we cannot apply rule 2.3.2. So we are prevented from saying **grāmaṃ gamyate*, which would be an error. This is the purpose of rule 2.3.1 (*anabhihite*).

The fourth *vibhakti*

Continuing on, we see some rules about the fourth *vibhakti*:

चतुर्थी सम्प्रदाने । २.३.१३

caturthī sampradāne ([2.3.13](#))

caturthī sampradāne

[When not otherwise expressed,] the fourth [*vibhakti* is used] in the sense of *sampradāna*.

तुमर्थाच्च भाववचनात् । २.३.१५

tumarthācca bhāvavacanāt ([2.3.15](#))

tum-arthāt ca bhāva-vacanāt

And after words that express *bhāva* (state) in the sense of (the *pratyaya*) - *tum*.

Rule 2.3.13 is straightforward. Rule 2.3.15 refers to usages like the one below:

दर्शनाय गच्छति ।

darśanāya gacchati.

He goes to see (“for seeing”).

The third *vibhakti*

Next we have the third *vibhakti*:

कर्तृकरणयोस्तृतीया । २.३.१८

karṭṛkaraṇayostr̥tīyā (2.3.18)

karṭṛ-karaṇayoḥ tr̥tīyā

[When not otherwise expressed,] the third [*vibhakti* is used] in the sense of *karṭṛ* or *karaṇa*.

सहयुक्ते ऽप्रधाने । २.३.१९

sahayukte 'pradhāne (2.3.19)

saha-yukte a-pradhāne

[When not otherwise expressed, the third *vibhakti* is used] with the word *saha* in the sense of a secondary [idea].

Rule 2.3.18 has the same behavior as *karmaṇi dvitīyā* above. If the verb is in *kartari prayoga* (*gacchati*), it may express the *karaṇa*:

अश्वेन गच्छति ।

aśvena gacchati.

He goes by horse.

And if the verb is in *karmaṇi prayoga* (*gamyate*), it may express the *karṭṛ*:

नरेण ग्रामो गम्यते ।

nareṇa grāmo gamyate.

The man goes to the village. (“The village is gone to by the man.”)

The fifth *vibhakti*

Next we have the fifth *vibhakti*:

अपादाने पञ्चमी । २.३.२८

apādāne pañcamī (2.3.28)

apādāne pañcamī

[When not otherwise expressed,] the fifth [*vibhakti* is used] in the sense of *apādāna*.

This is straightforward.

The seventh *vibhakti*

Next is the seventh *vibhakti*. It inherits some context from a previous rule. This extra context is minor, but we include it for the sake of completeness:

सप्तम्यधिकरणे च । २.३.३५

saptamyadhikaraṇe ca (2.3.35)

saptamī adhikaraṇe ca

[When not otherwise expressed,] the seventh [*vibhakti*] is used in the sense of *adhikaraṇa*, [and after words that mean *dūra* (far) or *antika* (near)].

The first *vibhakti*

The first *vibhakti* has a surprising definition. This rule, especially, makes clear the difference between case and *vibhakti*:

प्रातिपदिकार्थलिङ्गपरिमाणवचनमात्रे प्रथमा । २.३.४६

prātipadikārthaliṅgaparimāṇavacanamātre prathamā (2.3.46)

prātipadika-artha-liṅga-parimāṇa-vacana-mātre prathamā

[When not otherwise expressed,] the first [*vibhakti*] is used only to express the *prātipadika* meaning, gender, measure, and number.

Let's leave aside “measure,” which is a minor point. What this rule says is that the first *vibhakti* does not express any *kāraka* at all!

Why is this so? Once again, consider the verb that would be used with this *subanta*. If the verb is *gacchati*, then *kartr* is already expressed. So the only new information that the first *vibhakti* can express is the basic information listed in the rule above. And the same applies if the verb is *gamyate*:

रामो गच्छति ।

rāmo gacchati.

Rama goes.

रामो गम्यते ।

rāmo gamyate.

Rama is gone to.

Finally, the first *vibhakti* can express the same semantics as the vocative case:

सम्बोधने च । २.३.४७

sambodhane ca ([2.3.47](#))

sambodhane ca

[When not otherwise expressed, the first *vibhakti*] is also used in the sense of *sambodhana* (“calling out”)

एकवचनं सम्बुद्धिः । २.३.४९

ekavacanam sambuddhiḥ ([2.3.49](#))

ekavacanam sambuddhiḥ

[When not otherwise expressed, the first *vibhakti*] *ekavacanam* (singular) [is called] *sambuddhiḥ*.

The sixth *vibhakti*

Finally, we have the sixth *vibhakti*:

षष्ठी शेषे । २.३.५०

ṣaṣṭhī śeṣe ([2.3.50](#))

ṣaṣṭhī śeṣe

[When not otherwise expressed], the sixth [*vibhakti*] is used in all remaining senses.

Thus the sixth *vibhakti* is a “catch-all” that expresses all sorts of complex relationships.

Review

In the next lesson, we will use what we have learned so far to generate different forms of the feminine stem *nau*.

Forms of *nau*

To consolidate what we've learned so far, let's see how the rules we've learned so far will let us generate the various forms of the stem *nau*, which means “boat.”

nau is called *prātipadika* by rule 1.2.45 (*arthavadadhāturapratyayaḥ prātipadikam*), so we can add *sup* endings to it. If we have a verb that expresses *kartari prayoga*, then we can use *prathamā-vibhakti* by rule 2.3.46 (*prātipadikārthalingaparimāṇavacanamātre prathamā*).

Once we have applied these rules, we can create our *pada*:

<i>nau su̐</i>	<u>4.1.2</u> <i>svaujasamauṭchaṣṭābhyāmbhisñebhyāmbhyasñasi...</i>
<i>nau s</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>nau ru̐</i>	<u>8.2.66</u> <i>sasajuṣo ruḥ</i>
<i>nauḥ</i>	<u>8.3.15</u> <i>kharavasānayorvisarjanīyaḥ</i>

The dual is simple:

<i>nau au</i>	<u>4.1.2</u> <i>svaujasamauṭchaṣṭābhyāmbhisñebhyāmbhyasñasi...</i>
<i>nāvau</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>

As is the plural:

<i>nau jas</i>	<u>4.1.2</u> <i>svaujasamauṭchaṣṭābhyāmbhisñebhyāmbhyasñasi...</i>
<i>nau as</i>	<u>1.3.7</u> <i>cuṭū</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>nāv as</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>
<i>nāv a ru̐</i>	<u>8.2.66</u> <i>sasajuṣo ruḥ</i>
<i>nāvaḥ</i>	<u>8.3.15</u> <i>kharavasānayorvisarjanīyaḥ</i>

We select *dvitīyā-vibhakti* with rule 2.3.2 (*karmaṇi dvitīyā*) and can follow similar steps to the ones above. We can follow a similar approach for *trītiyā*, *caturthī*, *pañcamī*, and *ṣaṣṭhī*.

The plural of *saptamī-vibhakti* has a small complication due to *ṣatva*. We can obtain *ṣatva* because rule 8.3.59 (*ādeśapratyayayoḥ*) also includes *pratyayas*:

<i>nau su</i>	<u>4.1.2</u> <i>svaujasamaṭchaṣṭābhyāmbhisṇebhyāmbhyasṇasi...</i>
<i>nauṣu</i>	<u>8.3.59</u> <i>ādeśapratyayayoḥ</i>

Finally, the condition of *sambodhana* selects *prathamā-vibhakti*, which produces the forms we saw above.

avyaya

Uninflected words are called **avyaya** (“unchanging”). In the Paṇinian system, they are treated like a kind of *subanta*, which makes them a type of *pada*:

सुप्तिङन्तं पदम् । १.४.१४

suptiṅantaṃ padam ([1.4.14](#))

sup-tiṅ-antam padam

That which ends in *sup* or *tiṅ* [is called] a *pada* (word).

Although it may seem strange that an *avyaya* is treated as a *subanta*, doing so simplifies some other aspects of the grammar. Let's see how the system models *avyayas*.

What is an *avyaya*?

The *avyaya* is a large category that includes many different kinds of terms:

स्वरादिनिपातमव्ययम् । १.१.३७

svarādinipātamavyayam ([1.1.37](#))

svar-ādi-nipātam avyayam

The words in the list beginning with *svar*, as well as a *nipāta*, are called *avyaya*.

तद्धितश्चासर्वविभक्तिः । १.१.३८

taddhitaścāsarvavibhaktiḥ ([1.1.38](#))

taddhitaḥ ca a-sarva-vibhaktiḥ

Likewise for *taddhita* suffixes not used in all *vibhaktis*;

कृन्मेजन्तः । १.१.३९

kṛnmejantaḥ ([1.1.39](#))

kṛt m-ec-antaḥ

kṛt suffixes that end in *m* or an *ec* vowel;

त्वातोसुन्कसुनः । १.१.४०

ktvātosunkasunaḥ (1.1.40)

ktvā-tosun-kasunaḥ

the suffixes *tvā*, *tosuñ*, and *kasuñ*;

अव्ययीभावश्च । १.१.४१

avyayībhāvaśca (1.1.41)

avyayībhāvaḥ ca

and the *avyayībhāva*.

svarādi refers to a list of words in the *Gaṇapāṭha*, one of the secondary texts used with the *Aṣṭādhyāyī*. The *svarādi* list includes words like *sva*, *antar*, and *hyas*, among many others. *nipāta* refers to a subtype of *avyaya* that includes words like *ca*, *pra*, and so on.

The other rules are more straightforward:

- Rule 1.1.38 refers to various minor *taddhita* suffixes, as used for words like *tatra* and *tadā*.
- Rule 1.1.39 refers to various minor *kṛt* suffixes. The most common of these is the suffix *tumuñ*, as in *gantum* (“to go”).
- Rule 1.1.40 refers to the common suffix *ktvā* and a few minor suffixes used mainly in Vedic works.
- Rule 1.1.41 refers to the *avyayībhāva*, a type of compound.

How do we derive an *avyaya*?

Since an *avyaya* is a *prātipadika*, we first add a *sup* affix. We then immediately replace it with the *luk* suffix by 2.4.82:

अव्ययादाप्सुपः । २.४.८२

avyayādāpsupaḥ (2.4.82)

avyayāt āp-supah

After an *avyaya*, *āp* and *sup* [are replaced with *luk*].

And *luk* will then cause *lopa* of the *sup* affix:

अदर्शनं लोपः । १.१.६०

adarśanam lopah ([1.1.60](#))

a-darśanam lopah

Disappearance is [called] *lopa*.

प्रत्ययस्य लुक्श्लुलुपः । १.१.६१

pratyayasya lukślulupah ([1.1.61](#))

pratyayasya luk-ślu-lupah

[*lopa* of] a *pratyaya* by (the words) *luk*, *ślu*, and *lup* (is referred to by those terms, respectively).

Review

In this unit, we extended our basic system to the task of deriving Sanskrit nominals. We saw that the process has a few basic steps:

1. Choose or create a *prātipadika*.
2. Choose the appropriate *kāraka* (if applicable) and *vibhakti*.
3. Select an appropriate *sup-pratyaya*.
4. Apply any relevant changes to the *sup-pratyaya*.
5. Apply sandhi rules.

Index of rules

Rules	Topic
1.4.23 - 1.4.55	Use of <i>kāraka</i>
2.3.1 - 2.3.73	Use of <i>vibhakti</i>

For further reading

The closest English counterpart to *kāraka* is the theta role ([Wikipedia](#)). But we should be very careful about understanding Indian categories through a Western lens.

- Matilal, B. K. [Bhavānanda on “What is Kāraka?”](#) *Pāṇinian Studies: Professor S. D. Joshi Felicitation Volume* (1991).

krt

Introduction

Almost all of chapter 3 of the *Aṣṭādhyāyī* focuses specifically on the *pratyayas* (suffixes) that we add directly to a *dhātu*. These *pratyayas* come in four main types.

The first type is the *sanādi-pratyaya*, which creates new *dhātus*:

गम् + सन् → जिगमिष

gam + *san* → *jigamiṣa*

want to go

कृ + णिच् → कारि

kr̥ + *ṇic* → *kāri*

cause to do or make

The second type is the *tiṇ-pratyaya*, which creates *tiṇantas* (verbs):

गम् + तिप् → गच्छति

gam + *tip* → *gacchati*

(someone) goes

कृ + णल् → चकार

kr̥ + *ṇal* → *cakāra*

(someone) did

The third type is the *vikaraṇa*, which we add between a *dhātu* and the *pratyaya* that follows it:

भू + शप् + ति → भवति

bhū + *śap* + *ti* → *bhavati*

(someone) becomes

क्री + श्रा + मि → क्रीणामि

krī + *śnā* + *mi* → *krīṇāmi*

I buy

And the fourth type, the *kṛt-pratyaya*, is any other *pratyaya* we can add. *kṛt-pratyayas* create *prātipadikas* (stems) that eventually become *subantas*:

युज् + घञ् → योगः

yuj + *ghañ* → *yogaḥ*

yoga

बुध् + क्त्वा → बुद्ध्वा

budh + *ktvā* → *buddhvā*

after waking up

पच् + ण्वल् → पाचकः

pac + *ṇvul* → *pācakaḥ*

cooker

In this unit, we will learn about some of common *kṛt-pratyayas* and understand some of the sandhi changes they cause.

General rules for *kṛt-pratyayas*

All *kṛt-pratyayas* are declared within the scope of these four *adhikāra* rules:

प्रत्ययः । ३.१.१

pratyayaḥ (3.1.1)

pratyayaḥ

... is a *pratyaya* (suffix).

परश्च । ३.१.२

paraśca (3.1.2)

paraḥ ca

... and [it is inserted] after [the base].

धातोः । ३.१.९१

dhātoḥ (3.1.91)

dhātoḥ

After a *dhātu*, ...

कृदतिङ् । ३.१.९३

kṛdatiṅ ([3.1.93](#))

kṛt a-tiṅ

... is called *kṛt* if it is not *tiṅ*.

Together, these four *adhikāra* rules mean “... is added as a *kṛt-pratyaya* after a *dhātu*, if it is not a *tiṅ-pratyaya*.”

Further, these two *saṃjñā* rules will add extra labels to any *pratyaya* we introduce within the scope of these rules:

तिङ्शित्सार्वधातुकम् । ३.४.११३

tiṅśitsārvadhātukam ([3.4.113](#))

tiṅ-śit sārvadhātukam

tiṅ and [*kṛt-pratyayas* that are] *śit* (i.e. with *ś* as an *it*) are called *sārvadhātuka*.

आर्धधातुकं शेषः । ३.४.११४

ārdhadhātukaṃ śeṣaḥ ([3.4.114](#))

ārdhadhātukam śeṣaḥ

All other [*kṛt-pratyayas*] are called *ārdhadhātuka*.

That is, *kṛt-pratyayas* are generally labeled *ārdhadhātuka*; but if they have *ś* as an *it* letter, they are labeled *sārvadhātuka* instead.

Sound changes

kṛt-pratyayas cause various sound changes. Generally, they cause *guṇa* changes by the following rules:

अङ्गस्य । ६.४.१

aṅgasya ([6.4.1](#))

aṅgasya

Of an *aṅga* (the base before a suffix), ...

मिदेर्गुणः । ७.३.८२

miderguṇaḥ (7.3.82)

mideḥ guṇaḥ

The *i* of *mid* [as an *aṅga*] becomes *guṇa*.

सार्वधातुकार्धधातुकयोः । ७.३.८४

sārvadhātukārdhadhātukayoḥ (7.3.84)

sārvadhātuka-ārdhadhātukayoḥ

[The final of an *aṅga* is replaced with *guṇa*] when followed by a *sārvadhātuka* or *ārdhadhātuka* suffix.

पुगन्तलघूपधस्य च । ७.३.८६

pugantalaghūpadhasya ca (7.3.86)

puḥ-anta-laghu-upadhasya ca

And [the last *ik* vowel of an *aṅga*] ending with *puḥ* or whose *upadhā* (penultimate sound) is *laghu* (a light syllable) [is replaced with *guṇa* when followed by a *sārvadhātuka* or *ārdhadhātuka* suffix].

But if they have *ñ* or *ṇ* as *it* letters, they can cause *vr̥ddhi* changes instead:

मृजेर्वृद्धिः । ७.२.११४

mrjervr̥ddhiḥ (7.2.114)

mrjeḥ vr̥ddhiḥ

The *r̥* of *mrj* [as an *aṅga*] becomes *vr̥ddhi*.

अचो ञ्णिनि । ७.२.११५

aco ṇṇiti (7.2.115)

acaḥ ṇṇiti

The *ac* [of an *aṅga* becomes *vr̥ddhi*] if followed by *ñit* or *ṇit*.

अत उपधायाः । ७.२.११६

ata upadhāyāḥ (7.2.116)

ataḥ upadhāyāḥ

The penultimate *at* [of an *aṅga* becomes *vr̥ddhi* if followed by *ñit* or *ṇit*].

And as a reminder, *guṇa* and *vr̥ddhi* substitutions are defined only for specific vowels:

इको गुणवृद्धी । १.१.३

iko guṇavṛddhī (1.1.3)

ikaḥ guṇa-vṛddhī

guṇa and *vṛddhi* replace the *ik* vowels,

And they are blocked if the *pratyaya* has *k* or *ṇ* as an *it* letter:

क्विति च । १.१.५

knīti ca (1.1.5)

k-nīti ca

but [not] when followed by [terms that are] *kit* or *nīt*.

it̐

Sometimes, an *i* vowel will be added between the *dhātu* and the *pratyaya*:

भू + तुम् → भवितुम्

bhū + tum → bhavitum

to become

This *i* vowel is called *it̐* (not to be confused with *it*, which refers to the “tag” letters on a term in *upadeśa*). Certain roots use *it̐*, certain roots don't, and some roots use it optionally.

The specific rules for using *it̐* are complex and detailed, but two rules sum up the general idea. Generally, any *ārdhadhātuka* suffix that starts with a consonant other than *y* will use *it̐*:

आर्धधातुकस्येड्वलदेः । ७.२.३५

ārdhadhātukasyeḍvalādeḥ (7.2.35)

ārdhadhātukasya it̐ val-ādeḥ

[*it̐* is added] to an *ārdhadhātuka* (*pratyaya*) that starts with *val* (any consonant other than *y*).

But if the *dhātu* has an *anudātta* accent in its *upadeśa* form, then *it̐* is not used:

एकाच उपदेशेऽनुदात्तात् । ७.२.१०

ekāca upadeśe'nudāttāt ([7.2.10](#))

eka-acah upadeśe anudāttāt

After [a *dhātu*] that has exactly one vowel and that has an *anudātta* accent in *upadeśa*, [*iṭ* is not used].

kr̥tya

Let's begin by studying a subtype of the *kr̥t-pratyaya* called *kr̥tya*. *kr̥tya-pratyayas* include common suffixes like *-tavya* and *-anīya*. They generally convey the sense that something “should be done” or “must be done.”

Defining the *pratyaya*

We start with a new *adhikāra*:

कृत्याः । ३.१.९५

kr̥tyāḥ ([3.1.95](#))

kr̥tyāḥ

... is a *kr̥tya* suffix.

The rules that follow this *adhikāra* define all of the members of the class, but since the list is quite long, we include only a few of the more common ones:

तव्यत्तव्यानीयरः । ३.१.९६

tavyattavyānīyaraḥ ([3.1.96](#))

tavyat-tavya-anīyaraḥ

[The following are called *kr̥tya*, *kr̥t*, and *pratyaya* and follow a *dhātu*]:

tavyat, *tavya*, and *anīyar*;

अचो यत् । ३.१.९७

aco yat ([3.1.97](#))

acaḥ yat

After vowels, *yat*;

ऋहलोर्ण्यत् । ३.१.१२४

ṛhalorṇyat ([3.1.124](#))

ṛ-haloḥ ṇyat

After *ṛ*, *ṝ*, or a consonant, *ṇyat*.

All of these *pratyayas* are stated in their *upadeśa* form. Here, the last *t* on *tavyat*, *yat*, and *ṇyat* is stated for accent purposes; by rule 6.1.185 (*titsvaritam*), all three of these *pratyayas* will have a *svārita* on their first vowels.

Meanwhile, the meaning of the *kṛtya-pratyayas* is defined later in chapter 3:

आवश्यकधमर्ण्ययोर्णिनिः । ३.३.१७०

āvaśyakādhamarṇyayorṇiniḥ (3.3.170)

āvaśyaka-ādhamarṇyayoḥ ṇiniḥ

The [pratyaya] *ṇiniḥ* is used in the sense of *āvaśyaka* (necessity) or *ādhamarṇya* (owing a debt).

कृत्याश्च । ३.३.१७१

kṛtyāśca (3.3.171)

kṛtyāḥ ca

Likewise for the *kṛtya* [pratyayas],

शकि लिङ् । ३.३.१७२

śaki liṅca (3.3.172)

śaki liṅ ca

which, along with *liṅ*, also has the sense of *śak* (to be capable of).

kṛtya expresses only *karmaṇi* and *bhāve prayoga*, per rule 3.4.69 below:

लः कर्मणि च भावे चाकर्मकेभ्यः । ३.४.६९

laḥ karmaṇi ca bhāve cākarmakebhyaḥ (3.4.69)

laḥ karmaṇi ca bhāve ca akarmakebhyaḥ

The *lakāras* denote [kartari prayoga] as well as *karmaṇi* and *bhāve prayoga* when the verb is *akarmaka* (intransitive).

तयोरेव कृत्यक्तखलार्थाः । ३.४.७०

tayoreva kṛtyaktakhalarthāḥ (3.4.70)

tayoḥ eva kṛtya-cta-khalarthāḥ

kṛtya, *cta*, and [a pratyaya] having the meaning of *khal* express these two [i.e. *karmaṇi* and *bhāve prayoga*].

Sound changes

kṛtya-pratyayas follow the normal pattern of all *kṛt-pratyayas* and generally cause *guṇa* changes to the vowel in the *aṅga*.

For *pratyayas* that start with *t*, such as *tavya*, various sandhi changes might occur between that *t* and the *dhātu*'s last consonant. Those changes are complicated and detailed, so we will omit them from this lesson.

Sample *prakriyās*

Here are some example *prakriyās* that use the rules above. Typically, only the essential rules of a *prakriyā* are provided. But for clarity, we will include all of the applicable rules here.

First, an example with *kṛ* and *tavya-pratyaya*. Since *kṛ* has an *anudātta* accent in its *upadeśa* form, it is prevented from using the connecting *iṭ* vowel by rule 7.2.10:

ḍukṛñ	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
kṛ	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.5</u> <i>ādirñiṭṭavaḥ</i>
	<u>1.3.9</u> <i>tasya lopah</i>
kṛ tavya	<u>3.3.171</u> <i>kṛtyāśca</i>
	<u>3.1.96</u> <i>tavyattavyānīyaraḥ</i>
	<u>3.4.114</u> <i>ārdhadhātukaṃ śeṣaḥ</i>
kṛ tavya	<u>7.2.10</u> <i>ekāca upadeśe'nudāttāt</i>
kartavya	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
	<u>1.1.51</u> <i>uraṇ raparaḥ</i>

Next, an example with *bhū* and *tavya-pratyaya* again. Since *bhū* does not have an *anudātta* accent in its *upadeśa* form, it uses the connecting *iṭ* vowel by rule 7.2.35:

bhū	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
bhū tavya	<u>3.3.171</u> <i>kṛtyāśca</i>
	<u>3.1.96</u> <i>tavyattavyānīyaraḥ</i>
	<u>3.4.114</u> <i>ārdhadhātukaṃ śeṣaḥ</i>
bhū iṭ tavya	<u>7.2.35</u> <i>ārdhadhātukasyeḍ valādeḥ</i>

<i>bhū i tavya</i>	<u>1.3.3</u> <i>halantyaṃ</i> <u>1.3.9</u> <i>tasya lopah</i>
<i>bho i tavya</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>bhavitavya</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>

Third, an example with *bhū* and *anīya-pratyaya*. Since *anīya* starts with a vowel, it is not in scope for 7.2.35 (*ārdhadhātukasyeḍ valādeḥ*), which would otherwise add a connecting *iṭ* vowel:

<i>bhū</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>bhū anīya</i>	<u>3.3.171</u> <i>kṛtyāśca</i> <u>3.1.96</u> <i>tavyattavyānīyaraḥ</i> <u>3.4.114</u> <i>ārdhadhātukaṃ śeṣaḥ</i>
<i>bho anīya</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>bhavanīya</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>

Fourth, an example with *kṛ* and *ṇyat-pratyaya*. Since *ṇyat* has *ṇ* as an *it*, it causes a *vṛddhi* change instead of a *guṇa* change:

<i>ḍukṛñ</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>kṛ</i>	<u>1.3.3</u> <i>halantyaṃ</i> <u>1.3.5</u> <i>ādirñiṭṭavaḥ</i> <u>1.3.9</u> <i>tasya lopah</i>
<i>kṛ ṇyat</i>	<u>3.3.171</u> <i>kṛtyāśca</i> <u>3.1.124</u> <i>ṛhalorṇyat</i> <u>3.4.114</u> <i>ārdhadhātukaṃ śeṣaḥ</i>
<i>kṛ ya</i>	<u>1.3.3</u> <i>halantyaṃ</i> <u>1.3.7</u> <i>cuṭū</i> <u>1.3.9</u> <i>tasya lopah</i>
<i>kārya</i>	<u>7.2.115</u> <i>aco ñṇiti</i> <u>1.1.51</u> <i>uraṇ raparaḥ</i>

Finally, an example with *bhū* and *yat-pratyaya*:

<i>bhū</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>bhū yat</i>	<u>3.3.171</u> <i>kṛtyāśca</i>
	<u>3.1.97</u> <i>aco yat</i>
	<u>3.4.114</u> <i>ārdhadhātukaṃ śeṣaḥ</i>
<i>bhū ya</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>bho ya</i>	<u>7.3.84</u> <i>sārvadhātukārdhadhātukayoḥ</i>
<i>bhavya</i>	<u>6.1.79</u> <i>vānto yi pratyaye</i>

For *bhavya*, we use rule 6.1.79, which we have not previously seen:

एचो ऽयवायावः । ६.१.७८

eco 'yavāyāvaḥ' (6.1.78)

ecaḥ *ay-av-āy-āv*

An *ec* vowel becomes *ay*, *av*, *āy*, or *āv*, respectively [when a vowel follows in *saṃhitā*].

वान्तो यि प्रत्यये । ६.१.७९

vānto yi pratyaye (6.1.79)

va-antaḥ yi pratyaye

(The changes ending in) *v* (i.e. *o* to *av* and *au* to *āv*) (take effect) when followed by the *y* of a *pratyaya*.

ghañ

In the previous lesson, we learned about *kr̥tya-pratyayas*, which cause relatively simple sound changes in the *dhātu*. Here we will learn about a slightly more complicated suffix: the *ghañ-pratyaya*.

Defining the *pratyaya*

ghañ has many specific uses. Here are three:

पदरुजविशस्पृशो घञ् । ३.३.१६

padarujaviśaspr̥śo ghañ (3.3.16)

pada-ruja-viśa-spr̥śaḥ ghañ

ghañ is used [after the *dhātus*] *pad*, *ruj*, *viś*, and *spr̥ś*;

सृ स्थिरे । ३.३.१७

sṛ sthire (3.3.17)

sṛ sthire

after *sṛ* in the sense of a fixed agent;

भावे । ३.३.१८

bhāve (3.3.18)

bhāve

and in the sense of abstract action.

Examples:

रुज् → रोग

ruj → *roga*

be sick → disease (3.3.16)

सृ + घञ् → सार

sṛ + *ghañ* → *sāra*

flow → essence (3.3.17)

त्यज् → त्याग

tyaj → *tyāga*

abandon → relinquishment (3.3.18)

Sound changes

ghañ has *gh* and *ñ* as *it* letters. Or to put it another way, *ghañ* is *ghit* and *ñit*.

Because it is *ñit*, *ghañ* causes *vrddhi* of a final vowel or a penultimate *a*. If neither of these conditions apply, *ghañ* causes the usual *kṛt guṇa* change.

Because it is *ghit*, *ghañ* causes a final *c* or *j* to become *k* or *g*, respectively:

चजोः कु घिण्ण्यतोः । ७.३.५२

cajoḥ ku ghinṇyatoḥ (7.3.52)

ca-joḥ ku^ṣghit-nyatoḥ

A [final] *c* or *j* is replaced by [the corresponding] *ku^ṣ* sound when a *ghit* *pratyaya* or [the *pratyaya*] *nyat* follows.

Sample *prakriyas*

roga, showing the use of rule 3.3.16 (*padarujaviśasprśo ghañ*) and rule 7.3.52 (*cajoḥ ku ghinṇyatoḥ*):

<i>rujo^ṣ</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>ruj</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.9</u> <i>tasya lopah</i>
<i>ruj ghañ</i>	<u>3.3.16</u> <i>padarujaviśasprśo ghañ</i>
<i>ruj a</i>	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopah</i>
<i>rug a</i>	<u>7.3.52</u> <i>cajoḥ ku ghinṇyatoḥ</i>
<i>roga</i>	<u>7.3.86</u> <i>pugantalaghūpadhasya ca</i>

sāra, showing the use of rule 3.3.17 (*sṛ sthire*):

<i>sṛ</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>sṛ ghañ</i>	<u>3.3.17</u> <i>sṛ sthire</i>
<i>sṛ a</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopāḥ</i>
<i>sāra</i>	<u>7.2.115</u> <i>aco ñṇiti</i>
	<u>1.1.51</u> <i>uraṇ raparaḥ</i>

bhāva, showing the use of rule 3.3.18 (*bhāve*):

<i>bhū</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>bhū ghañ</i>	<u>3.3.18</u> <i>bhāve</i>
<i>bhū a</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopāḥ</i>
<i>bhau a</i>	<u>7.2.115</u> <i>aco ñṇiti</i>
<i>bhāva</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>

tyāga, showing the use of rule 7.2.116 (*ata upadhāyāḥ*):

<i>tyajã</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>tyaj</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.9</u> <i>tasya lopāḥ</i>
<i>tyaj ghañ</i>	<u>3.3.18</u> <i>bhāve</i>
<i>tyaj a</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopāḥ</i>
<i>tyag a</i>	<u>7.3.52</u> <i>cajoḥ ku ghinṇyatoḥ</i>
<i>tyāga</i>	<u>7.2.116</u> <i>ata upadhāyāḥ</i>

kta

In this lesson, we will learn about a slightly more complicated *pratyaya*: the *kta-pratyaya*.

kta has a *k* as an *it*, which means that it prevents *guṇa* changes. Additionally, *kta* causes certain *dhātus* to undergo a change called *samprasāraṇa*, which we describe further below.

Defining the *pratyaya*

The definition of *kta* is somewhat roundabout. First, both *kta* and *ktavatu* are labeled as *niṣṭhā* by this *saṃjñā* rule:

क्तवतू निष्ठा । १.१.२६

ktaktavatū niṣṭhā ([1.1.26](#))

kta-ktavatū niṣṭhā

The (*pratyayas*) *kta* and *ktavatu* are called *niṣṭhā*.

Through this definition, both of these *pratyayas* are defined as referring to the past tense in chapter 3:

भूते । ३.२.८४

bhūte ([3.2.84](#))

bhūte

In the past tense, ...

निष्ठा । ३.२.१०२

niṣṭhā ([3.2.102](#))

niṣṭhā

The *niṣṭhā pratyayas* [are used in the sense of the past tense].

However, *kta* (but not *ktavatu*) additionally implies *bhāve* or *karmaṇi prayoga* (roughly, stative or passive action), through rule 3.4.70, which we saw in the lesson on *kṛtya-pratyayas*:

तयोरेव कृत्यक्तखलार्थाः । ३.४.७०

tayoreva kṛtyaktakhalarthāḥ (3.4.70)

tayoḥ eva kṛtya-kta-khal-arthāḥ

kṛtya, *kta*, and [a *pratyaya*] having the meaning of *khal* express these two [i.e. *karmaṇi* and *bhāve prayoga*].

As well as some minor usages in *kartari prayoga*:

आदिकर्मणि क्तः कर्तरि च । ३.४.७१

ādikarmaṇi ktaḥ kartari ca (3.4.71)

ādi-karmaṇi ktaḥ kartari ca

In [the sense of] the start of an action, *kta* also expresses *kartari prayoga*.

गत्यर्थाकर्मकश्लिषशीङ्स्थासवसजनरुहजीर्यतिभ्यश्च । ३.४.७२

gatyarthākarmakaśliṣaśīṅsthāsavasajanaruhajīryatibhyaśca (3.4.72)

gatyartha-akarmaka-śliṣaśīṅsthā-āsa-vasa-jana-ruha-jīryatibhyaḥ ca

Likewise after [*dhātus*] that imply motion or are intransitive, as well as the [*dhātus*] *śliṣ*, *śī*, *sthā*, *ās*, *vas*, *jan*, *ruh*, and *jī*.

Sound changes

As a reminder, *kṛt-pratyayas* generally cause a *guṇa* change based on rule 7.3.84:

सार्वधातुकार्धधातुकयोः । ७.३.८४

sārvadhātukārdhadhātukayoḥ (7.3.84)

sārvadhātuka-ārdhadhātukayoḥ

[An *aṅga* is replaced with *guṇa*] when followed by a *sārvadhātuka* or *ārdhadhātuka* suffix.

But since *kta* has *k* as an *it* — or to put it another way, because *kta* is *kit* — this change is blocked by rule 1.1.5:

क्ङिति च । १.१.५

knīti ca (1.1.5)

k-nīti ca

[*guṇa* and *vṛddhi* replace the *ik* vowels, but not] when followed by [terms that are] *kit* or *nīt*.

So in general, the vowel change here is simple: there isn't one! But in addition to this general behavior, *kit pratyayas* can also cause specific *dhātus* to undergo extra changes.

One change is that certain roots ending in a nasal sound lose that nasal sound:

अनुदात्तोपदेशवनतितनोत्यादीनामनुनासिकलोपो झलि ङिति।
६.४.३७

anudāttopadeśavanatitanotyādīnāmanunāsikalopo jhali kṛiti (6.4.37)

anudātta-upadeśa-vanati-tanoti-ādīnām anunāsika-lopaḥ jhali k-ṛiti

A *dhātu* with an *anudātta* vowel in *upadeśa*, as well as [the *dhātu*] *van* and [the *dhātus*] in the list starting with *tan*, lose their final *anunāsika* when followed by a *kit* or *ṛit* [*pratyaya*] starting with a *jhal* consonant.

An example:

गम् + त → गत

gam + ta → gata

gone (to)

Another change is sometimes called *samprasāraṇa*. Through this process, the semivowel in a *dhātu* first becomes a vowel:

इग्यणः सम्प्रसारणम्। १.१.४५

igyaṇaḥ samprasāraṇam (1.1.45)

ik yaṇaḥ samprasāraṇam

The substitution of an *ik* sound in place of a *yaṇ* sound is called *samprasāraṇa*.

And then deletes the following vowel, through a rule of *ac-sandhi*:

सम्प्रसारणाच्च। ६.१.१०८

samprasāraṇācca (6.1.108)

samprasāraṇāt ca

Additionally, [the first of two vowels is retained] when the first vowel is *samprasāraṇa*.

Here are some examples of the change:

वच् + त → उअच् + त → उच् + त

vac + ta → uac + ta → uc + ta

spoken

यज् + त → इअज् + त → इज् + त

yaj + ta → iaj + ta → ij + ta

sacrificed

And here are the *dhātus* that use *samprasāraṇa* when a *kit pratyaya* follows:

वचिस्वपियजादीनां किति । ६.१.१५

vacisvapīyajādīnām kiti (6.1.15)

vacī-ṣvapī-yajādīnām kiti

[The *dhātus*] *vac*, *svap*, and those in the list beginning with *yaj* [undergo *samprasāraṇa*] when followed by a *kit* [*pratyaya*].

ग्रहिज्यावयिव्यधिवष्टिविचतिवृश्चतिपृच्छतिभृज्जतीनां ङिति च ।
६.१.१६

grahijyāvayivyadhivaṣṭivīcativṛścātipṛcchatibhrjjatīnām ṇiti ca (6.1.16)

grahī-jyā-vayī-vyadhī-vaṣṭi-vīcati-vṛścāti-pṛcchati-bhrjjatīnām ṇiti ca

This applies to *grah*, *jyā*, *vay* [as a substitution for *veñ*], *vyadh*, *vaś*, *vyac*, *vrasc*, *pracch*, and *bhrasj* as well, which all also make the same change when followed by a *ṇit* [*pratyaya*].

Sample *prakriyās*

First, an example with *kṛ*. Since *kṛ* has an *anudātta* accent in its *upadeśa* form, it is prevented from using the connecting *iṭ* vowel by rule 7.2.10:

ḍukṛñ

1.3.1 *bhūvādayo dhātavaḥ*

kṛ

1.3.3 *halantyaṃ*

1.3.5 *ādirñiṭuḍavaḥ*

1.3.9 *tasya lopah*

kṛ kta

3.2.102 *niṣṭhā*

3.4.70 *tayoreva kṛtyaktakhalarthāḥ*

<i>kr̥ ta</i>	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>kr̥ta</i>	<u>7.2.10</u> <i>ekāca upadeśe'nudāttāt</i>

Next, an example with *gam* showing *lopa* of the final *m*. *gam* also has an *anudātta* accent in its *upadeśa* form, so it likewise has no connecting *iṭ* vowel:

<i>gamḷ̥</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>gam</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>gam kta</i>	<u>3.2.102</u> <i>niṣṭhā</i>
	<u>3.4.72</u> <i>gatyarthākarmakaśliṣaśīnsthāsavasajanaruhajr̥...</i>
<i>gam ta</i>	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>gam ta</i>	<u>7.2.10</u> <i>ekāca upadeśe'nudāttāt</i>
<i>gata</i>	<u>6.4.98</u> <i>gamahanajanakhanaghasām lopaḥ kñityanaṇi</i>

Finally, an example with *sup* showing *samprasāraṇa*. As in the examples above, *iṭ* is not used:

<i>ñiṣvapã</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>ṣvap</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.5</u> <i>ādirñiṭuḍavaḥ</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>svap</i>	<u>6.1.64</u> <i>dhātvādeḥ ṣaḥ saḥ</i>
<i>svap kta</i>	<u>3.2.102</u> <i>niṣṭhā</i>
	<u>3.4.72</u> <i>gatyarthākarmakaśliṣaśīnsthāsavasajanaruhajr̥...</i>
<i>svap ta</i>	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>svap ta</i>	<u>7.2.10</u> <i>ekāca upadeśe'nudāttāt</i>
<i>suap ta</i>	<u>6.1.15</u> <i>vacisvapiyajādinām kiti</i>
<i>supta</i>	<u>6.1.108</u> <i>samprasāraṇācca</i>

śatr̥ and śānac

To conclude this unit, let's learn about the *pratyayas* śatr̥ and śānac, which create words like the following:

गच्छन्

gacchan

while going

लभमानः

labhamānaḥ

while obtaining

śatr̥ and śānac are *sārvadhātuka pratyayas*, so the changes they cause differ slightly from the changes caused by the *ārdhadhātuka kṛt-pratyayas* that we have seen so far.

Defining the *pratyayas*

śatr̥ and śānac are replacements for *laṭ* and *lṛṭ*:

वर्तमाने लट् । ३.२.१२३

vartamāne laṭ (3.2.123)

vartamāne laṭ

[The *pratyaya*] *laṭ* [is added after a *dhātu*] in the sense of present action.

लटः शतृशानचावप्रथमासमानाधिकरणे । ३.२.१२४

laṭaḥ śatr̥śānacāvapraathamāsamānādhikaraṇe (3.2.124)

laṭaḥ śatr̥śānacau a-prathamā-samānādhikaraṇe

laṭ is replaced by śatr̥ or śānac when not coreferent with a [nominal] in the first [*vibhakti*],

लक्षणहेत्वोः क्रियायाः । ३.२.१२६

lakṣaṇahetvoḥ kriyāyāḥ (3.2.126)

lakṣaṇa-hetvoḥ kriyāyāḥ

or when it is a sign or cause of the action.

तौ सत्। ३.२.१२७

tau sat ([3.2.127](#))

tau sat

These two [*pratyayas*] are called *sat*.

लृटः सद्वा। ३.३.१४

lṛtaḥ sadvā ([3.3.14](#))

lṛtaḥ sat vā

sat optionally replaces *lṛṣ*.

But how do we decide whether to use *śatr̥* or *śānac*? Simply, we use the one that matches the *pada* that the *dhātu* requires. Recall these two rules:

लः परस्मैपदम्। १.४.९९

laḥ parasmaipadam ([1.4.99](#))

laḥ parasmaipadam

[The replacements for] *laḥ* are called *parasmaipada*.

तङानावात्मनेपदम्। १.४.१००

taṇānāvātmanepadam ([1.4.100](#))

taṇ-ānau ātmanepadam

The *taṇ pratyayas* and [the *pratyaya*] *āna* are called *ātmanepada*.

By rule 1.4.99, *śatr̥* is *parasmaipada* and replaces a *parasmaipada pratyaya*. And likewise, *śānac* is *ātmanepada* by rule 1.4.100 and replaces an *ātmanepada pratyaya*.

The *āna* in rule 1.4.100 includes *śānac* and related *pratyayas* like *śānan* and *cānaś*.)

Adding *vikaraṇas*

Since *śatr̥* and *śānac* are both *śit*, they are both *sārvadhātuka pratyayas*:

तिङ्शित्सार्वधातुकम् । ३.४.११३

tiṅśitsārvadhātukam ([3.4.113](#))

tiṅ-śit sārvadhātukam

tiṅ pratyayas and *śit kṛt pratyayas* are called *sārvadhātuka*.

which means that they allow the normal *vikaraṇa* rules to apply. For example:

कर्तरि शप् । ३.१.६८

kartari śap ([3.1.68](#))

kartari śap

[The *kṛt pratyaya*] *śap* [is added] in *kartari-prayoga* (agentive usage)
[after the *dhātu* when a *sārvadhātuka* suffix follows].

For a larger list of such rules, refer back to our [lesson on vikaranas](#).

Otherwise, these *pratyayas* cause the standard sound changes.

Sample *prakriyas*

bhavat is derived as follows:

<i>bhū</i>	1.3.1 <i>bhūvādayo dhātavaḥ</i>
<i>bhū laṭ</i>	3.2.123 <i>vartamāne laṭ</i>
<i>bhū l</i>	1.3.2 <i>upadeśe'janunāsika it</i>
	1.3.3 <i>halantyaṃ</i>
	1.3.9 <i>tasya lopah</i>
<i>bhū l</i>	1.3.78 <i>śeṣāt kartari parasmaipadam</i>
<i>bhū śatṛ[°]</i>	3.2.124 <i>laṭaḥ śatṛśanacāvaprathamāsamānādhikaraṇe</i>
<i>bhū at</i>	1.3.2 <i>upadeśe'janunāsika it</i>
	1.3.8 <i>laśakvataddhite</i>
	1.3.9 <i>tasya lopah</i>
<i>bhū śap at</i>	3.1.68 <i>kartari śap</i>
<i>bhū a at</i>	1.3.3 <i>halantyaṃ</i>
	1.3.8 <i>laśakvataddhite</i>
	1.3.9 <i>tasya lopah</i>
<i>bho a at</i>	7.3.84 <i>sārvadhātukārdhadhātukayoḥ</i>

<i>bhav a at</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>
<i>bhavat</i>	<u>6.1.97</u> <i>ato guṇe</i>

This *prakriyā* uses rule 6.1.97, which prevents the bad result **bhavāt*:

अतो गुणे । ६.१.९७

ato guṇe ([6.1.97](#))

ataḥ guṇe

[Non-word-final] *a* is deleted when a *guṇa* [vowel] follows.

śṛṇvat is derived as follows:

<i>śru</i>	<u>1.3.1</u> <i>bhūvādayo dhātavaḥ</i>
<i>śru laṭ</i>	<u>3.2.123</u> <i>vartamāne laṭ</i>
<i>śru l</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>śru l</i>	<u>1.3.78</u> <i>śeṣāt kartari parasmaipadam</i>
<i>śru śatṛ̃</i>	<u>3.2.124</u> <i>laṭaḥ śatṛ̃śanacāvaprathamāsamānādhikaraṇe</i>
<i>śru at</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>śṛ śnu at</i>	<u>3.1.74</u> <i>śruvaḥ śṛ ca</i>
<i>śṛ śnu at</i>	<u>1.3.8</u> <i>laśakvataddhite</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>śṛ nu at</i>	<u>1.2.4</u> <i>sārvadhātukamapit</i>
<i>śṛ nv at</i>	<u>6.1.77</u> <i>iko yaṇaci</i>
<i>śṛṇvat</i>	<u>8.4.1</u> <i>raṣābhyāṃ no ṇaḥ samānapade</i>

This *prakriyā* uses rule 1.2.4, which prevents the bad result **śarṇvat*:

सार्वधातुकमपित् । १.२.४

sārvadhātukamapit ([1.2.4](#))

sārvadhātukam a-pit

sārvadhātuka [suffixes] that are not *pit* [are treated as *ñit*].

Review

Index of rules

kṛt-pratyayas are defined from rule 3.1.91 to 3.4.76.

Rules	Topic
3.1.95 - 3.1.132	Definition of <i>kṛtya</i>
3.3.16 - 3.3.55	Definition of <i>ghañ</i>
3.2.124 - 3.2.133	Definition of <i>śatṛ̃</i> and related <i>pratyayas</i>

taddhita

Introduction

Almost all of chapters 4 and 5 of the *Aṣṭādhyāyī* focuses specifically on the *pratyayas* (suffixes) that we add directly to a *prātipadika*. As a reminder, a *prātipadika* is defined as follows:

अर्थवदधातुरप्रत्ययः प्रातिपदिकम् । १.२.४५

arthavadadhāturapratyayaḥ prātipadikam (1.2.45)

arthavat a-dhātuḥ a-pratyayaḥ prātipadikam

A meaningful [term] that is neither a *dhātu* (verb root) nor a *pratyaya* (suffix), [nor a term ending in a *pratyaya*, is called] *prātipadika*,

कृत्तद्धितसमासाश्च । १.२.४६

kṛttaddhitasamāsāśca (1.2.46)

kṛt-taddhita-samāsāḥ ca

and [terms ending with] *kṛt* or *taddhita* [*pratyayas*], as well as *samāsas* (compounds), [are called *prātipadika*].

We can add three types of *pratyayas* to a *prātipadika*. The first type is the *sup-pratyaya*, which creates *subantas* (nominals):

राम + सुँ → रामः

rāma + su̐ → rāmaḥ

Rama

नौ + टा → नावा

nau + ṭā → nāvā

with a boat

The second type is the *strī-pratyaya*, which creates feminine *prātipadikas* to which we can add *sup-pratyayas*:

कर्तृ + ङीप् → कर्त्री

karṭṛ + ṅīp → kartrī

(female) doer

And the third type, the *taddhita-pratyaya*, is any other *pratyaya* we could add. *taddhita-pratyayas* create *prātipadikas* (stems) that eventually become *subantas*:

अदिति + अण् → आदित्य

aditi + *aṇ* → *āditya*

a descendant of Aditi; a *deva*

सुन्दर + तरप् → सुन्दरतर

sundara + *tarap* → *sundaratara*

more beautiful

General rules for *taddhitas*

taddhita-pratyayas are introduced under the two *pratyaya adhikāras* that we've already seen:

प्रत्ययः । ३.१.१

pratyayaḥ (3.1.1)

pratyayaḥ

... is a *pratyaya* (suffix).

परश्च । ३.१.२

paraśca (3.1.2)

paraḥ ca

... and [it is inserted] after [the base].

In addition, *taddhita-pratyayas* are scoped to appear only after *prātipadikas* and feminine bases:

ञ्याप्रातिपदिकात् । ४.१.१

ñyāprātipadikāt (4.1.1)

nī-āp-prātipadikāt

After [the *strī-pratyayas*] *nī* or *āp* or after a *prātipadika*, ...

तद्धिताः । ४.१.७६

taddhitāḥ (4.1.76)

taddhitāḥ

... is called *taddhita*.

Traditionally, a *taddhita* is a way to condense a multi-word expression. For example, if we start with an expression like:

उपगोः अपत्यम्

upagoḥ apatyam

a descendant of Upagu

Then we can replace the helping word with a *taddhita*:

उपगोः + अपत्यम् → उपगोः + अण्

upagoḥ + apatyam → upagoḥ + aṇ

a descendant of Upagu

By using rule 2.4.71, we can delete the *sup-pratyaya* in *upagoḥ*:

सुपो धातुप्रातिपदिकयोः । २.४.७१

supo dhātuprātipadikayoḥ ([2.4.71](#))

supaḥ dhātu-prātipadikayoḥ

A *sup* followed by a *dhātu* or a *prātipadika* [is replaced by *luk*].

to create the following result:

उपगोः + अण् → उपगु + अण्

upagoḥ + aṇ → upagu + aṇ

a descendant of Upagu

Then we apply the normal sound change rules for *taddhitas* to get our final result:

उपगुः + अण् → औपगवः

upaguḥ + aṇ → aupagavaḥ

a descendant of Upagu

But if we start with such a multi-word expression, which word do we add the *taddhita* to? Simply, it is the subordinate one:

समर्थानां प्रथमाद्वा । ४.१.८२

samarthānām prathamādvā ([4.1.82](#))

samarthānām prathamāt vā

Among syntactically related [terms], optionally after the first ...

Together, these five *adhikāra* rules mean “... is optionally added as a *taddhita-pratyaya* after either a *prātipadika* or the *pratyayas nī* and *āp*, if that term is subordinate in the syntactic relationship.”

Sound changes

taddhita-pratyayas are neither *sārvadhātuka* nor *ārdhadhātuka*, so they do not cause *guṇa* changes by 7.3.84 (*sārvadhātukārdhadhātukayoḥ*). By default, they cause no sound changes.

However, *taddhitas* are still able to cause *vṛddhi* changes, per rules 7.2.117 and 7.2.118:

तद्धितेष्वचामादेः । ७.२.११७

taddhiteṣvacāmādeḥ ([7.2.117](#))

taddhiteṣu acām ādeḥ

The first vowel [of an *aṅga* becomes *vṛddhi*] if followed by a *taddhita-pratyaya* [that is *ñit* or *ṇit*],

किति च । ७.२.११८

kiti ca ([7.2.118](#))

kiti ca

Likewise if [the *taddhita-pratyaya*] is *kit*.

Additionally, *taddhitas* might cause some small changes to the vowel they follow. The three rules below use a *saṃjñā* called *bha*, which roughly refers to an *aṅga* followed by a vowel or *y*:

ओर्गुणः । ६.४.१४६

orguṇaḥ ([6.4.146](#))

oḥ guṇaḥ

[The last sound of a *bha* followed by a *taddhita*], if it is *u*, is replaced with its *guṇa*.

ढे लोपोऽकद्रवाः । ६.४.१४७

ḍhe lopo'kadrvāḥ ([6.4.147](#))

ḍhe lopaḥ a-kadrvāḥ

Except for *kadrū*, [the last *u* of a *bha* followed by a *taddhita*] undergoes *lopa* when followed by [a *pratyaya* beginning with] *ḍha*.

यस्येति च । ६.४.१४८

yasyeti ca ([6.4.148](#))

i-a-sya īti ca

The last *i* and *a* [of a *bha* followed by a *taddhita*] undergoes *lopa*, [and likewise] when followed by [a *pratyaya* beginning with] *ī*.

We will see examples of these rules in the lessons to come.

apatya

Many different *taddhitas* convey the sense of *apatya* (“offspring”). In this lesson, we’ll consider some of these *taddhitas* and learn about the sound changes they cause.

adhikāra rules

In addition to the usual *adhikāras* for *taddhitas*, we have two more to consider. The first states that *aṇ* is a “default” *pratyaya* when no other is specified:

प्राग्दीव्यतोऽण् । ४.१.८३

prāgdīvyato'ṇ ([4.1.83](#))

prāk dīvyataḥ aṇ

Up to the rule containing *dīvyati* (i.e. 4.4.2), *aṇ-pratyaya* ...

And the second starts the *apatya* section:

तस्यापत्यम् । ४.१.९२

tasyāpatyam ([4.1.92](#))

tasya apatyam

In the sense of “the offspring of,” ...

aṇ

Because it is *ṇit*, *aṇ* will cause *vṛddhi* changes to the base's first vowel.

iñ

iñ is used in the sense of *apatya* after bases ending with short *a*:

अत इञ् । ४.१.९५

ata iñ ([4.1.95](#))

ataḥ iñ

After [a base ending in] *a*, *iñ* [is an optional *taddhita-pratyaya* conveying the sense of “offspring”].

Because it is *ñit*, *iñ* will cause *vṛddhi* changes to the base's first vowel.

ḍhak

स्त्रीभ्यो ढक् । ४.१.१२०

strībhyo ḍhak (4.1.120)

strībhyaḥ ḍhak

After feminine [stems], *ḍhak* [is an optional *taddhita-pratyaya* conveying the sense of “offspring”].

Here, the *ḍ* in *ḍhak* is a shorthand that we can expand with rule 7.1.2:

आयनेयीनीयिनः फढखच्छघाम् प्रत्ययादीनां । ७.१.२

āyaneyīnīyinaḥ phaḍhakhacchaghām pratyayādīnām (7.1.2)

āyan-ey-īn-īy-inaḥ pha-ḍha-kha-cha-ghām pratyaya-ādīnām

The initial *pha*, *ḍha*, *kha*, *cha*, and *gha* of a *pratyaya* are replaced, respectively, with *āyan*, *ey*, *īn*, *īy*, and *in*.

Thus the true *pratyaya* is *eya*, with *k* as an *it* letter. This *taddhita* will then cause a *vṛddhi* change to the first vowel of the base, like so:

विनता + ढक् → वैनतेय

vinatā + ḍhak → *vainateya*

offspring of Vinata

ḍhak and the *it-saṃjñā* rules

By rule 1.3.7 (*cuṭū*) and 1.3.9 (*tasya lopaḥ*), we would normally delete the first *ḍh* of *ḍhak*. But if we did so, then rule 7.1.2 above would have no scope to apply and would be worthless (*vyartha*).

Since every rule in the system is stated for a reason, we infer that rule 1.3.7 does not apply to any *pratyayas* that are in scope for rule 7.1.2.

Sample *prakriyās*

Our first example uses *aṇ* and rule 6.4.146 (*orguṇaḥ*):

upagoḥ apatyam

<i>upagoḥ aṇ</i>	<u>4.1.92</u> <i>tasyāpatyam</i>
<i>upagu aṇ</i>	<u>2.4.71</u> <i>supo dhātuprātipadikayoḥ</i>
<i>upagu a</i>	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>aupagu a</i>	<u>7.2.117</u> <i>taddhiteṣvacāmādeḥ</i>
<i>aupago a</i>	<u>6.4.146</u> <i>orguṇaḥ</i>
<i>aupagava</i>	<u>6.1.78</u> <i>eco'yavāyāvaḥ</i>

Our next uses *iñ* and rule 6.4.148 (*yasyeti ca*):

<i>daśarathasya apatyam</i>	
<i>daśarathasya iñ</i>	<u>4.1.95</u> <i>ata iñ</i>
<i>daśaratha iñ</i>	<u>2.4.71</u> <i>supo dhātuprātipadikayoḥ</i>
<i>daśaratha i</i>	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>dāśaratha i</i>	<u>7.2.117</u> <i>taddhiteṣvacāmādeḥ</i>
<i>dāśarathi</i>	<u>6.4.148</u> <i>yasyeti ca</i>

And this one uses *ḍhak* and again uses rule 6.4.148:

<i>vinatāyāḥ apatyam</i>	
<i>vinatāyāḥ ḍhak</i>	<u>4.1.120</u> <i>strībhyo ḍhak</i>
<i>vinatā ḍhak</i>	<u>2.4.71</u> <i>supo dhātuprātipadikayoḥ</i>
<i>vinatā ḍha</i>	<u>1.3.3</u> <i>halantyam</i>
	<u>1.3.9</u> <i>tasya lopaḥ</i>
<i>vinatā eya</i>	<u>7.1.2</u> <i>āyaneyīṇīyiaḥ phaḍhakhacchaghāṇ pratyayādīn...</i>
<i>vainatā eya</i>	<u>7.2.118</u> <i>kiti ca</i>
<i>vainateya</i>	<u>6.4.148</u> <i>yasyeti ca</i>

atiśāyana

Four *taddhitas* convey the sense of *atiśāyana* (“excellence” or “excess”): *tarap*, *tamap*, *īyasuñ*, and *iṣṭhan*.

These four *taddhitas* are specified in the following rules:

अतिशायने तमबिष्ठनौ । ५.३.५५

atiśāyane tamabiṣṭhanau ([5.3.55](#))

atiśāyane tamap-iṣṭhanau

In the sense of supremacy, *tamap* or *iṣṭhan* [is optionally added as a *taddhita-pratyaya*].

तिङश्च । ५.३.५६

tiṅśca ([5.3.56](#))

tiṅaḥ ca

And [they can also be used in the same sense] after a *tiṅ-pratyaya*.

द्विवचनविभज्योपपदे तरबीयसुनौ । ५.३.५७

dvivacanavibhajyopapade tarabīyasunau ([5.3.57](#))

dvivacana-vibhajya-upapade tarap-īyasuñau

[Under the same conditions], when describing two [concepts] or when making a distinction, *tarap* or *īyasuñ* (is used).

अजादी गुणवचनादेव । ५.३.५८

ajādī guṇavacanādeva ([5.3.58](#))

ac-ādī guṇavacanāt eva

The two starting with vowels (i.e. *iṣṭhan* and *īyasuñ*) are used only after [*prātipadikas*] denoting quality.

Sound changes

tarap and *tamap* follow the general rules and cause no extra sound changes.

īyasuñ and *iṣṭhan* cause *lopa* of the *prātipadika*'s last segment. First, recall the definition of the term *ṭi*:

अचोऽन्त्यादि णि । १.१.६४

aco'ntyādi ṭi ([1.1.64](#))

acaḥ antya-ādi ṭi

From the last vowel onward is called *ṭi*.

With this term, we can define the relevant *lopa* rules:

तुरिष्ठमेयस्सु । ६.४.१५४

turiṣṭhemeyassu ([6.4.154](#))

tuḥ iṣṭha-īman-īyassu

The final *ṭr* [*pratyaya*] [of an *aṅga* undergoes *lopa*] when followed by [the *pratyayas*] *iṣṭha*, *īman*, or *īyas*.

टेः । ६.४.१५५

ṭeḥ ([6.4.155](#))

ṭeḥ

[Otherwise, these *pratyayas* condition *lopa*] of the *ṭi* [of the *aṅga*].

Rule 6.4.155 will cause changes like the following:

लघु + इष्ठन् → लघिष्ठ

laghu + iṣṭhan → laghiṣṭha

lightest

Sample *prakriyās*

For *tarap*:

sundara

[1.2.45](#) *arthavadadhāturapratyayaḥ prātipadikam*

sundara tarap

[5.3.57](#) *dvivacanavibhajyopapade tarabīyasunau*

sundaratara

[1.3.3](#) *halantyaṃ*

[1.3.9](#) *tasya lopaḥ*

For *tamap*:

sundara

[1.2.45](#) *arthavadadhāturapratyayaḥ prātipadikam*

<i>sundara tamap</i>	<u>5.3.55</u> <i>atiśāyane tamabiṣṭhanau</i>
<i>sundaratama</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopah</i>

For *īyasuṅ*:

<i>laghu</i>	<u>1.2.45</u> <i>arthavadadhāturapratyayaḥ prātipadikam</i>
<i>laghu īyasuṅ</i>	<u>5.3.57</u> <i>dvivacanavibhajyopapade tarabīyasunau</i>
<i>laghu īyas</i>	<u>1.3.2</u> <i>upadeśe'janunāsika it</i>
	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopah</i>
<i>laghīyas</i>	<u>6.4.155</u> <i>ṭeḥ</i>

For *iṣṭhan*:

<i>laghu</i>	<u>1.2.45</u> <i>arthavadadhāturapratyayaḥ prātipadikam</i>
<i>laghu iṣṭhan</i>	<u>5.3.55</u> <i>atiśāyane tamabiṣṭhanau</i>
<i>laghu iṣṭha</i>	<u>1.3.3</u> <i>halantyaṃ</i>
	<u>1.3.9</u> <i>tasya lopah</i>
<i>laghiṣṭha</i>	<u>6.4.155</u> <i>ṭeḥ</i>

matuṣ

The *matuṣ-pratyaya* creates common words like *hanumān* and *bhagavān*. It has many specific use cases, but here is the general pattern:

तदस्यास्त्यस्मिन्निति मतुप् । ५.२.९४

tadasyāstyasminniti matuṣ ([5.2.94](#))

tat asya asti asmin iti matuṣ

[The *taddhita-pratyaya*] *matuṣ* [is optionally introduced after a *prātipadika* or the *nī* and *āp* *pratyayas* after a term denoting] that which one possesses or contains.

Sound changes

matuṣ generally causes no sound changes. The major exception is that *mat* becomes *vat* when it follows certain sounds.

Here is the specific rule from the *asiddha* section of the *Aṣṭādhyāyī*:

मादुपधायाश्च मतोर्वोऽयवादिभ्यः । ८.२.९

mādupadhāyaśca matorvo'yavādibhyaḥ ([8.2.9](#))

m-āt upadhāyāḥ ca matoḥ vaḥ a-yavādibhyaḥ

After the sounds *m*, *a*, and *ā*, even if penultimate, [the first letter of the *pratyaya*] *matuṣ* becomes *v* if not following an item in the list beginning with *yava*.

And some examples:

भग + मत् → भगवत्

bhaga + mat → bhagavāt

(final *a*)

लक्ष्मी + मत् → लक्ष्मीवत्

lakṣmī + mat → lakṣmīvāt

(penultimate *m*)

Sample prakriyās

With *mat*:

<i>mati</i>	<u>1.2.46</u> <i>kṛttaddhitasamāsāśca</i>
<i>matimat</i>	<u>5.2.94</u> <i>tadasyāstyasminniti matup</i>

With *vat* and a penultimate *a*:

<i>yaśas</i>	<u>1.2.46</u> <i>kṛttaddhitasamāsāśca</i>
<i>yaśas mat</i>	<u>5.2.94</u> <i>tadasyāstyasminniti matup</i>
<i>yaśasvat</i>	<u>8.2.9</u> <i>mādupadhāyāśca matorvo'yavādibhyaḥ</i>

With *vat* and a final *a*:

<i>bhaga</i>	<u>1.2.46</u> <i>kṛttaddhitasamāsāśca</i>
<i>bhaga mat</i>	<u>5.2.94</u> <i>tadasyāstyasminniti matup</i>
<i>bhagavat</i>	<u>8.2.9</u> <i>mādupadhāyāśca matorvo'yavādibhyaḥ</i>

Review

Index of rules

taddhita-pratyayas are defined from rule 4.1.76 to the end of chapter 5.

Rules	Topic
4.1.83 - 4.3.168	Definition of <i>aṇ</i> and other <i>pratyayas</i>
4.1.92 - 4.3.120	Scope of <i>tasyāpatyam</i>
5.2.94 - 5.2.140	Definition of <i>matuṣ</i>

saṁāsa

Introduction

In this unit, we will extend the knowledge we've built up and focus on **samāśas** (compounds). Most of the rules for *samāśas* are in sections 2.1 and 2.2 of the *As-ṭādhyāyī*.

The *samāśa* is one of Sanskrit's most notable features. Simple *samāśas* generally have just two words. But *samāśas* can themselves be combined to make longer *samāśas*, so there is no hard limit on how long they can be.

Since we have a basic understanding of *subantas*, we can understand the *samāśa*'s core principles fairly easily. Generally, the idea is that if two *subantas* have some kind of semantic relationship:

गजस्य वनम्

gajasya vanam

the elephant's forest

then we can remove the *sup-pratyaya* from the first *subanta* and combine the two into a single word:

गजस्य वनम् → गजवनम्

gajasya vanam → *gajavanam*

the elephant's forest → elephant forest

But there are two subtleties here. First, not all semantic relationships are allowed to be expressed as *samāśas*. Second, some semantic relationships exist *only* as *samāśas* and cannot be expressed any other way. So in the lessons to come, we will learn how the system defines which are which.

adhikāra rules

All *samāśas* are defined under the following two *adhikāra* rules:

प्राक्कादारात्समासः । २.१.३

prākkaḍārātsamāsaḥ (2.1.3)

prāk kaḍārāt samāsaḥ

Up to the rule containing *kaḍāra* (2.2.38), the *samāsa* ...

सह सुपा । २.१.४

saha supā (2.1.4)

saha supā

[A *samāsa*] is [of a *sup*] with (another) *sup*.

Rule 2.1.4 inherits the term *sup* by *anuvṛtti* from rule 2.1.2, which is unrelated to *samāsas*. Together, rules 2.1.3 and 2.1.4 define a *samāsa* as a combination of two *subantas*.

Word ordering in a *samāsa*

How do we ensure that we order the words in a *samāsa* correctly? Simple, we use the following two rules:

प्रथमानिर्दिष्टं समास उपसर्जनम् । १.२.४३

prathamānirdiṣṭaṁ samāsa upasarjanam (1.2.43)

prathamā-nirdiṣṭaṁ samāse upasarjanam

In (the context of) a *samāsa*, the (term) stated in the first (*vibhakti*) is called *upasarjana*.

उपसर्जनं पूर्वम् । २.२.३०

upasarjanam pūrvam (2.2.30)

upasarjanam pūrvam

[In a *samāsa*], the *upasarjana* is (placed) before.

In the rules to come, anything stated in the first *vibhakti* is placed first in the compound, and anything in the third *vibhakti* is placed second.

sup deletion in a *samāsa*

Finally, we use this rule to delete the *sup* ending of the first *subanta*:

सुपो धातुप्रातिपदिकयोः । २.४.७१

supo dhātuprātipadikayoḥ ([2.4.71](#))

supaḥ dhātu-prātipadikayoḥ

A *sup* followed by a *dhātu* or a *prātipadika* [is replaced by *luk*].

However, a very small number of *samāśas* do not use *luk* here. Fittingly, they are called ***aluk-samāśas***. For example, the word *ātmanepadam* is an *aluk-samāśa*.

avyayībhāva

The *avyayībhāva* is a compound whose first member is an *avyaya* (uninflected word). An example:

यथाशक्ति

yathāśakti

according to (one's) power

Defining the *avyayībhāva*

We first introduce another *adhikāra*:

अव्ययीभावः । २.१.५

avyayībhāvaḥ (2.1.5)

avyayībhāvaḥ

... is an *avyayībhāva*.

Then the definition begins. First, the general case:

अव्ययं विभक्तिसमीपसमृद्ध्यवृद्धि-अर्थाभावात्ययासम्प्रति-
शब्दप्रादुर्भावपश्चाद्-यथानुपूर्व्ययोगपद्य-
सादृश्यसम्पत्तिसाकल्यान्तवचनेषु । २.१.६

*avyayaṃ vibhaktisamīpasamṛddhyavṛddhi-arthābhāvātyayāsamprati-
śabdaprādurbhāvapaścād-yathānupūrvyayaugapadya-
sādrśyasampattisākalyāntavacanēṣu* (2.1.6)

*avyayam vibhakti-samīpa-samṛddhi-vyṛddhi-arthābhāva-atyaya-asamprati-
śabdaprādurbhāva-paścāt-yathā-anupūrvya-yaugapadya-sādrśya-sampatti-
sākalya-antavacanēṣu*

An *avyaya* [used with a related *subanta* becomes an *avyayībhāva samāsa*] when the *avyaya* has the sense of: a *vibhakti*, nearness, prosperity, loss, absence, expiry, non-presence, appearance of a word, later, accordance, sequence, simultaneity, similarity, entirety, or limit.

Rule 2.1.6 is massive and allows examples like *upakumbham* (“near the pot”), *nirmakṣikam* (“without flies”), and *satṛṇam* (“along with the grass”). The other rules for an *avyayībhāva* are more straightforward:

यथासादृश्ये । २.१.७

yathāsādrśye (2.1.7)

yathā a-sādrśye

yathā when not in the sense of *sādrśya* (similarity) [becomes an *avyayībhāva samāsa* when used with a related *subanta*].

यावदवधारणे । २.१.८

yāvadavadhāraṇe (2.1.8)

yāvat avadhāraṇe

Likewise for *yāvat* in the sense of equal quantity;

सुप्रतिणा मात्रार्थे । २.१.९

suppratiṇā mātrārthe (2.1.9)

sup pratiṇā mātra-arthe

a *sup* [used] with *prati* when in the sense of “a small amount”;

अक्षशलाकासंख्याः परिणा । २.१.१०

akṣaśalākāsaṃkhyāḥ pariṇā (2.1.10)

akṣa-śalākā-saṃkhyāḥ pariṇā

and the words *akṣa* (dice), *śalākā* (stick), and numerals with the word *pari*.

Examples:

यथावृद्धम् ब्राह्मणान् आमन्त्रयस्व

yathāvṛddham brāhmaṇān āmantrayasva

Invite the brahmins who are old (*vṛddha*)

(2.1.7)

यावत्फलम्

yāvatphalam

as many as there are fruits

(2.1.8)

सूपप्रति

sūpapрати

a little bit of soup

(2.1.9)

अक्षपरि

akṣapari

missed by (one) die

(2.1.10)

tatpuruṣa

The *tatpuruṣa* is a versatile compound whose first member describes its second:

राज्ञः पुत्रः → राजपुत्रः

rājñāḥ putraḥ → rājaputraḥ

the king's son; a prince

adhikāra rules

Most of the system's *samāsa* rules are specifically about the *tatpuruṣa*. These rules are within the scope of the following two *adhikāra* rules:

विभाषा । २.१.११

vibhāṣā ([2.1.11](#))

vibhāṣā

Optionally, ...

तत्पुरुषः । २.१.२२

tatpuruṣaḥ ([2.1.22](#))

tatpuruṣaḥ

... is a *tatpuruṣa*.

The first rule states that the *tatpuruṣa* is optional. For example, both *rājñāḥ putraḥ* and *rājaputraḥ* express the same semantics. In comparison, the *avyayībhāva* is an obligatory (*nitya*) compound; we cannot break the compound into separate words while keeping the same semantics.

The second rule, meanwhile, just states that the following rules define a *tatpuruṣa*.

The *tatpuruṣa* with different *vibhaktis*

Generally, the first word of the *tatpuruṣa* can appear in any *vibhakti* in relation to the second. But some of these *vibhaktis* are more restricted than others:

द्वितीया श्रितातीतपतितगतात्यस्तप्राप्तापन्नैः । २.१.२४

dvitīyā śritātītapatitagatātyastaprāptāpannaiḥ (2.1.24)

dvitīyā śrita-atīta-patita-gata-atyasta-prāpta-āpannaiḥ

[A *subanta* ending in] the second (*vibhakti* used with the words) *śrita*, *atīta*, *patita*, *gata*, *atyasta*, *prāpta*, *āpanna* [optionally creates a *tatpuruṣa*].

तृतीया तत्कृतार्थेन गुणवचनेन । २.१.३०

tṛtīyā tatkr̥tārthena guṇavacanena (2.1.30)

tṛtīyā tat-kr̥ta-arthena guṇa-vacanena

[Likewise for a *subanta* ending in] the third (*vibhakti*) with a word denoting a quality (*guṇavacana*) when it is the cause of it becoming so;

कर्तृकरणे कृता बहुलम् । २.१.३२

karṭṛkaraṇe kṛtā bahulam (2.1.32)

karṭṛ-karaṇe kṛtā bahulam

[a *subanta* ending in] the third (*vibhakti*), variously, with a *kṛt* in the sense of *karṭṛ* (agent) or *karaṇa* (instrument);

चतुर्थी तदर्थार्थबलिहितसुखरक्षितैः । २.१.३६

caturthī tadarthārbhabalihitasukharakṣitaiḥ (2.1.36)

caturthī tadartha-artha-bali-hita-sukha-rakṣitaiḥ

[a *subanta* ending in] the fourth (*vibhakti*) with [a *subanta*] denoting the reason, or that is the word *artha*, *bali*, *hita*, *sukha*, or *rakṣita*;

पञ्चमी भयेन । २.१.३७

pañcamī bhayena (2.1.37)

pañcamī bhayena

[a *subanta* ending in] the fifth (*vibhakti*) with the word *bhaya* (fear);

सप्तमी शौण्डैः । २.१.४०

saptamī śauṇḍaiḥ (2.1.40)

saptamī śauṇḍaiḥ

[a *subanta* ending in] the seventh (*vibhakti* when used with the words in the list starting with) *śauṇḍa*;

Examples:

शरणं गतः → शरणगतः

śaraṇaṃ gataḥ → śaraṇagataḥ

gone to shelter (2.1.24)

शङ्कुलया खण्डः → शङ्कुलाखण्डः

śaṅkulayā khaṇḍaḥ → śaṅkulākhaṇḍaḥ

a piece (cut off) by shears (2.1.30)

अग्निना दग्धः → अग्निदग्धः

agninā dagdhaḥ → agnidagdhaḥ

burned by the fire (2.1.32)

कुण्डलाय हिरण्यम् → कुण्डलहिरण्यम्

kuṇḍalāya hiraṇyam → kuṇḍalahiraṇyam

gold for earrings (2.1.36)

चौरात् भयम् → चौरभयम्

caurāt bhayam → caurabhayam

fear from thieves (2.1.37)

अक्षेषु शौण्ड → अक्षषौण्ड

akṣeṣu śauṇḍa → akṣaṣauṇḍa

fond of dice (2.1.40)

In comparison, the first and sixth *vibhaktis* are less restricted. The sixth *vibhakti* has no restriction at all:

षष्ठी। २.२.८

ṣaṣṭhī ([2.2.8](#))

ṣaṣṭhī

[A *subanta* ending in] the sixth (*vibhakti*) [optionally creates a *tatpuruṣa*].

And the first *vibhakti* is acceptable whenever the first word qualifies the second in some way:

विशेषणम् विशेष्येण बहुलम्। २.१.५७

viśeṣaṇam viśeṣyēṇa bahulam ([2.1.57](#))

viśeṣaṇam viśeṣyēṇa bahulam

An adjective with its qualified term variously [forms a *tatpuruṣa*].

Examples:

राज्ञः पुत्रः → राजपुत्रः

rājñāḥ putraḥ → rājaputraḥ

the king's son; a prince (2.2.8)

नीलः उत्पलः → नीलोपतलः

nīlaḥ utpalaḥ → nīlopatalaḥ

blue lotus (2.1.57)

bahuvrīhi

Generally, the *bahuvrīhi* is a compound whose members describe a third idea that is not explicitly stated:

बहुव्रीहिः (स्त्री)

bahuvrīhiḥ (*strī*)

(a woman) who has much rice

The *bahuvrīhi* is much less complicated than the *tatpuruṣa*, and we can account for most of its behavior with just a few rules:

शेषो बहुव्रीहिः । २.२.२३

śeṣo bahuvrīhiḥ ([2.2.23](#))

śeṣaḥ bahuvrīhiḥ

The remaining *samāsas* are called *bahuvrīhi*.

अनेकमन्यपदार्थे । २.२.२४

anekamanyapadārthe ([2.2.24](#))

anekam anya-pada-arthe

Many related (*padas*) denoting a separate *pada* [optionally become a *bahuvrīhi*].

तेन सहेति तुल्ययोगे । २.२.२८

tena saheti tulyayoge ([2.2.28](#))

tena saha iti tulya-yoge

The word *saha* [with a *subanta*] that has the same relation to the action (as the word it describes) [optionally becomes a *bahuvrīhi*].

Examples:

महान् रथो यस्य → महारथः

mahān ratho yasya → *mahārathaḥ*

whose chariot is great (2.2.24)

सपुत्रः (आगतः)

saputraḥ (āgataḥ)

(came) with his son (2.2.28)

dvandva

The *dvandva* is just a collection of words that would otherwise be connected with the word *ca* (“and”):

रामो लक्ष्मणश् च → रामलक्ष्मणौ
rāmo lakṣmaṇaś ca → *rāmalakṣmaṇau*
 Rama and Lakshmana

With the following two rules as context:

विभाषा । २.१.११

vibhāṣā ([2.1.11](#))

vibhāṣā

Optionally, ...

अनेकमन्यपदार्थे । २.२.२४

anekamanyapadārthe ([2.2.24](#))

anekam anya-pada-arthe

Many related (*padas*) denoting a separate *pada* [optionally become a *bahuvrīhi*].

We can define a *dvandva* quite simply:

चार्थे द्वन्द्वः । २.२.२९

cārthe dvandvaḥ ([2.2.29](#))

ca-arthe dvandvaḥ

[Many related *padas*] (connected) in the sense of “and” [optionally become a *dvandva*].

Review

Index of rules

Rules	Topic
2.1.5 - 2.1.21	Definition of <i>avayayībhāva</i>
2.1.22 - 2.2.22	Definition of <i>tatpuruṣa</i>
2.2.23 - 2.2.28	Definition of <i>bahuvrīhi</i>
2.2.29	Definition of <i>dvandva</i>
2.2.30 - 2.2.38	Ordering of words in a <i>samāsa</i>